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Bruno Meessen, Xiaomei Pei, Bart Criel and Gerald Bloom, eds.
Health and social protection : experiences from Cambodia, China and Lao PDR

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*Health and social protection:
experiences from Cambodia,
China and Lao PDR*

Edited by Bruno Meessen, Xiaomei Pei,
Bart Criel and Gerald Bloom

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Preface

This is a challenging time for health policy-makers and researchers in Cambodia, China and Lao PDR. All three countries are experiencing big changes to their economic system, social organisation, demography and epidemiological profile. Their health systems are struggling to meet new patterns of need and adapt to a rapidly changing context. Policy-makers and health system managers face big challenges in managing these adaptations. Researchers have a special responsibility to support them by providing systematic evidence in a timely manner.

Households in all three countries face major problems in meeting the high cost of health care and many face difficult decisions between denying a sick family member care and risking impoverishment. Governments are under growing pressure to ensure widespread access to necessary health care and protect households against the high medical costs. The Cambodian and Chinese Governments have already launched important initiatives and Lao PDR is testing alternative interventions with the aim of taking them to scale in the near future.

The POVILL Consortium was established to contribute to policy responses to the growing problem of illness-related poverty. It includes Asian and European research institutions with complementary skills and disciplinary approaches. This reflects our view that the design of interventions must be based on systematic knowledge of the impact of different types of illness on household livelihoods and of their strategies for coping with health-related shocks. It must also take into account the context within which health systems operate and new policies are translated into changes in how they perform. The POVILL study was designed to address the many factors policy-makers need to take into account in formulating strategies for health system change and contribute to a learning approach to the management of health system change.

The POVILL project was designed to both contribute to ongoing efforts to design policy responses to the challenge of sickness-related poverty and contribute to efforts to develop a systematic understanding of health-poverty linkages and the role of government initiatives in helping households cope. It has done so by bringing together a multi-disciplinary team of

experienced researchers to design high quality studies and by working closely with policy-makers. The project is in the third of four years. This book brings together the thinking behind the POVILL approach and presents some preliminary findings with the aim of opening discussions with policy makers and health policy researchers. This marks the beginning of a consortium strategy for contributing to policy processes, which will intensify in 2009.

Although every country must develop its own health system, policy-makers can learn from the experience of others. Cambodia, China and Lao PDR share many common experiences and they are developing close economic links. The POVILL Consortium has contributed to the establishment of closer links in the health sector. It is time to establish a mechanism for ongoing exchanges of experiences. The authors of the preface are working with the China Health Development Forum to make this happen.

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This book reflects the spirit of the POVILL cooperation and international partnership, and could not have been compiled without the relentless collective effort of a great number of people, whom the editors would like to thank sincerely in this section.

First of all, we thank all the contributors to this book, who have put a great deal of effort into their respective papers. Without their valuable time, commitment and patience to revise the papers, this book would never have materialized.

The editors would also like to acknowledge the anonymous referees who provided valuable and astute comments, and without exception ameliorated the papers substantially. They deserve credit for their effort, as do the authors and co-authors, who had to be prepared to re-orientate their paper. Admittedly, they did so sometimes reluctantly.

Many other people and institutions deserve thanks for their support and help during the compilation of this book, however, we can only name a few here. Obviously we welcomed the support and encouragement from our POVILL partners in this endeavour, notably from the Institute of Development Studies (UK), China Health Economics Institute (China), Zhongnan University of Economics and Law (China), West China Center of Medical Sciences, Sichuan University (China), Institute of Social Development, Beijing Normal University (China), National Institute of Public Health (Cambodia), Center for Advanced Study (Cambodia), Karolinska Institute (Sweden), National Institute of Public Health (Lao PDR). We also received help from researchers from other universities, like Tsinghua University (China) and Lund University (Sweden).

The POVILL project provided generously financial support, without which the issue would not have been conceivable. The workshop on Health Equity Funds organized at the Institute of Tropical Medicine (ITM) in December 2003 was instrumental in developing and promoting the concept of social assistance for health care. This meeting turned out to be the beginning of a fruitful cooperation between ITM, IDS and Karolinska Institute. The funding of this event was possible thanks to the framework agreement 2003-2007 between ITM Antwerp and the Directorate General for Development Cooperation (DGCD) in Brussels.

This book would not have been produced without the support and work of many other people, warm thanks go in particular to Rita Verlinden, who was in charge of the coordination of the final layout of the book and did a wonderful job.

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The papers from this volume will also be made available on the ITM website (www.itg.be/shsop) as well as on the ELDIS website (<http://www.eldis.org/>).

The editors

Of all of the forms of inequality, injustice
in health is the most shocking and the
most inhumane.
~ Martin Luther King, Jr

Maps



China (PRC)



LAO PEOPLE'S DEMOCRATIC REPUBLIC



Introduction

Health and social protection in Transitional Asia: challenges and ways forward

Bruno Meessen and Bart Criel

Introduction

A book on China, Cambodia and Lao PDR' health and social protection systems? These three countries differ in so many aspects that one can wonder about the reasons for gathering their experiences in one volume. If, nevertheless, we insist on doing so, it is because - apart from geographical proximity - these countries face a major common challenge: how to make a successful transition from a planned economy to a market economy.

Socialist countries did not all start their transition at the same point in time, nor did they proceed at the same speed and achieve equal success. However, for most of these former socialist countries the economic transition has led to more economic prosperity, and without any exception to a dramatic transformation of their societies. Whereas in recent times economic transitions have been, as a rule, mostly about expanding the property rights of individuals, in many countries economic transition has also led to the thorough reshaping of citizens' entitlements to social services such as education, health or housing. In many instances, this has not been for the better. Health status has not always kept up with rapid economic growth and health gains have not been distributed equitably.

While the market system has brought new opportunities for households confronted with illness, it has also created new risks, including a problematic access to quality health care and impoverishment due to health care expenditure (Meessen *et al.* 2003; Van Doorslaer *et al.* 2007). The rise of the cost of health care and the rise of the share of out-of-pocket payment in the total financing of health care in South-East Asia have been remarkable indeed. The current predicament of many rural households is obvious; they are mainly self-employed farmers and are therefore not covered by any form of social health insurance. Today, for the poorest of them, who are deprived of social networks and access to capital markets, foregoing treatment is too

often the practice they adopt. This is not always irrational: the rather loose regulation of many health care providers - and this is an understatement for the informal private sector - and the way they are remunerated induces perverse prescription behaviors. Lack of significant health improvement, even outright iatrogenic effects of irrational and unsafe therapeutic practices, despite very high spending is alas a possible outcome for many poor rural households.

China, Cambodia and Lao PDR differ greatly in terms of economic and human development, political leadership, health systems and culture (among many other aspects). In spite of these differences, their governments share similar challenges in terms of performance of the rural health system, its accessibility for the poor and the welfare risks for rural households. In the three countries, policy makers are actively addressing these problems and major initiatives are being launched. One can only welcome such political determination; this commitment will definitely constitute a key resource for improving the equity of the national health systems. However, knowledge gaps still abound. Policy makers are well aware of this situation and have developed close collaboration with 'knowledge brokers'. In Cambodia, China and Lao PDR, bridges have been built between health authorities and national and international researchers. The present book is a testimony to this common effort.

The POVILL project

Before outlining the content of this book in more detail, let us say a few words about its origin and nature. It presents the first and preliminary fruits of a multi-country collaborative project called POVILL ("Protecting the rural poor against the economic consequences of major illness: a challenge for Asian transitional economies", see p.549 for more information on the project or www.povill.com). It is a preliminary outcome in the sense that it mainly gathers preparatory work produced during the first year of the project by the consortium partners. Through the affiliation of the respective authors and the variety of national cases discussed, the book duly reflects the international character of the consortium.

The POVILL partners share the conviction that it will take a whole range of expertise and knowhow to understand and eventually break the vicious circle of poverty and disease. Building bridges between scientific

disciplines is sometimes more difficult than establishing international collaboration. Consequently, the POVILL project could claim early success in bringing together experts from disciplines as diverse as public health, health system research, public administration, economics, political science, sociology and anthropology. Besides the multidisciplinary character of the book, we hope that readers will also appreciate the pragmatic nature of most contributions. We believe that the potential public for such a collective undertaking goes beyond the academic world. We would feel honored if policy makers and social welfare program implementers found that ideas in the book were useful in development health systems that perform well in meeting the needs of the poor.

It is this concern for operational relevance that explains a very early choice of the POVILL consortium: not only to engage, but involve throughout all stages of research the different actors in charge of the design and implementation of health and social protection policies in the three countries. Therefore, we were happy that several of these actors responded positively and even enthusiastically to our offer to publish some of their studies and ideas. The diverse background and affiliation of the contributing authors (universities, think-tanks, institutes affiliated to ministries of health, international agencies, bilateral aid agencies, non-governmental organizations and social assistance implementers) can only enrich our understanding of the political, technical and operational obstacles and challenges to enhance access by the poor to effective health services.

Major illness in Asia

To some extent, the book reflects the structure of the POVILL project. Part 1 of the book sketches the knowledge gap on 'major illness' today in Asia. Henry Lucas *et al.* question key concepts that are popular today in the literature, such as 'health shocks', 'major illness' and 'catastrophic health care expenditure'. While significant progress has been made over the last years in the measurement of the welfare impact of illness, the knowledge base is still very incomplete. In order to design appropriate policies to protect households against the impoverishing consequence of illness, we need a thorough understanding of the multiple and complex pathways through which ill-health affects wellbeing. Research conducted so far on 'catastrophic health care expenditure' has remained quite silent on this process

dimension. Lucas *et al.* argue that other kinds of data collection are required. Their paper introduces the POVILL approach from this angle.

Shijun Ding *et al.* provide, to our knowledge, the first review of Chinese literature on major illness and coping strategies with respect to health shocks in rural China. A major challenge for the authors was the need for some cross-border reading, in terms of paradigms. As the POVILL project argues, the study of health shocks requires clear knowledge on both epidemiological situations and household livelihood. Their literature review provides clear evidence that Chinese scholars pay more and more attention to the link between illness and livelihood. However, many questions still require further investigation.

Health system and policy

The second part of the book is substantially larger. It pursues two aims: to provide general background information to readers not familiar with rural health systems in China, Cambodia and Lao PDR, and introduce a few research questions related to pro-poor health policy in the three countries. The second aspect is an emerging topic in the international literature. The international aid and scientific communities have recently become aware that proposing and documenting effective interventions is not enough. Strategies will bring change to the lives of the poorest only if they are correctly funded and implemented by governments. The political economy is rarely favorable to the poorest (Ridde 2008; World Bank 2003). Donors, international agencies, think-tanks and civil society groups have a role to play in getting pro-poor policies on the agenda.

Gerald Bloom *et al.* introduce again the similarities and differences between the three countries. While the three studied countries are at different stages in the formulation and implementation of their policies to improve access to health care and reduce the impoverishing impact on households of major illness, a common feature is their preference for demand-side approaches. This policy choice raises interesting questions. Bloom *et al.* report that the health policy processes have in fact been little studied so far. They show that the roles of stakeholder interests and policy networks deserve much more attention. This sets the agenda for the POVILL team in charge of pro-poor health policy analysis.

The paper by Lijie Fang and Gerald Bloom offers, we believe, a nice entry (from a sociological perspective) to the situation of health services, and hospitals in particular, in rural China. The economic transition has completely reshaped the environment of rural hospitals. While many township health centers found it difficult to adapt to the new environment (characterized by the sharp decrease in public funding and the rapid rise of market forces in the allocation of medical human resources), some have managed to secure enough profit and social legitimacy, probably the two key conditions for survival as organizations in transitional China.

If the New Cooperative Medical Scheme (NCMS) and to a lesser extent the Medical Financial Assistance Scheme have received considerable attention as interventions both in Chinese and international journals, little has been said so far about the policy process and context in which these schemes were developed. In her paper, Yunping Wang discloses some of the forces and factors that have influenced the policy dynamics. Her discussion of how public concerns emerged and were translated into political issues and how later on in the process policy alternatives were chosen and legitimated, will certainly interest international readers. Her stakeholder analysis is also instructive on the tremendous societal changes occurring today in China and on the great awareness among Chinese scholars of the need for bold and generous policies; the latter include the participation of the rural population in the health policy process.

Cambodia and Lao PDR have many more characteristics in common than economic transition. In her paper, Kristina Jönsson highlights the constraints shaping public policymaking in the two countries and in the field of poverty reduction and health in particular. The role of external actors (donors, international agencies, bilateral aid agencies and non-governmental organizations) in the formulation, design and implementation of the health policy in these two countries is particularly striking.

This second part of the book ends with two background papers on Cambodia and Laos. In the first paper, Peter Annear, Maryam Bigdeli *et al.* review some recent developments in health care financing policy in Cambodia. The paper is insightful from various perspectives and provides good background knowledge of the health equity fund policy for readers not familiar with the strategy.

In Peter Annear, Kongsap Akkhavong *et al.*, the reader is introduced to the specific challenge that health equity in Lao PDR faces. That country

has to cope with specific constraints (e.g. remoteness of many population settlements, ethnic diversity, limited industrialization) and is still at an early stage of transition. The Ministry of Health is aware that its rural health system still requires consolidation and that equity necessitates decisive intervention, including in the field of health care financing. The paper, the authors of which are mostly foreign experts working in Laos, assesses the potential for and the tasks that lie ahead for the implementation of the HEF approach in the country. The paper is also the first one drawing on early evidence from the different pilot HEF programs launched in collaboration with bilateral agencies in recent years.

Social Health Assistance: scheme design and implementation

A core focus of the POVILL project is the study of schemes designed to enhance access by the poorest to health services. Our analysis is that the international research community has so far paid little attention to the specific needs of the poor in low- and middle-income countries. At best, agencies and scholars have documented the fact that user fees were a barrier impeding utilization of health services and advocated for exemption policies to the benefit of the poorest. A tenet of the POVILL project is that the poor face a multitude of specific barriers: distance, information, opportunity costs, stigma. Providing them with good access to services will require a holistic approach and interventions tailored to their specific needs. These solutions will include an entitlement to publicly funded packages, but also some specific active and, ideally, personalized support, which we propose to identify here as '*social health assistance*'. Implementing a social health assistance strategy does require specific expertise. The need for professional social workers has been overlooked so far in many countries. European history has also showed that poor people benefit from good coordination between medical professionals and social workers, and even more so when the national health system is still under construction (Nottingham & Dougall 2007).

Even if they are not yet full-fledged social health assistance interventions, the Health Equity Fund (HEF) and the Medical Financial Assistance (MFA) are, we believe, programs deserving due attention by

scientists. The HEF experience in Cambodia has received growing attention these last years in international journals. The MFA program is less known outside China and still modest in terms of funding (if we compare it for example with all the efforts dedicated to the development of the new cooperative medical system), but one can regard the program as a first step towards the establishment of some kind of MEDICAID system in China. Moreover, there are interesting synergies between the MFA and NCMS systems, where the former are increasingly used to provide a subsidy for the premiums of the latter.

Targeting is a key component of social assistance programs. In their paper, Bruno Meessen and Bart Criel propose a framework which they hope could help policy makers at the stages of design and implementation of any targeted program. According to the authors, the framework could also contribute to less partial evaluations of such interventions (especially their success in terms of targeting). Future empirical work will reveal whether such frameworks can contribute to more informed evaluation, better intervention design, more careful implementation and eventually a better outcome for the targeted group. The framework is illustrated with an application to HEF in Cambodia.

The paper by Yuebin Xu *et al.* reviews the development of the Medical Financial Assistance program in rural China. The (health) policy process has followed the standard story in transitional China to a remarkable extent: first experimentation, then after observation of the first results, adjustment of the policy, formal adoption of the policy by the central authorities and eventually a quick scaling-up of the program (with substantial financing from the central government in order to set up the right incentives for local governments to adopt the policy). However, the process still gave a lot of discretion to local governments in terms of design and implementation. Besides the historical process, the authors report several elements pertaining to the funding and performance of the program. The limited financial resources have been a major constraint so far; managers have adopted rules such as thresholds, ceilings and low reimbursement rates to ration the limited resources. As a result, the assistance provided to beneficiaries is often insufficient to ensure full protection against the health shock. The authors report that authorities are aware of the failure of the MFA to reach the poorest of the poor and that many local governments are adjusting the schemes to reach the target group better.

Juying Zhang *et al.*'s paper completes our knowledge on the MFA program through the description and comparison of MFA schemes in four counties of the two provinces covered by the POVILL project, Hubei and Sichuan. The study confirms that while the central government has been very influential in policy formulation (especially in terms of assigning respective roles to the different administrations), local authorities, the officials in charge of counties in particular, have quite some leeway in design and implementation issues. The study evidences some of the limits of the scheme, including the rather narrow coverage (many poor are not entitled) and the too restrictive nature of the benefit package. Both are direct results of the current limited funding.

Bart Criel and colleagues provide another comparative paper, but across countries this time. The comparison between Belgium and Cambodia may look a bit bold to some, but the Belgian situation proves to be a nice eye-opener on possible tracks of actions for low- and middle-income countries. Let us maybe underscore three of their messages. An interesting observation from the comparison between Belgium and Cambodia is the different attitude towards stigma possibly attached to a means-test welfare program. This may have obvious consequences for scheme implementation. Secondly, the Belgian case illustrates the added value of versatile social workers in the personalized follow-up of individuals and households facing a situation of social exclusion. A third interesting lesson from the Belgian experience is the progressive shift in terms of role for the local social welfare agency. While the agency previously mainly focused on its provision of services and allowances, the emerging model is one of an agency playing also an active role in coordinating the multiplicity of (public and private) actors involved in the delivery of social support, i.e. it takes up a stewardship role. The potential benefit from a plurality of actors needs to be better acknowledged, especially in China and Lao PDR, where the civil society is still embryonic.

Scheme evaluation

The fourth part of the book deals with scheme evaluation. It is exclusively empirical and provides original results of field studies in Cambodia and Laos. The collection of five papers about health equity funds gives, in our opinion, a good overview of the policy debate taking place in Cambodia on

the HEF strategy, more particularly on questions related to eligibility criteria, entitlement procedure and benefit packages. The papers enrich also considerably the discussion about the measurement of the performance of HEF.

The pros and cons of pre-identification and post-identification have been debated at length in Cambodia for a while now. In pre-identification, households are identified before an episode of illness and granted an entitlement, equivalent to health insurance, valid for a given period, whereas in post-identification, the eligibility to the assistance is assessed at the point of use, usually the referral hospital. Three papers expand our knowledge of this contentious issue.

The first paper by Por Ir *et al.* reports the results of the socio-economic assessment of two samples of HEF entitled households and non-HEF entitled households in a province close to Thailand. The study reveals that after four years, the targeting achieved by the scheme is quite inaccurate: many entitled households are not poor anymore while many poor households are not covered by the scheme. Obviously, pre-identification can reach the target group only if it is frequently updated. Ir *et al.*'s study reports two main reasons for the observed discrepancy between the statutory status and the actual economic situation of the surveyed households. First, migration in and out of the village undermines the targeting implemented by schemes organized on a rather narrow geographical basis. Second, in Cambodia, as elsewhere in the world, poverty is a dynamic phenomenon. While there is indeed a core group of chronically poor households, for whom, the authors argue, pre-identification makes sense, there are also many households moving into or out of poverty. Post-identification is probably the best solution for them. Ir *et al.* leave several questions open. An empirical question, directly relevant to the operation of the schemes, is: to which extent is it possible to identify among the poor households those who will still be poor in a couple of years, i.e. the chronic poor?

Chean Rithy Men and Bruno Meessen report the results of a comparative study of the local perception of six different health equity funds. This study highlights the highly decentralized character of the HEF strategy in Cambodia. The differences in eligibility criteria are remarkable. This paper echoes quite well the one by Criel *et al.*: whereas confidentiality about enrolment status is perceived as very important in Belgium (mainly because of the stigmatizing character of targeted welfare programs), Cambodian HEF

operators and communities apparently do not perceive this as a crucial issue. A few possible explanations are put forward. Interestingly enough, the paper indicates that a whole research program may have been overlooked so far in Cambodia: the measurement of HEF performance from a community perspective.

Bart Jacobs and Neil Price take quite a different stance (compared with Ir *et al.*) in the debate about pre- and post-identification. We already owe several studies of the HEF in Kirivong district to this prolific pair of authors. In this new paper, they defend the view and provide evidence for their claim that pre-identification is more effective, on several metrics, than post-identification.

The fourth paper is proposed by the Cambodian 'Hospitals in Change' team. Part of a broader effort to document the performance of rural hospitals in Cambodia and China (see also Fang and Bloom), the paper by Bruno Meessen, Kannarath Chheng *et al.*, tries to assess the benefit-incidence of inpatient care and HEF assistance in six rural hospitals. In line with the approach of Ir *et al.*, the assessment rests both on principal component analysis and subjective assessment by surveyors. The confrontation of this paper with the one by Chean Rithy Men and Bruno Meessen raises an interesting question: what is the most legitimate method to assess the accuracy of a targeting program? As is common practice in many studies published so far, Meessen, Chheng *et al.* adopt the perspective of technocrats when making an assessment; their approach could seem rather obscure for people not familiar with multivariate statistical analysis. The other paper turns the problem upside-down and recommends that community perception is adopted. This discussion reflects, we believe, a major question neglected so far in Cambodia: to whom should the HEF operators be accountable: to external donors and the government or to local communities?

Nearly all publications so far about HEF have covered schemes that operate in rural areas. With their exploratory paper on health seeking behaviors and coping mechanisms in the slums of Phnom Penh, Maurits van Pelt and Guy Morineau open the door on the potential of HEF in an urban context. Obstacles abound (like the high mobility of the slum population), but their experience has proven that, quite surprisingly, community involvement is possible as well in urban settings. Yet, the core of the paper deals with something else: the extent to which HEF could succeed to protect

households' welfare, and more particularly prevent them from falling in a debt trap. In addition, the paper invites us to think of other proxies (than the threshold of 40% of available income to health care expenditure) for the measurement of livelihood impact of health care expenditure.

Finally the paper by Lamphone Syhakhang *et al.* brings us back to Lao PDR... and a few years ago. This paper reminds us of the challenge of developing effective solutions in extremely adverse settings. In Lao PDR, as poverty is highly correlated with remoteness, geographical targeting (i.e. the subsidized or even free provision of a service to the whole population of a given area) is probably the best strategy to reach the poorest. Yet, as evidenced by this study, the situation is so precarious in the country that even a basic strategy such as the provision of essential drugs by village health volunteers is difficult. This highlights once more that every policy requires a good design, careful implementation and a sustained commitment to improve the lot of the poor.

The purpose of the book is not to provide definite answers to the different questions touched upon by the different authors throughout the book. Hopefully, the POVILL project will help policy makers improve the existing schemes further. Social protection is a highly political issue and securing good entitlement for the poor may take several decades of political struggle. As a matter of fact, many countries in the world are still far from achieving the objective of universal coverage. The poorest set definitely specific challenges: they are rarely involved in the formal economic sector, their capacity to engage in contributory systems of social protection is very limited, and, crucially, their political representation in national political arenas is rather limited or downright weak. We deeply believe that the debate should not get bogged down in purely technical discussions; the political dimensions of poverty and poverty relief must be addressed as well. Researchers are also citizens.

References

Meessen B, Zhang Z, Van Damme W, Devadasan N, Criel B and Bloom G (2003). Iatrogenic poverty, *Tropical Medicine and International Health*, 8, 7 : 581-584.

Nottingham C and Dougall R (2007). A close and practical association with the medical profession: Scottish medical social workers and social medicine, 1940-1975, *Medical History*, 51, 3 : 309-336.

Ridde V (2008). The problem of the worst-off is dealt with after all other issues: the equity and health policy implementation gap in Burkina Faso, *Social Science and Medicine*, 66, 6 : 1368-1378.

Van Doorslaer E, O'Donnell O, Rannan-Eliya RP, Somanathan A, Adhikari SR, Garg CC, Harbianto D, Herrin AN, Huq MN, Ibragimova S, Karan A, Lee TJ, Leung GM, Lu JF, Ng CW, Pande BR, Racelis R, Tao S, Tin K, Tisayaticom K, Trisnantoro L, Vasavid C and Zhao Y (2007). Catastrophic payments for health care in Asia, *Health Economics*, 16, 11 : 1159-1184.

World Bank (2003). *World Development Report 2004: Making services work for poor people*, The World Bank, Washington.

Part 1 : Major illness in Asia

What do we mean by ‘major illness’? The need for new approaches to research on the impact of ill-health on poverty¹

Henry Lucas, Shijun Ding and Gerald Bloom

Abstract

It is widely recognised that ill-health is one of the most serious challenges that many individuals, households and families have to face. But there is limited knowledge of the complex *processes* involved in suffering from and coping with multiple and diverse health-related challenges. Provision of support to those suffering ill-health has focused on acute illnesses which are often implicitly assumed to follow the pattern: get sick, consult with a provider, receive diagnosis, obtain treatment and recover. It has similarly become commonplace for economists to associate serious illness with ‘catastrophic health expenditure’. These presumptions have led to support mechanisms being seen primarily in terms of providing assistance in meeting the cost of in-patient treatment.

Such approaches fail to address the multiple and complex pathways which link ill-health and well-being. Individuals suffering from dengue fever, tuberculosis, emphysema, diabetes, lymphatic filariasis or AIDS might all be classified as having a ‘serious illness’. However, in terms of risk to life, level of disability and distress, duration of illness, prognosis, stigmatisation, availability and cost of treatment, and a range of other factors, their situations may differ radically. The impact of an illness is also highly dependent on the demographic and socio-economic characteristics of the individual falling ill, the household of which they are a member and the extended family and social networks to which they belong.

¹ Paper presented at the Global Forum For Health Research conference: ‘Equitable access: Research challenges for health in developing countries’, Beijing, 29 October - 2 November 2007. It should be noted that the methodology described reflects the collective work of the multiple partners involved in the POVILL project.

Research in Cambodia, China and Laos has focused on households affected by a 'major illness', defined broadly in terms of risk to household livelihoods. It was based on an innovative approach involving in-depth, one-year retrospective studies. Its purpose was to investigate the *processes* set in motion as different types of households coped with different types of health problem.

Introduction

POVERTY AND ILL-HEALTH

It is widely recognised that ill-health is one of the most serious challenges that many individuals, households and families have to face. Apart from the pain and distress suffered by the affected person and those who care for them, serious illness can have a wide range of deleterious impacts and is generally accepted to be a common cause of household impoverishment (Gertler and Gruber 2002; Wagstaff and Van Doorslaer 2003). There is also evidence that health shocks² are seen by the poor themselves as one of their greatest concerns: "*loss of income coupled with cost of treatment and the transformation of a wage-earner into a dependent-make injury and illness common triggers of impoverishment*" (Narayan *et al.* 2000). A recent series of participatory studies in Kenya, Uganda, India and Peru found "that healthcare is overwhelmingly the single-most important reason for households descending into poverty" (Khrisna 2006). However, while there is a considerable literature on economic impacts and associated 'coping strategies' in relation to ill-health in general (e.g. Sauerborn, Adams and Hien 1996) and for some specific diseases (Russell 2004), there is limited detailed knowledge as to the *process* whereby different types of households are affected by and cope with the great variety of serious health-related challenges they may encounter.

Many studies, often because of the limitations of available data sources, have simply not addressed the multiple and complex pathways which link ill-health and well-being. These pathways can be seen as reflecting

² The word 'shock' has become part of the core language of the Social Protection literature (e.g. World Bank 2001, Chapter 8). As indicated below, it is the view of the authors that this language often fails to appropriately address the diversity of the effects of ill-health and injury on individuals and households.

the combined effects of a multiplicity of factors including:

- The variable nature of health problems. To take just a few examples, individuals suffering from dengue fever, TB, emphysema, diabetes, lymphatic filariasis or AIDS might all be classified as having a 'serious illness'. However, in terms of the risk to life, level of disability and distress, duration of illness, prognosis, physical availability and cost of treatment, and a range of other factors, their situations may differ radically.
- The demographic and socio-economic characteristics of the individual falling ill, the household of which they are a member and the extended family and social networks to which they belong. For example, loss of an adult worker following an accident may be disastrous for a small, isolated household but a minor problem where other family members are able and willing to absorb any additional workload. In many countries the outcome of a serious illness in a poor rural household may depend primarily on the availability of support from relative rich, urban-based relatives.
- Local and national employment opportunities, that for example may allow those disabled by long-term illness to find alternative sources of income generation.
- The effectiveness of formal or informal mechanisms (at national local or community level) intended to assist distressed households.
- The functioning of the health system and, in particular, the availability of safe, effective, affordable and trusted care.

It has recently become commonplace for health economists³ to use the term 'catastrophic health expenditure' when referring to situations in which household expenditures on healthcare exceed a given proportion of 'disposable income', typically estimated as total consumption expenditure less spending required to meet basic subsistence needs (Xu *et al.* 2003). It is argued here that such indicators, while of considerable interest, should by no means be seen as adequately reflecting the range of issues which need to be addressed in either understanding the links between ill-health and poverty or

³ Note that the medical community and health insurers use the term 'catastrophic illness', the former basing their classification on the specific diagnosis, the required intervention and the characteristics of the patient, and the latter on the absolute cost of treatment.

in designing social support mechanisms. To make an obvious point, it is difficult to understand why the word 'catastrophic' should be applied in cases where individuals with substantial wealth elect to spend part a large sum on healthcare - for example to replace painful hip joints, but not to cases where a poorer individual has to cope with similar disabilities because they cannot afford such treatment. Of particular concern is a tendency for policy-makers who adopt the catastrophic expenditure language to make the implicit assumption that illness-related poverty is primarily a consequence of such expenditures and that they relate almost exclusively to inpatient treatment costs.

In practice, detailed household studies show a variety of mechanisms through which health shocks and poverty interact (Russell and Gilson 2006; Knaul *et al.* 2006). Serious acute events may indeed require costly hospital care. However, chronic illnesses and even comparatively less serious recurrent acute health problems (common in households with large numbers of young children) can also place a major strain on household financial resources. Long-term conditions that completely or partially disable the sufferer and may follow a gradual course of increasing economic and possibly physical dependency on other household members are especially burdensome. Heart disease, AIDS, Lymphatic Filariasis and some cancers are examples of this kind of challenge. Injuries resulting in the loss of sight or limbs may entail limited health expenditures but have serious consequences in terms of paid employment or the viability of household enterprises. A variety of conditions, for example vitiligo, incontinence and even some STIs, may have limited immediate consequences in terms of physical health, income or expenditures but potentially extremely serious social implications in terms of loss of status, isolation, rejection and persecution. If we endorse the now almost universally accepted paradigm that poverty is a multifaceted phenomenon, covering not only financial but many other dimensions of deprivation (e.g. OECD/DAC 2001; World Bank 2001), individuals afflicted in these ways might reasonably be described as experiencing illness-induced poverty. Moreover, in many cases social exclusion will lead to severe constraints on employment opportunities, resulting in long-run economic decline. These very different types of shock call for very different responses.

As indicated above, a focus on health expenditures also crucially ignores the fact that many of the poor, and possibly most of the very poorest, spend very little - even as a percentage of total expenditure - on health care,

simply because they are unable or unwilling to access qualified providers given other demands on their extremely limited resources. As a recent study in Chad highlights, “households ignore health problems - absorbing them into the experience of everyday life ... When illnesses appear as crises it is often because ... easily treatable problems spiral out of control.” (Leonard 2005). Of course, immiserating expenditure on health care is an important issue, but it should not preclude a focus on the potentially immiserating effects of not accessing health care when needed, especially as it is the poorest households who are more likely to experience the latter.

For example, when a key worker is incapacitated, household labour supply is reduced and demand increased, as care of the sick individual places additional burdens on other members, especially women. Any consequent reduction in household production would be exacerbated by expenditure on health care, if such care were available and accessible. In a poor household such expenditure will often necessitate reduced food consumption (World Bank 2001), possibly impacting on labour productivity. Over time it may lead to a run down of savings; forced borrowing at high rates of interest; and/or sale of physical assets, possibly further reducing income flows if this includes land, livestock or production tools and equipment. At each stage of an illness, household members have to make difficult judgements as to the costs and benefits of alternative health care seeking strategies - including the strategy of not seeking care.

Research on health shocks and interventions designed to support households in coping with them has to address two other complicating factors. These relate to the wide range of perceptions, attitudes and beliefs which different populations attach to health issues. First, in some developing countries much expenditure on health care, perhaps especially by the poor, is wasted, at least in clinical terms, on inappropriate, ineffective, unnecessary or even dangerous treatments, often prescribed by providers with no formal qualifications (Fabricant, Kamara and Mills 1999; Mills, Rasheed and Tollman 2006). Assisting households to purchase such treatments would generally be seen as counterproductive, though given the power of the placebo effect (Ernst and Herxheimer 1996) and the multiple factors which determine attitudes to different sources of healthcare knowledge (Gilson 2005; Russell 2005), the general population and the medical profession may well disagree as to which treatments should be so regarded. Many governments and agencies have found the concept of consumer-lead,

demand-side financing attractive (Ensor 2003), partly on the grounds that it 'empowers' those consumers to demand better services from providers. However, assuming that this removes the requirement for effective supply-side interventions to influence and ultimately regulate the behaviour of providers would be a very high-risk strategy in many countries, given the information asymmetry between those claiming possession of health expertise and their clients (Hammer and Berman 1995).

Second, and more contentiously, it is possible to argue that interventions which tend to make treatment attainable but only at substantial cost need very careful consideration. For example, many of the serious funding problems currently confronting health care systems in developed and transition countries relate to the availability of expensive, and sometimes only moderately effective, treatments which may prolong the life of elderly patients (Westerhout and Pellikan 2005). In countries where health care costs are primarily met from current income or limited savings, should interventions be introduced which make it possible for the poor to purchase effective treatments for their aged relatives with serious illness but only if they - and their children - make major, and possibly permanently damaging, sacrifices? Similar, and in many respects even more difficult, issues arise in relation to the treatment of AIDS. How can households or extended families refuse their members long term treatment with ARVs, even if the possibly heavily subsidised cost remains high enough to gradually drive them into destitution? A very heavy 'burden of choice' may be placed on households already living under constant stress by such well-intentioned initiatives.

LIMITATIONS OF EXISTING SUPPORT SYSTEMS

The complex nature of health shocks and the limited current understanding of their impact mechanisms can be a source of frustration for those attempting to design effective interventions. However, disregard of that complexity and the fact that "*Fighting iatrogenic poverty calls for more than just establishing some kind of social health insurance*" (Meessen *et al.* 2003), carries high risks. The insufficiently considered application of potentially useful concepts such as catastrophic health expenditure has encouraged the implementation of somewhat simplistic strategies which fail to address the needs of large numbers of the poor and especially the very poor. As indicated above, discussion around the provision of support for those suffering ill-

health has tended to focus on acute illness episodes with a trajectory which might be crudely characterised as: get sick, consult with a provider, receive diagnosis, obtain treatment, recover. Support has been seen in terms of providing assistance to meet the cost of consultation and treatment, typically via a combination of: narrowly targeted and often disease-specific exemptions for selected population groups; establishment of (possibly subsidised) 'critical illness' insurance schemes for the majority; and a variety of safety net arrangements for the poorest. The focus on treatment costs for serious acute illness episodes is understandable in terms of the operation of support schemes. For example, many are designed solely to provide financial assistance in meeting hospital inpatient care costs (STEP Programme 2005). From the point of view of scheme management this has considerable advantages: illnesses resulting in inpatient episodes are a tiny proportion of the total, which limits the number of transactions undertaken by the scheme; each episode can be considered as an isolated event taking place over a fixed period; and there will typically be detailed documentation on diagnosis, treatment, outcome and costs, allowing rigorous financial monitoring of expenditures and at least the possibility of effectively regulating the quality of services provided.

However convenient from an administrative perspective, it seems evident that such an approach neglects whole areas of serious health-related needs - physical, psychological and social. It is possible that this narrow focus is warranted, given realistic levels of funding and the need therefore to both prioritise and to ensure financial probity and clinical standards. However, such a case must be argued, not simply assumed. Given that substantial public resources are typically invested in the establishment of support schemes with the professed objective of reducing the impact of ill-health on targeted populations, it seems reasonable to assess the full range and severity of such impacts before deciding how those resources would be best allocated. It is argued here that such assessments have rarely been undertaken. This was the starting point for the project described below.

The 'Poverty and Illness' (POVILL) project

The aim of the POVILL project was to understand the potentially complex impacts of ill-health on household livelihoods for a reasonably large number⁴ of affected households in selected study areas in three countries, Cambodia, China and Laos. At an early stage in the design it was agreed that these households should be selected using a strict probability sampling approach such that it was possible to make valid statistical inferences to the overall study area populations. This was seen as highly desirable in terms of influencing policy makers in each country who are involved in the design of social support mechanisms intended to assist households in coping with illness. Note that it precluded a number of alternative and less resource costly methods of identifying relevant households such as sampling from facility or support scheme records (as many individuals with major illness fail to seek care from a qualified provider), purposive selection based on the judgement of local officials or community based exercises. POVILL was specifically intended to identify an *unbiased* sample of households affected by major health problems.

The study focused on households affected by a 'major illness', which was conceived very broadly as indicating health problems which had the potential to seriously damage household livelihood strategies, increasing the risk of impoverishment. The primary causal pathways to impoverishment were seen as: increased expenditures on inpatient and/or outpatient care; and/or limitations on household productive and reproductive⁵ activities, linked to illness-induced changes in household labour demand and supply. Note that the study was concerned with the *potential* impact of health problems on individual and household well-being because one main objective was to identify those factors - relating to the characteristics of the illness, affected individual, household, healthcare system, support

⁴ Roughly speaking, sufficient to permit the defensible use of statistical analysis.

⁵ This use of the word *reproductive* derives from the literature on social reproduction and refers to the functions of households in the following areas: 1. capacity to produce and rear children, 2. day-to-day maintenance of households through food processing and cooking, care of children and other dependents, cleaning etc., 3. maintenance of household viability inter-generationally through securing necessary economic inputs and social relations (adapted from Young 1981).

mechanisms, etc - which tended to determine the magnitude of the impact experienced.

RESEARCH METHODOLOGY

Existing knowledge about illness-poverty linkages is mostly derived from questionnaire surveys that collect information on health service utilisation and expenditure, typically on the basis of a two-week or one-month recall for acute illness-episodes and a one year recall for inpatient treatments. The findings of such surveys have been very useful in drawing attention to key issues, but provide very limited information as to how specific types of illness, affecting specific members, impact various types of household - differentiated for example in terms of size, demographic composition, asset ownership, access to social support networks, etc. In particular, it is extremely difficult using cross-sectional surveys, even if a 'before-and-after' strategy is adopted (i.e. running two surveys separated by a suitable time period), to adequately capture the step-by-step *process* whereby households cope, or fail to cope, with the immediate, short-term and longer-term consequences of ill-health. Knowledge of such processes seems a pre-requisite for the design of schemes designed to support household coping strategies.

Ideally, such information might be gathered by directly monitoring affected households, as evidenced by the substantial body of work based on anthropological case studies of households containing members with specific illnesses, especially HIV/AIDS (Seeley 1995; Thomas 2006). However, these seem to be necessarily limited in terms of the number of households that can be studied (given the level of expertise required), and the extent to which they can be seen as representative of the general population. Longitudinal sample surveys have been used successfully to monitor health care seeking behaviour (Tipping and Segall 1996; Lucas and Nuwagaba 1999). However, these also have limitations. They tend to be based on the completion of relatively simple data sheets by local community members and it may be unrealistic to expect that such people can be trained to record the complex processes described above. In addition, such surveys have mainly been used to collect data predominantly relating to minor illness episodes in a limited number of small communities over a relatively short time period. Even where population health status is poor, major illness events are much less common, which would imply either that surveyed populations would have to be substantially larger or that monitoring would have to take place over a

much longer time period if a reasonably large sample were required. Scaling up in this way may be very difficult given that “organizational logistics and running costs, and the demand for a level of local expertise and participation” are identified as disadvantages of the approach (Tipping and Segall 1996). Long term monitoring of major illness would probably be feasible where a large population was already under long term surveillance (in sentinel sites, demographic surveillance sites, etc.), though in this instance serious ethical issues would be raised (i.e under what circumstance should those undertaking the monitoring intervene and in what ways?).

Given the known limitations of other available methods, the research strategy for POVILL was based on an innovative approach involving in-depth, one-year retrospective studies of household affected by major illness using teams of social scientists. A limited number of geographical case studies, based on purposively selected counties in China and health districts in Cambodia and Lao PDR were undertaken. In each of these areas households affected by major illness were identified and studied using a two stage approach:

- A rapid and reasonably large-scale household questionnaire survey was undertaken using cluster sampling of households within the selected study areas. This aimed to identify households substantially affected by different categories of serious health problems and to estimate the proportions of such households in the population.
- The sampled households were analysed and classified into a number of strata based on the information provided by the questionnaire survey (the choice of stratification variables is indicated below). In-depth studies, typically requiring 1-2 person days, of a probability sample of the households in purposively selected strata were then undertaken by a team of social scientists.

One issue discussed at length during the design phase was whether to include a matching control group in order to assess the relative experiences of households which had/had not experienced a major illness. Such an approach had obvious attractions but was eventually discarded. This was partly on the basis of resource allocation. The desire to capture the diversity of illness experiences described above would clearly have been constrained to a greater or lesser extent if detailed studies on a comparator group had been undertaken. There also seemed limited benefit from a policy perspective in

determining that households which had suffered a major illness, defined above as one with the potential to have severe adverse effects on household livelihood strategies, had fared less well than those which had not. The converse finding would have been extremely interesting but would also have contradicted a considerable volume of existing research evidence, as discussed above, and was considered unlikely.

THE RAPID SURVEY

The rapid survey was undertaken in purposively selected study areas: two operational districts in Cambodia; two counties in each of two Chinese provinces; and two districts in each of three provinces in Laos. In each area, a multistage cluster sampling procedure was adopted to select village communities, each consisting of around 100 households. All households in these communities were enumerated, giving total samples of some 6,000 households in Cambodia, 12,000 in China and 3,000 in Laos. The sample sizes were based on evidence from existing surveys that in any given year around 5% of households might be affected by the type of major illnesses addressed by the project⁶. Thus it was intended to conduct in-depth exercises with around 300 households in Cambodia, 600 in China and 150 in Laos.

The primary purpose of the rapid survey was to identify households for the in-depth exercise. However, it was also intended to provide estimates of: (a) the proportions of households substantially affected (in terms of expenditures, income loss, additional care/labour burdens, increased debts, reduced assets, etc.) by specific categories of ill-health in the selected poor rural areas in each of the three countries; (b) the proportions reporting access to and use of formal or informal support mechanisms, with a particular focus on schemes specifically designed to support households suffering from health shocks. The survey questionnaire was administered to all the households in each village community by mobile teams of four trained enumerators. A generic version is available on request from the authors. Final versions varied somewhat from country to country, depending on local circumstances.

⁶ It is recognised that this was a subjective and somewhat arbitrary estimate, obviously dependent on the severity of health-related impact that would be used to identify a 'major illness'.

The selection criteria for households to be included in the in-depth study varied between countries, depending on local circumstances and policy concerns. In line with the aims of the research, the underlying principle was that the households selected should have experienced a health shock that had the potential to severely affect their livelihood options. Note that this allowed the inclusion both of households that had been severely damaged and households that coped reasonably well - possibly with the aid of support schemes - allowing interesting comparisons between these two groups. In each country, selection had to be based on the application of specified rules to the data obtained from the initial rapid survey, maintaining the statistical validity of estimation procedures. For example, in Cambodia disease-specific groups were selected, based on a limited number of serious diseases which were known to be highly prevalent and have very diverse characteristics in terms of their likely impact on affected individuals and households. In China, three mutually exclusive groups of households were selected on the basis of health expenditures and loss of labour time, irrespective of their specific health problems. Here the defining criteria were: (a) inpatient expenditure $> x$; (b) inpatient expenditure $\leq x$ and outpatient expenditures $> y$; and (c) inpatient expenditure $\leq x$, outpatient expenditure $\leq y$ and loss of productive labour time $> z$. The values x , y and z were determined by considering the levels of each variable that would be generally seen as posing a serious problem for the poor rural households in the areas studied. A random sample of households in each group was taken for the in-depth study. In Lao, final decisions on selection criteria are still under discussion.

THE IN-DEPTH STUDIES

The in-depth exercises collected both quantitative and qualitative data. One specific aim was to derive reasonably reliable estimates of a range of quantitative variables including incomes, expenditures on health care, financial support received, duration of illness or disability, etc. It was anticipated that the use of experienced researchers at this stage, and the time allocated to each household, should mean that such data was considerably more reliable and consistent than would be obtained from most surveys, which are typically undertaken by relatively junior enumerators working under tight time constraints. The qualitative components were intended to allow the researchers to gain an understanding of the overall process by which households had been impacted by ill-health and the coping strategies

adopted to mitigate that impact. It was also seen as a basis for researchers to assess and interpret the quantitative data, improve its quality (for example by using additional questions if it became clear that responses had been inappropriate) and generally allow more rigorous and thoughtful analysis and interpretation of findings.

Each in-depth exercise was typically carried out by a team consisting of two or more members, including at least one male and one female researcher, both with substantial field experience. Fieldwork was mainly based on extended interviews, usually undertaken over a one day period, with adult members of the selected households. These interviews used a combination of structured forms, to enter basic comparative data (generic version available on request from the authors), and a range of semi-structured instruments. Discussions were sometimes recorded using a dictaphone if household members did not object. Because the study instruments were employed by experienced researchers, they were encouraged to use them in a flexible manner and to explore issues as they arose.

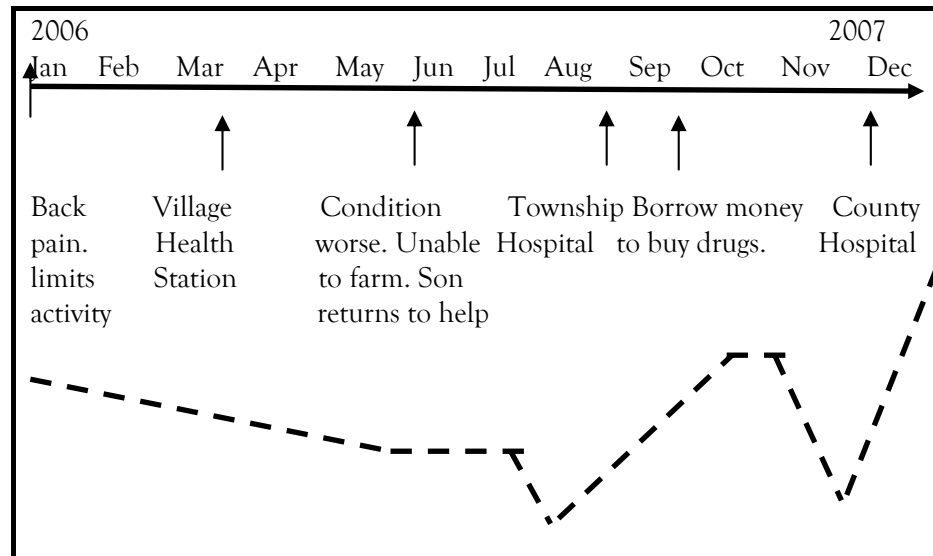
To allow a detailed assessment of the multidimensional poverty status/vulnerability of each household, basic data were collected on: level of education and participation in production activities for each member; estimated household incomes by source and expenditure flows by type; access to credit; participation in social and community activities; and household 'livelihood asset' ownership (covering physical, financial, human and social capital assets). A particular emphasis was placed on understanding the 'history' of relevant health problems, both from a health-seeking perspective and in terms of the consequences for different household members. Topics covered included: the physical impairment suffered by affected member(s), focusing on constraints on productive, domestic and social activities; healthcare seeking behaviour, including the cost and effectiveness of treatment; the various coping strategies adopted by household members at different times; financial and other types of support provided from both formal and informal sources; and the role played by livelihood assets and other contextual factors. By investigating the *process* which was set in motion by the onset of health problems, the aim was to understand why some households had been driven into extreme poverty while others maintained or occasionally even improved their standard of living. It was hoped that this would allow identification of the key points in

that process at which external assistance might have been proved most beneficial..

An 'illness narrative' (Groleau *et al.* 2006) - which sought to document the history of each health problem addressed was used to provide the underlying framework for other aspects of the study. For example, one key area of interest was to assess the financial assets of the household at the time when the illness started and monitor how these changed as the illness progressed, possibly with increased expenditures on health care and/or decreased income generation. Similar issues arose in relation to the varying work loads of different family members in response to changing demands for additional household care or ability of the sick person to undertake normal activities. The first stage in the interview was therefore to establish the sequence of 'events' from the onset of the illness to the present date.

The interviewer would first obtain a general outline of the sequence of events, asking simple questions such as "when did you first become aware of the problem?" (if it started during the year) or "how was your health at the start of the year?" (if it started before the beginning of the year) and "what happened next?". A timeline was to be drawn (on paper or on the ground) such that the respondent(s) had a visual display which they could amend as the interview proceeded. A simplified illustrative example is shown as Figure 1. The dashed line represents the overall health of the affected person as assessed by the respondents.

Figure 1. Illustrative one year time-line.



The next stage was to check that all significant events had been recorded, using an event list based on that shown in table 1. Questions might be of the form: “were there any other times when you sought advice or treatment from a health provider?”, “did you use any other medicine or receive other treatments apart from those you mentioned?”, “how did you raise the money to pay for that treatment?”, “did anyone help you at that time?”, and so forth. The primary aim was to understand the *sequence* of events - not their precise timing. Indications that one event happened ‘soon after’ another or ‘several months later’ were seen as perfectly adequate for analysis and interpretation. Similarly, the aim when gathering quantitative data was to obtain a reasonably accurate estimate, not to seek undue precision. Once the time line had been established, the interviewers attempted to obtain a fuller understanding of each event on the line. The task for the researchers was not to ask a set list of questions but to discuss events in turn and ensure that they had assembled key items of data on each, using the structured recording forms. Note that some of this information would have been obtained in establishing the time line and that information on one event might have been provided when discussing another.

Table 1. Time Line Events and Attributes

<p><i>Change in health status:</i></p> <ul style="list-style-type: none">• Symptoms and severity (specific symptoms / pain, mobility, etc.)• Limitations on production, household, or 'basic living' tasks (duration, constraints) <p><i>Self-treatment:</i></p> <ul style="list-style-type: none">• Type of treatment• Drugs taken• Source of treatment/drugs• Cost of treatment/drugs <p><i>Out-patient consultations:</i></p> <ul style="list-style-type: none">• Type of provider• Distance travelled to provider• Did they identify the problem (diagnosis)• What treatment was prescribed• Was the treatment followed• Expenses involved: travel/fees/drugs/gifts/other• How was money raised• Satisfaction with provider <p><i>In-patient episodes</i></p> <ul style="list-style-type: none">• Type of provider• Distance travelled to provider• Did they identify the problem (diagnosis)• Length of stay• Reason for discharge• Expenses involved: travel/fees/drugs/gifts/other• How was money raised• Satisfaction with provider <p><i>Seeking and/or obtaining assistance from anyone outside the household</i></p> <ul style="list-style-type: none">• Individual(s) or institution approached• Type of help sought• Type of help obtained (labour, goods, cash, exemption from charges, etc.)• Details of help obtained (labour time, quantity of goods, cash amount received, services exempted, etc.)• Satisfaction with help obtained <p><i>Asset sales and borrowing:</i></p> <ul style="list-style-type: none">• Assets sold• Money borrowed• Source of loan• Amount of loan <p><i>Other memorable good and bad events</i></p>
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Discussion

The reliance on household survey data relating to the short-term recall of illness episodes and longer-term recall of hospitalisation evident in much of the literature on the impact of ill-health and health care seeking behaviour, has clearly not arisen by chance or oversight. It is in large part a consequence of the relative ease of gathering at least basic data on such events using traditional questionnaire surveys. Though there is considerable debate as to the relative advantages of one to four week recall periods for illness episodes (e.g. Keller *et al.* 1997), it is at least plausible that such timescales allow reasonably reliable responses to be obtained for questions relating to symptoms, onset and length of illness, care seeking behaviour, health care expenditures, etc. Similarly, it is usually assumed, perhaps with less certainty, that entering hospital is a sufficiently rare and memorable occurrence that respondents will be able to provide information on, for example, length of stay, diagnosis, treatment and cost of care, which are sufficiently accurate to justify detailed analysis and interpretation.

It has been argued above that in spite of the attractions of such traditional surveys, there is an urgent need from both academic and policy perspectives to go beyond the kind of information that they can deliver. Continuing to estimate the incidence of predominantly minor, acute, symptomatic illnesses such as fevers, coughs, episodes of diarrhoea, etc., or the proportion of such episodes which result in a visit to a facility described by the respondent as a pharmacy, clinic, health centre or hospital, is simply not sufficient to address existing serious knowledge gaps relating to the impact of ill-health on households or to guide policies intended to mitigate the effects of such impacts. Household survey data on those hospitalised may be of greater interest, if the sample size is sufficiently large to allow detailed disaggregation of what is typically a very small proportion of sampled individuals. However, a focus on inpatient treatment, many aspects of which can often be much more reliably researched by means of facility-based surveys⁷, typically fails to address the needs of the poor and poorest

⁷ There is a tendency in some countries to use data from large-scale household surveys as a substitute for conducting serious facility assessment exercises, which should include inpatient surveys. These have the great advantage of being able to combine facility records with respondent information. This approach is also used in the research project described here.

individuals, who are least likely to access such treatment, and those who suffer from chronic conditions. This latter failure has become of increasingly concern as more and more evidence has emerged on the extent of chronic illness, even in poor populations, and the serious consequences for both affected individuals and other household and family members (WHO 2006).

The alternative approach described in this paper was developed partly from frustration with existing sources. It was seen by those involved as one potential way to address at least some of the concerns raised above. It lays no strong claim to originality, except possibly in terms of the application of recent methodological innovations in other areas to research on poverty and health. The emphasis on the need to consider dynamic processes, to acknowledge the diversity and complexity inherent in many of these processes and the requirement to adopt an interdisciplinary approach, integrating a wide range of quantitative and qualitative methods, reflects much current thinking in the general literature on poverty analysis (Addison, Hulme and Kanbur 2007). The use of visual time lines to promote discussion of illness events and elicit quantitative information relating to those events is closely aligned to recent work using 'life trajectory' diagrams (Baulch and Davis 2007; Davis 2006). The strategy of using an initial large-scale survey to identify a target population for in-depth studies can be seen as a natural extension of the commonly adopted practice of using group-specific modules to gather data on nutrition, disability, etc. in national household survey questionnaires (e.g. NSSO 2003).

The overall value of the approach will of course have to be assessed in the light of research experience. However, as with any innovative methodology, the development process has already raised a number of potential limitations and concerns which will need to be addressed in any future applications. For example, the assumption that the design of the initial large-scale filtering survey would be relatively straightforward - with enumerators asking a comparatively short list of questions to determine if a surveyed household was a potential candidate for the in-depth study - has had to be abandoned. In many respects this reflects the range of health-related conditions and the diversity of impacts experienced by households which originally motivated the research. A series of value judgements had to be made as to how selection of target households should be undertaken. Should we only be concerned with households that had been seriously adversely affected by ill-health or was it just as important to include those

that had adopted successful coping strategies, possibly with the assistance of government or other support schemes? Should the death of a household member automatically qualify that household for inclusion? How should the long-term physical disability of a household member be considered: in what respects was the situation of, say, an individual born with a limb deformity, essentially different from another suffering from crippling arthritis, if both conditions similarly affected their ability to cope with productive labour or household tasks? How could the impact of ill-health on household wellbeing be assessed if the household had also suffered from other serious shocks, for example crop failure or loss of employment?

One unresolved issue raised in the design phase was the extent to which we were making the most effective use of local knowledge. Given that we were specifically focusing on the variability of circumstances confronted by households experiencing serious illness, should we not seek to tap into the fund of detailed contextual knowledge possessed by local health workers and health system managers, or even local government officials and community based organisations, on the basis that they would be able to guide us through the key health-related concerns voiced by their constituents and associated coping strategies of greatest relevance. The design team did include a number of senior health and other government officials from each country but they could obviously not be expected to have the detailed local knowledge that might be available to their community-based colleagues. It was pointed out that there could be risks in placing too great a reliance on this source. For example, in many areas the health sector tended to be highly male-dominated and it was possible that what might be key health concerns or preferred coping strategies for women would be downplayed or simply not well understood. Potential social or political biases, for example in relation to minority groups, would also have to be considered. In the case of health conditions which were to some degree stigmatised, local agencies might tend, consciously or unconsciously to underestimate their prevalence. Partly under time pressures and partly because of the complexities of integrating this knowledge base, there was no serious attempt to systematically follow this approach, other than through ad-hoc discussions with local key informants. However, it is an interesting methodological avenue that should be further explored.

One major concern of those designing the field work was the extent to which the attempt to conduct in-depth studies on a scale much larger than

usual would result in novel and often daunting challenges for those social scientists undertaking the household investigations. As opposed to the tasks normally associated with large scale surveys, these individuals were tasked not to act as enumerators completing a questionnaire but rather to use their research skills in an independent and creative fashion to gather and record a wide diversity of detailed quantitative and qualitative information on a relatively large sample of households. A number of the techniques and methods required might be familiar but they would previously been associated with much smaller-scale household case study exercises. Moreover, researchers were to be encouraged to interact with multiple household members and adapt the methodology to the specific household context that ill-health had created, for example varying the sequence of topics addressed to allow for the particular preoccupations of various household members. It was recognised that meeting these requirements while maintaining the relaxed, conversational approach on which the effectiveness of the methodology crucially depends, would require the allocation of substantial researcher time to each household investigation.

The in-depth researchers would also have to take on the difficult task of convincing household members, who in many cases would have been through, or be going through, an extremely distressing experience, to discuss that experience at length. It was recognised that cumulative exposure to such distress might also have a considerable impact on the researchers themselves, particularly as there would inevitably be cases where respondents expressed the hope that taking part in the study would lead to practical support, whatever initial statements were made to the contrary. It was therefore seen as essential to provide extended periods of rest for researchers between groups of interviews in order to maintain their morale. Overall, it is seen as extremely important to the success of the methodology that the burden on the field researchers be strictly limited, allowing them to operate as far as practicable in a relaxed and unhurried manner. The adoption of excessive targets in terms of household interviews per individual or unreasonable demands for information on each case would risk severe damage to the quality of their work and hence to the primary objectives of the research.

Finally, the development of the methodology has led to discussions of a much more general issue which will only be partially addressed in the current project. This relates to a familiar but still intractable concern, the extent to which the traditional household unit should remain the primary

focus for data collection and analysis. This issue has been frequently raised but rarely addressed in relation to large scale surveys. The general attitude seems to be that while the limitations of the household focus must be recognised, they are not sufficiently serious to warrant the radical revision of research methodology required if it were to be abandoned (O’Laughlin 1999). It may be that such a position was perfectly reasonable. However, in recent times it has become evident that in many countries, including those which are included in the current research, the nature of rural households has radically changed, to the extent that it is often extremely difficult to argue that they can be described as more or less autonomous economic units for research purposes.

For example, many of those described as ‘household members’ are living away from home as ‘temporary’ migrant workers but typically play a major role in both income and expenditure aspects of the household economy. They will often fund investments that determine future production and independently purchase goods and services intended to benefit all members of that household, whether resident or not. In some case they may provide accommodation, care and financial support to other ‘household members’ that allows them to access urban health care facilities. Treating their involvement in the household economy simply in terms of their ‘transfer payments’ seems wholly inadequate. For example, in the context considered here, the impact of the serious illness of such a migrant worker may have even more damaging implications for a rural household than the similar illness of a resident member. This raises very difficult problems in terms of practical research strategies. Even with the detailed in-depth interviews proposed, it does not seem realistic to suggest gathering detailed and reliable information on many aspects of an identified major illness - progression of the illness, treatments, costs, etc. - where it involves a household member who is living elsewhere. Work on designing the current project has clearly identified this as a serious problem and some modifications to the research instruments and procedures have been undertaken to take account of it. However, much more thought will be required to determine a truly satisfactory solution.

References

Addison T, Hulme D, Kanbur R (2007). Poverty dynamics: Measurement and understanding from an interdisciplinary perspective. www.arts.cornell.edu/poverty/kanbur/AddisonHulmeKanburPovertyDynamicsIntro.pdf. Accessed February 16, 2008.

Baulch B and Davis PR (2007). Poverty dynamics and life trajectories in rural Bangladesh. *Paper prepared for the Wellbeing in International Development Conference*, 28-30 June 2007, University of Bath, Bath, UK.

Davis P (2006). Poverty in time: Exploring poverty dynamics from life history interviews in Bangladesh. *CPRC Working Paper 69*. Chronic Poverty Research Centre.

Ensor T (2003). *Consumer-led demand side financing for health and education: an international review*. WHO/BAN/DSF/03.1. World Health Organisation. Bangladesh. Accessed 2 April 2008. http://www.whoban.org/dsf_international_review.pdf

Ernst E and Herxheimer A (1996). The power of placebo, *British Medical Journal*, **313** : 1569-1570.

Fabricant SJ, Kamara CW, Mills A (1999). Why the poor pay more: household curative expenditures in rural Sierra Leone, *International Journal of Health Planning and Management*, **14** : 179-199.

Gertler P and Gruber J (2002). Insuring consumption against illness, *The American Economic Review*, **92** : 51-70.

Gilson L (2005). Editorial: building trust and value in health systems in low- and middle-income countries, *Social Science and Medicine*, **61** : 1381-1384.

Groleau D, Young A and Kirmayer LJ (2006). The McGill illness narrative interview (MINI): An interview schedule to elicit meanings and modes of reasoning related to illness experience, *Transcultural Psychiatry*, **43**, 4 : 671-691.

Hammer J and Berman P (1995). Ends and means in public health policy in developing countries, *Health Policy*, **32** : 29-45.

Knaul FM, Arreola-Ornelas H, Méndez-Carniado O *et al.* (2006). Evidence is good for your health system: policy reform to remedy catastrophic and impoverishing health spending in Mexico, *Lancet*, **368** : 1828-41.

Keller D, Bayliss MS, Ware JE, Jr, Hsu MA, Damiano AM and Goss TF (1997). Comparison of responses to SF-36 health survey questions with one-week and four-week recall periods, *Health Services Research*, **32**, 3 : 367-384.

Krishna A (2006). 'Subjective assessments, participatory methods and poverty dynamics: the stages of progress method', draft paper for the Workshop on Concepts and Methods for Analyzing Poverty Dynamics and Chronic Poverty, 23 to 25 October 2006, University of Manchester, UK.

Leonard L (2005). Where there is no state: household strategies for the management of illness in Chad, *Social Science and Medicine*, **61** : 229-243.

Lucas H and Nwagaba A (1999). Household coping strategies in response to the introduction of user charges for social services: a case study on health in Uganda, *IDS Working Paper* 86.

Meessen B, Zhenzhong Z, Van Damme W, Devadasan N, Criel B and Bloom G (2003). Editorial: Iatrogenic poverty, *Tropical Medicine and International Health*, **8**, 7 : 581-584.

Mills A, Rasheed F and Tollman S (2006). "Strengthening health systems." in *Disease Control Priorities in Developing Countries (2nd Edition)*, ed. , 87-102. New York: Oxford University Press. Chapter 3.

Narayan D, Chambers R, Kaul Shah M and Petesch P (2000). *Voices of the poor: Crying out for change*. New York, N.Y: Published for the World Bank, Oxford University Press.

National Sample Survey Organisation (NSSO) (2003). *Disabled persons in India. NSS 58th round (July–December 2002). Report No. 485 (58/26/1)*. Ministry of Statistics and Programme Implementation. Government of India.

OECD/DAC (2001). *The DAC Guidelines Poverty Reduction*, OECD, Paris.

O’Laughlin B (1999). In *Defence of the household: Marx, gender and the utilitarian impasse. ISS Working Paper 289*. Institute of Social Studies. The Hague.

Russell S and Gilson L (2006). Are health services protecting the livelihoods of the urban poor in Sri Lanka? Findings from two low-income areas of Colombo, *Social Science and Medicine*, **63** : 1732-1744.

Russell S (2005). Treatment-seeking behaviour in urban Sri Lanka: trusting the state, trusting private providers’, *Social Science and Medicine*, **61** : 1396-1407.

Russell S (2004). The economic burden of illness for households in developing countries: a review focusing on malaria, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome, *American Journal of Tropical Medicine and Hygiene*, **71**, Suppl 2 : 147-155.

Sauerborn R, Adams A, Hien M (1996). Household strategies to cope with the economic costs of illness, *Social Science and Medicine*, **43** : 291-301.

Seeley JA, Kajura EB and Mulder DW (1995). Methods used to study household coping strategies in rural South West Uganda, *Health Policy and Planning*, **10**, 1 : 79-88.

STEP Programme (2005). *Insurance products provided by insurance companies to the disadvantaged groups in India*, Working Paper, Strategies and Tools against social Exclusion and Poverty (STEP) Programme.

Thomas F (2006). Stigma, fatigue and social breakdown: Exploring the impacts of HIV/AIDS on patient and carer well-being in the Caprivi Region, Namibia, *Social Science and Medicine*, **63** : 3174-3187.

Tipping GK and Segall MM (1996). Using a longitudinal illness record to study household health care decision making in rural communes of Vietnam', *Health Policy and Planning*, **11**, 2 : 206-11.

Wagstaff A and Van Doorslaer E (2003). Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993-98, *Health Economics*, **12**, 11 : 921-934.

Westerhout E and Pellikan F (2005). Can we afford to live longer in better health? *ENEPRI Report No. 10*. European Network of Economic Policy Research Institutes.

WHO (2006). *Preventing Chronic Diseases: A Vital Investment*. WHO Canada.

World Bank, World Development Report 2000/2001: Attacking Poverty, 2001, World Bank: Oxford University Press. Available at: <http://go.worldbank.org/7KWQQ1WVT0>

Xu K, Evans DB, Kawabata K, Zeramdini R, Klavus J, Murray CJL (2003). Household catastrophic health expenditure: a multicountry analysis, *Lancet*, **362** : 111-117.

Young K (1981). *Of Marriage and the Market*. London: CSE Books.

*Prevalence of Illness and Household Ill-Health Risk
Coping Strategies in Rural China
A Chinese literature review*

Shijun Ding, Yuping Chen, Li Feng and Zhe Li

Abstract

The paper aimed to review Chinese literature on the prevalence of illness and household ill-health risk coping strategies in rural China, and to determine which questions further research should answer. Investigated literature included those on prevalence of illness, two-week morbidity of common illnesses, impact of ill-health on household income, consumption expenditure, investment and human capital, household *ex ante* and *ex post* coping strategies. Existing studies provided evidence that ill-health risks had become more complex in rural China. More research on patterns of illness prevalence for both previously common illnesses and increasingly widespread illnesses (such as non-communicable chronic illnesses) is needed. There is also a need to further investigate the characteristics of households with different types of illness, to understand the socioeconomic factors determining household healthcare seeking behavior and the impact of serious illness on household livelihoods. More empirical studies on household ill-health risk coping strategies deserve high research priority. Studies using both quantitative and qualitative methods to investigate the impact of informal and institutionalized solutions to overcome the huge problems of the poor in accessing quality health care are needed. These would assist the early identification of vulnerable households and the design of appropriate policy interventions.

Introduction

The transition from acute illness prevalence to non-communicable illness prevalence and the implications for household coping strategies in rural China and other developing countries are issues increasingly attracting research interest in terms of understanding health-related poverty and suggesting policy interventions. Investigations into the dynamics of illness prevalence within a population have been moving towards a more nuanced understanding in the contexts of socioeconomic and cultural changes in recent decades, with much attention being paid to population mobility and the socioeconomic factors shaping it (see for example, Garrett 1995; Lloyd-Smith *et al* 2005; Bloom 2001; Bloom *et al* 2007). The concept of ‘coping strategies’ has been recognized as of considerable value in explaining household responses to adverse shocks. While earlier studies focused on famine and natural disaster survival strategies of rural households, and mostly on Africa (among others see: Watts 1983; Corbett 1988; De Waal 1989; Devereux 1993; Rosenzweig and Wolpin 1993; Townsend 1994; Udry 1994), literature investigating the impact of ill-health and related household coping strategies in many different parts of the world has been increasingly available (to list some: Corbett 1989; Jayawardene 1993; Seeley, *et al.* 1995; Sauerborn *et al.*, 1996; Wilkes *et al.* 1997; Lucas and Nuwagaba 1999; Rugalema 2000; Gertler and Gruber 2002; Wagstaff and Van Doorslaer 2003).

It is widely recognized that serious illness has significant adverse effects on households composition, labor supply and income generation. It affects not only household food production, cropping patterns, livestock production, labor-time allocation and access to productive assets, but also children’s education, access to consumption of goods and services essential for household maintenance and reproduction. In rural China¹, households have developed various strategies to cope with the adverse health-related

¹ Rural China is a geographical concept, referring to locations where a majority of the Chinese population live and where agriculture and farm work are the main production activities. Citizens in China are basically separated into urban and rural mainly in terms of a household registration system. Urban citizens are more protected than their rural counterparts who have limited access to public services and welfare systems. Those living in rural China currently constitute roughly 60% of the total population.

shocks. However, these strategies have not been adequately studied. Such studies are needed to identify interventions that complement households' own strategies so that they are more effective and efficient in managing health-related risks.

In the literature on understanding household coping strategies, several analytical frameworks have been proposed. Coping strategies are generally categorized into *ex ante* and *ex post*. Holzmann and Jorgensen (2000) proposed a framework highlighting a Social Risk Management (SRM) matrix, which outlined three types of strategies that households employ to cope with adverse shocks: 1) prevention strategies - to reduce the likelihood that the household will experience the shock; 2) mitigation strategies - to decrease the potential impact of a future shock, including portfolio diversification, insurance, hedging/risk exchange; 3) coping strategies - to relieve the impact once the shock has occurred. In health research, household coping strategies for reducing the likelihood of illness incidence or decreasing the damaging impact of a potential illness can be seen as *ex ante* coping strategies, while strategies designed to relieve the actual impact of an illness can be considered as *ex post* strategies.

This paper, based on existing Chinese literature, will first investigate the prevalence of illness in rural China. This will be followed by a review of the relevant literature on household coping strategies. Special attention will be paid to POVILL project research sites, the provinces of Hubei and Sichuan. Based on the reviews, future directions for research will be identified.

Materials and methods

Journal articles and documents and reports in Chinese from official and non-official sources within China were reviewed, using both digital databases and library text materials. Firstly, more than twenty top Chinese scientific journals in hard copy on public health, health economics, economics and sociology were reviewed². Secondly, several digital resources (databases)

² These journals include Social Sciences in China, Economic Research Journal, Social Security System, Sociological Research, Chinese Journal of Population Science, China Rural Survey, Chinese Rural Economy, Chinese Health Economics, Chinese Rural Health Service Administration, Health Economics Research, Chinese Health Service Management, Journal of Preventive Medicine Information, Chinese Journal of Tuberculosis and Respiratory

containing key journals in the above mentioned fields were searched using the Chinese digital library. Thirdly, several key Chinese researchers who are known as experts on relevant research areas were selected as keywords to look specifically at their publications from the digital sources. Using both library and digital library methods, over three hundred scientific articles were gathered. Over 60 articles were finally selected from these sources for in-depth review.

Many articles reviewed were using data from statistically representative samples of study areas or populations concerned, although many of them may not be considered as representative for rural China as a whole. The National Health Services Survey is, however, a nationally representative survey. It has been conducted three times in 1993, 1998 and 2003, respectively. The third survey was conducted in 2003 with multi-level stratified cluster sampling (MOH 2004), in total 57,000 households from urban and rural areas in 95 counties of 29 provinces were surveyed. Other reviewed articles using relatively large sample size survey data include Gao *et al.* (2004; 2005; 2006), Yan *et al.* (2006), Zhang (2003), Wei (2004), Hai (2004) and Zhu (2002). The sampling approaches that major reviewed articles used are described in Table 1.

Table 1. Description of sampling information of the studies in reviewed articles

	Size sample	No. of county	No. of province	Year	Sampling method
Gao <i>et al.</i> 2004; 2006; Hai 2004	1,428h	-	8	87-02	10 villages under observation of Ministry of Agriculture in each province
Gu <i>et al.</i> 1994	642,564p	20	-	1988	50 townships in 20 counties over China
Huang <i>et al.</i> 2004	10,000p	10	1	2000	Multi-level stratified clusters, Hubei
Jiang <i>et al.</i> 2003	18h	5	1	2000	Stratified samples from 5 counties, Sichuan
Jiang <i>et al.</i> 2005	300h	5	1	2001	Multi-level stratified clusters in a province

Diseases, Disease Surveillance, Modern Preventive Medicine, Maternal and Child Health Care of China, Chinese Journal of Prevention and Control of Chronic Non-Communicable Diseases, Medicine and Society, Chinese Primary Health Care and Chinese Journal of Public Health.

	Size sample	No. of county	No. of province	Year	Sampling method
Li <i>et al.</i> 2005	6,983p	1	21	2003	Multi-level stratified clusters in China
Mao 2001	2,976h	10	8	1996	10 poor counties in 8 western provinces
MOH 2004	57,000h	95	29	2003	Multi-level stratified clusters in China
NST 2002	365,097p	-	-	2000	257 stratified proportional clusters in China
Peng <i>et al.</i> , 2004,	360h	8	1	2003	Random county clusters, Hubei
Sun <i>et al.</i> 2006	1,127h	-	8	87-02	48 villages from Ministry of Agriculture
Sun 2005	612h	2	1	2003	Random samples from 2 counties, Shanxi
Wei 2004	2,560h	32	8	1993	China's economy, population and health survey
Wu <i>et al.</i> 2002	50,000p	-	-	2000	From 32 random clusters in a province
Xing <i>et al.</i> 2002	6,000h	12	1	1998	The Third Health Services Survey, Zhejiang
Yan <i>et al.</i> 2006	808h	25	5	2004	5 counties in 5 provinces
Yue <i>et al.</i> , 2003	800h	4	3	2002	50 households in 3 central provinces
Yue 2006	1,106h	-	11	2002	Random samples, 38 villages in 11 provinces
Zhang 2003	460h	6	-	1997	6 state-designed poor counties
Zhu 2002	2,008h	34	6	1999	1 villages in 2 counties in 6 provinces

Note: in the column size sample, p means persons; h means households

However, several articles reviewed were based on a rather small and highly selective number of households, and did not use samples representative of the population concerned. In addition, relevant definitions and study designs (as used in the articles) vary to some extent. These preclude combining the studies statistically.

Prevalence of illness in rural China

THE TWO-WEEK MORBIDITY

Most studies used two-week morbidity to reflect the prevalence of illness. In the National Health Services Survey, it is investigated by asking the interviewees whether members of their household have been ill in the previous two weeks, and measured either in terms of the number of those ill

or total episodes of illness in the past two weeks. According to the 2003 survey, the two-week morbidity in rural areas was 14%. Among these, 45% suffered from chronic illness. Compared with the 1998 survey, this is an increase of 31% (MOH 2004)³.

There is strong evidence that morbidity varies between and within provinces and regions. Chen *et al.* (2003) investigated the two-week morbidity and inpatient care of 1,914 rural residents in 5 counties in Hubei in 2000, and found that the two-week morbidity was 13%, similar to the national level⁴. Analyzing the Third National Health Services Survey in rural Sichuan, Li *et al.* (2005) found the two-week morbidity was 22% in 2003, much higher than that at national level. Researchers found that two-week morbidity in rural areas varied by gender, age, education level, type of illness and geographic locations.

Two-week morbidity by gender

In rural areas, the two-week morbidity of males was 13%, whereas females' morbidity was 15% (MOH 2004). By analyzing data from a survey containing 1,428 households in 8 provinces (Zhejiang and Guangdong in the east, Shanxi, Jilin, Henan and Hunan in the central region, and Sichuan and Gansu in the west), Gao *et al.* (2004) came to the conclusion that two-week morbidity rates of males and females were 5% and 6%, respectively. Li *et al.* (2005) found that two-week morbidity of males in rural Sichuan was 20%, while that of females was 24%, much higher than MOH (2004) rates⁵.

Two-week morbidity by age group

While females may suffer more from two-week morbidity, the distribution of morbidity among age groups shows that the older age groups had a higher morbidity. This can be investigated as in Table 2.

³ Further investigation is needed to explain the increase in chronic illness. Patterns of illnesses in rural areas have been investigated and chronic non-communicable illness has been found increasingly common in rural areas

⁴ The two-week morbidity here refers to the results of the Second National Health Services Survey in 1998.

⁵ This needs further investigation. If, for example, population is broken up by age group, different patterns may be observed due to the fact that more elderly women live in the Sichuan countryside than elderly men.

Table 2. Distribution of two-week morbidity and chronic illness morbidity by age group, %

Age groups	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65+
Two-week morbidity	14	8	5	9	14	20	25	30
Chronic illness morbidity	1	1	2	6	12	20	30	39

As can be seen, the age group of 15-24 had the lowest two-week morbidity. For the age groups under 15, the younger in age, the higher the two-week morbidity. For the older age groups, the older the age, the higher the two-week morbidity (MOH 2004).

Two-week morbidity by education level

The morbidity of people with lower education levels has been found to be significantly higher than that of other education levels. The two-week morbidity of illiterates and near-illiterates is the highest (24%), followed by that of people with primary school education (17%). The higher the individuals' education level, the lower the two-week morbidity (MOH 2004). Chen *et al.* (2003) report similar findings in rural Yichang in Hubei Province.

Two-week morbidity by types of illness

Illness can be classified in various ways. Patients in rural areas were most likely to suffer from respiratory system illness, digestive system illness, circulatory system illness, musculoskeletal illness and injury and poisoning. Taken together these account for an 84% of all illnesses (MOH 2004). In rural areas, the highest two-week morbidity was that of acute upper respiratory tract infection, followed by acute nasopharyngitis, acute/chronic gastroenteritis, hypertension, flu and rheumatoid arthritis. Compared with 1998, the two-week morbidity of hypertension had increased by a remarkable 131% (MOH 2004).

Zhu (2000) points out that in the past two decades, with increasing mobility, changes in life style and dieting, and environmental deterioration, common patterns of illnesses in rural areas were no longer limited to influenza, fever and diarrhea, which were previously the major types of illnesses, but had also begun to include chronic non-communicable illness.

Huang *et al.* (2004) point out that malignant neoplasm and cerebrovascular illness were the leading causes of death in rural areas in 2002, accounting for 38% of the total. Malignant neoplasm, cerebrovascular illness, respiratory system illness, heart disease and injury and poisoning together were implicated in 78% of all deaths.

MORBIDITY FROM CHRONIC ILLNESS

The Third National Health Services Survey indicates that, in terms of individuals reporting illness, the morbidity of chronic illness⁶ among rural residents was 11% (MOH 2004). By analyzing data from the Health Yearbook in China for 1993 and 2004, which were derived from the First and Third National Health Services Survey, Liu (2005) found that malignant neoplasm, cerebrovascular illness, heart disease, hypertension and diabetes were the most common chronic non-communicable illnesses in China, all with high morbidity and mortality. Using data on 808 households from 5 provinces, Yan *et al.* (2006) showed that the overall reported health status of rural population was poor, with 25% of the total sample suffering from chronic illness. Li *et al.* (2005) report that the morbidity of chronic illness in rural Sichuan was 15%, higher than that at national level.

Morbidity from chronic illness by gender

There were gender differences in chronic illness morbidity in rural China, with the rate for males being 11% and for females 14% (MOH 2004). Using data from Anhui, Qin *et al.* (2003) found that the two figures were similarly 11% and 13%. Li (2005), using data from Sichuan, found that the rate for females was also much higher than that for males.

Morbidity from chronic illness by age group

Morbidity from chronic illness in rural areas varied among age groups. The distribution of morbidity among different age groups is listed in Table 2. As can be seen, the morbidity rate of chronic illness increased with age (MOH 2004). Li (2005) found the same pattern in rural Sichuan.

⁶ In the National Health Services Survey, patients with chronic illness were defined as those: who in the past half year had been diagnosed definitely by health workers with various chronic illnesses including chronic infectious illness (e.g. TB) and chronic non-communicable illness (e.g. coronary heart disease and hypertension); or half a year before the investigation had been diagnosed with a chronic disease, and in the past half year, the disease had attacked several times and corresponding treatment, such as medicine and physical therapy, was taken.

Morbidity of chronic illness by geographic location

In the study cited above, Yan *et al.* (2006) found that there were significant differences in health status among sampled rural residents by region in 2004. The morbidity of chronic illness of the poor sample villages was much higher than that of the rich ones, 29% in the poorest 20 sample villages, as compared to 19% in the richest counterparts.

Morbidity of chronic illness by types of illness

Common chronic illnesses in rural areas included those of the circulatory, digestive, locomotive, respiratory, genitourinary and nervous systems. All together these accounted for 84% of the total chronic illness cases. At the national level, morbidity from non-communicable chronic illness in rural areas in 2004 had increased substantially compared with 1998, while that from infectious chronic illness declined (MOH 2004). Classified by type of illness, the most common chronic illness in rural areas was hypertension, followed by chronic gastroenteritis, rheumatoid arthritis and chronic obstructive pulmonary illness. Compared with 1998, the largest increases in morbidity from chronic illness related to hypertension (by 134%), cholelithiasis and cholecystitis and cerebrovascular illness (MOH 2004).

THE PREVALENCE OF SELECTED SERIOUS ILLNESSES

With the increasing mobility of the labor force, changes of lifestyle and increased environmental pollution, health-related risks have become more complex. Some infectious illnesses once under control (such as sexually transmitted illnesses, TB and schistosomiasis) have re-emerged with high morbidity. In recent years HIV/AIDS has also started to spread with remarkable speed.

Tuberculosis (TB)

Using data from the Fourth National Epidemiological Sampling Survey on Tuberculosis in 2000, the National Epidemiological Sampling Survey Technical Instruction Group on Tuberculosis (NST 2002) found that the prevalence of active pulmonary tuberculosis in rural areas was 393/100,000, smear positive TB prevalence was 116/100,000 and bacterium-positive TB prevalence was 169/100,000.

Using data from Sichuan in 2000, Wu *et al.* (2002) found that the prevalence of pulmonary tuberculosis in rural areas was 126/100,000, and the death rates of TB and pulmonary TB for whole Sichuan were

24/100,000 and 22/100,000, respectively in 1999. By analyzing data on the Fourth National Epidemiological Sampling Survey of Tuberculosis in 2000 from a county in Hubei, Chen *et al.* (2005) came to the conclusion that TB prevalence was 455/100,000 and smear positive prevalence was 152/100,000. TB prevalence increased with age and was higher among males than females. Most patients with active pulmonary tuberculosis were middle-aged or elderly.

HIV/AIDS

HIV/AIDS prevalence rates appeared to be closely related to poverty status. Reported HIV/AIDS cases were predominantly in poor areas. Sufferers were mainly rural residents and the unemployed. 62,159 HIV-positive cases had been reported by 2003, and 80% of the victims came from poor rural areas and southern minority regions. If these cases were representative, it could be estimated that out of China's 840,000 recorded HIV-positive cases, about 670,000 are rural residents (Li *et al.* 2005).

Weng (2003) reviewed the literature and conducted fieldwork in three locations in Yunnan, and came to the conclusion that the five provinces with the highest prevalence of HIV-positives were Yunnan, Xinjiang, Guangxi, Guangdong and Sichuan. The affected individuals were mainly rural residents, especially those who had migrated in pursuit of employment. From 1998 to 2000, more than 70% of the HIV-positive cases in Yunnan were rural residents and the unemployed. In Sichuan, the corresponding figure was more than 76%.

Endemic illness

Endemic illnesses were important concerns in China during the 1960s and 1970s, but most have been under control in recent decades. Attention has focused on eight illnesses: plague, schistosomiasis, iodine deficiency disorders, Kashin-Beck disease, Keshan disease, endemic fluorosis, Brucellosis and endemic arsenic poisoning. They were widespread, especially in remote poor areas (Qian 1999). Chu (2003) investigated schistosomiasis in Lushan County, Sichuan. The county, located at the west edge of Sichuan Basin on the upstream of Qingyi River, was a severely schistosomiasis-stricken area. The overall infection rate was 42% in 1964, but declined to 12% in 2000. It was still prevalent in 10 towns with *oncomelania hupensis* thriving in an area of 1,470,000 square meters with a population of 80,000. More than 60% of the total population was at risk. Using data from Songzi

County in Hubei, Chen *et al.* (1998) found that the infection rate was 17% and that 222,300 square meters were affected by oncomelania hupensis in 1994. These dropped to 2% and 14,000 square meters by 1997.

Gynecological illness

Perinatal and post-natal health care have received considerable research attention. The use of hospitalized delivery in rural China has increased but reproductive health care after birth has not been given due attention (Hai *et al.* 2004). After having structured interviews with 1,500 rural women in reproductive age from Xindu County, Sichuan, and making routine gynaecological check-ups and relevant laboratory examinations, Gao *et al.* (2003) found that the prevalence of reproductive tract infection was 61%. The four leading types of illness with high morbidity were erosion of cervix, hypertrophy of uterus, bacterial vaginosis and candidal vaginitis. Wu *et al.* (2003) surveyed 1,192 rural married women in Panzihua, Sichuan, and also undertook B-Ultrasound, breast screening, and gynaecological check-ups. They found that the most common illnesses were reproductive tract infection, menstrual disorder, cramp pain, pelvic mass, breast illness and prolapse of the uterus. The prevalence of reproductive tract infection, most commonly chronic cervicitis, was 59%, much higher than in other parts of China.

Geriatric Illness

Using data on mortality from China's Health Yearbook in 2004 and on chronic illness in the Third National Health Services Survey, Wang *et al.* (2005) found that common chronic illnesses among the elderly were respectively (in decreasing order): hypertension, heart disease, respiratory system illness, cerebrovascular illness, diabetes and malignant neoplasm. In 2003, the leading illnesses causing death among the rural elderly were respiratory system illness, cerebrovascular illness, heart illness, malignant neoplasm, hypertension and diabetes. Wang *et al.* (1999) investigated the quality of life and prevalence of chronic illness among 2,452 elderly people in Chengdu, Sichuan. The results indicated that on a patient basis the prevalence of chronic illness among the rural elderly was 61%. Of those affected, 25% suffered from two types of illness and 5% from three types of illness. Illness of the respiratory, digestive, circulatory, and musculoskeletal systems and ENT were the top five chronic illnesses, contributing to 76% of

total morbidity. Zhang *et al.* (2006) investigated 463 elderly people in four rural communities in Hubei in 2004 and found that 70% suffered from at least one type of chronic illness.

Economic risks of ill-health and household coping strategies

According to the Third National Health Services Survey, the proportion of households which became poor⁷ due to ill-health increased from 22% in 1998 to 33% in 2003, respectively (MOH 2004). Severe ill-health risks can impair households' capabilities, which have significant and far-reaching impacts on household livelihoods. The direct impact can be short-term, which is mainly due to the loss of laboring ability of patients in a certain period of time or loss of working hours for the household members taking care of the patients. The indirect impact is a long term one, as the large sum of resources originally meant for productive activities and children's education will be spent on health care. In this way, serious illness may lead rural households to chronic poverty.

IMPACT OF ILL-HEALTH ON HOUSEHOLD LIVELIHOODS

Ill-health affects household livelihoods in various ways. Gao *et al.* (2005) found that there were two main processes by which serious illness shocks had a great impact on household income: the patients would lose their capacity to work for a period of time and other household members would also reduce their working hours to care for them; household financial assets intended for productive asset purchase and/or children's education may be used to pay for medical expenses.

Ill-health often accompanies poverty. Malnutrition, poor sanitation, lack of medical knowledge, stress and excessive physical labor all make the poor more predisposed to illness. Once they develop an illness, they not only lose the capacity to work, resulting in a decline in income, but also face increasing medical expenses. If they cannot afford this expense they may choose not to seek medical assistance in time. The minor illness may become a serious illness with higher medical expenses, which pushes the household

⁷ The survey asked whether the household is a local government-designated poor household, and then asked the reason for being poor. 4.5% of the households were poor by the definition.

into poverty. This leads to the vicious cycle of 'illness leading to poverty, and poverty leading to illness' (Qiu 2003).

IMPACT OF ILL-HEALTH ON HOUSEHOLD INCOME GENERATION AND CONSUMPTION EXPENDITURE

The impact of illness on rural household income generation can be investigated in terms of income sources, namely household-based agricultural enterprises and non-agricultural activities. An interesting study by Zhang (2003) analyzed data from a survey on 'credit and poverty in China' containing 460 randomly selected households from 6 state-designated poor counties in western China in 1997 and found that the working time lost due to illness had significant negative effects on household income generation. He pointed out that one month working time lost would decrease household income from crop production by 2,300 RMB Yuan⁸. Using data from 'China's economy, population, nutrition and health survey' in 1993, which contained 2,500 households in 96 villages of 36 counties in 8 provinces (Liaoning, Jiangsu, Shandong, Henan, Hubei, Hunan, Guangxi and Guizhou), Wei (2004) found that health condition is positively correlated with wage income for rural labor force working at non-farm sector. He pointed out that human capital has an important role in obtaining non-farm employment, and that those who are healthy (and male, young, educated and urban registered) are more able to participate in non-farm activities in the city than those with health problems.

Ill-health shock has both short-term and long-term impacts. Gao *et al.* (2005; 2006) analyzed the prevalence and treatment of serious illness⁹ for 1,193 households in eight provinces (Zhejiang, Guangdong, Hunan, Sichuan, Henan, Shanxi, Gansu and Jilin) over the period of 1987-2002 and found that the annual per capita income of affected households decreased by 5-6%, with the negative effect sometimes continuing for 15 years or longer. Using the same data source, Hai (2004) found that serious illness affected household savings and consumption expenditure in the short term, and capacity for income generation in the long term through the decline in

⁸ Health variables included not only health-related variables such as self-evaluation of health status, routine life ability, having a chronic illness or not and working days lost, but also nutrition-related variables such as height, BMI, calories and primal dieting score.

⁹ Serious illness was defined as receiving inpatient care for one day and above, or medical expense for the illness exceeded 5,000 RMB Yuan.

human capital investment. Serious illness had no significant effects on income in the same year, but was associated with reductions over the following years. It generally took five years for households to recover from a serious illness. However, poor households needed a longer time to recover.

IMPACT OF ILL-HEALTH ON HOUSEHOLD INVESTMENT ON HUMAN CAPITAL

Illness affects household human capital in two ways. Firstly, the ability to work or working time may be seriously reduced. Yu *et al.* (1998) found that many individuals receiving inpatient care were often unable to work normally for several months. During their inpatient stay they also needed considerable personal care that was provided mainly by other household members. Using data from 1,193 households in eight provinces (Zhejiang, Guangdong, Hunan, Sichuan, Henan, Shanxi, Gansu and Jilin) over the period of 1987-2002, Hai (2004) estimated that the average time loss of a household member with serious illness in a sample of households was 17.9 months. According to the Third National Health Services Survey, the 'lying-in-bed-for-illness' rate and day-off rate of rural residents based on a two-week recall period were both 3.8%, respectively (MOH 2004). Secondly, household human capital investment was reduced. Sun *et al.* (2006) found that the primary educational achievement of children in households with a member suffering serious illness was negatively affected.

IMPACT OF SPECIFIC TYPES OF ILLNESS ON HOUSEHOLD LIVELIHOODS

A study based on interviews with households with HIV/AIDS patients in central and southwest China (Li *et al.* 2005) found that households were affected in the following ways. Firstly, productive activities were affected. Crops yields decreased and the labor burden on women increased. The households had less income and fewer opportunities for non-farm work. Secondly, household income and consumption expenditure declined, and income from agricultural activities became the most important component of the total. Children sometimes became the main income earners. Medical expenses (instead of education expenses) became the largest item in household expenditure. Thirdly, the quality of life decreased. Some households were not able to secure their food supply, and other consumption items were also reduced. Fourthly, social capital was affected. Households with HIV patients had less social communication and were more frowned upon by others.

HOUSEHOLD ILL-HEALTH RISK COPING STRATEGIES

Yu *et al.* (1998) and Jiang (2005) summarized household strategies in coping with ill-health risk: (1) using cash and savings; (2) selling livestock; (3) selling other assets; (4) changing productive activities; (5) borrowing from friends and relatives; (6) borrowing from moneylenders; (7) receiving in-kind help from friends and relatives; (8) delaying payment to private health care providers; (9) being exempted from medical fees; (10) receiving support from children; (11) receiving reimbursement from medical schemes; and (12) receiving social relief. Ding *et al.* (2001) and Chen *et al.* (2005) found that rural households generally followed the following sequence in coping with economic hardship: reducing consumption expenditure, using savings, borrowing from friends and relatives, borrowing from moneylenders, working longer, selling durables and productive assets, leaving home to work outside, begging for food, breaking up the household and finally committing crimes.

In assessing the effectiveness of household strategies in coping with health-related risks, Jiang *et al.* (2003) proposed three criteria: 1) risk transfer (whether the risk has been transferred or not); 2) risk reduction (whether the negative impact on household production was reduced or not); and 3) risk protection (whether household well-being/assets were protected or not). Yu *et al.* (1998) believed that short-term strategies can lead to a loss of production opportunities, and decrease the ability to fight against future risk. Most households that borrowed could maintain normal production activities, and the majority of households who sold residual assets¹⁰ did not lose more assets. However, those who sold core (or productive) assets could hardly make a living. Households with short-term or intermittent labor loss could manage farm work with help from friends and relatives, while those with long-term or continuous labor loss could not.

Household ex ante coping strategies

Increasing health awareness and securing safe drinking water were commonly used preventive strategies. Using data from 2,008 households in Jiangsu, Guangdong, Jilin, Hebei, Sichuan and Gangsu, Zhu (2002) found that more than 80% households had joined in a children's immunity project

¹⁰ According to the author, assets were divided into core assets (cow, horse ...) and residual assets (crops, domestic livestock and poultry).

and used clean drinking water facilities, 40% received health-related education and improved sanitary facilities. According to the Third National Health Services Survey in 2003, 87% of rural children had Planning Immunity Inoculation Cards (MOH 2004). Zhu (2000) pointed out that although chronic illness has been increasingly prevalent, government primary focus in health preventive strategies remained on infectious illness.

One preventive strategy is to join the cooperative medical system scheme. Two types of scheme have been implemented over the past decades. Previously the Cooperative Medical System (CMS), which started in the 1960s¹¹, was in place (see for example Xu *et al.* in this issue). In the 1970s, the majority of the Chinese rural people were covered through this system. By the end of the 80s, however, evidence on rural residents' perception and understanding of the scheme had become less optimistic. Ye *et al.* (2000) investigated the CMS scheme and found that only 6% of the 2,117 study villages had joined, and that a higher proportion of low income households did not perceive CMS as worthwhile. Mao (2001) found that in poor areas the majority of the population did not recognize the role of CMS in ill-health risk-pooling. Recently the New Cooperative Medical System (NCMS) scheme has been implemented (since 2003) in rural China. Using data from 808 households in 25 counties in provinces of Jiangsu, Sichuan, Shaanxi, Hubei and Jilin in 2005, Yan *et al.* (2006) found that in villages with NCMS, 80% of households had joined in the scheme. An official report stated that by 2005, 76% of total 236 million rural residents in 678 counties, where NCMS had been implemented, had participated in the scheme (Ministry of Health 2006) (for more detail on NCMS, including the perception of rural residents on this system, see Wang in this issue).

Diverse healthcare-seeking strategies were frequently used by rural households to reduce ill-health risk. Liu (2005) found that farmers with minor illnesses usually did not see doctors but only went to hospital when apparently small problems became more serious. MOH (2004) data showed that for those sick over a two-week period, the reported rates for seeing doctors, self-care and no-action were 54%, 31% and 14%, respectively. Jiang *et al.* (2003) summarized *ex ante* strategies that rural households adopt in

¹¹ The Cooperative Medical System scheme (CMS) that was implemented since the 1960s has to be distinguished from the New Cooperative Medical System scheme (NCMS) that has been implemented since 2003.

coping with ill health risk, including preventive strategies (healthy lifestyle, clean and healthy food, regular physical exercises and not doing high-risk work), strategies for reducing loss (early treatment, visiting herbalist doctors and private clinics, buying medicine/herbal medicine), and non-insurance transfer strategies (working as wage labor to transfer risk by joining in employees' insurance scheme).

Household ex post coping strategies

Several studies have investigated household *ex post* strategies in coping with health risks. Yu (1998) looked at studies on households *ex post* strategies and summarized them as follows. 1) consumption adjustment strategies: (a) maintaining the same consumption level by: selling food grains; selling livestock and poultry; private borrowing; borrowing from financial institutions; postponing repayment; (b) reducing consumption level by: reducing food/other necessities; migration; delaying seeking for health services; shortening inpatient stay; seeking for cheaper services; not seeking medical services; delaying the payment of medical expense. 2) production adjustment strategies: (a) maintaining the same production level by: other members working longer; help from family network; labor exchange; (b) reducing the production level by: diversifying income; working in activities requiring less labor.

Jiang (2005) looked into households *ex post* strategies in coping with ill health risk and summarized them in this way: 1) financial adjustment strategies, including from the nuclear family (paying cash; drawing savings; selling assets; engaging in wage labor; selling durables; removing children from school); from the extended family (food/goods transferring; labor exchanging; borrowing; cheaper medical services); beyond the extended family (medical services on credit; free services; goods and cash transferring; government relief; borrowing); and from formal insurance (health insurance scheme; new cooperative medical system). 2) time adjustment strategies, including substituting machines for labor within the family; hiring labor or manual help within the extended family; and wage labor and exchanging labor beyond the extended family.

Hai *et al.* (2004) found that 42% of the sample households having members with serious illness borrowed money, mainly from relatives, credit cooperatives and friends. In addition, 6% had joined commercial medical insurance schemes. Liu (2005) found that it was common for rural patients

to receive medical services from village clinics on credit; they also often prayed to Buddha for relieving illness.

Coping strategies in terms of household economic status

Based on household survey data, Zhu (2002) found that the availability of public health services¹² for the poor was much lower than that for the non-poor. The percentage of hospitalized childbirth for women of poor households was much less than the national average, and the availability of health knowledge was also lower among the poor households. According to MOH (2004), the poorer the area was, the higher the percentage of households with unsafe drinking water was.

Yu *et al.* (1998) found that the poor have difficulty in borrowing from friends, relatives and credit cooperatives. Many people in poor households suffered from illness for quite a long time, but could not afford treatment. When illness hit them, they could only seek low quality medical service either from less qualified private doctors or from the local unregulated drug market. Hu (2006) reported that a common strategy for poor households in coping with medical costs was to pay treatment costs themselves for minor illness but to seek outside help for serious illness. The strategy for the poorest was often simply 'let it be' as they could not afford treatment. Liang *et al.* (2001) investigated the poor in Shanghai and found that 19% of the poor did not seek treatment at all or only bought drugs from the local market. Hai *et al.* (2004) reported that borrowing was of greater importance for low income households than for medium and high income households. Gu *et al.* (1994) found that the percentage of patients needing inpatient care but not being able to afford it was much higher in poor counties than in non-poor counties. Zhao *et al.* (2000) pointed out that 65% of the poor households studied became poor because of serious illness in the Ministry of Health's Health 8 Project regions.

Households may take different actions in handling illness of different family members. Liu *et al.* (2002) found that children and the elderly may receive timely medical services while adults may delay. Hai *et al.* (2004) found that household income earners and children may tend to visit hospitals at county or higher level while the elderly may visit local clinics or may choose

¹² The public health services consist of health education, safe drinking water, alteration of sanitary equipment, hospitalization childbirth and children immune vaccination.

not to seek care. Li *et al.* (2002) came to the same conclusion: more resources went to income earners and children than to the elderly.

Conclusions and further research directions

The studies reviewed provide evidence that health-related risks have become more complex in rural China. There have been tremendous socioeconomic changes including increasing mobility, changes in life styles and a deteriorating environment. Given these changes, common illnesses in rural areas now include not only those that were previously dominant but also chronic non-communicable illness. While morbidity from infectious chronic diseases has declined, morbidity from non-communicable chronic illness has been increasing. Research identifying the most serious illnesses in rural areas in recent decades has made it clear that chronic illness has become the leading cause of death. More researches on the pattern of illness prevalence in rural China, with a particular focus on non-communicable chronic illness, are needed.

Researches have provided evidence that serious illness has a great impact on household income generation, consumption expenditure, human capital accumulation, and livelihood strategies and outcomes. Households with low-income are more exposed to ill-health risk. In the design of interventions for alleviating the burden of serious illness on rural households, it is important to focus on earlier identification of vulnerable households. This would help in planning treatment procedures, secondary prevention and the rehabilitation of people with serious illness. This would require further investigation of the varied characteristics of households with different types of illness, and better understanding of the wide range of socioeconomic factors determining household healthcare seeking behavior. Such studies should include detailed investigation of the impact of ill-health on: household and individual well-being; healthcare seeking behaviour; healthcare related costs; and the extent and effectiveness of the support provided by formal assistance schemes (such as the New Cooperative Medical System and Medical Financial Assistance) or from other sources.

Poverty and illness are closely interrelated in rural China. As many studies stated, there exists a 'vicious cycle' in which poverty and ill-health are mutually reinforced. To design appropriate and effective public interventions to break down the 'vicious cycle', the determinants of this 'vicious cycle'

need to be studied empirically. The poor households are generally seen as marginalized in terms of access to quality health care. Studies should investigate the impact of informal and institutionalized solutions to the access problem of the poor to quality health care, using both quantitative and qualitative methods.

Researchers have generally found that households in rural areas adopt various strategies in response to health risk, including prevention strategies, mitigating strategies and coping strategies. They have found that the effectiveness of coping strategies is very dependent on household composition and economic status. However, existing studies were mainly descriptive, and the empirical evidence available in the Chinese literature on how rural households cope with different types of illness and the effectiveness of such coping strategies was limited. More empirical studies in this area deserve high priority so that policymakers have the information they need to design appropriate interventions to improve the health status of the rural population.

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References

Bloom G (2001). Equity in health in unequal societies: meeting health needs in contexts of social changes, *Health Policy*, 57, 3 : 205-24.

Bloom G, Edstrom J, Leach M, Lucas H, MacGregor H, Standing H and Waldman L (2007). Health in a dynamic world, STEPS Working Paper 5, Brighton: STEPS Centre.

Chen CB, Ding SJ (2005). Research on farmers' risk and risk management in China, China Finance Economic Press, Beijing [In Chinese].

Chen H, He SB, Sun J and Song Q (2003). An investigation into rural residents' needs and the utilization of health services in Yichang city in Hubei province, *Chinese Rural Health Service Administration*, 23, 2 : 32-34 [In Chinese].

Chen JL and Ge MC (2005). A study on the epidemiological survey of tuberculosis in rural areas in Xianning city, *Chinese Rural Health Service Administration*, 25, 12 : 30 [In Chinese].

Chen LG, Yu SL, Dai YH, Yao JM, Su YX and Zeng LZ (1998). A study on the ability-to-pay of the direct beneficiaries of the schistosomiasis prevention and cure program, *Chinese Health Economics*, 17, 2 : 48-50 [In Chinese].

Corbett J (1988). Famine and household coping strategies, *World Development*, 16, 9 : 1099-1112.

Corbett J (1989). Poverty and sickness: the high cost of ill-health, *IDS bulletin*, 20, 2 : 58-62.

Devereux S (1993). Goats before ploughs: dilemmas of household response sequencing during food shortage, *IDS bulletin*, 24, 4 : 52-59.

De Waal A (1989). Famine that kills, Oxford: Clarendon press.

Ding SJ and Chen CB (2001). Analysis of farm households' risk coping mechanisms, *Research of Agricultural Modernization*, 22, 6 : 346-349 [In Chinese].

Fan YL (2006). An analysis of gynecological diseases among rural women in 2005, *Modern Preventive Medicine*, 33, 4 : 607 [In Chinese].

Gao B, Li NX, Ren XH, Liu DP, He TW and Cao L (2003). Research on current status of reproductive tract infection among rural women at reproductive age, *Maternal and Child Health Care of China*, 18 : 94-97 [In Chinese].

Gao MT, Gan L, Xu LX and Yao Y (2006). Health shocks, village governance, and farmers' long-term income capabilities: evidence from rural China, *Chinese Journal of Population Science*, 1 : 21-32 [In Chinese].

Gao MT and Yao Y (2004). Gender, life-cycle and intra-household health investment: data on chinese rural households, *Economic Research Journal*, 7 : 115-125 [In Chinese].

Gao MT and Yao Y (2005). The impact of health shocks on rural household's income, *Economic Research Journal*, 12 : 15-25 [In Chinese].

Garrett L (1995). *The coming plague: newly emerging disease in a world out of balance*, New York: Penguin.

Gertler P and Gruber J (2002). Insuring consumption against illness, *American Economic Review*, 92, 1 : 51-70.

Gu XY, Tang SL, Tang XS, Lucas H, Bloom G and Segall M (1994). Medical service in rural China, *Health Economics Research*, 5 : 16-23 [In Chinese].

Hai W, Gao MT and Yao Y (2004). The impact of serious illness on Chinese rural households, *Social Security System*, 4 : 43-45 [In Chinese].

Holzmann R and Jorgensen S (2000). Social risk management: the new conceptual framework for social protection, and beyond, *Social Protection discussion paper*, No.0006, the World Bank.

Huang JP, Zhao YX, Wan Q, Zhang YH and Du LX (2004). An analysis and short-term forecast of the medical services market demand in China, *Health Economics Research*, 7 : 3-6 [In Chinese].

Huang YM, Mao ZF and Song HN (2004). An investigation into the reproductive health status among the rural married and women of reproductive age, *Chinese Journal of Public Health*, 20, 1 : 86-87 [In Chinese].

Hu SY (2006). Health insurance for China's rural population: a perspective on targeted Health Interventions for the Poor, *Chinese Journal of Population Science*, 3 : 30-37 [In Chinese].

Jayawardene R (1993). Illness perception: social cost and coping-strategies of malaria cases, *Social Sciences and Medicine*, 37, 9 : 1169-1176.

Jiang YS and Braun J (2005). The economic cost of illness and household coping strategies in western rural China, *Chinese Rural Economy*, 11 : 33-39 [In Chinese].

Jiang YS, Xiao SS and Song QF (2003). The influence of family risk sharing mechanisms on rural health insurance: A preliminary report on Sichuan province, *Social Security System*, 5 : 41-46 [In Chinese].

Li WP and Zhang LC (2002). Analyzing the aspiration for rural health insurance in Wenxi County of Shanxi province, *Health Economics Research*, 5 : 3-6 [In Chinese].

Li XR, Yi Y, Feng CQ, Tan L and Zhang JY (2005). The two-week prevalence and severity of illness among residents in Sichuan province, *Journal of Preventive Medicine Information*, 21, 1 : 6-9 [In Chinese].

Li XR, Yi Y, Feng CQ, Tan L and Zhang JY (2005). An analysis of chronic diseases among urban and rural residents of Sichuan province, *Journal of Preventive Medicine Information*, **21**, 2 : 139-142 [In Chinese].

Li XY and Tong LX (2005). The relationship between AIDS and poverty, *China Rural Survey*, **3** : 63-71 [In Chinese].

Liang H and Xu HP (2001). Analyzing the access to medical care of the poor in Shanghai, *Chinese Health Economics*, **20**, 12 : 10-13 [In Chinese].

Liu KJ and Wang M (2005). The economic burden of the main chronic non-infectious diseases in China, *Chinese Health Economics*, **10** : 77-80 [In Chinese].

Liu LP, Li QL and Yang HY (2002). Rural patients' health-seeking behavior and the impact factors, *Chinese Rural Health Service Administration*, **22**, 5 : 23-24 [In Chinese].

Liu LY, Rao KQ and Hu SL (2002). Poverty due to illness and health security in rural areas, *Chinese Health Economics*, **21**, 5 : 11-14 [In Chinese].

Liu ZX (2005). The farmers' health-seeking behavior features, *Health Economics Research*, **3** : 36 [In Chinese].

Lloyd-Smith J, Schreiber S, Kopp P and Getz W (2005). Superspreading and the impact of individual variation on disease emergence, *Nature*, **438** : 355-9.

Lucas H and Nuwagaba A (1999). Household coping strategies in response to the introduction of user charges for social service: a case study on health in Uganda, IDS Working paper 86, Brighton.

Mao ZZ (2001). The farmers' willingness to pay for the CMS scheme, *Health Economics Research*, **4** : 7-11 [In Chinese].

Ministry of Health (2006). Statistical bulletin of the Chinese health service administration, the State of Affairs in 2005, <http://www.moh.gov.cn/newshtml/11872.htm>, April 25th, 2006 [In Chinese].

MOH (Health Statistics and Information Center, Ministry of Health) (2004). An analytical report of the national health services survey in 2003, Beijing Union Medical College Press, Beijing [In Chinese].

National Epidemiological Sampling Survey Technical Instruction Group on Tuberculosis (NST) (2002). Report on the fourth national epidemiological survey of Tuberculosis, *Chinese Journal of Tuberculosis and Respiratory Diseases*, 25, 1 : 3-7 [In Chinese].

Qian Q and Zheng QS (1999). The current status of endemic diseases in rural poverty-stricken counties and its impact on rural households' income, *Disease Surveillance*, 14, 1 : 20-21 [In Chinese].

Qin X, Ding H, Li GL, Tang GF and Hu Z (2003). An investigation into rural residents' chronic illness morbidity rate in Zongyang County in Anhui province, *Chinese Rural Health Service Administration*, 23, 12 : 44-46 [In Chinese].

Qiu YL (2003). Paying attention to the medical security of vulnerable groups, *Social Security System*, 3 : 3-8 [In Chinese].

Rosenzweig M and Wolpin K (1993). Credit market constraints, consumption smoothing, and the accumulation of durable production assets in low-income countries: investments in bullocks in India, *Journal of Political Economy*, 101 : 223-44.

Rugalema G (2000). Coping or struggling? A journey into the impact of HIV/AIDS in southern Africa, *Review of African Political Economy*, 86 : 537-545.

Sauerborn R, Adams A and Hien H (1996). Household strategies to cope with the economic costs of illness, *Social Sciences and Medicine*, **43**, 3 : 291-301.

Seeley J, Kajura E and Mulder D (1995). Methods used to study household coping strategies in rural south west Uganda, *Health Policy and Planning*, **10**, 1 : 79-88.

Sun A and Yao Y (2006). The impact of the labour force's severe illness on education investment behavior: a case study in rural China, *World Economic Papers*, **1** : 25-36 [In Chinese].

Townsend R (1994). Risk and insurance in village India, *Econometrica*, **62**, 3 : 539-591.

Udry C (1994). Risk and insurance in a rural credit market: an empirical investigation in northern Nigeria, *Review of Economic Study*, **61** : 495-526.

Wagstaff A and van Doorslaer E (2003). Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993-98, *Health Economics*, **12**, 11 : 921-934.

Wang HP, Ye YD *et al.* (2003). Rural households of varied economic status and their aspiration for the NCMS, *Chinese Health Economics*, **22**, 7 : 26-27 [In Chinese].

Wang JS, Jiang Y and Jin SG (2005). The burden of the six common chronic diseases among people aged 65 or above in China, *Chinese Journal of Prevention and Control of Chronic Non-Communicable Diseases*, **13**, 4 : 148-151 [In Chinese].

Wang K and Li BY (1999). The impact of chronic diseases on the quality of life of the old in Chengdu rural areas, *Chinese Journal of Prevention and Control of Chronic Non-Communicable Diseases*, **7**, 3 : 129-131 [In Chinese].

Watts M (1983). *Silent violence: food, famine and peasantry in northern Nigeria*, Berkley: University of California press.

Wei Z (2004). The influence of health on non-agricultural employment and on wage decisions, *Economic Research Journal*, 2 : 64-74 [In Chinese].

Weng NQ (2003). The impact of the dissemination of HIV/AIDS on the society and culture, *Sociological Research*, 5 : 84-94 [In Chinese].

Wilkes A, Yu H, Bloom G and Gu X (1997). Coping with the cost of severe illness in rural China, *IDS Working Paper 58*.

Wu FY, Wen SL, Xu YL, Cheng ZQ and Jiang BL (2003). An investigation into the common gynecological diseases and the determinants among rural married women., *Chinese Primary Health Care*, 17, 6 : 77-78 [In Chinese].

Wu JL, Xiong GP, Feng SF, Cao H, Rao ZY, Jiang T, Liu YQ, Duan W and Tang XH (2002). A study on epidemic trends and control policy of Tuberculosis in Sichuan province, *Chinese Journal of Tuberculosis and Respiratory Diseases*, 25, 1 : 12-14 [In Chinese].

Xing HY, Shen Y, Zhao HJ and Yu M (2002). The correspondence analysis of rural residents' health-seeking behavior and the determinants, *Chinese Rural Health Service Administration*, 22, 5 : 12-15 [In Chinese].

Yan JY (2001). A report on medical treatment of rural poor households in Dafeng city, *Chinese Rural Health Service Administration*, 21, 11 : 25-27 [In Chinese].

Yan YY, Zhang LX, Luo SG and Wang H (2006). The impact of NCMS: data from 101 villages in five provinces in China, *Chinese Rural Economy*, 5 : 64-71 [In Chinese].

Ye YD, Wang HP *et al.* (2000). The influence of CMS on the basic health care demands of rural residents, *Health Economics Research*, 7 : 33-36 [In Chinese].

Yu H and Wilkes A (1998). Coping with the costs of severe illness in rural China, *Chinese Health Economics*, **17**, 10 : 42-45 [In Chinese].

Yue Q, Ye YD, Wang SD, Wang HP and Luo J (2003). The influence of the educational background of rural households on the implementation of the NCMS, *Chinese Health Economics*, **22**, 7 : 15-16 [In Chinese].

Zhang JW (2003). Nutrition, health and efficiency: data on a poverty-stricken rural area in China, *Economic Research Journal*, **1** : 3-12 [In Chinese].

Zhang MX, Fang PQ, Zhang JH and Yang L (2006). An investigation into the health status and community health service demands of old people aged 65 or above in rural areas of Hubei province, *Medicine and Society*, **19**, 6 : 9-12 [In Chinese].

Zhao HJ, Wang BQ and Liu FX (2000). Analyzing the use of medical services by the destitute in Ningling county, *Chinese Rural Health Service Administration*, **20**, 9 : 27-29 [In Chinese].

Zhu L (2000). The government and its options on medical and health care systems in rural areas, *Social Sciences in China*, **4** : 89-99 [In Chinese].

Zhu L (2000). The influence of the public village clinics on basic health care, *Chinese Journal of Population Science*, **4** : 27-31 [In Chinese].

Zhu L (2002). Health education and prevention in rural China, *Chinese Journal of Population Science*, **5** : 26-31 [In Chinese].

Part 2 : Health system and policy

Health policy processes in Asian transitional economies

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Abstract

This paper draws on studies of current knowledge on health policy processes in Cambodia, China and Lao PDR by a number of researchers in the POVILL Consortium. They are based on reviews of international and national literature and of policy documents, interviews with key informants and preliminary findings of small studies in a selection of rural localities. It explores why policy makers have become increasingly interested in strategies for helping households cope when a family member develops a serious illness and the reasons for their preference for demand-side approaches. It looks at, amongst other things, the influence of policy networks and stakeholder interests on policy formulation. It then explores factors that affect implementation. It concludes with a discussion of the questions that ongoing field studies are addressing.

Introduction

The governments of China, Cambodia and Lao PDR have become increasingly interested in health and are at different stages in the formulation and implementation of major reforms to improve access to health care and reduce the impoverishing impact on households of major illness. The translation of broad intentions to address a problem into specific policies and changes on the ground is a complex process subject to many influences. This paper presents a preliminary analysis of these influences by a group of health policy analysts in two consortia: POVILL and Future Health Systems (in the case of China). It draws on publications by this paper's authors, based on reviews of international and national literature, studies of policy documents, interviews with key informants and small studies in a

selection of rural localities. The conclusions are preliminary, since its authors are in the midst of field studies.

The Development Context

The three countries share a number of characteristics. All are in the midst of a transition to a market economy, although they are at different stages in the process. In China this has involved a shift from collective to household agricultural production and in all three countries it has implied the spread of market relationships to most sectors, including health. Another similarity is that each country has a decentralised government structure, although there is a much greater gap between central and local political and administrative structures in China (World Bank 2002). All are ruled by a Communist Party, or an offshoot of one, and there are close inter-relationships between party and government.

There are also differences, which provide important points of comparison. China has experienced many years of rapid economic growth and agriculture accounts for a diminishing share of total output. Cambodia and Lao PDR are still largely agricultural economies, which have experienced much slower growth and less poverty reduction. There are differences in the demographic structure. China has a growing proportion of elderly people and many rural households have one or more member in an urban area. Demographic transition and urbanisation are much less advanced in Cambodia and Lao PDR. This has led to a divergence in patterns of disease, with non-communicable diseases playing an increasingly important role in China. All three countries have been affected by the epidemic of HIV and AIDS, although the prevalence rate is higher in Cambodia.

One factor behind these differences is the long history of conflict from which Lao PDR has been recovering since around 1975, when the Lao People's Revolutionary Party came to power, and Cambodia since 1993 when the first multi-party election took place under the auspices of the United Nations. This historical legacy has affected their level of economic development and the robustness of their institutional arrangements. The state is much less "strong" in these two countries than in China. In addition, the continuing importance of multi-lateral organisations and international NGOs in Cambodia, reflects patterns established during the period of the United Nations Transitional Authority. The three countries differ in

political structure. China has been characterised as a party-state in which the structures of the ruling party and the government are inter-twined, although it is implementing measures to increase the separation between the roles of Party and State (Saich 2001). The ruling party continues to dominate the political system of Lao PDR. The state is the major provider of health services, although several mass organisations and international NGOs play a role (Annear *et al.* 2008). Cambodia has competitive multi-party elections. It has permitted non-government organisations to play an important role in the delivery of health services and, increasingly as participants in policy debates (this will be discussed further below).

The countries also differ in the degree to which they are influenced by outside actors. The health sectors of Cambodia and Lao PDR depend heavily on funding from donor agencies and international organisations, while these sources contribute a tiny proportion of public health finance in China. Consequently, the Cambodian and Lao health sectors have been more exposed to external ideas than China (Jönsson 2002). A recent example is the focus on poverty reduction and the achievement of the Millennium Development Goals, which has influenced health strategies in both Cambodia and Lao PDR (Jönsson 2008). In exploring the relative influence of external actors it is important to differentiate between decisions that largely concern the allocation of donor resources and those implying long term commitments of political capital to particular health system strategies. China's policy process is almost entirely endogenous, but China has used partnerships with international agencies to introduce ideas from outside (Bloom, Liu and Qiao 2008). For example, it built on links with the World Bank Institute to import methods and ways of thinking associated with health economics (see below).

Health policy processes in China, Cambodia and Lao PDR

There is a large international literature about policy and policy processes. Understandings of policy have expanded from “what governments do” to “what governments do in association with other actors”. Policy processes have been conventionally understood as a progression through agenda-setting, policy formulation, implementation and evaluation and feedback.

Reality deviates a great deal from this linear process (Walt 1994; Tomson *et al.* 2005; Pulz and Treib 2006; Hyder *et al.* 2007). Complex institutional arrangements tend to be sticky so that many changes are incremental, with periodic tipping points when major reforms take place (Pierson 2000). There is a constant iteration between the different phases of the policy process and there may be a gradation of policy statements from the symbolic and aspirational through to strong government commitments to allocate public funds and exercise regulatory powers. Many factors influence the policy process including changing needs and capacities to meet various demands, competing interests, the influence of networks of experts and interested stakeholders, the emergence of new understandings from a variety of sources and challenges associated with the management of radical economic, social and institutional change. Thus the different policy phases only serve to organise our discussion. Our aim is not to propose a new way to view the policy process, or to develop an alternative analytical framework, but rather to highlight the complexity of the process by focusing on agency in relation to context and institutional capacity.

There has been relatively little scholarly interest in the study of policy processes in China and Southeast Asian ex-command economies, and even less interest in health policy development and implementation. Nonetheless there is a literature upon which we can build. Understandings of China's management of transition have been dominated by studies of elites and the roles of leaders, patronage networks within the political system and negotiations between different elements of the bureaucracy (Lampton 1992; Lieberthal and Oksenberg 1988). Liu and Bloom (2002) focus on inter-bureaucratic negotiations in their study of the simultaneous design of a large rural health reform project and formulation of new health policies. There is a growing interest in actors outside the small circle of political elites and in the consequences of the spread of market relationships, government decentralisation and globalisation. Zhang, Fang and Bloom (2008) argue that participation in health policy processes has widened, over the years, to include researchers and policy analysts and, to some extent, public opinion and the media. For example, since 2005 the media have been very active in highlighting problems in the health sector and in 2007 the government invited five Chinese academic institutions, the World Health Organisation and the World Bank to contribute to its review of options for reform.

A recent book by North (2005) contrasts the experiences of China and

the former Soviet Union, arguing that the former is successfully providing incentives that encourage economic growth. Oi (1999) and Oi and Walder (1999) demonstrate how this works in rural areas. North (2005) suggests that China will need to formalise these incentives in a legal framework if it wishes to create increasingly complex arrangements. Yang (2004) describes how government policy elites are responding to emergent problems in the financial sector by gradually creating quite sophisticated regulatory arrangements. Tsai (2007) argues that the evolution of “adaptive informal institutions” has had an important influence on national policy and the design of formal institutions. She is referring to the way that local informal regulatory arrangements adapt to new needs through day to day interactions between managers of enterprises and government officials. One can apply a similar understanding to the health sector. Several analysts argue that there are parallels between the health and financial sectors in the need to construct rules-based and trusted institutional arrangements and in a policy process that combines local adaptations and national policy changes (Bloom 2005; Bloom and Meessen 2007; Fang 2008; Pei 2007). These authors suggest that the creation of appropriate institutional arrangements for an effective health system is a major challenge for the next phase of China’s transition. Cambodia and Lao PDR face a similar challenge.

There is a limited literature on policy development in Cambodia and Lao PDR. Gottesman (2004) focuses on the stabilisation of regimes in the immediate post-conflict period and the transition to a market economy. These regimes have remained intact during the subsequent involvement of the international community (Bourdet 2000; Hughes 2003 and 2006). In Cambodia, there are disputes about the impact of competitive multi-party elections and the major role of international and local NGOs on policy processes. In Lao PDR, the focus has been largely on the evolving relationship between the state and market actors (Rosser 2006). This has been reflected in studies of the evolving role of government as a regulator of the pharmaceutical sector (Paphassarang *et al.* 1995 and 2002; Stenson *et al.* 2001). The paper by Jönsson (2008) provides much more detail on health policy development in these countries.

Until recently government priorities in all three countries included the avoidance of civil disorder, the management of a rapid transition to a market economy and the encouragement of economic growth. Policy-makers paid much less attention to the health sector. However, health-related problems

are rising up the policy agenda. This is partly a consequence of the transition process which has been associated with the emergence of new patterns of economic inequality and the shift to households of the burden of financing medical care. This has created financial barriers to access to care and it has led to an increasing link between the illness of a family member and household poverty. These problems have been exacerbated by the emergence of a costly style of medical care in the weakly regulated markets for health-related goods and services.

Several factors pushed China's political leaders to pay more attention to these problems. One was growing public concern about the high cost of medical care as revealed in media stories and the findings of opinion surveys. Another was the SARS epidemic and the perceived failure of government to protect the public during its early stages. The fact that the epidemic affected Beijing, and that government officials and political leaders had a direct experience of the potential consequences of a breakdown of public health, may have been influential. The Deputy Prime Minister was made acting Minister of Health and played a key role in alerting political leaders to the need for reform. A third was the coming to power of a new leadership, which recognised the need to spread the benefits of economic growth. The decision to make the construction of a "harmonious society" the overall development objective created a favourable environment for those advocating improvements in access to health services. These changes opened a major window of opportunity for reform.

There have been no similar turns in government priorities in Cambodia and Lao PDR and no big health-related shock, except for Cambodia's HIV epidemic. Jönsson (2008) argues that the policies of donor agencies in favour of pro-poor health system development have influenced public policy announcements and the allocation of donor-supplied resources. The degree to which the governments of these countries are under domestic pressure to address health-related problems is less clear.

The following paragraphs take the growing willingness by governments and donors to invest in health as a given and focus on why all three have chosen demand-side interventions rather than increasing the budgets of government health facilities. This was a major departure from their previous practice. We argue that this responded to a desire by government policy-makers and, in some cases, officials of donor agencies to push health service providers to pay more attention to the needs of the population they serve,

the influence of ideas generated by networks of national and international policy actors and the changing economic and institutional context associated with the ongoing transition to a market economy.

INTERESTS

Stakeholder interests are becoming increasingly important as the transition to a market economy leads to increases in social segmentation. However, it is not clear how they influence policies. In China, government departments are believed to “represent” the interests of different stakeholders in inter-bureaucratic negotiations. Liu and Bloom (2002) and Wang (2008) show how these interests have been reflected in health policy debates. The Ministry of Health is believed to be most concerned about the financial problems of its health facilities and the income of its employees. The Ministry of Agriculture is seen to represent the interests of farmers and the Ministry of Civil Affairs the government’s responsibility to the very poor. During the early debates about rural health insurance the Ministry of Health strongly supported its introduction influenced by the serious financial problems of its rural health facilities. One sign that interests played an important role is that schemes tended not to direct many resources to village facilities, which were not part of the government system. The Ministry of Agriculture, on the other hand, opposed compulsory health insurance because they saw it as an earmarked tax, which might not benefit the population (Du 2000). This was consistent with a general government effort to reduce the burden of local taxes and levies on rural residents.

The interests of different levels of government influence policy development. The size of fiscal transfers to poor counties reflects the outcome of discussions about the proportion of their revenue that rich localities should transfer to the central government. There are tensions between national and local interests in the enforcement of regulations. For example, the Food and Drug Regulatory Agency has arranged for county-level inspectors to be employed by the next higher level of government to reduce the risk that they will be unduly influenced by the interests of local governments in enforcing drug safety regulations. More generally, the incentives that local leaders face in terms of nationally set targets and local pressures strongly influence policy outcomes.

There are signs that interest considerations have influenced the design of policies to meet health-related needs in China. In some localities, farmers

refused to contribute to voluntary schemes, reflecting a lack of trust in these schemes to operate in their interest (Wang *et al.* 2001; Lora-Wainwright 2007). There have been many newspaper articles about self-serving behaviour by health care providers - particularly those selling too many drugs and there have been reports of physical violence against health workers (Harris and Wu 2005). In the late 1990s, the government asked the anti-corruption agency of the Communist Party to review unprofessional activities by health workers, such as asking for informal payments from patients and kickbacks from drug wholesalers (Bloom and Fang 2003). The deterioration of trust culminated in speeches in recent years by the most senior political leaders, calling on health workers to change their attitude towards the public. This distrust was also reflected in government decisions to assign responsibility for organising urban health insurance and health safety nets for the poor to the Ministries of Labour and Social Security and Civil Affairs, respectively, in the hope that they would counteract the tendency of health service providers to act largely in the interests of their employees. The government has given responsibility for rural health insurance to the Ministry of Health, but has established supervision committees that include representatives of several ministries, the anti-corruption arm of the Communist Party and local representative bodies.

Complex patterns of interest are emerging in Cambodia with the increasing marketisation of health services, on the one hand, and the significant role of international and national NGOs, on the other. During the early years of reconstruction health facilities had to cope with major shortages of skilled personnel and very low government budgets. Health workers developed livelihood strategies that included informal charges. NGOs have played an important role in renegotiating contracts with health workers to include a more formalised charging regime. The managers of these facilities need to generate enough income to meet the expectations of their employees.

One reason for the great interest in the potential role of health equity funds, demand side approaches that fund the cost of hospital care for the poor, is the perception, amongst donor agencies, that formal and informal user charges were creating a major financial barrier to access by the poor. It was in the interest of the officials of these agencies to demonstrate that the poor were the major beneficiaries of the funds they made available. One option would have been to increase government funding of health facilities. However, there was concern that these funds would be used largely to benefit

health workers and the better off people who could afford to seek hospital care. Also, a supply-side approach would have been inconsistent with parallel initiatives to give health facilities more autonomy and establish mechanisms of performance-related pay. The design of health equity funds, with local NGOs answerable to international NGOs, which, in turn are accountable to donor agencies, was an attempt to shift the balance of influence in favour of the needs of the poor. Lao PDR is also experiencing a rapid spread of market relationships in the health sector. There has been little written about how that country is managing competing interests regarding the finance and provision of health-related goods and service.

POLICY NETWORKS

All three countries have looked abroad for organisational models they could implement while adapting their health system to a market economy. Networks of experts have emerged in each country, with significant influence on policy interventions.

China provides an example of an increasingly important policy network. It began with an agreement between the Ministry of Health and the World Bank Institute in 1991 to strengthen training in health economics. The Chinese Health Economics Institute established a World Bank flagship course and a national network of health economists. This network of researchers and government officials regularly organised meetings and played an active role in policy debates. Zhang, Fang and Bloom (2008) document how a combination of research studies and small local pilots built a body of shared knowledge and experience. In a 1997 policy statement the Ministry of Health acknowledged the seriousness of the health sector's problems and called for the creation of rural health insurance schemes to address them. This reflected a previous emphasis in the research of the health economics network on rural health insurance. The change in policy stimulated a big increase in research activities and the volume of published scientific papers on rural health finance rose dramatically after 2001, providing additional evidence to advocates of health insurance (Wang 2008).

There are several explanations for the focus on a demand-side intervention. The first is the inheritance from the period of the command economy, when the collective medical system (CMS) provided an important source of health finance. The policy problem was posed in terms of the adaptation of CMS to the emerging market economy. The second is the

interest of health economists in the potential role of social health insurance. There was a tendency to conflate the CMS with social health insurance. This reflected the large gap between theoretical understandings and the reality of transition management. The debates between ministries were largely caught up in a larger set of discussions about the role of earmarked taxes and other kinds of levy in financing local services. This was associated with the limited capacity of central government to ensure that local governments used tax revenues in the interest of the general population. The problems of accountability underlay a third reason for a focus on demand-side interventions: the commonly held view that health facilities operated largely in the interest of their employees. The major problem for government was to devise some mechanism to ensure that household contributions and transfers from higher levels of government could be translated into improved health services. This was to be the role of new CMS. The government has gradually increased its contribution to these schemes from 20 yuan per beneficiary in the first pilots to 80 yuan in 2008, while keeping household contributions at 10 yuan per person.

The 1997 policy statement was largely confined to the level of line ministries and contained no major commitments of money or political capital, which would have required a decision by the political leadership. This partly reflected the prevalent development priorities in the mid to late 1990s, which gave priority to economic growth and opposed large fiscal transfers to fund recurrent budgets of poor counties. It also reflected a concern about the feasibility of the available policy options.

China's approach to transition management is to test interventions before making major policy commitments. The Ministry of Health organised this kind of test by designing a large rural health development project to be funded jointly by the government, the World Bank and DFID. It is relevant that the lead department in the Ministry of Health was the Department of Planning and Finance, the same department that linked to the health economics network. That network strongly influenced project design, but over time their relatively simple vision of a future health system funded by social health insurance had to confront the difficulties of managing change and the construction of new institutions in poor counties (Liu and Bloom 2008; Bloom, Liu and Qiao 2008). This raised major issues about the sequencing of reforms and the creation of institutional arrangements to foster trust between providers, users of health services and health financing

schemes. The efforts by the project to implement voluntary health insurance highlighted the need to ensure that schemes used the available resources in the interests of beneficiaries and were seen to do so. The project also demonstrated the feasibility of establishing a health safety net for the very poor and built a wider constituency of academic experts and local health system managers in favour of reform. This represented a spread of the policy network to include other understandings of the challenge of reform and many more local government officials. The demonstration that certain health reforms were feasible meant that when the political leadership decided to prioritize meeting the needs of the poor, the health sector had effective interventions available (Zhang, Fang and Bloom 2008).

The relevant policy network in Cambodia had its origins in the international NGOs, which have played an important role in the reconstruction of the health sector since the period of the United Nations Transition Authority. The government's priority was to maintain civil peace and encourage economic development and it allowed NGO officials a lot of scope for innovation. These officials established informal networks with each other, key government officials and personnel in bilateral aid agencies and international organisations that funded health activities. They had a shared interest in finding ways to achieve objectives agreed by government and donors to meet the health-related needs of the poor. Ir and Bigdeli (2007) describe how this informal network strongly influenced the flow of donor funds by publicising evidence from a few health equity projects that successfully channelled resources to pay for hospital care for the poor. Only a few years after the first experimental funds were established, the government announced a national policy in favour of covering the entire population. One way to view this success is as the achievement of an alliance between a network of foreign actors and the Ministry of Health to influence the allocation of donor funding. This leaves big questions about the stability of the policy and the sustainability of local institutions. For example, an overlapping network of a new cohort of experts, who took up posts since the initial experiments with health equity funds, has become increasingly interested in social health insurance. The relatively short term contracts that many international experts and officials receive may encourage them to prioritise innovation over consolidating established interventions. The Cambodia case raises questions about how policy-makers balance these two objectives.

There have been relatively few publications on policy processes in Lao PDR (Stenson *et al.* 2001; Tomson *et al.* 2005) Jönsson (2002) describes how the links between the Ministry of Health, the Swedish Agency for International Development Cooperation (Sida) and an academic institution with an international reputation for expertise in drug policy influenced the introduction of a policy on the regulation of pharmaceuticals. Annear *et al.* (2008) report that the first health equity funds in that country were established by international NGOs and that plans for extending them more widely have taken place in the context of the World Bank and Asian Development Bank-funded projects.

IMPLEMENTATION AND THE MANAGEMENT OF INSTITUTIONAL DEVELOPMENT

It is difficult to distinguish between policy formulation and implementation in China and other transitional economies (Bloom, Lin and Wu 2008). This is because of the great importance of local adaptations and informal institutional arrangements for testing potential policy reforms (Xu, Zhang and Zhu 2008; Tsai 2007). Fang and Bloom (2008) illustrate the importance of local adaptations in a study of two successful township hospitals. They show the influence of a variety of local institutional arrangements on facility performance. These studies have identified several transition management issues.

The first is the sequencing of changes. Several authors have documented the multiple problems that have led to the poor performance of China's rural health system. These include overstaffing with poorly trained personnel employed during the Cultural Revolution, underdeveloped institutional arrangements for a market for health workers, problems with systems of management of public finance and problems with the accountability of local governments (Zhao, Killingsworth and Bloom 2008). The possibilities for health system development have been influenced by these contextual factors. For example, in the 1990s many health facility employees had little formal education. There were strong political and ethical reasons for government to keep them in post. However, the need to pay their salaries limited the capacity of health facilities to attract better qualified people. Meanwhile, urban health facilities attracted skilled personnel away from rural ones. In this context, increased health finance might have raised the incomes of unproductive workers without providing

much benefit to the population. This changed a lot soon after the turn of the Century, when many unskilled personnel reached retirement age and investments in training facilities meant that the supply of doctors rose markedly. The average age of rural hospital employees fell substantially and their levels of skill rose. This created very different possibilities for reform.

The second is the role of local government in the implementation of reforms. China has followed the pattern of other transitional economies in assigning to local governments the responsibility for service delivery, but not transferring similar control over public funds. Wang (2008) describes how local governments resist commitments not accompanied by resources. The problem is most acute in poor counties, where, there are scarcities of skilled personnel to implement complex changes and where there may also be problems with their accountability to the population. These factors contributed to popular discontent with high taxes and levies in poor localities, which ultimately led to the abolition of agricultural tax. This removed an unpopular financial burden but it also eliminated an important source of finance for local services. Viewed in this context, the decision by government to provide financial support to new CMS in poor counties, can be understood as the introduction of a new form of local levy and fiscal transfer earmarked for health.

The third, is the need to foster trust between actors and build commonly held values and beliefs about good and bad behaviour. Bloom, Standing and Lloyd (2008) argue that an important aspect of institution-building in the health sector is the negotiation of “social contracts” between key actors that include both rights and entitlements and obligations to other actors. We need to gain a better understanding of how the values underlying these social contracts have changed and how they have influenced policy. We also need to understand how the process of implementation may influence values and beliefs and, thereby, influence the construction of effective institutional arrangements.

The implementation of new CMS has illustrated a number of strategies for building trust. The first is the focus during the first years on the establishment of financial audit and transparency concerning the distribution of benefits. The aim was to answer doubts in the population about whether governments would use these funds for the defined purpose and whether benefits would be distributed fairly and according to rules. Another innovation was the decision to pay household contributions into a

“household account” which could be used to reimburse any health-related expenditure during the year. This arrangement was not consistent with a risk-sharing scheme, but it provided reassurance to suspicious rural residents that they would not lose their money. The schemes may eventually persuade people to contribute to risk-sharing schemes once they have greater trust in how they will be run.

Another measure to make schemes more accountable has been the establishment of supervision committees with representatives from a number of government departments including health, finance and audit, from the anti-corruption agency of the Communist Party and from local representative bodies. According to the relevant government document, these committees should include representatives of the beneficiaries (State Council 2003), but this is often not the case. These committees have mostly focused on the issues summarised above and preliminary findings of field studies by some authors of this paper have revealed that these committees may not be very active. Nonetheless, they have the potential to address a number of conflicting interests between types of providers (level of care and relationship to government) and between beneficiaries in terms of ability to make co-payments, proximity to a health facility, type of health problem and age and sex). Some authors of this paper are involved in concerning the construction of trust-based institutional arrangements for improved performance of rural health services, as part of the POVILL and Future Health Systems Consortia.

The Cambodia Government has focused its scarce human and financial resources on ensuring social stability and supporting economic development. It has permitted international NGOs a lot of scope for innovation in the health sector. One area of innovation has been in the design of health equity funds. These NGOs have established relationships with local NGOs, who have undertaken tasks under their supervision. In many cases these local NGOs have recruited personnel from government. They now play an important role in the health systems of a number of districts.

The successful pilot interventions have attracted a lot of money from bilateral and multi-lateral donor agencies to extend the experience nationwide. This raises major questions about the best way to construct sustainable institutional arrangements for translating large amounts of money into health-related services for poor people. For example, what are the relative roles of local government offices and local NGOs in the

management of health equity funds? Will international NGOs continue to ensure that funds are accountable to the agencies that provide them, or will other arrangements take over this role? Are local NGOs developing the management capacity and governance arrangements to account for large amounts of money themselves, following the precedence of local NGOs in other countries, such as BRAC, in Bangladesh? Since many local NGO personnel were recruited from government, what will be the future relationships between government and NGOs? Has the use of NGOs been a temporary expedient, while government focused on higher priority tasks, or, have NGOs established a long-term role in the Cambodian health system? To what extent has the leadership of local NGOs become a significant stakeholder in policy debates? We are studying these questions as part of the POVILL project.

The Lao Government has focused on strengthening basic health services in a context of severe financial and human resource constraints. One government response was to introduce user charges and request health facilities to exempt the poor. The government did not compensate facilities for the revenue foregone in implementing the exemption policy and relatively few poor people benefited from exemptions. Boupha *et al.* (2005) show that 83 percent of the people provided with free care by the second central hospital in 2005 were hospital staff or their families, while 12 percent were poor people. The government recently introduced a new Law on Health Care with proposals for the establishment of local funds to finance exemptions for the poor or specific organisational arrangements such as a health equity fund or local health insurance scheme (Government of Lao PDR 2006). The law identifies possible sources of finance as contributions from the government, individual, community, national and international organisations and foreign countries. However, these funds are just becoming established. The law provides little detail on the accountability arrangements and the design of schemes to ensure that services are competent and fairly priced. The POVILL study will explore variation between localities in the design of these funds including the governance arrangements.

Conclusions

The governments of the three countries have become increasingly aware of growing popular concern about the high cost of medical care and they are seeking ways to address this concern. In Cambodia and Lao PDR the international agencies providing financial support to the health sector have become concerned to demonstrate that the resources they provide reach the poor. The common response has been to develop demand-side approaches for channelling additional public funds to the health sector. This has reflected a concern that health facilities would not necessarily utilise additional budget allocations in the interest of the community, particularly the poor. This was particularly due to previous reforms that gave health facilities a great deal of autonomy, particularly in China and Cambodia. It also reflected a perception by policy-makers that the relevant government agencies might not have sufficient incentives to ensure that health facilities act in the interests of the poor. In each country, a network of policy experts and government and donor officials influenced the design of demand-side interventions.

This paper presents preliminary ideas on policy processes in the three countries. These processes remain quite opaque and many issues remain to be clarified. The authors are currently studying these issues and their findings will contribute to our understanding of the development of health-related institutions and of the transition management process, itself.

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References

Annear P, Akkhavong K, Thome J, Haegeman F, Bonnet F, Phommavong C and Pholsena S (2008). Moving towards greater equity in health; recent initiatives in the Lao PDR and their implications, this book.

Bloom G (2005). Health policy during China's transition to a market economy, in Gualt R (ed.). *Comparative health policy in Asia-Pacific* Maidenhead: Open University Press.

Bloom G and Fang J (2003). China's rural health system in a changing institutional context, *IDS Working Paper*, No. 194.

Bloom G, Lin V and Wu Q (2008). Policy implementation in Lin V, Guo Y, Legge D and Wu Q (editors). *Health policy in transition: The challenges for China* Peking: University Medical Press.

Bloom G, Liu Y and Qiao J (2008). Partnerships for development: Lessons from a health project in China, Policy Brief, Beijing: DFID.

Bloom G, Standing H and Lloyd R (2008). Markets, information asymmetry and health care: Towards new social contracts, *Social Science and Medicine*, **66**, 10 : 2076-87.

Boupha B, Akkhavong K, Siengsounthone L, Phongluxa K, Tangcharoensathien V and Patcharanarumol W (2005). Report on the formulation processes on user fee and exemption policy in the context of Lao PDR (1975-2005), Vientiane: National Institute of Public Health.

Bourdet (2000). *The economics of transition in Laos: From socialism to ASEAN integration*, Cheltenham: Edward Elgar.

Du Y (2000). Opinions on rural health system reform, Proceedings of the conference on rural health reform and development in China, Beijing, November 2000, 43-50.

Fang J (2008). The Chinese health care regulatory institutions in an era of transition, *Social Science and Medicine*, **66**, 4 : 952-962.

Fang L and Bloom G (2008). Between profit and legitimacy: a case study of two successful township health centres in rural China, this book.

Gottesman E (2004). *Cambodia After the Khmer Rouge: Inside the politics of nation building*, Changmai: Silkworm Books.

Government of Lao PDR, 2006, Law on Health Care, Vientiane: Government Printer.

Harris D and Wu C (2005). Medical malpractice in the People's Republic of China: The 2002 regulation on the handling of medical accidents, *Journal of Law, Medicine and Ethic* , **33**, 3 : 456-477.

Hyder A, Bloom G, Leach M, Syed S, Peters D. Future health systems: innovations for equity (2007). 'Exploring health systems research and its influence on policy processes in low income countries', *BMC Public Health*, **7** : 309.

Hughes C (2003). *The political economy of Cambodia's transition* London: Routledge Curzon.

Hughes C (2006). Cambodia in *IDS Bulletin*, **37**, 2 : 67-77.

Ir P and Bigdeli M (2007). Health financing strategies to improve access to health services by the poor in Cambodia: from pilot to policy to action, paper prepared for the WHO.

Jönsson K (2002). *Translating foreign ideas into domestic practices: pharmaceutical policies in Laos and Vietnam* Lund: Department of Political Science. Doctoral Dissertation.

Jönsson K (2008). Poverty reduction and health care policy in Cambodia and Laos: an analytical framework, this book.

Lampton D (1992). A plum for a peach: Bargaining, interest, and bureaucratic politics in China, in Lieberthal K and Lampton D (eds.) *Bureaucracy, politics, and decision making in post-Mao China* Berkeley: University of California Press.

Lieberthal K and Oksenberg M (1988). *Policy making in China-leaders, structures, and processes*, Princeton University Press: Princeton University, New Jersey.

Liu Y and Bloom G (2002). *Designing a rural health reform project: The negotiation of change in China*.

Liu Y and Bloom G (2008). Rural health system reform in poverty areas in Lin V, Guo Y, Legge D and Wu Q (editors). *Health policy in transition: The challenges for China* Peking University Medical Press.

Lora-Wainwright A (2007). A village perspective of rural healthcare in China http://www.wilsoncenter.org/topics/docs/village_healthcare_jan08.pdf

Meessen B and Bloom G (2007). Economic transition, institutional changes and the health system: some lessons from rural China, *The Journal of Economic Policy Reform*, 10, 3 : 209-232.

North DC (2005). *Understanding the process of economic change*, Princeton: Princeton University Press.

Oi J (1999). *Rural China takes off: Institutional foundations of economic reform*, Berkeley, University of California Press.

Oi J and Walder A (1999). *Property rights and economic reform in China*, Stanford: Stanford University Press.

Paphassarang C, Tomson G, Choprapawon C and Weerasuriya K (1995). The Lao national drug policy: lessons along the journey, *Lancet*, 345 : 433-435.

Paphassarang C, Wahlström R, Phoummalaysith B, Boupha B and Tomson G (2002). Building the national drug policy on evidence - a cross sectional study on assessing implementation in Lao PDR, *Southeast Asian Journal of Tropical Medicine and Public Health*, **33** : 657-653.

Pei X (2007). The social construction of a health market in China, presented to the global forum for health research, Beijing, November 2007.

Pierson P (2000). Increasing returns, path dependency, and the study of politics, *American Political Science Review*, **94** : 251-267.

Pulz H and Treib O (2006). Policy implementation in Fischer F, Miller G and Sidney M (eds.). *Handbook of public policy analysis: Theory, politics and methods*. Boca Raton, Fl: CRC Press/Taylor & Francis.

Rosser A (2006). Lao People's Democratic Republic in *IDS Bulletin*, **37**, 2 : 27-39.

Saich T (2001). *Governance and politics of China* Basingstoke: Palgrave.

State Council, Government of China (2003). Opinions on the Implementation of the new rural cooperative medical schemes.

Stenson B, Syhakang L, Stålsby-Lundborg C, Eriksson B and Tomson G (2001). Private pharmacy practice and regulation - A Randomised trial in Lao PDR', *International Journal of Health Technology Assessment in Health Care*, **17**, 4 : 579-589.

Tomson G, Paphassarang C, Jönsson K, Houmboun K, Akkhavong K and Wahlström R (2005). Decision-makers and the usefulness of research evidence in policy implementation - a case study from Lao PDR, *Social Science and Medicine*, **61** : 1291-1299.

Tsai K (2007). *Capitalism without democracy*. Ithaca: Cornell University Press.

Walt G (1994). *Health policy. An introduction to process and power*. London and New Jersey: Zed Books.

Wang H, Hu Y, Li Y, Wu Y and Han Y (2001). Report on CMS in Yushe County, Shanxi Province, Hefei Kayak, Society and Health Development Institute, Hefei.

Wang Y (2008). The development of rural health policy in China: The case of the new cooperative medical scheme and medical assistance, this book.

World Bank (2002). *China national development and sub-national finance: A review of provincial expenditures* Report No. 22951-CHA, Washington: World Bank.

Xu Y, Zhang X and Zhu X (2008). Medical financial assistance in rural China: Policy design and implementation, this book.

Yang D (2004). *Remaking the Chinese Leviathan: Market transition and the politics of governance in China* Stanford: Stanford University Press.

Zhang Z, Fang L and Bloom G (2008). The rural health protection system in China in Lin V, Guo Y, Legge D and Wu Q (editors). *Health policy in transition: The challenges for China* Peking University Medical Press.

Zhao H, Killingsworth J and Bloom G (2008). Public sector reform and its impact on the health sector in Lin V, Guo Y, Legge D and Wu Q (editors) *Health policy in transition: The challenges for China* Peking University Medical Press.

Between Profit and Legitimacy
A Case Study of Two Successful Township Health
Centers in Rural China

Lijie Fang and Gerald Bloom

Abstract

The Township Health Centers (THCs), which serve China's rural residents are hospitals with Chinese characteristics. A comparative study of two THCs found that their performance is linked to their successful adaptation to the new economic and institutional context within which they operate. It found that health facility managers need to balance the need to generate revenue with the need to maintain their good reputation with government and the community. It identified three major influences on their performance: the pattern of economic incentives, formal and informal rules of behavior and the history and management arrangements of the facility. It concluded that tailoring administrative rules to embrace the market, responding actively to social expectations and proper selection of THC director are all beneficial to THC performance.

Introduction

Township Health Centers (THCs) are a major provider of health services for China's rural population. They have faced big challenges during the transition to a market economy associated with major changes in the institutional context within which they operate (Bloom 2005). This paper explores how two successful facilities have balanced the contradictory pressures of expectations by government and communities for certain standards of service and the need to generate revenue. It concludes that future reform initiatives will need to address influences associated with both financial incentives and those associated with the broader social responsibility of health centers.

China began to build THCs in the early 1950s to provide rural people with their first point of contact with a trained doctor. By the 1970s most

townships had a THC as part of a 3-tier rural healthcare network of village clinics, township health centers and county-level hospitals. These facilities organized preventive services, provided basic medical care and supervised all local health services. They provided inexpensive health services for rural people, making an important contribution to dramatic improvements in health status between 1949 and 1979.

During the period of the command economy the rural areas were organized on the basis of collective agriculture into “communes”. They organized production and distributed any surplus to members of the collective on the basis of the amount of work they had done. The communes established social welfare systems that included health care using a share of collective production. Some THCs were owned by the state and others belonged to the commune. The government contributed resources to the former and the communes to the latter. All were supervised by the county health bureau. These systems provided a basic level of protection even where the rural economy was underdeveloped and living standards were low (Chen 2001).

The transition to a market economy has been associated with major changes in the institutional context within which rural health facilities are embedded (Meessen and Bloom 2007). The communes were disbanded and replaced by a new tier of government, the township. Reforms to the system of taxation and public administration meant that each level of government became responsible for funding its own facilities. There is a system of fiscal transfers from higher to lower levels of government, but there are still major differences in the budgets of rich and poor counties and townships. Many rural health facilities receive as little as five percent of their total expenditure from government (Li *et al.* 2003; MoH 2007). They are expected to generate the balance from charges to patients. In addition, THCs are operating in an increasingly competitive environment. On the one hand, private clinics and village doctors offer services that are less expensive and located close to the home of patients (Han *et al.* 2005). On the other hand, the great improvements in the road network mean that many more people go directly to a county hospital when they have a serious problem. THCs are struggling to find their niche.

Despite the substantial devolution of financial management to individual health facilities, the government has maintained a number of regulations that strongly influence provider performance. These include

control of the price of medical consultations below cost and an associated right of hospitals to sell drugs at an agreed mark-up and control over the appointment of personnel. The government also sets targets for the achievement of certain public health objectives.

These changes have had a major impact on the performance of THCs. A number of studies have identified two major problems. First, many facilities show the impact of prolonged financial constraints with rundown facilities, inadequate equipment and poorly qualified staff (Qiao 2005; Song and Wang 2005). Second, they provide a costly form of medical care with high levels of drug use and they tend to neglect preventive services (Sun 2005). Both problems are associated with the system of rural health finance and the associated regulatory arrangements.

Most policy analysts agree that THCs will continue to play an important role in rural communities (Zhang 2005). There is widespread agreement on the need to improve the quality of their services, provide more outreach for a rapidly ageing population and organize effective preventive and public health services. There is a consensus that THCs require more public funding. However, there is less agreement on the best approach for ensuring that additional funding will result in improved performance. Du (2004) argues for earmarking public funding for public health services. Others recommend that the government subsidise all THC services. Still others emphasize the need to alter the ownership of these facilities and bring in private investment (Tian 2001). The aim of this paper is to increase understanding of the institutional arrangements within which rural health facilities are embedded and contribute to debates about strategies for reforming rural health institutions.

This paper is based on a European Union funded project entitled: "Rural Public Hospitals in Change in Transitional Asia". Eight rural public hospitals were selected based on a purposive sampling framework, with some facilities known to perform better than average and others less well. We studied the factors influencing the performance of these facilities, such as level of economic development, government financing, physical state and staffing of facility. The two THCs examined in this paper were amongst the best performers.

Influences on health centre behavior

A 2002 policy statement by the central government defines the main functions of the THC as “the provision of public health services, disease prevention and basic health services.” Local governments are responsible for ensuring that they carry out these functions. Meanwhile, health centers face financial incentives that encourage quite different behavior. The outcome of these different influences varies considerably between health facilities. This is consistent with findings in other countries that provider performance is influenced by local factors that include the leadership of the facility and institutional arrangements associated with the construction and maintenance of the facility’s reputation (Mackintosh and Tibandebage 2002). The effective performance of the health sector requires a relatively high level of trust between providers and users of services (Gilson 2003). One way to understand the institutional arrangements in the health sector is in terms of a social contract between actors, underpinned by shared behavioral norms, and embedded in a broader political economy (Bloom *et al.* 2008). This contract is expressed through a variety of actors and institutions, not just through the formal personnel and arrangements of a health sector. One of the major challenges for Chinese policy makers is to construct institutional arrangements which foster this kind of social contract (Yang 2004).

New institutionalists in sociology argue that organizations face economic and institutional influences (Meyer and Rowan 1977). The former concerns the relations and exchanges between different organizations and the latter concerns the social legitimacy of the organization, in terms of formal and social expectations. In market-oriented systems organizations face pressures to meet their financial obligations to pay employees, maintain their buildings and equipment and invest and meet claims of investors. In this circumstance, economic incentives may be particularly important, but many legal and social pressures limit their ability to respond to them.

These two influences [tend to be] in conflict with each other... Organizations always perform under the pressure of the different kinds of environments... The conflict between the two different kinds of environments and each organization’s different reactions to environments leads to many kinds of organization performance (Chou 2005).

Table 1 applies this approach to the township health centers. They are under great pressure to generate revenue by providing medical services. This enables them to meet the income expectations of employees and invest in future development. They also operate in an institutional environment made up of laws and regulations, and ethics and social expectation. The reputation of the facility and its director can influence their access to government grants and also the public demand for their services.

Table 1. Types of influence on THCs

Type of influence	Goal statements	Mechanisms of environment influences	Performance requirements on the THC
Economic	Pay salaries and finance investment	The pressure of survival and development in the market	Generation of revenue by providing medical services
Institutional	Legitimacy and reputation	Formal institution, informal norms, social expectation	Performing functions defined by healthcare network system and meeting social expectations

Description of the study THCs

This section presents the findings of a study of the influences on two THCs that were chosen on the basis of their size and also their reputation as relatively good performers. The data used include routine monitoring information at hospital and county health bureau levels, questionnaire surveys of hospital employees and a series of in-dept interviews at the two facilities and the county health bureau.

SOCIAL ECONOMIC CIRCUMSTANCE

The two study THCs are in townships L and Y in county R in Guangxi province in Western China. Guangxi is a poor province, with a net rural income per capital below the national average (Table 2). Average rural income in county R is below the Guangxi mean.

Table 2. Rural Per capita net income (RMB)

	China Average*	Guangxi Province*	County R
Per capita income	2,936.4	2,305.2	2,000.0

*Data source 2004 China Statistical Almanac

There are 248,000 people in L township, organised in 7 villages and there are 540,000 people in Y township organised in 21 villages.

FACILITIES

Both facilities are amongst the largest ten percent of THCs in Guangxi. THC Y is one of the oldest in the province and THC L is relatively new. The different histories have influenced their present situation. THC L was built in 1989. It is a three-storey building that includes both outpatient and inpatient services with 65 beds. THC Y was built in the 1950s. It is also a three-storey building with an outpatient building, and an inpatient building with 40 beds. The inpatient building is relatively old, but the outpatient building was built in 2003. Both facilities are more like small hospitals than typical health centres. Their fixed assets and equipment have relatively similar values (Table 3). However, THC L has newer equipment, which enables it to provide a wider range of technical services.

Table 3. Assets of the two THCs (¥)

	2000	2001	2002	2003	2004
Total assets	1,704,694	2,134,111	2,628,306	3,098,064	4,215,652
L In : Fixed assets	1,206,225	1,497,891	2,221,207	2,730,657	3,670,713
Equipment	160,000	177,000	368,380	483,458	935,850
Total assets	2,553,234	3,290,251	3,522,135	3,992,924	4,311,000
Y In : Fixed assets	1,782,634	2,785,666	3,101,252	3,742,411	3,951,000
Equipment	418,000	552,000	550,000	752,000	883,000

HUMAN RESOURCES AND ORGANIZATION STRUCTURE

All THCs in county R are the responsibility of the county health bureau. Because the organization of THC is determined by the health bureau, both facilities are similar, with inpatient, outpatient, and disease prevention departments.

The two facilities have similar numbers of staff: 69 in THC L and 75

in THC Y. However, township L has more trained personnel: 8 graduates of a 5-year medical college, 30 graduates of a 3-year secondary medical college and 31 graduates of a 2-year health school. The comparable numbers in THC Y are 3, 14 and 58, respectively. This partly reflects the longer history of THC Y, with many people with limited qualifications in post for many years. It also reflects an aggressive effort by THC L to recruit skilled personnel.

The two THCs have adopted quite different staff training strategies. THC L regards in-service training as an important element of its institutional development. Each year it sends several people to a 6-12 month training course. It also invites experts to provide on-the-spot training. THC L spends more than 50,000RMB a year on these activities. THC Y sends fewer people for outside training.

PERFORMANCE OF SERVICES

Both THCs have experienced increases in utilisation, but the rate of increase was faster for THC L (table 4). THC L reported higher levels of use of available resources with a significantly higher bed occupancy rate and a greater number of outpatient visits per doctor (table 5). The bed occupancy of both facilities was much higher than the national average of 37.1 percent (National Health Statistics Yearbook 2005). The average length of stay at THC L was 3.5 and at Y 3.9. Both are lower than the national average of 4.4. There are obvious problems in comparing the services provided by different facilities. However, there are good reasons to believe that THC L was able to provide a broader range of services because of its more highly trained personnel and its possession of more up-to-date equipment.

Table 4. Annual utilisation of the two THCs

		2001	2002	2003	2004
L	Outpatient visits	50,364	61,486	68,858	76,213
	Rate of increase (%)	—	22	12	11
	Inpatient admissions	869	1,347	1,918	2,193
	Rate of increase (%)	—	58	40	14
Y	Outpatient visits	44,003	55,170	56,012	57,500
	Rate of increase (%)	-5	25	2	3
	Inpatient admissions	1,352	1,571	1,769	1,918
	Rate of increase (%)	—	16	13	12

Table 5. Measures of efficiency for the two THCs, 2004

	L	Y	National ¹
Visits/Doctor/Day	4.47	2.83	4.8
Bed Occupancy rate (%)	74.08	57.16	37.10

Public health is another core function of THCs. Public health is composed of preventive services and overall responsibility for health services in the township. These facilities receive less than 5 percent of their budget from government and they need to achieve targets for public health services without earmarked funding. These include providing appropriate preventive services, training village health providers, and collecting health-related data.

The prevention departments of THCs L and Y employ 3 and 5 people, respectively. Their responsibilities include training and supervision of village doctors, coordination of preventive health services, and surveillance of reportable infectious disease. Both townships have achieved at least 90% coverage with antenatal care and childhood immunisations. In R County, each village doctor has to pay the deposit of THC 100 yuan annually. In case the village doctor breaches the agreed practice, part of the deposit will be retained by the THC.

The two facilities differed in their health promotion work. L THC perceived health promotion to be an important aspect of its efforts to increase its profile in the community. It regularly organised staff to provide health education and offer consultations and physical examinations to older people, free of charge. This was seen to be an important strategy for building their reputation. Y THC, on the other hand, was much less active in health promotion.

According to officials of the county health bureau, both facilities achieved high targets in the provision of public health services, despite the absence of financial incentives. The director of the health bureau said that he had a number of ways to influence THCs, particularly through his right to select their director. Directors of THCs have an incentive to achieve targets set by the health bureau. R County Health Bureau has given high priority to the achievement of targets for coverage with immunisation and maternal health services and it has made this clear to directors of health centres.

¹ The data for the national average comes from National Health Statistics Yearbook 2005.

FINANCIAL OPERATIONS

Table 6 provides a summary of the income and expenditure of the two facilities. Both THCs have experienced a rise in both their income and expenditure, but the rate of increase was much faster for THC L. THC L has incurred some debt to finance improvements in facilities and purchase of equipment.

Table 6. Annual Income and Expenditure for the Two THCs (¥)

		2000	2001	2002	2003	2004
L	Income	1,503,927	1,939,211	2,770,433	3,333,644	4,331,471
	Operating income	1,374,364	1,878,434	2,580,956	2,614,190	4,056,869
	Expenditure	1,570,188	1,944,798	2,728,283	3,542,647	4,533,809
Y	Income	2,456,347	2,890,862	3,347,167	3,664,649	4,318,028
	Operating income	1,756,544	2,273,136	2,955,317	3,357,180	4,138,028
	Expenditure	2,314,773	2,753,124	2,969,034	3,483,952	3,984,765

Table 7 indicates that both THCs generate most of their income from charges for medical services and sale of drugs. The proportion of government subsidy to overall income is very small and it is decreasing rapidly.

Table 7. Structure of Income of the Two THCs (%)

		2000	2001	2002	2003	2004
L	Government subsidy	7.74	0.15	4.06	1.71	0.29
	Medical service income	49.43	46.20	46.16	49.85	50.12
	Drug income	41.96	50.66	47.00	28.57	43.43
	Prevention service income	3.35	3.47	4.00	3.03	2.19
	Other income	0.67	2.72	1.88	1.09	3.97
Y	Government subsidy	4.28	3.11	2.96	2.57	1.91
	Medical service income	38.42	44.13	50.79	51.94	53.63
	Drug income	36.19	34.50	38.57	40.51	39.39
	Prevention service income	2.79	2.30	3.90	3.63	3.08
	Other income	18.32	15.95	3.77	1.35	1.99

DEVELOPMENT OF RULES

The two facilities differ considerably in their management style. THC L has printed a 148 page booklet entitled "Rules and Responsibility in the THC L". It includes 48 job descriptions, with task descriptions and competency requirements. It also has rules for personnel management and welfare. These rules define procedures for promotion. A questionnaire survey of employees revealed that many rules were not always applied, in practice. However, most people said that personnel management was generally fair and that they would be promoted sooner or later if they worked well. This suggested that the production of written procedures was part of a broader effort to create an atmosphere of fairness.

The situation in THC Y is quite different. It has only simple rules instead of the specific ones in THC L. Managers in THC Y mostly follow instructions from higher levels. The atmosphere amongst employees was reminiscent of that in the command economy. People in the THC Y suggested that the views of the director were all that mattered in decision-making.

ORGANIZATION CULTURE

THC L is remarkable for its entrepreneurial culture. It has made a major effort to attract patients by providing televisions, telephones, and hot water to inpatients. It also provides kitchen facilities, where patients can cook their own meal. THC L pays much attention to dissemination of information, for instance, health education, competitions and community development activities, to obtain trust from residents. Staff in THC L said that their charges are lower than those of the county hospital. They have better medical equipment than village providers. They believe that the THC L can have more development through their own effort.

The culture in THC Y was very different. The staff complained that their price is higher than drugstores, their services are worse than hospitals; they are less convenient than village providers. On future development of the THC Y, most of them said, "I don't know" or "It's none of my business".

SUMMARY

The two facilities had both similarities and differences. Both actively purchased sophisticated equipment to meet demand and increase their

revenue. Both reported steady increases in revenue, despite falls in government subsidies. Both were actively developing their capacity to provide inpatient services. Both achieved their targets for provision of preventive services and community health supervision.

There were a number of differences. While both facilities purchased medical equipment as a competitive strategy, THC L complemented this with a number of measures for recruiting and retaining skilled personnel and establishing a culture aimed at attracting more business. The overall impression is that THC L is smaller and swifter, while THC Y is bigger and slower in adjusting to challenges and opportunities.

Possible explanation: a compromise between competing environment mechanisms

As discussed above, THCs are influenced by the need both to generate revenue and establish a reputation with government and the community for competence and trustworthiness. The two THCs have managed these conflicting pressures differently, reflecting their history, their physical location the leadership style of their director and so forth.

ADAPTATION TO THE ECONOMIC ENVIRONMENT

The transition from a command to a market economy has influenced THCs in many ways. The creation of healthcare markets has increased the quantity and quality of available medical services, and it has exposed the THCs to intense competition. The relationship between government and THCs has changed. The government subsidy has decreased dramatically, particularly since the mid-1990s. In 1997 County R set a target of severing economic links between the government and its affiliated institutions within five years. This accelerated the move to reduce public subsidies of THCs, which maintain their links to government but operate in a market.

The decisions by THC L to invest surpluses in improving their building, purchasing equipment and training their staff and also to strengthen their management system are examples of active adaptation to the environment. All these actions are helpful to improve service quality.

ADAPTATION TO THE INSTITUTIONAL ENVIRONMENT

The performance of THCs is influenced by a variety of formal and informal rules. They need to maintain a high reputation with government and the community for providing trustworthy services, even if it means putting some limits on profitability.

The county health bureau is the principal representative of government with regard to THCs. It is responsible for managerial oversight of their performance. Since the government subsidy is only a small part of the THC income, the health bureau has little financial leverage. But it retains a number of regulatory powers: it appoints THC directors and reviews their performance annually, it approves all appointments of professional staff, it provides guidelines for the distribution of staff bonuses and must approve each facility's proposal and it approves all proposals to improve buildings or purchase large pieces of equipment. It also monitors the performance of each facility regularly. According to the head of the health bureau in county R, these powers have a significant influence: "The appointment of the director of the THC is within the power of the county health bureau. If you don't work well, we can dismiss you. Staffs working in the health bureau are experienced, and it's not easy to hide facts and cheat them."

One reason why the health bureau can influence certain aspects of THC performance is that it makes relatively few demands. The disease prevention and supervisory activities take relatively few resources so that financially successful facilities can afford to perform them. The county R health bureau is cautious in exercising its power. For example, it accepted all new recruits nominated by the director of THC L. It also tends to support local decisions concerning the allocation of bonuses and investment in new equipment.

Health workers in both facilities discussed the need to build trust with the community. Their clients mostly live in nearby villages. Villagers in China are "communities of acquaintance", which means that information is very limited and spreads very fast and a THC's reputation is very important. The Director of THC L reflected this concern when he said: "We won't provide unnecessary medical services, because it will drive the patients away to other THCs." This underlines the challenge for THCs. They need to be seen to provide competent care that costs less than at the county hospital.

They also need to attract patients away from village doctors. Both facilities are clearly still seeking their most appropriate niche.

The directors of both facilities said that much of the outreach work they do in the community is aimed at winning trust (and increasing awareness of the services the facility offers). They were particularly concerned with the importance of their reputation in attracting more business.

INDIVIDUAL FACTORS

The two facilities are located in very different markets. Although township L is relatively small, with a population less than 25,000, the hospital is located at the intersection of several townships in neighboring counties and is 28 kilometres from the nearest county hospital. It attracts patients from nearby townships. On the other hand, THC Y is located very close to the town centre of county R and is connected by a very good road. This has a number of influences on health-seeking behaviour. Its residents are more exposed to the culture of the county town and are more aware of the potential value of health care. Also, the proximity to the county town makes it easier to recruit good staff. However, it also means that people have the option to bypass the THC and go directly to a county or higher level hospital.

The facilities have very different histories. THC L was founded relatively recently and it has developed in parallel with the development of the market economy. It has fewer employees who began work during the period of the command economy and its institutional culture does not reflect a legacy from the past. THC Y is older and has many employees who have been in post for a number of years. Attitudes inherited from the planned economy still pervade the organisational culture. It has met greater resistance in forming a competitive culture.

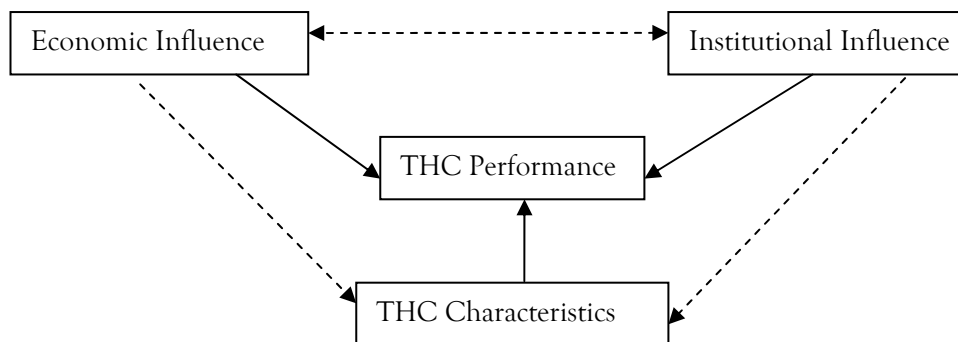
China's health system is changing rapidly and the personal attributes of the THC's director are very important to its development. This has been the case for THC L which has had only two directors since its foundation; one from 1989 to 2001, and the other still in post. According to senior health bureau officials both directors of L had a good understanding of the need to adapt to the new environment and were good managers. The majority of the staff thinks the regime of the THC is democratic and the directors listen to their suggestions. Also, the budget and the execution of the budget are transparent, and it's easy to have training opportunities. Furthermore, the first director had been on duty for 12 years and the second

director's views on management are consistent with those of his predecessor which ensured the stability of the institutional culture.

Conclusions

The study THCs were selected because of their size and also their reputation as relatively successful. They provide useful illustrations of how facilities have been able to balance the pressures to generate revenue and build their reputation (Figure 1). We identified three classes of factors that influence their response to challenges and opportunities: economic, institutional and those specific to the organisation, itself. Most research has focused on the influence of financial incentives tending to ignore the other types of influence.

Figure 1. Influences on THC performance



The study suggests that any reforms of the pattern of economic incentives should be complemented by changes to the institutional environment and measures to build appropriate organisational cultures. The study indicates two ways that regulation by the health bureau can lead to problems: by failing to ensure that THCs take their social responsibility seriously or by creating too many regulatory barriers to effective adaptation to the changing environment. The examples from county R illustrate how an effective approach to regulation can influence the performance of THCs, while enabling them to adapt to a rapidly changing context.

We also should not ignore the effect of social expectation and ethics. The social expectation accepted both by providers and demand side can help

reshape the THC behavior to lead them to an appropriate service pattern.

The experience of THC L illustrates the importance of good leadership in helping a facility cope with a competitive and rapidly changing environment. County health bureaux need to pay more attention to the selection and training of THC directors. They should be chosen on the basis of their capacity to provide good leadership and effective management, rather than their willingness to follow directions from above. The future of China's rural health system depends to a great extent on its success in developing large numbers of strong, effective and experienced managers.

References

Bloom G, Standing H and Lloyd R (2008). Markets, information asymmetry and health care: Towards new social contracts, *Social Science and Medicine*, **66**, 10 : 2076-87.

Bloom G (2005). Health policy during China's transition to a market economy. In Guald, R. ed. *Comparative health policy in Asia-Pacific*. Maidenhead: Open University Press.

Chen X (2001). "Economic reformation and health development in rural China", *China Health Economic Journal*, **1** : 25-29.

Chou X (2005). *Ten Lectures of sociology on organizations*, Beijing: Social Sciences Academic Press, 2005.

Du L (2004). It should be two different ways of public hospital and township health center reformation, *China Health Economics Journal*, **1** : 6-8.

Gilson L (2003). Trust and the development of health care as a social institution, *Social Science and Medicine*, **56**, 7 : 1453-1468.

Han J, Luo D, Zhao W (2005). A research on rural health service, *Reformation*, **2** : 58-61.

Li W, Shi G, Zhao K (2003). The history, actuality, and problems of health care in rural china, *Management World*, **4** : 63-70.

Mackintosh M and Tibandebage P (2002). Inclusion by design? Rethinking health care market regulation in the Tanzanian context, *Journal of Development Studies*, **39**, 1 : 1-20.

Meessen B and Bloom G (2007). Economic transition, institutional changes and the health system: some lessons from rural China, *The Journal of Economic Policy Reform*, **10**, 3 : 209-232.

Meyer J and Rowan B (1977). Institutionalized organizations : Formal structure as myth and ceremony, *The American Journal of Sociology*, **83**, 2 : 340-363.

Ministry of Health, People's Republic of China (2007). Building rural health systems: The experience of China's health VIII and health VIII support projects, Beijing: Foreign Loan Office of the Ministry of Health.

Qiao Y (2005). Problems of rural hospital in Baoding City, *China Public Health*, **7** : 34-37.

Song H, Wang S (2005). The situation and development methods of township health center in Jiangmen City", *China Hospital Management*, **3** : 13-17.

Sun S (2005). A discussion on the functions and reformation of township health center, *China Rural Economic*, **11** : 52-58.

Tian S (2001). Research on the change of management patterns of township health center, *China Hospital Management*, **7** : 24-27.

Yang D (2004). *Remaking the Chinese Leviathan: Market Transition and the Politics of Governance in China*, Stanford: Stanford University Press.

Zhang C (2005). An analysis of township health center's situation and influenced factors, *China Hospital Management* , **6** : 26-2.

*The policy process and context
of the Rural New Cooperative Medical Scheme and
Medical Financial Assistance in China*

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Abstract

A vast amount of research has been carried out on the rural New Cooperative Medical Scheme and Medical Financial Assistance Scheme in China over the past years, but there still exists a gap in the literature, in terms of research of the rural health policy process. This paper tries to answer two questions: what is the rural health policy process like; what are the main dynamics behind this policy process and how did they influence the process?

This paper first reviews the development of the policy process of NCMS and MFA discussing how public concerns emerged and were translated into political issues and how later on in the process, policy alternatives were chosen and legitimated. Implementation and evaluation of policies are also included in this review to give the reader the whole picture of the policy process.

The second part analyzes the dynamics of the rural health policy process, including the impact of economic transition, social structure transition, a change in decision-making model and policy paradigms, health sector reform at macro level, and influences of different stakeholders at micro level.

Conclusions are: rural health policies should take the economic, social and political context into account; non-governmental forces should be developed and united to represent the public interest; a favorable climate for all stakeholders to 'voice' their interests has been fostered but there is still a long way to go in developing sustainable formal mechanisms.

Introduction

China has experienced rapid economic development during the past twenty-five years, associated with its transition to a market economy. Changes to the rural health system have lagged behind the economic reforms. This paper traces the growing concern among policy-makers about problems in the rural health system and explores the factors that led up to the announcement in 2002 of two major medical security schemes for rural residents, the rural New Cooperative Medical Scheme (NCMS) and Medical Financial Assistance Scheme (MFA).

A considerable amount of research has been carried out on the design, implementation and outcomes of NCMS and MFA (see in this issue also Xu *et al.*). Before the NCMS and MFA schemes were established some researchers argued that reimbursement for major illness and multiple channels for funding should be the basic principles in the design of new schemes. And besides the NCMS scheme, multiple tiers needed to be established in the health care system to meet different needs of rural residents (Hao 1996 and 1999; Zhang 2003). As for the policy implementation, a lot of researchers analyzed the reasons for the failure of the old CMS, and identified the challenges the new scheme faces, such as insufficient funds, adverse selection under the voluntary participation guidelines and the lack of competent health human resources at the township and village levels (Wang 2001; Mao 2005; Wang 2004). Besides, some researchers provided further evidence that there is a significant inequity in net benefit within the NCMS because the settings of its financing and benefit rules include low premiums but high co-payments (Wang *et al.* 2005). With respect to the outcomes of NCMS, some researchers measured the effect of the NCMS on relieving “poverty caused by disease” and they found that the “Poverty Gap Index” has decreased after the reimbursement by NCMS in Hubei province (Chen *et al.* 2005).

Relatively few papers have been published on MFA so far: some senior researchers who have analyzed the challenges confronted by MFA have given some recommendations, and also proposed the necessity of linkages between NCMS and MFA. Some valuable ideas were provided on the linkage of the two schemes at the management level and services level (Liu 2005; Zhang 2006).

Much less attention has been paid to the process and context in which policy agendas were set, political alternatives were chosen, and stakeholders influenced the development of policy. Walt and Gilson have argued that much health policy wrongly focuses mainly on the content of reform, and tends to neglect the actors involved in policy reform, the processes contingent on developing and implementing change and the context within which policy is developed (Walt and Gilson 1994). This paper aims to bridge this knowledge gap. Not too much emphasis is laid here on the content and technical issues of rural health policies. Instead focal points are the development of policy processes and their context, as well as a stakeholder analysis of the NCMS and MFA in rural China. More in particular the paper zooms in on the setting of the policy agenda and formulation of detailed policies. In this way it tries to shed more light on what happened in the policy process of rural health and on the reflections of relevant stakeholders, like policy makers, scholars, on some critical issues. The review of the policy process and the analysis of the policy context and the interaction among different stakeholders might increase our understanding of the development of rural health policies in China.

After a brief section on the methodology used in this paper, we will review in a third section of the paper the development of the policy process of NCMS and MFA; more specifically we outline how public concerns emerged and then were translated into political issues, and how policy alternatives were chosen and legitimated. Implementation and evaluation of policies are also included to give readers the whole picture. In the fourth section we analyze the dynamics in the rural health policy process, including influences of economic transition, social structure transition, a change in decision-making model and policy paradigms, health sector reform at macro level, and influences of different stakeholders at micro level. Conclusions based on the analysis will be drawn in the last part of the paper.

Methodologies

As the policy making process is a sensitive and complex political issue and most of it is not open to the public, the methodology of this research involves a combined strategy of literature review, in-depth interviews and observations in policy seminars and workshops.

Domestic and international research papers, reports and newspaper

articles on public policies and rural health policy in China have been collected and studied. Much attention has been paid to the documents issued by the Communist Party of China, the State Council, and Ministries of the central government. They show the pathway of health policies development in rural China.

In-depth interviews were conducted with key informants, such as senior officers from the Ministry of Health, Ministry of Civil Affairs, Ministry of Finance, and with local officers from Health and Civil Affairs Bureaus, as well as with rural residents in the counties of Zhongxiang and Shimen (Hunan province, Central China), Shangyu (Zhejiang province, Eastern China), and Yuzhong (Chongqing Municipality, Western China). Some senior scholars were also interviewed. This was a key method to get insight into the story behind the rural policy process from the dominant actors and other participants in this process.

Observation of policy seminars and workshops on national health policies focusing on NCMS and MFA was also an important method to derive useful information and clues from the way different stakeholders spoke or from what they said and did not say. This technique could disclose some further information that was either missed or concealed in the literature review and interviews.

The development of policies on NCMS and MFA

The policy process is often cyclic: starting with the recognition of a problem or an issue, moving to agenda setting and formulation of policy to address the issue, then to implementation of the policy and finally its evaluation or assessment. The outcome of this assessment gives feedback for the next policy cycle (Sabatier and Jenkins-Smith 1993). Although many have pointed out that the stages do not necessarily follow a linear pattern, it still provides us with a useful perspective to analyze the establishment and development of these two new health policies in rural China.

SETTING THE POLICY AGENDA

The emergence of public concerns on rural health

In the late 1970s, the market economy reform started in rural China, and the rural collective economy gradually imploded. In most localities this led to the collapse of CMS and households had to bear the full financial risk of

major illness from then on.

Gradually public interest in the problems of the rural health services increased and the vicious circle of illness and poverty became more known as stories appeared in newspapers, television programmes and websites. Over the past 20 years, the mass media have brought the following issues to public attention: disparity in the allocation of health resources, rapid increase in the cost of health care, tensions between doctors and patients, and problems with the quality and safety of medical care.

Although exaggeration and errors are inevitable in news reports, and public opinion might consequently have been misinformed, the media have played important roles in raising public awareness of rural health problems and in transforming the problem into a public issue.

THE TRANSLATION OF PUBLIC CONCERNS INTO POLITICAL ISSUES

Not all public concerns are translated into political issues. Resources and political attention are limited and the government makes choices according to its political priorities and considers whether there is any policy solution available and a supportive political environment. If the policy makers become convinced that a problem is urgent, a window is opened for policy makers to reach into the policy stream for alternatives that can reasonably be seen as a solution (Kingdon 1995).

The government was relatively slow to respond to the problem despite the rural health system crisis being well-reported by think-tanks, and by national and international scholars for more than 15 years. During this period two influential focus events led to a 'window of opportunity' for the case of rural health care. These focus events influenced governmental officials and their advisors to see the public concern as "big" and "crucial" which helped to translate the public concern into a policy issue. While the emergence of these focus events had its contingency and uncertainty, they generated an inevitability rooted in the economic and socio-cultural context, which will be discussed later in the section on the analysis of dynamics. The first focus event was the Report to the Premier by Mr. Li Changping. Li Changping, a Party Secretary in a town in Hubei province, wrote to former Prime Minister Zhu Rongji about the precarious health situation of farmers

in 2000¹. His letter drew the attention of policymakers and the mass media to the health problems in the rural areas and opened a political window. The second focus event took place in late 2001 when the former Vice-Director of the System Reform Office of the State Council, Mr. Li Jiange, called for serious attention by policy-makers to the big problems with rural health services and stated that the government had to shoulder its responsibility for providing rural residents with essential health care (Li 2001). This alerted senior political leaders and placed the issue firmly on the policy agenda.

Since then think-tanks and the political elites acted to bring the issue onto the policy agenda. According to the statistics of the Chinese Journals Full-text Database, the most authoritative database of academic journals in China, the total number of papers embodied into the database from 1911 to 1979 which contain “rural health” or “rural cooperative medical scheme” in their titles is about 221, but this number rose up to 3,121 from the year 1980 to 2002. This attests to the extensive academic attention given to this issue by researchers in the past two decades. Accompanying this trend, political proposals submitted by the delegates of the National People's Congress (NPC) and members of the Chinese People's Political Consultative Conference (CPPCC) have also drawn attention to rural health. The Vice Chairman of the National Committee of the CPPCC, Zhou Tienong, undertook a four-year investigation of rural health, starting from 2002, concluding that there was a need to establish a formal rural medical security system and offering a number of policy suggestions.

Meanwhile a favorable policy environment was developed with a change of policy paradigm and an increase in financial capability, which will be discussed later. In this context these focus events and public actions accelerated the rise of rural health on the policy agenda and provided some policy alternatives.

¹ In Li Changping's letter, he has not only put forward the problem of rural health, but also stressed the seriousness and urgency of the situation in the Chinese countryside. He summarized the entire situation with the following three phrases: the life of rural residents is so hard; the countryside is so poor; agriculture is so risky. As rural health is part and parcel of the current countryside predicament, it also attracted the attention of policy makers. Later in Jan. 2002, his book entitled “I tell the truth to the Premier” was published and immediately caught the attention of the media.

CHOICE OF POLICY ALTERNATIVES

Agenda-setting determines what public concerns will be put on the policy agenda, but a number of factors determine whether it leads to a new policy. A policy alternative must be financially and politically viable. The choice between policy alternatives reflects a complex tradeoff between different interests and the result is always the “better” alternative, not necessarily the “best” option.

Take the example of NCMS. Before the NCMS became a nation-wide policy, the Chinese government had already collaborated closely with institutions from the international community, such as the World Bank, World Health Organization, the Department for International Development of the UK, Rand Corporation of the United States, and also with domestic research institutes to conduct pilot experiments² in a number of counties. The aim was to explore ways to provide rural residents with reliable healthcare after the old cooperative medical scheme had collapsed. These ideas derived from these pilot projects boosted policy makers’ confidence that the rural health care system could be rebuilt. At that stage though, explicit policy alternatives were not yet well developed. Nevertheless, the general direction and the policy framework gradually crystallized.

In the year 2002, a more detailed policy design became necessary when the central government finally planned to establish a new type of rural Cooperative Medical Scheme. This generated intense discussion on various policy alternatives, for example on the funding issue. Although the central government agreed to provide more funding, there were diverging views and

² These projects have involved many international organizations and domestic institutes: between 1985 and 1993, the World Bank, Rand Corporation (USA) and the Ministry of Health (China) conducted a series of research activities on rural health insurance in Sichuan province (western China) in the Health Project; Anhui Medical University, the Ministry of Health (China) and the Research Office of the State Council (China) have conducted research on the rural Cooperative Medical Scheme and health care system in the late 1980s and in 1993. Thereafter the Ministry of Health (China) collaborated with the World Health Organization by setting up pilot experiments in 14 counties of 7 provinces from 1994 to 1998; the World Bank, the Department for International Development (UK), and the Ministry of Health (China) collaborated in the Health VIII Project to conduct pilot experiments in 10 provinces in the middle and western China between 1999 and 2007. These experiments aimed to improve the capacity of health services provision and utilization in poor areas, and provided many policy concepts for the subsequent development of the Medical Financial Assistance Scheme.

occasional disputes between government departments and between central and local governments. The Ministry of Health proposed a total contribution of 50 yuan per capita, half of the estimated per capita funding required for delivering appropriate rural health care. But the Ministry of Finance insisted on the principle of “what I can do is up to what I have”, because health is not the only concern when government budgets are agreed. Economic development always comes first (Wang 2002; Wang 2007). Meanwhile, the central government expected local governments to play a leading role in financing NCMS, whereas local governments counted on the central government to provide fiscal transfers for this purpose. After a period of negotiation the final result was an agreement that the local government and rural residents should each contribute 10 yuan and in addition, in the western parts of the country the central government would provide a further 10 yuan per capita. The question as to which levels of local government should contribute most was resolved with the provincial governments becoming the main source of funding with the governments at city, county, and township levels contributing lesser proportions. However, in the eastern part of the country, the reality has been that government at county level has contributed most of the financing (Evaluation team of NCMS 2006).

Apart from the funding issue, the question whether the NCMS should be voluntary or compulsory was also highly controversial. The government and some scholars (Shen 2003; Dong *et al.* 2007) preferred the voluntary participation principle for rural residents, because from the year 2000, the central government started the “Fee to Tax” Reform to alleviate the financial burden of rural residents. Consequently, the government was very reluctant to compulsorily collect fees from rural residents for NCMS as it would be interpreted as violating the tenet of alleviating rural residents’ financial burden. Additionally, the voluntary participation principle was posited as showing respect for rural residents’ freedom to choose. Other scholars and international organizations (Liu *et al.* 2002; Bloom and Tang 2003; Long and Luo 2005; Li and Wang 2008) advocated compulsory participation to avoid the “adverse selection” issue. They urged the government to regard the NCMS as a government dominated health insurance scheme and to provide more and steady financial support. In the end, after carefully considering all these different opinions the central government opted for voluntary participation. The official rationale behind the decision as mentioned in the interviews with officials from the Ministry of Health was that this would

make the new scheme more acceptable for rural residents.

LEGALIZING THE NEW RURAL HEALTH POLICY

After choosing the preferred option among several policy alternatives, policymakers and legal subjects have to enact this policy through issuing formal documents. Legitimacy and authority is granted to the new policy by both political and legal authorities, after policymakers reach a consensus on the way to move forward (Dye 1988; Zhang 1996).

In order to give legal status to the new policy on rural health, the central government had to promulgate certain documents. The NCMS and MFA were established by the 'Decision on Strengthen Rural Health Care' issued by the CCPCC and State Council in 2002, with the aim of complementing each other in relieving the economic burden of major illness on rural residents and improving access to essential health care (CCPCC and State Council 2002). It was the first time in Chinese history that the government (from central to local level) had taken a leading role in providing health security for rural residents (in terms of fiscal, management and supervision responsibility).

Following the Decision, the Ministries of Health and Civil Affairs issued a joint 'Opinion on Establishing the New Cooperative Medical Scheme' and the 'Opinion on Implementing the Rural Medical Assistance Scheme' with the Ministries of Finance and Agriculture respectively in 2003. These became the guideline documents in the development of NCMS and MFA

The outbreak of SARS in 2003 exposed the vulnerability of the public health and health provision system in rural areas, making the public and policy makers recognize the urgency of developing systematic rural health systems, including accelerating the set-up of the NCMS and MFA schemes. Henceforth the Ministries of Health and Civil Affairs issued several documents to regulate funds management and monitoring the NCMS and MFA

In 2006 the Ministry of Health and other related Ministries promulgated the 'Notice on Accelerating Pilot Work of the New Cooperative Medical Scheme', including the schedule for NCMS development, guidelines on raising fiscal subsidies for each participant and further development of NCMS. The government subsidy was also raised from 20 to 40 yuan.

The development of the NCMS was accelerated when in 2007

President Hu Jintao in his report to the 17th National Congress of the Communist Party of China proposed the acceleration of the establishment of a social security system and essential health care system for rural residents. With top political commitment, a further increase in the financial subsidies for NCMS was made in 2008, which will be mentioned in the policy adjustment.

IMPLEMENTATION OF RURAL HEALTH POLICY

The central government has only stated general principles, leaving local governments with a lot of flexibility and leeway in policy implementation. On the whole, local governments have taken positive measures to develop rural health care schemes under the guidelines proposed by the central government. This is evidenced by the rapid roll-out and scaling-up of the NCMS over the past few years. Table 1 illustrates the overall impact of this roll-out.

Table 1. Roll-out of the Rural New Cooperative Medical Scheme in China (2004-2007)

		2004	2005	2006	2007*
Coverage	N°of pilot counties	333	678	1,451	2,448
	N°of participants (billion)	0.08	0.18	0.41	0.73
	Enrollment rate (%)	75.20	75.66	80.66	85.96
Fund	Total funds (billion yuan)	40.13	92.83	213.59	353.26
	Total expenditure (billion yuan)	25.09	61.75	155.81	220.31
Benefit	N°of beneficiaries (million)	7.60	12.24	27.22	26.33
	Average fees for hospitalization (yuan)	2,818.56	3,343.88	2,774.54	-
	Actual reimbursement rate per inpatient (%)	24.67	23.41	27.80	-

Note: * Full year data for 2004, 2005 and 2006; 9 month data for 2007.

Source: Center for the China Cooperative Medical Scheme, Ministry of Health (MOH, China): <http://www.ccms.org.cn>

By the end of the third quarter of 2007, 2,448 counties nationwide had implemented the NCMS, and 730 million farmers were enrolled in the NCMS, putting the enrollment rate at 85.96%. This shows the development of NCMS has been boosted ahead of the schedule proposed by the central government. The total NCMS fund collected and expended by the third quarter of 2007 was nearly 9 times of that in the whole of 2004, but the increase of the beneficiaries has not reached this speed and the number of beneficiaries only accounts for less than 10 percent of the total amount of participants. This suggests a problem of accessibility in NCMS reimbursement. In addition, the exclusion of coverage of many diseases, examinations and drugs has led to the actual reimbursement rate of NCMS for the inpatient beneficiary reaching only 27.8% of their total health expenditure in 2006.

Although substantial progress has been booked in the reform of the rural health care system over the past few years, there is always a gap between the anticipated policy implementation and how it turns out in reality. The lack of institutional linkage between the NCMS and MFA schemes is an illustration of this. As explained in other chapters in this book (Xu *et al.*, Zhang *et al.*), the MFA is intended to supplement NCMS by helping the rural poor participate in and benefit from NCMS. The schemes have been managed by the Ministry of Health (for NCMS) and the Ministry of Civil Affairs (for MFA) respectively and the organizations affiliated to them. In many situations there was little linkage between them, leading to inequities and inefficiency. For example, the NCMS defined a deductible in its reimbursement rules but the MFA did not help its beneficiaries pay the NCMS deductible. Meanwhile, another deductible had to be applied when the rural poor applied for MFA. This has resulted in confusion and the persistence of financial barriers that prevented poor people from benefiting from both NCMS and MFA.

Many problems popped up during implementation, and at times policy intentions were violated. There has been a discrepancy between the high cost of NCMS for families and the rather limited benefits. The Ministry of Health has disclosed some rule-breaking behaviors in the policy implementation: health facilities and patients conspired sometimes to cheat the NCMS funds by excessive examination, unnecessary prescriptions or other over-servicing activities. Some local governments were reported as taking unlawful measures to achieve a high coverage rate in the early stage of

launching the NCMS³. Most of these issues resulted from a lack of effective supervision and accountability mechanisms, and to some extent from perverse political incentives for local governments.

EVALUATION AND ADJUSTMENT OF RURAL HEALTH POLICY

Over the past three years, the performance and effects of the NCMS and MFA have drawn a lot of attention from home and abroad. The World Health Organization (WHO 2004), United Nations Development Programme (UNDP 2005), World Bank (WB 2006), the National Center for Health Statistics, China (NCHS, China 2007) and the NCMS evaluation team composed of experts from Peking University and some other institutes (Evaluation team of NCMS 2006) have carried out evaluations of the rural health security system.

The conclusions of these evaluations suggest that rural residents have benefited from the NCMS and MFA schemes, their utilization of health services has increased and the economic burden of disease has been alleviated to some extent. Nevertheless these evaluations also identified a number of problems and issues associated with the low levels of financing and reimbursement for both schemes, the equity issues faced by the rural poor to getting essential health services and reimbursement, the types of household to be covered by MFA, inadequate management and monitoring mechanisms for both schemes.

The government has taken these criticisms into account and acted to adjust its policies. In late 2006 some researchers advocated policy adjustments of the MFA and the NCMS including the ending of the MFA co-payment for the rural poor, and assisting the rural poor to pay the NCMS co-payment. These policy recommendations have been followed by most

³Evidence is found in the press briefing on NCMS and some news reported in the newspaper and on the website. The spokesman for the Ministry of Health has disclosed in 2007 that the health facilities in Xichuan County of Henan province and in Yang county of Shanxi province have cheated the NCMS fund by false reporting of the population receiving physical examination. The fraudulently received money was returned and the related officers and doctors were punished. The Medicine Economic News of China and the Journal of Weekly Outlook have also reported some rule-breaking behaviors, such as the local government's fraudulent claim on the central governmental transfer payment for NCMS (in Hunan province), and conspiring by the health providers and the patients to receive unwarranted NCMS funds in Jiangsu province. The reports also contained details of countermeasures taken by the local government.

counties. In 2008, the central government and local government declared their intention to increase the financing for the NCMS at a National Health Conference. The total funding from the central and local government was raised from 40 yuan per capita to 80 yuan per capita. Although this increase does not fully meet the huge actual needs of the NCMS funds to ensure adequate reimbursement for rural residents, the action demonstrates the positive response of the government to the demands of Chinese society and international institutions.

Analysis of the Dynamics in Rural Health Policy Process

This section explores the macro and micro factors that have influenced the policy process. Macro-level factors refer to the impact of economic and social structure transitions, changes of policy paradigms and decision-making modes, as well as Chinese health reform of rural health policies. They explain why some rural health issues entered the policy agenda at this particular time, and cover the societal and political background and the trends that influenced this policy process. Micro-level factors refer to the conflicts of interests and compromises between stakeholders in the development of rural health policy, and their influence on the choice made and the implementation of policies.

MACRO-LEVEL FACTORS

Impact of economic transition on rural health policy process

The evolution of China's rural health policy is closely related to the nation's economic transition. From the 1970s, the Chinese economic system has passed through two phases. The first phase (1978-1984) focused on rural reform and development. Through implementation of the Household Contract Responsibility System, rural residents were encouraged to develop various kinds of business and industries and associated production to promote the development of rural commercial circulation. This led to the rural collective economy, on which the old Cooperative Medical Scheme relied, breaking down and the collapse of the CMS. As a result, health security was one of a number of risks that rural residents faced during the economic transition.

In the second phase (after the 3rd Plenary Session of the 12th National Congress of the Communist Party of China (CPC) Central

Committee 1984), the economic focus shifted to urban development, and overall development of a socialist market economy became the goal. During this period, emphasis was given to the readjustment of social and economic interests. Although agriculture and rural areas provided a lot of resources to help sustain industrialization and urbanization, resources constantly flowed to urban areas and the gap between rural and urban areas widened. The urban-rural dualistic structure in the health sector was obvious: urban residents had access to social medical insurance financed by the national budget and their employers, while rural residents had no protection for essential healthcare.

After over 20 years of development and a short blip due to the Asian economic crisis (and its subsequent recovery) at the end of the 1990s, the Chinese economy was merged into the global setting by entering the WTO. This gave a further boost to the economy. The government finally had sufficient revenues to finance basic health protection for the rural population. At the same time, the government became increasingly aware of the need to ensure that rural residents secured adequate benefits from the nation's economic development to maintain their support for reforms and to ensure stable and sound economic development.

In short, economic transition enlarged the disparity between the urban and the rural areas, which became a serious social, political and economic problem and imposed the urgency of providing the farmers with security. Meanwhile economic growth and the associated rise in government revenue laid a solid foundation for the introduction of rural health protection into the policy agenda and for the issuance of the rural health protection policy in 2002.

Impact of social structure transformation on rural health policy process

The policy process of rural health also reflects the concern of the government to reduce the contradictions and conflicts generated by changing social structures.⁴ The reform of the economic system from the late

⁴ As for social structures changes: the "Decision on Some Major Issues Concerning Building a Socialist Harmonious Society" issued by the 16th CPC Central Committee at the 6th Plenary Session in 2006 pointed out: "China has moved to a crucial period of the reform process, in which the economic system, the social structure, the interests of different groups and people's ideas and thoughts are experiencing profound transformation and changes."

1970s increased the mobility of various resources in the society that used to be under the control of the state. There was more social mobility which fostered the rise of independent interest groups. Social relationships that used to be characterized by a “strong state, weak society” framework were significantly transformed, as the state’s role decreased, enabling a transition from a previously totalitarian government to a limited state.

As a consequence, new government regulation became necessary on the identification and delineation of people’s social status, ways of employment and income distribution, social insurance, welfare and other social sectors in China (Sun 2004). However, compared with the economic reforms and development, social development and transformation have relatively lagged behind in China. This resulted in a situation where the traditional role of state had reduced, yet an effective autonomously functioning social system or a sphere of civil society had not fully developed. Various social problems concerning social equity have emerged in the Chinese society. At the core behind all of them, as cited by Premier Mr. Wen Jia Bao in 2004 at the National People’s Congress, has been the equitable share of the outcomes of reform among different social groups.

From thereon creating fair access to the social benefits generated by the reform has become a central platform for promoting social sector development. On the academic front, the concept of social capital in the emerging social stratification of China has come to the fore for social policy development. Social capital has been brought back to a very tangible concept of societal assets, such as respect, status, income, safety, health, ... a well known term in political sciences (see for example Lasswell 1992) and is used in policy analysis. Strong groups and factions (with substantial political, economic, cultural and intellectual power) have acquired most of these societal assets through all kinds of legal and illegal distribution mechanisms. On the other hand, rural residents, migrant workers, the unemployed, the retired and other vulnerable groups in China are loosely organized and have little means to claim social assets generated by the economic reform (Cheng, Huang and Wang 2003).

Consequently, rural residents have a lower social status in comparison with the Mao era. Without the necessary skills and power, and with little access to sound mechanisms for their participation and expression, they have had little influence over the policy process. Consequently they became more vulnerable to the suffering of poverty, unemployment and illnesses. Migrant

rural residents became even more fragile in this new social configuration.

These societal phenomena have had a profound influence on rural health policies. China has always maintained a relatively strict dualistic characteristic in its policies on urban and rural issues. However, in the reform era this separation became more problematic, as a great number of surplus rural workers migrated to the cities to join the labor force there. The massive influx of migrant workers put a lot of pressure on the capacity and resources of urban areas and presented a huge challenge to both urban and rural health security systems. The floating population found themselves somewhere stuck between their informal mobile status and the formal urban institutional arrangements available to certified urban residents. The situation in the countryside was even less promising, as rural residents had no health insurance.

By the end of the 90s the health issues of rural residents and rural-urban migrants and the pressure of health had gotten full attention of Chinese society. Health issues have ranked high in the list of social issues that people care most about since 2000. According to statistics from a national sample survey conducted by the Chinese Academy of Social Science (CASS) in 2007, inaccessibility and unaffordability of medical care ranked No. 1 among the three most crucial social issues (CASS 2007). It seems obvious that if rural health issues are not being dealt with properly, this could spark social instability.

Impact of changes in decision-making model and policy paradigm on rural health policy process

Chinese decision-making generally follows the top-down elite model (Lu⁵ 1998, Li 2004). Over the past 20 years, the decision making model in China has changed from an individual decision making model - i.e. dominance of one political leader - in the Mao era to a group decision making model towards the end of the Deng era, whereby the Party leadership takes the decisions jointly. More recently, a more democratic participatory decision making model is adopted by the third generation of the Party's leadership

⁵ Lu Mai, Senior Research Fellow of Development Research Center of the State Council and the Secretary General of the China Development Research Foundation, pointed out in his paper entitled "The Decision Making Process of Rural Reform in China" that the saying "Deng Xiaoping is the general designer of China's Reform and Open Policy" is a vivid reflection of the top-down decision making process in China.

(Hu 2006) within the party. Policy mainly reflects preferences of the elites and their way of observing the real world, it is their interpretation of the world that matters most.

The political, economic and intellectual elites that make up the elite in China possess resources and have substantial influence over the society and social life in general. Due to the social configuration, the non-elites lack the knowledge and access to resources to influence the policy process. Wei Shuyan (Wei 2006) compared the political elites in China and Western society in terms of their structure, culture, influence and common practices. She pointed out that the political elites in China play a more prominent role and have more influence over the economic and intellectual elites than is the case in the West. Political elites are also more likely to express and represent the general interest than politicians and policymakers in western society, who tend to represent their own interest groups and voters leaving them with comparatively less influence than their Chinese counterparts.

The rural health policy process in China reflects this situation. From the previous discussion, we found that a long-term momentum was created by the political elites (the ruling party and the government) and academic elites. They made a significant effort to promote the development of the rural health policy process by conducting investigations, research and advocacy. Apart from the abovementioned two elite groups, the media and other stakeholders and interest groups also played an active though less dominant role, especially during the agenda setting and in widening the discussion of rural health policy alternatives. Detailed analysis of the influence and action strategies of these stakeholders will be discussed in the latter part of this paper. So there is a trend towards a more pluralistic elite decision-making model in China, as the leadership is aiming for more scientific and democratic decision-making. From the previous review of the rural health policy process development, it appears that the rural residents are not yet fully aware of this development and have had consequently little influence over decision-making. However, this trend bodes well for the public's active participation in the rural health policy process in the future.

The above discussion also implies that the degree to which rural health policy can reflect the interests of rural residents and conform to the principles of a balanced and harmonious development of the economy and the society depends basically on the policy paradigms embedded in the elites' minds.

According to the definition of policy paradigm by Peter Hall, policymakers usually work within a framework of ideas and standards that specifies not only the goals of policy and the kind of instruments that can be used to attain them but also the very nature of the problems they are meant to address. Such interpretative framework is called a “policy paradigm” and policy can shift in three ways depending on the changes in three central variables: the overarching goals, the policy instruments and the precise settings of these instruments (Hall 1993)⁶. Only when all three components are changed, the term ‘policy paradigm shift’ is appropriate; Hall coins this situation a ‘third order change’.

For the 20 years after the start of the Reform and Open-door policy, the policy paradigm in China could be labeled as “policies centered on economic growth”. As the overarching goal was to promote economic development, the central government proposed a “Three-Step Strategy”⁷, hoping that economic development could bring at the same time overall development. Consequently many policies were issued to promote economic growth, without considering issues of the development of the social sector and other sectors. This resulted in a rather imbalanced development of the economic sector and other sectors. As lots of social problems emerged overtime as mentioned above, including rural health care issues, Chinese policy makers have adjusted the precise settings of existing policy instruments and changed some policy instruments to try to deal with these social problems. Evidence of this trial and error - Hall would call these incremental policy adjustments first and second order changes - can be

⁶ The three orders of change in policy making proposed by Peter Hall are as stated below: first order change - the levels or settings of the policy instruments are changed, while the overall goals and instruments of policy remain the same; second order change - the instrument of policy as well as its settings are altered, while the overall goals of policy remain the same; third order change - all three components of policy are changed. The first two order changes are regarded as normal policy making, while the third order change is considered as a paradigm shift.

⁷ Three-step strategy: China's overall economic development objectives were clearly stated in the Three-Step Development Strategy, set out in 1987: Step One - to double the 1980 GNP and ensure that the people have enough food and clothing - was attained by the end of the 1980s; Step Two - to quadruple the 1980 GNP by the end of the 20th century - was achieved in 1995 ahead of schedule; Step Three aims to increase per-capita GNP to the level of the medium-developed countries by mid-21st century. At that point, the China's people will be fairly well-off and modernization will basically be realized.

found in the policies issued to reduce the financial burden on rural residents, to implement the “fee to tax” reform, to rebuild the cooperative medical scheme in rural areas without governmental input etc. But these incremental changes in policy could not improve the predicament of rural residents substantially. Worse still, the failure of these first and second order changes challenged the locus of authority over the policy.

China has been implementing Deng’s saying of “crossing the river by touching the stones”⁸, and it took time before the Chinese government realized what the true goal of the reform process should be. Some members of the elite groups gradually grasped the need and opportunity for a third order change. While they continued to support economic development as the center and forefront of reform, they saw it as not the only factor to be taken into account. Without synchronous development both of the economy and society, China would not be able to achieve sustainable economic and social development. The ultimate goal was transformed to economic and social development to allow people to live a happy life and to share equally in the benefits generated by the reforms and development in China.

This change in the overarching goal is obvious from the proclaimed ambition to establish a “Xiaokang Society”, as⁹recorded in the Report of the 16th National Congress of the CPC Central Committee in 2002. Later the “establishment of a harmonious socialist society” was raised in the 4th plenary session of the 16th National Congress of the CPC Central Committee in 2004 as one of the five aspects necessary to strengthen the party’s capacity to govern the country and display strong leadership. “The

⁸ “Crossing the river by touching the stones at the riverbed” refers to one of the core ideas of Deng Xiao Ping about the Chinese development path. This implies that there are no good answers for reference, so the Chinese people have to work out a proper development mode on their own by trial and error. This sentence was first put forward by Chen Yun (1905-1995) in 1950. He was a great proletarian revolutionary, Vice-Premier and one of the initiators and founders of the Chinese socialist economic system. In the early stages of the reform of the Chinese economy, Deng Xiao Ping agreed with Chen Yun’s ideas and incorporated these into his theories of Chinese Reform and Opening-up.

⁹ Xiaokang Society: The report President Jiang Zemin delivered at the 16th National Congress of the Communist Party of China (CPC) on November 8 was titled "Build a Well-off Society in an All-round Way and Create a New Situation by building Socialism with Chinese Characteristics." In the Chinese original version, the equivalent of "a well-off society" is "a xiaokang society". Scholars agree an exact English equivalent for ‘xiaokang’ does not exist; ‘xiaokang’ means less affluent than "well-off" but better off than ‘freedom from want’.

Central Party's Decision on Several Key Issues Concerning Constructing a Harmonious Socialist Society" issued in 2006 (Central Committee of the Communist Party of China 2006), paid more attention to people's livelihood, justice and equity. With the policy paradigm shifting from "economic development centered" to "harmonious development", improving the health status of rural residents inevitably became one of the most urgent social issues on the central government's policy agenda.

To sum up, both greater pluralism in the elite decision-making model and the changed policy paradigm played a key role in the evolution of rural health protection policy. The New Cooperative Medical Scheme and Medical Assistance Scheme were produced against this political landscape. Over time the schemes were mentioned more and more in all kinds of policy documents and public reports, and were widely discussed.

Impact of the overall health sector reform on rural health policy process

Rural health reform is just one aspect of overall health reform. Adjustments of rural health policy must be consistent with the basic principles of the sector-wide reform.

The government introduced a series of health reforms in the late 1990s to deal with issues such as an imbalanced distribution of health resources, a shortage of financial input, disruptions to drug distributions and local availability, slow development of medical insurance, and rural residents' poor access to essential health services. Health reform had originally focused on urban areas. At the National Health Working Meeting in 2002, Premier Wen Jiabao pointed out that the focus of future health work would be rural health, and thereby laid a foundation for the issuance of NCMS and MFA policies. Urban health reform continued to be a key policy issue and attracted more resources, but the priority given to reform of rural health policy definitely increased.

"The Chinese Communist Party Central Committee's Decisions on Several Key Issues Concerning Constructing a Harmonious Socialist Society" in 2006 clearly stated the need for "establishing an essential health care system covering urban and rural residents", "facilitating up-scaling of NCMS", and "developing social medical assistance", all of which focused on developing NCMS and MFA as critical parts of the essential health care system. In the "Government Working Report" at the 5th session of the 10th National Congress of the CPC Central Committee in 2007, Premier Wen

Jiabao identified four key tasks to establish a vital health care system. The first key task recommended the active promotion of NCMS. This was the highest political priority the rural health protection policy has ever gained in the policy agenda. This created a unique opportunity for the development of NCMS and MFA schemes and laid the foundation for more resources and support for the rural health policy.

MICRO-LEVEL FACTORS

Competition between various stakeholders has been an important influence at micro-level on the development of rural health policy. The following analysis of stakeholders is mainly relevant for the agenda setting and policy formulation stage. Obviously, key stakeholders need to be identified first. In the rural health policy network, relevant departments of the central and local government, think-tank institutes, delegates of the National People's Congress (NPC) and members of the Chinese People's Political Consultative Conference (CPPCC), health providers and rural residents are the key stakeholders.

In-depth interviews were conducted with these key stakeholders, and national health policy seminars were attended to observe the way different stakeholders speak or what they say. The analysis of these can be summarized in the following points. The interests, advantages and disadvantages of the key stakeholders, and their basic attitudes, influences and strategies are portrayed in Table 2. Different ministries within the government and the governments at different levels (central, provincial, county, and township level) are clearly different stakeholders. Nevertheless, compared with other independent stakeholders outside the administrative circle, the government can be considered as a united stakeholder, this for didactic purpose, in a first and rather rough analysis. In addition to this government versus external stakeholder analysis, a more detailed analysis of the stakeholders within the government at different administrative levels and departments is also incorporated in the paragraphs below.

Table 2. Stakeholder analysis of rural health policy process

Stakeholders	Interests	Advantages & disadvantages	Attitudes	Influence	Strategy
The government	- Mitigate poverty caused by illness - maintain political support	<i>Advantages:</i> Absolute control of various resources; strong mobilization capacity. <i>Disadvantages:</i> Insufficient information; lack of knowledge on specific issues; suffer political risks.	Active support for the policy, but ambiguity among different ministries	Very strong	- Try to increase the support for action among the other stakeholders - make use of the assistance from think tanks - strengthen monitoring mechanisms and avoid political risks.
Think-tank institutes ¹⁰	- Improve the health status of rural residents - increase political influence and status - increase funding resources - introduce advanced ideas and techniques to China	<i>Advantages:</i> Expertise and knowledge; close relationship with policy makers and the media; good access to the policy and information; rich international experience <i>Disadvantages:</i> Lack of economic and political mobilization power; difficult to understand the Chinese context for international organizations.	Active support	Quite strong	- Keep a close relationship with political circles - try to understand political views and aims of senior policy makers - try to maintain a close relationship (between domestic and international institutes) in order to get more insight into the Chinese background (for international organizations) and international experience (for domestic institutes) - act as policy "gatekeepers" - try to bridge the gap between the demands of rural residents and political attention - cooperate with the media to gain support from the public - enhance their political

¹⁰ Think-tank institutes here refer not only to domestic research institutes but also to some international organizations that have been actively involved in Chinese health policy over the past few decades, like the World Health Organization, World Bank, Department for International Development (UK), European Union, etc.

Stakeholders	Interests	Advantages & disadvantages	Attitudes	Influence	Strategy
NPC and CPPC delegates/members	<ul style="list-style-type: none"> - Report the needs of those at grassroots level - represent the interests of specific political or economical groups; - boost their own political careers. 	<p><i>Advantages:</i> Extensive information; have a certain political influence.</p> <p><i>Disadvantages:</i> Lack resource mobilization power.</p>	Supportive	Quite strong	<p>and academic influence</p> <ul style="list-style-type: none"> - Try to understand political views and priorities - advocating the protection of rural residents' interests through official channels and the media
Health providers	<ul style="list-style-type: none"> - Maximize profits - serve the public interest if possible. 	<p><i>Advantages:</i> Control on information and techniques.</p> <p><i>Disadvantages:</i> Lack of involvement in policy process.</p>	Ambiguous	Relatively strong	<ul style="list-style-type: none"> - Make use of their information advantage, and approach political circles to maximize or protect their interests. - try to maximize profits within the framework of laws, rules and regulations.
Rural residents	<ul style="list-style-type: none"> - Care for individual and actual interests - want more benefit at a low cost. 	<p><i>Advantages:</i> Potential force in shaping public opinion in favour of or against policies.</p> <p><i>Disadvantages:</i> Few economic and intellectual resources; lack of cohesion as an interest group; lack of proper channels for voicing their concerns.</p>	Doubtful and even potentially distrustful (if outcomes do not correspond with input)	Quite weak	<ul style="list-style-type: none"> - Give support only after they really benefited

From the analysis in the table above we can see that the government and the think-tank institutes are the driving forces in the policy process. They try to represent the rural population, and to counterpoise the interests of other stakeholders, and they can help achieving their interests through mobilization of the resources they possess.

The relationship between the central and local governments in the policy process is very interesting. The central and local governments support promoting the rural health policy process to maintain and gain political support and advance the careers of individuals. However, the local governments, including the provincial, county and township governments have more power over the agenda setting and policy implementation than they do over policy formulation, so they are likely to make a choice based on the central government's aims and commitment, as well as on their own assessment of cost-benefit. In this sense, the local governments do not unequivocally support the policies adopted by the central government, as they lack sufficient financial resources to meet their responsibilities. Here the benefit as mentioned above refers mainly to the general public's interest. Nevertheless obviously their personal and departmental benefits, such as individuals' political prospects or potential additional resources for their departments, are also taken into account in their assessment. When benefits exceed the input, the local governments, (and especially the county government) will give real support whereas if the input is higher than the benefits, they give only superficial support, or pay lip service to the policy. Therefore, in the bargaining and interplay between the central government and local governments in the policy process there is good reason for local decision makers to be involved as much as possible. From another point of view, to increase the expected benefits from the local governments, the central government should stress the importance of launching and implementing rural health policy and show its great commitment. They should also encourage them to increase the local (financial) input and rely less on the central input. At the same time, the central government should strengthen the political monitoring of the policy implementation and reduce the risk of accountability failure that exists between different administrative levels of governments

Within central government and local government there is also constant interplay between ministries and bureaucratic departments. Rural health administration involves over ten ministries at the central level,

including the Ministry of Health, Ministry of Civil Affairs, Ministry of Finance, Ministry of Human Resources and Social Security, the State Development and Planning Commission, the Ministry of Agriculture, etc. Their interests are all reflected at each local government level by their relevant local bureaus. The interests of each ministry are distinctive and at times conflicting:

The Ministry of Health takes the leading role in the rural health policy development, and claims to alleviate poverty due to illness and to improve the health status of rural residents. In its work however, it often confronts role conflict in attempting to manage the interests of both the supply side (hospitals) and the demand side (the population). As the Ministry of Civil Affairs is in charge of the welfare of the rural poor, it is a key player. The Ministry oversees MFA, and tries to ensure that the rural poor have equal access to essential health services, that its commitment to pay NCMS premiums for the poor is efficiently managed and that the poor are able to get proper reimbursement from the NCMS. The Ministry of Finance will cautiously take into account the respective applications for more financial input in rural health care schemes and make its choice according to the priority of the overall economic and social development and other civil affairs. The Ministry of Agriculture focuses on the interests of the demand side and insists on not aggravating the financial burden on rural residents by seeking reductions in the various levies placed on rural residents. In addition to their stated public interests, all the ministries seek to expand their political clout, get more and recurrent resources, and boost their own interests. So this has resulted in constant manoeuvring, occasional bickering, and eventually in compromises between ministries and departments in particular on the policy alternatives of the NCMS and MFA as well as on the policy adjustment of the two schemes within the overall rural policy process. Think-tank institutes act as partners for the government, providing it with policy recommendations and consultancy. In the Chinese situation, academic elites maintain close relationships with key decision-making bodies inside the government, so their influence and power in policy processes is very critical. In order to realize their own social values, they usually work as policy “gatekeepers”, making use of their own strengths in terms of intellect, knowledge, techniques and information while at the same time understanding the political goals and policy intentions of policy makers (Kingdon 1995; Hu 2006; Wei 2006). They put some social issues on the

policy agenda and persuade policy makers to pay attention to policy needs at grassroots level. In this way, they push specific policy items upward on the policy agenda and assure that the policy recommendations are scientific and practical through their involvement in policy design and selection of policy recommendations.

Delegates of the National People's Congress (NPC) and members of the Chinese People's Political Consultative Conference (CPPCC) play a more complex role. Theoretically, they should represent the people's interests and care for the welfare of the masses and the development of the country, but sometimes this does not hold as some political and economic groups may act in the interest of certain social groups (Xiao 2005; Ren 2008). Their attitude and behavior are not only influenced by individual political values but also by their interest groups and the political context of China. Some members of CPPCC thought that when solving rural health problems corresponds to their political and economic groups' interest, they may advance the political prominence of the rural health issue by providing the government with relevant policy options; only then they will actively promote the development of rural health policies.

Health providers are seldom involved directly in the top-down elite decision making model that characterizes the policy formulation in China. However, they may have a potentially major influence on the policy implementation stage because of their technical monopoly and information advantage in medical matters. In order to protect or maximize their interests, they will stay close to the political circles at the top to express their concerns to them. Their interests are mainly represented by relevant departments in local health bureaus. So they might have less political power but could still possibly exert strong influence in the policy process.

As the target group of rural health policy, rural residents are critical stakeholders. Nevertheless they are the weakest group in the policy network. Although rural residents have some influence on shaping public opinion, bringing rural health issues by their own effort onto the policy agenda is out of their reach. For instance, in the policy implementation, according to the principles proposed by the central government¹¹, delegates of rural residents

¹¹ In the document issued by the State Council, 2003, Opinions on the Implementation of the New Rural Cooperative Medical Scheme, proposed to establish a management committee and a supervision committee respectively with delegates from a number of government

(who are also the NCMS participants) are supposed to be included in the management committee or the supervision committee, However, many counties have excluded the delegates of rural residents from these two committees, while in other cases, counties have relegated the roles of these committees and rural resident delegates to a token formality. The rural population's weak impact on the policy making process is partly due to their lack of knowledge, their weak economical and intellectual resources, and to the lack of an effective institutional arrangement. All these explain the failure to bundle forces and form a united front with an influential voice. As a result, they are just passive recipients of policy. Without relevant knowledge and sufficient involvement in the policy process, they can hardly make informed judgments on the benefits expected to be generated by rural health policy. Therefore, rural residents may have positive views of the policy when they themselves or their acquaintances experience or receive benefits; on the other hand they usually distrust the policy if they themselves or their acquaintance did not get expected benefits from the policy at certain costs. This implies that a shortcut for the government to gain support from the grass-roots level is to truly benefit the target groups of the policy. To ensure the sustainable development of rural health policy however, the active participation of rural residents and sound institutional arrangement are required.

Conclusions

In summary, from the analysis of the development of rural health policy process and the dynamics in this process, we can draw the following three conclusions:

Firstly, the transition in economic and social structure together with the overall health sector reform provided the context for setting policy agenda setting and policy innovation. This context led to pressure for rural health reform and set the basic rules and principles for the design of policies.

Secondly, the changes in decision making model and the shift in emphasis from economic development towards social development were

departments including the health, finance and audit department, from the anti-corruption agency of the Communist Party and from local representative bodies and some delegates of NCMS participants.

decisive factors in the rural health policy process. The decision making model in the health policy process is now changing from the traditional top-down model, in which policy making was dominated by the political elite, to a more pluralistic but still elitist and technocratic decision-making model in China. We can infer from the above analysis an active and significant role played by political delegates (like the NPC delegates and members of CPPCC) and think-tanks, for instance some domestic research institutes affiliated to the central government and various international organizations that have cooperated closely with the Chinese government in the rural health policy process. Administrative authorities and research institutes both at home and abroad have joined forces to bridge the gap in communication among stakeholders and promote the development of rural health policies. The change towards a more scientific development philosophy and a people-oriented concept in 2005 determines what policy will become prominent and who will benefit most from the reform in the future.

Thirdly: a more open political climate has gradually been created and is encouraging stakeholders to participate in the policy process. Nevertheless, there is still a long way to go to shape formal and effective rules to ensure the active participation and positive influence of all stakeholders, in particular (input from) the rural population in the rural health policy process. Further progress was made in this regard when the 17th National Congress of the CPC Central Committee convened in October 2007 and proposed to protect people's rights of information participation, expression, and supervision. This will allow rural residents and other stakeholders to voice their interests more explicitly.

From the viewpoint of public policy, to make the rural health policy more consistent with the needs and interests of stakeholders involved and to reduce the gap between the policy intentions and actual implementation, three guidelines should be taken into account: first, rural health policies should reflect the whole background of economic and social structure transition, as well as the political and cultural context. Whether a policy will be sustainable in the long run and function properly depends to a large extent on the degree to which it is configured for and embedded in the Chinese context. Second, the non-government interest groups, who emphasize the public interest, like think tanks, people's delegates, medical associations, international organizations, villagers' autonomous organizations, etc. should be further developed. Indeed, people in China are

increasingly becoming aware of their role as citizens, their duty towards the nation, and feel more and more responsible for other Chinese people (Huang 2008). The government should capitalize on this rising citizen consciousness in the development of rural health policy. Lastly, formal mechanisms should be established to provide a forum for the expression of different interests and for the management of conflicts of interests. These mechanisms could be created in but also outside the government, like through regular cross-Ministries coordination workshops to promote the communication among Ministries, and regular symposia between policy makers and their consultation groups. Steps should be taken to ensure that the voice of rural residents and their claims could be heard and reflected in current NCMS management committees and monitoring committees at township and county level by the effective participation of rural delegates.

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References

Bloom G and Tang S (2003). The role of the Chinese government in the rural cooperative medical system, *International Medicine and Health Guidance News*, 15 : 7-9; Z2 : 7-9.

Chen Y, Xu X, Wang R, Zhang H, Wu N *et al.* (2005). Measurement of the effect of NCMS in relieving “poverty caused by disease”, *China Health Economics*, 24, 8 : 26-28. [In Chinese]

Cheng H, Huang W and Huang Y (2003). Research on the interest groups in the Chinese society, *Strategy and Management*, 4 : 63-74. [In Chinese]

Chinese Academy of Social Science (CASS) (2007). Blue book of Chinese society: Analysis and forecast on Chinese social development 2007, *Social Sciences Academic Press*, Beijing : 19-30. [In Chinese]

Dong S, Wang B *et al.* (2007) Voluntary or compulsory: on the participative principle of the rural new cooperative medical scheme, *Chinese Rural Health Services Administration*, 27 : 167-170. [In Chinese]

Dye T (1988). Understanding public policy, Englewood Cliffs, N.J. Prentice Hall Inc.

Evaluation team of NCMS, 2006, Developing NCMS : evaluation report on the NCMS, Press of people sanitation, Beijing : 46-55. [In Chinese]

Hall P (1993). Policy paradigms, social learning, and the state: the case of economic policymaking in Britain, *Comparative Politics*, 25, 3 : 275-296.

Hao M (1996). The way and outlines for the reform on rural health care system, *Chinese Primary Health Care*, 10, 8 : 12. [In Chinese]

Hao M, Ding X, Wu Y *et al.* (1999). An analysis on defects of catastrophic medical insurance in rural China, *Chinese Primary Health Care*, 13, 11 : 11-13.

Hu A (2006). Changes of decision-making mechanism and the role of think tanks in China, presentation on Center for China Study, Tsinghua University. [In Chinese]

Huang (2008). Show of public spirit: a good omen for China, China Daily, Opinion, May 28.

Kingdon JW (1995). Agendas, alternatives, and public policies. USA: Harper Collins College Pub. 2nd ed.: 84-85; 174.

Lasswell H and Yang Y translated (1992). Politics: who gets what, when and how. Business Press, Beijing: 3-6. [In Chinese]

Li G (2004). The elite decision making model and the reform of the political system in China, In: Xu X editors, 2004, The party, government and society in incremental political reform, China International Trust and Investment Corporation Press, Beijing: 85-87. [In Chinese]

Li J (2001). Some opinions on the employment of farmers, financing system and health works in rural areas, Comparison, Zhongxin Press, Beijing: 7 : 37-68. [In Chinese]

Li Z and Wang P (2008). The predicament of the rural new cooperative medical scheme, *Nan Fengchuang Magazine*, 4, online paper, URL: <http://www.nfcmag.com/view-104.htm>. [In Chinese]

Liu Y and Bloom G (2002). Designing a rural health reform project: the negotiation of change in China, IDS working paper 150, Brighton: Institute of Development Studies.

Liu Y, Ren R, Chen Y, Hu S *et al.* (2002). Analysis on the main factors of CMS operation in Chinese rural poor areas: results from interventions in 10 counties, *China Health Economics*, 4 : 11-16. [In Chinese]

Liu Z (2005). China rural medical financial assistance: situation, problems and countermeasures, *Journal of Changsha Vocational and Technology College of Civil Affairs*, 12, 3 : 1-6. [In Chinese]

Long G and Luo Y (2005). The NCMS participating principle should be changed from voluntary into compulsory, *China Health Economics*, 24, 4 : 60-61. [In Chinese]

Lu M (1998). Policy making process of the reform in rural China, *Journal of 21st Century*, Hongkong, 50 : 12:15. [In Chinese]

Mao Z and Jiang J (2005). Features and challenges of the rural new cooperative medical scheme, *China Health Economics*, 24, 1 : 14-15. [In Chinese]

Ministry of Civil Affairs (2003). Opinions on implementation of the rural Medical Financial Assistance Scheme. [In Chinese]

Ministry of Health, the State Development and Reform Commission, Ministry of Civil Affairs, Ministry of Finance, and Ministry of Agriculture etc. (2006). Notice on accelerating pilot projects of NCMS. [In Chinese]

Ren Z (2008). Return the real features to the member of Chinese People's political consultative conference, online paper, website of China Society of Economic Reform, URL:<http://www.cser.org.cn/>

Representative office of United Nations Development Programme in China and Development Research Foundation of China (2005). Human development report of China 2005: for equitable human development, Beijing: 6-8. [In Chinese]

Representative office of World Bank in China, 2006, Health reform in China: where is the way out, Beijing: 10-14. [In Chinese]

Representative office of World Health Organization in China (2004). Implementing the new cooperative medical schemes in a rapidly changing China: issues and options, Beijing: 9-23. [In Chinese]

Sabatier P, Smith H and eds. (1993). Policy change and learning: an advocacy coalition approach, Westview Press : 3-4 .

Shen W (2003). Voluntary or compulsory: another topic for NCMS, *Health Economic Research*, 12 : 27-28. [In Chinese]

State Council (2003). Opinions on implementation of the rural New Cooperative Medical Scheme. [In Chinese]

National Center for Health Statistics (2007). The investigative report of NCMS pilots 2005, Peking Union Medical College Press, Beijing : 8-15. [In Chinese]

Sun L (2004). Transition and rupture: transition of the social structure in China since the reform, Tsinghua University Press, Beijing: 8-20. [In Chinese]

The 6th Conference of the 16th Central Committee of the Communist Party of China, 2006, Decision on constructing a harmonious socialist society. [In Chinese]

The Central Committee of the Communist Party of China and the State Council (2002). Decision on further strengthening rural healthcare work. [In Chinese]

Walt G and Gilson L (1994). Reforming the health sector in developing countries: the central role of policy analysis, *Health Policy and Planning*, 9, 4 : 353-370.

Wang H, Vip W, Zhang L *et al.* (2005). The public benefit and equity of the rural cooperative medical scheme in China, *China Health Economics*, 24, 2 : 16-19. [In Chinese]

Wang L (2004). Development, status and challenges of the rural cooperative medical scheme, based on analysis and forecast report of the rural economy in China 2003-2004, Social Science Literature Press. [In Chinese]

Wang M (2002). Economic development is the chief task in the construction of the “Xiaokang Society”, Xinhua News Agency, URL: <http://www.china.org.cn/chinese/zhuanti/231628.htm> [In Chinese]

Wang S (2007). Principles for running a state: objectives and approaches for a country in transition, SDX Joint Publishing Company, Beijing: 538. [In Chinese]

Wang Y (2001). The role of the government in the rural medical security system, *Strategy and Management*, 3 : 15-24. [In Chinese]

Wei S (2006). Elite decision making model and its evolution in China, *Journal of Public Management*, 3, 3 : 28-33. [In Chinese]

Xiao C (2005). Who do you represent? Inquiry into the use of delegacy of the representatives of the National People’s Congress and Chinese People’s Political Consultative Conference, *China Economic Weekly*, 10 : 18-20. [In Chinese]

Zhang J (1996). Guidelines for policy science, China Renmin University Press, Beijing. [In Chinese]

Zhang Q (2003). Health care in rural areas : history, reality and reconstruction, *China Soft Science*, 3 : 5-8

Zhang Z (2006). Perfect linkage of NCMS and MFA is an important security mechanism for improving the effect of assistance, *Health News*, Sep. 13, 3rd ed. [In Chinese]

Policymaking in transitional economies: poverty reduction and health care in Cambodia and Laos

Kristina Jönsson

Abstract

The economic liberalisation processes initiated in the middle of the 1980s opened up Cambodia and Laos to the outside world, for people, goods and ideas. Market economy thinking has replaced the central planning system and war economy ideals. Still, both countries struggle with poverty, lack of human resources, and weak health care systems. The differences between urban and rural areas continue to be substantial and many poor people are vulnerable to unexpected expenses, often caused by illness. External funding constitutes a large part of the budgets, and donors and NGOs play an important role in policy formulation and implementation. Also, poverty reduction strategies and the fulfilment of the Millennium Development Goals influence the policy processes. The aim of the paper is to better understand the constraints of public policymaking in the field of poverty reduction and health in Cambodia and Laos. What kind of policies are developed and adopted and why? What kinds of implementation difficulties are there? What role does the context play for policymaking and what can we learn from a comparative perspective? The focus is on how to understand and analyse policymaking in these specific settings rather than on the policymaking processes *per se*.

Introduction

The last decades have implied radical changes in many countries around the world. The collapse of communism and the Soviet Union paved the way for new independent states and democratisation in former Eastern Europe. Many countries that had served as bricks in the cold war due to their geopolitical strategic location have also been affected. For example, when the aid from the Soviet Union to Vietnam ceased the Vietnamese troops that had been in Cambodia since 1979 left the country. The withdrawal of the troops was the starting point for one of the largest United Nations (UN)

operations ever that eventually paved the way for the first democratic election in Cambodia in 1993, which in turn broke the long lasting international isolation of the country. Western aid replaced the Soviet aid at a large scale globally, implying that many governments had to get adjusted to new ways of doing things. At the same time parts of Asia saw unprecedented economic growth, and countries such as Cambodia and Laos abandoned their command economies for market economy trying to catch up for lost years.

This has meant that far-reaching changes have taken place in many areas in Cambodia and Laos during the last 15-20 years, including in the health care sector. The economic liberalisation processes initiated in the middle of the 1980s opened up the countries to the outside world, for people, goods and ideas. Market economy thinking has replaced central planning system and war economy ideals. However, the legacy of the colonial past and years of war and domestic turmoil still affect the societies. Both countries struggle with poverty, lack of human resources, and weak health care systems. The differences between urban and rural areas continue to be substantial, and many poor and near poor people are vulnerable to unexpected expenses, not the least caused by illness. At the same time external funding constitutes a large part of the budgets, including for health care, and donors and NGOs play an important role in policy formulation and implementation. Also, today Cambodia and Laos are exposed to globalisation processes that put the governments under increasing pressure both in terms of governance and of coping with the increasing inequalities in society, for example through poverty reduction strategies (PRS) and programmes and the fulfilment of the Millennium Development Goals (MDG). In other words, the context and conditions for policymaking are under constant flux. The major difference between the two countries is that Cambodia has chosen the road towards democratisation with a multiparty system, while Laos has a one-party system with less room for pluralism in the political sphere. This has consequences for the policymaking process, which will be discussed more in detail below.

The aim of the paper is thus to better understand the constraints of public policymaking in transitional economies in general and in the field of poverty reduction and health in Cambodia and Laos in particular. What kind of policies are developed and adopted and why? What kinds of implementation difficulties are there? What role does the context play for

policymaking and what can we learn from a comparative perspective? The focus is on how to understand and analyse policymaking in these specific settings rather than on the policymaking processes *per se*, which deserves a study on its own.

The paper is divided into four parts. First a theoretical framework is created with a focus on policymaking in general. After that the transition processes in the two countries are discussed, followed by a brief analysis of the health care sector from the perspective of poverty and health. The last part of the paper focuses on how we can understand ongoing policy processes in Cambodia and Laos in the light of rapid societal changes, and what warrants further research. Much has been written in the field of policymaking (e.g. Hill and Hupe 2002; Howlett and Ramesh 2003; Walt 1994) but little with focus on the health care sector in Cambodia and Laos. There is a small literature on transition in Cambodia (Gottesman 2004; Hughes 2003 and 2006) and in Laos (Bourdet 2000; Rigg 2005) but again with little focus on health care. Accordingly, this paper will be rather explorative in character.

Policymaking - a theoretical framework

In times of increasing globalisation, the conditions for policymaking have changed. Not only are societies transforming, but the way policy is made has altered as well. New problems require new solutions, new types of players enter the scene changing the rules of the game, and policy responses have to be produced at an increasing speed to meet the current societal changes. Policies are replicated at a global scale creating a streamlining of policy solutions, even if the problems differ. Accountability becomes difficult as decision-making and implementation are diffused to an increasing number of actors. In the midst of this governments have to cope with rapid changes and are responsible for the welfare of their people through the policies that are at hand.

Policy can be defined in many ways. Government policy, which is our interest here, can be defined as a public programme, a chain of decisions, and a commitment to a goal and a guide for action (Howlett and Ramesh 2003). In other words, the concept is rather general and broad, and must be specified in relation to each policy, as policies may vary in scope and content (local/national/global and distributive/regulatory etc.). Policy analysis is

consequently to investigate and understand what governments do, how they do it and why (or why they do not do it). However, today public policymaking is moving from government towards governance including a great number of actors, national as well as international. This means in practice that policy is made in a complex matrix of conditions for rules and collective action, including grants, contracts and agreements, together with actors from both public and private sectors (Hill and Hupe 2002). The various levels of governance are interlinked, and governments, international organisations and NGOs all make demands, they frame goals and make priorities and push for the policies they prefer. This means that non-state actors are often involved in drafting policies, they introduce practices, rules, norms, and agendas, issues that traditionally have been associated with the state. In addition an increasing number of so-called global health partnerships has emerged making the picture even more complex and opaque (Harmer 2005).

There are several ways to study policymaking in an increasingly globalised world. As an initial step, and with the intention of bringing some order to a very complex process, the simple “rational” model can be a useful analytical tool to structure the investigation, even if the model fails to describe reality (Hill and Hupe 2002; Howlett and Ramesh 2003; Walt 1994). This model divides the policy process into four phases: agenda setting, policy formation, implementation and evaluation/feedback (Walt 1994).¹ The model helps to reveal the “why, who, and how” of decision-making. Why these policies and why now? Who are the stakeholders influencing the policy formulation, what interests do they represent, and what are the consequences of their involvement in the policymaking? Which are the considerations behind policy design? Moreover, how are the policies implemented and by whom? Are there any implementation difficulties and if so why? How are the policies framed and assessed, and with what consequences?

This model perceives policy change as an incremental process where policies gradually improve over time. Factors influencing policy change can be

¹ The policy process can analytically be divided into almost any number of phases, but this is normally not an issue for disagreement among scholars. Any disagreement rather concerns how far the policy process in practice follows a “rational”, linear process from agenda setting to evaluation.

changing political environment and stakeholder interests and pressures. It can also be new (research) evidence on health-poverty links and perceived constraints and/or risks of alternative approaches. This is related to changing understanding of health, poverty and the government role in the policy process (e.g. from command economy to market economy). However, today policy changes are strongly related to international collaboration and globalisation processes, and the spread of new ideas and policies - what can be labelled policy diffusion and policy translation - are increasingly pushing for (radical) change. Policy diffusion can be defined as "the borrowing of a policy from one political system for use in another" (Wolman 1992)² stressing the fact of a policy move to a new setting with all the difficulties that entails. Policy translation implies that the policy has to be adapted to and understood in the new context in order to get implemented. In both cases actors, so-called agents of diffusion or policy translators, play an important role in communicating the policies in question. These actors can be part of various networks promoting certain ideas, understandings and solutions, such as epistemic communities (Rose 1991; Haas 1992)³ or policy communities (e.g. in the health sector or in the rural development and poverty reduction field). A network perspective helps in identifying informal collaboration and how ideas and policies actually spread in practice. It also highlights the difficulties of separating the policy formation and policy implementation phases, as many actors participate in both stages (Hill and Hupe 2002). Policy diffusion and policy translation can take place between countries as well as within a country (from central to local level). It can also take place between global and local policymaking.

For example, in recent years, health and poverty have been rising up the political agenda, both nationally and internationally. In a broad sense the issue as such is not new, neither has the urgency of the matter increased in a significant way lately in terms of number of people with poor health. What is new is the concerted effort to improve health and to reduce poverty with global policies that are translated into national strategies and policies

² Related concepts are policy borrowing, policy transfer, lesson-drawing, policy change, policy learning, policy convergence, and policy imitation. See e.g. Jönsson 2002a : 25-32.

³ An epistemic community can be described as "a knowledge based network of individuals with claim to policy-relevant knowledge based upon common professional beliefs and standards of judgement, and common policy concerns". The members of these networks may share concepts and methods, but they do not always agree about policies.

(MDG, National Poverty Reduction Strategies, and so on) - and the acknowledgement the previous policies have failed to accurately protect poor from ill-health. We live in a time of increasing globalisation where information and ideas quickly spread. At the same time it is important to keep in mind that various “gate-keepers” at international and national levels select and direct ideas and both speed up and slow down the introduction of new ideas and policies. These “gate-keepers” may be part of larger networks facilitating, or hindering, the flow of ideas. Hence, national policies are both a result of national processes and part of a global discourse promoting certain issues. This implies that certain individuals or groups of people, may have great impact on what kind of policies to be considered. Not only “know-how” but also “know-who” becomes crucial. Another issue concerns the background of these people and what interests they represent. Arguably, economists most probably push for financial solutions while medical advisors probably would argue for improved health care services. In other words, the ones setting the agenda and framing the problems to be solved have an enormous power of influencing policy design. Moreover, knowledge about the problems and solutions is also important. For example, poverty reduction strategies and the MDGs have had a great impact on how we look at the relationship between poverty and health, and how to tackle these issues. Thus, many factors influence the design of governmental interventions. One could be policy diffusion, i.e. there is already an external policy available that can be adopted. The design could also be a result of negotiations between different stakeholders representing different interests, i.e. the one with best negotiating power (ideational or material) can influence the design the most.

Thus, by combining the “traditional” policymaking model with the policy diffusion/translation model we can analyse the current policy changes, including the relationship between poverty and health policies. At the same time it is important to keep in mind institutional arrangements and structures that to various degrees influence the policy processes. There are formal as well as informal institutions. The formal can be government, bureaucracy and health care system, which influence the different stages in the policy process to various degrees. For instance, policymaking in new areas may be constrained by strict areas of responsibility for each ministry that hinders inter-ministerial collaboration. The different aid-organisations and agencies also influence the policy process by imposing their institutional

arrangements (e.g. how to implement projects). Informal institutions can be nepotism and corruption. Corruption is problematic for a number of reasons. It reduces the government's ability to provide services for the people, it discourages investment, competitiveness is reduced and it undermines the legitimacy of the government and the ruling parties (Bruce St John 2006; Stuart-Fox 2006). Furthermore, the role of the government, which traditionally has been responsible for social welfare, is changing. The problem is that while neo-liberal agendas have promoted market reforms, they have at the same time undermined the role and capacity of the state in certain areas (Lawson 2005). In times of rapid societal changes it might be difficult for institutions to adapt to new circumstances quick enough, and as a matter of fact the economic transition has in many ways put the health sector under stress, both its function and objectives (Van Damme 2005).

In other words, the political and socio-economic context influences the policy processes, and before investigating any specific policy process, it is important to look at the context in the two countries. Both Cambodia and Laos are societies in transition, and the policy processes must be situated in their specific circumstances in order to understand contemporary changes. A comparison highlights similarities and differences between the two countries, which in turn generates interesting questions for further research in the field of policymaking in Cambodia and Laos.

Cambodia and Laos: poverty and the rural-urban divide

There are many similarities between Cambodia and Laos. Both countries belong to the least developed countries in Asia, and in the world. In 2004 GDP per capita were 310 USD and 362 USD respectively⁴. In spite of positive economic development, Cambodia still ranks 131 and Laos ranks 130 out of 177 countries in the human development index.⁵ Life expectancy at birth is 58 years in Cambodia and 63 in Laos, literacy rate 74 percent and 69 percent respectively, school enrolment around 60 percent in both

⁴ www.aseansec.org/13100.htm, 29 June 2006. More current statistics indicates a high increase of the GDP in recent years, 512 USD for Cambodia and 574 USD for Laos in 2006. See www.aseansec.org/19226.htm, 15 October 2007.

⁵ Human Development Index (HDI) measures achievements in terms of life expectancy, educational attainment and adjusted income (<http://hdr.undp.org/en/statistics>, 27 January 2008).

countries. Many live below the poverty line, 36 percent in Cambodia and 39 percent in Laos (www.undp.org, 15 October 2007). The health indicators in both countries rank among the lowest in Southeast Asia. Cambodia has a population of 13.1 million and Laos 5.8 million. The population density differs between the two countries as well: 74/km² in Cambodia and 23.7/km² in Laos.⁶

However, these average numbers do not tell the whole story. Around 80 percent of the population still live in rural areas in both countries. Numerous villages are difficult to access, especially during the rainy season. In Laos two thirds of the households have no electricity, and half of the population lack access to safe water (Rosser 2006). Laos is a multi-ethnic society where 40 percent of the population belong to an ethnic minority, many of them living in remote highlands where the agricultural productivity is low and health care services are limited. Accordingly, poverty is more widespread and the health indicators are worse than in the rest of the country (www.wpro.int/countries/lao, 2 February 2008). In Cambodia 90 percent belong to the major ethnic group Khmer, and the country has the advantage of being less mountainous than Laos, it has a railway, access to the ocean, and better waterways (Rehbein 2005).

Despite opening up to international investment and aid, the rural economies are still very much at a subsistence level (Hughes 2003; Rigg 2006). Consequently, the rural-urban gap is substantial, and in Laos the inequalities have even become worse over time, at the regional, inter-village and intra-village level (Rigg 2006). In Cambodia the economy has grown strongly but has failed to improve human development levels significantly (Rosser 2006). The governments have started to acknowledge the hampering affect of poverty on economic development, and social issues and helping the poor have become a political priority in both countries. In Laos the National Growth for Poverty Eradication Strategy (NGPES) includes four sectors: agriculture and forestry, infrastructure, education and health, and was endorsed by the general assembly in 2003 with special focus on the poorest districts. Also Cambodia adopted a National Poverty Reduction Strategy in 2003 focusing on the four sectors rural and agricultural development, education, health, and road infrastructure (Cambodia NPRS Progress Report, 19 August 2004). This is in line with the global paradigm of

⁶ www.wpro.who.int/countries/cam/www.wpro.who.int/countries/lao/2 February 2008.

poverty reduction programmes and the MDGs, but also an appropriate way to gain legitimacy for economic reforms that in practice have led to increasing socio-economic inequalities within the countries (Paphassarang *et al.* 2002).

Migration is relatively low, but there is a potential migration boom to the larger cities threatening infrastructure and social programmes. In Cambodia, before 1997-1998 it was quite dangerous to migrate because of the civil war, but today the “rural poor flock to cities” (Marshall 2006). In Laos the Land-Forest Allocation Programme (LFPA) with the intent to integrate upland rural people into the economic mainstream has had mixed results. It has benefited some, but often villagers have been resettled in areas where land is scarce and their traditional activities have not been replaced by new ones, which in turn leads to over exploitation, environmental degradation and eventually poverty. Evolving market relations also put the farmers under stress. With the introduction of new practices they have difficulties to cope with these due to the lack of knowledge and education (Rigg 2006). This illustrates the dilemma of development and modernisation, i.e. it can be both livelihood enhancing and livelihood eroding.

Both Cambodia and Laos have been classified as fragile states (Rosser 2006)⁷, partly for the same reasons and partly for different reasons. Cambodia is considered fragile primarily due to political instability and continued violence in combination with the lack of human development. Laos is considered fragile due to its “poverty, geographic isolation, one-party political system, recent market oriented economy, multi-ethnic population, relatively recent conflict and low technical and management capacity” (Perks *et al.* 2005). In other words, poverty and the lack of human capacity and development in combination with a violent history are common denominators. The political factor is also perceived as crucial, but in the case of Cambodia the problem is political instability while in the case of Laos it is the opposite that causes problems in coping with a rapidly changing world.

⁷ Rosser 2006, argues that Laos is no longer a fragile state but that Cambodia still is.

Transitional economies

Until 1975 the developments in Cambodia and Laos were similar: both countries have a history of important political entities that rose and fell centuries ago, Buddhism has played an important role in society, French colonialism created the present states, and even if the colonial masters did little to develop the countries, a Western-type urban culture developed with a small group of intellectuals. French resistance and the US intervention paved the way for the birth of the socialist states Cambodia and Laos in 1975 with the following exodus of parts of the elites and the majority of the urban middle classes (Rehbein 2005). After 1975 the history and political solutions differ between the two countries. Hence, it is important to identify what transition entails in the two cases, what Cambodia and Laos are transforming from and towards, respectively, what kinds of transition processes are taking place, and how they affect policymaking.⁸

CAMBODIA

Cambodia has in fact been exposed to three, to various degrees completed, transition processes since the 1980s: from command economy to free market, from war to peace and from authoritarian rule to democracy. (Hughes 2003). These transitions have been cumbersome for many reasons. The main reason is the genocide by Pol Pot and the Khmer Rouge (1975-1979) and its legacy. The country was left in ruin and the loss of human lives was enormous. This was not only a loss and trauma by those involved, but has also meant delayed socio-economic development due to lack of human and material resources. For instance, only 49 trained physicians survived (Gollogly 2002). Other factors have since then re-enforced the difficult situation. The three transitions will be discussed in turn below.

The transition from command to free market economy was actually initiated before the other two transitions processes. However, it was largely unregulated at the same time as Western countries had imposed trade and aid sanctions towards Cambodia because of the Vietnamese presence. The Cambodian state strived for modernisation through trade, investments and industrialisation, but process was largely based on the exploitation of its

⁸ Transition indicates changes in society at large, while reforms indicate changes limited to certain sectors, like the health sector reform (Van Damme 2005).

forest to generate revenue. The problem was that the lack of law enforcement in combination with corruption led to wide-ranging logging and deforestation. Instead of being managed by the central state, the forests became a “logging playground” for domestic and foreign timber barons and influential politicians, officials and members of the military (Bottomley 2002). Since then, international donors have made it difficult for the Cambodian government to continue extensive logging by threatening to cut aid if the exploitation of the forests continues (Billon 2002). Today the core of the Cambodian economy is textiles and tourism, and the annual economic growth is around six percent calling for some optimism (Weggel 2006). The Cambodian economy had a downturn in mid-1997, but it was merely a response to a political crisis when Second Prime Minister Hun Sen overthrew First Prime Minister Prince Ranariddh in a coup, rather than effects of the Asian financial crisis as in the neighbouring countries (Kevin 2000).

The transition from war to peace runs in parallel with the economic transition, implying that the economic reform was initiated in the context of a civil war and with the presence of Vietnamese troops (Hughes 2003). The survive-or-die culture of the Khmer Rouge period in the 1970s led to a breakdown in social and family norms with long-term effects on the whole society. In addition, the second communist state was also repressive and secretive, despite substantial social improvements. When peace finally arrived, in tandem with the United Nation led operation UNTAC (United Nations Transitional Authority in Cambodia) and the withdrawal of Vietnamese troops, it was not welcomed by everybody. The Khmer Rouge did their best to sabotage the peace process, and even if their troops are demobilised today, the legacy of the Khmer Rouge is still very much present. In 2004 the Law on the Khmer Rouge tribunal was passed and the trials were expected to begin in early 2007 after much delay, but so far there have been no convictions and its existence and format is very much debated (Weggel 2007). The transition from war to peace has also led to an enormous influx of international actors, not the least in the field of aid. After ending the international isolation of the country, Cambodia became the darling of the international community, even if working in the country was hazardous due to violence, corruption and lack of rule of law. This has gradually changed, and the year 2005 “may be characterised as a period of calming down and political renormalisation”. It was also the year the new

king, Sihamoni, entered the throne (Weggel 2006).

The transition from authoritarian rule to democracy is, of course, related to the other two transition processes. Cambodia has experienced plenty of political turmoil since the UNTAC operation. Following the first multiparty elections in 1993, there has been a coup d'état in 1997, an election in June 1998, a communal election in 2002, in July 2003 the National Assembly election, and in 2007 the second local election. Roberts argues that the grassroots election and the new Senate (second chamber) are indications that democracy is consolidating, (Roberts 2003) but critics claim that Cambodia is only an electoral democracy. Elections may have opened up the political process, but at the same time it has not fundamentally changed the nature of political power in the country (Kevin 2000). The reluctance to adhere to democratic practice is a consequence of political polarisation and the idea that the winner takes all (Downie and Kingsbury 2001). The problem with consolidating democracy is connected with economic power and the relationship between state and society. In the urban areas economic power is diffuse, and domestic and international political activities overlap. In the rural areas the lack of material resources has hindered independent political action, and ability to monopolise economic resources is consequently the key determinant of power (Hughes 2003). Cambodian political culture is characterised by elite authoritarianism, narrow vested interests, patronage and clientelism, which must be located in a wider context of external pressures of pluralism and democracy (Roberts 2002). Thus, it is possible to argue that Cambodia is pursuing a kind of dual-track policy with one, democratic, track in electoral politics, and one less democratic track in the field of economic policy-making. However, the legislative body typically plays a passive reactive law-making role, as the government drafts laws and submits them to the National Assembly for review and approval supporting the idea that the power is concentrated to the government and its present leader Hun Sen (Sorpong Peou 2001). The role of civil society has been important, even if most of the NGOs have been concentrated to the urban areas, and it has potential to play an even greater role in the future as democracy is consolidating. Media is relatively free and independent, with the result that Cambodia at times appears to be much more violent than neighbouring countries because of media exposure (Etcheson 2006).

LAOS

Laos has experienced a more “timid” transition (Freeman 2001) and primarily within the economic field (including a transition from a subsistence to market agriculture) (Bourdet 2000; Rigg 2006). Economic reforms were initiated during the second half of the 1980s, under a policy called the New Economic Mechanism (NEM). Laos is a small country with a small economy, and commerce is conducted at a rather basic level. At the beginning of the reform period, a large part of the foreign investments came from Thailand. However, inexperience in a market economy led to excessive sales of state property, and after a few years the regime slowed down the reform process. Critics have argued that the problem was not the reforms *per se*, but that they were not implemented properly. Additionally, policymaking has been slow which has made it hard to keep up with the outside world.

Laos was by and large insulated from the effects of the Asian financial crisis due to its relative isolation - even if weak economic management and unsustainable policy responses affected the country. For example, inflation hit Laos hard. Between July 1997 and June 1998 the kip lost 70 percent of its value *vis-à-vis* the U.S. dollar and a year later 80 percent (Ngozi Okonjo-Iweala *et al.* 1999). The crisis was less severe for the poor due to the position of the subsistence sector, while the urban population was more affected. Civil servants were hit the hardest, as their salaries were not increased in line with the inflation (Bourdet 2000). Besides that, the economic growth has been fairly strong, and investors are becoming increasingly interested in Laos (Rosser 2006; Forbes and Cutler 2006). However, according to Yves Bourdet (Bourdet 2003), the economic transition has had limited effect on the agriculture growth and productivity, which is problematic considering that in Laos agriculture accounts for half of the GDP. Jonathan Rigg argues that much of the poverty in Laos is “new” in the sense that it is not endemic but caused by marketisation (Rigg 2006). The aid as percentage of GNI is higher in Laos than in Cambodia (WB 2004 in Rosser 2006). Donors fund almost 40 percent of the public expenditure and 60 percent of the capital budget compared to 50 percent in Cambodia (Regional Outlook 2006).

The transition from warfare to peace differs from the Cambodian case. In Laos the Communist came into power in 1975 after years of civil war. Many fled the country, and since then the opposition to the regime has been limited. There have been ongoing, armed insurgency led by ethnic

Hmong rebels who fought against the communists during the civil war, but they have not been a real threat to the regime (Rosser 2006). A number of bombings have hit Vientiane in recent years, but the bombings are believed to be a settlement of personal scores and did not claim any large casualties (Jönsson 2002b).

Laos has a stable political system with one dominant party, and the political changes have been limited. There have been efforts to separate the party and the state, to introduce the rule of law, to elect non-party members to the National Assembly, and to have more open debates before decisions are taken. However, freedom of expression is restricted and opposition is not permitted (Jönsson 2002b). Political culture rests on inter-linked family and regional or ethnic patronage networks that are both hierarchical and personal. The army has substantial power, and many of the top leaders have a military background (Stuart-Fox 2006). The Lao leadership has adopted a pragmatic attitude trying to incorporate ethnic minorities in leadership positions, to quickly revise policies that do not work, such as collectivisation and the ban on Buddhism during the first years after 1975, and to balance external influences in order to preserve independence and internal security at the same time (Rehbein 2005). The society is organised through mass organisations leaving civil society embryonic. During the 8th Party Congress (completed in June 2006), the need for internal stability and security was underlined to avoid “regime change by hostile forces”. It was also stressed that the complicated administration needs new management mechanisms and rules to be transparent and to combat corruption (Vientiane Times, 15 June 2006). In other words, even if gradual reforms are underway there are no signs of immediate political transition.

TO SUMMARISE

If we compare Cambodia and Laos there are similarities as well as differences between the two countries. The pre-1975 history of the two countries is similar, but after that the policies of the regimes have differed substantially. While many of the old structures have been left intact in Laos, all traditional and modern structures were destroyed in Cambodia during the Khmer Rouge period (including Buddhism). Laos has until recently been hesitant to open up for the international community, while Cambodia since UNTAC has been integrated to the global community in a much more profound way. Both countries are undergoing transitions, but Cambodia’s transition is

more comprehensive insofar it involves a political as well as a socio-economic transition. This affects the role of non-state actors, who are allowed to participate in the policy process to a larger extent than in Laos, and that the Cambodian government has to compete to stay in power while the Lao government can pursue its politics unchallenged. Cambodia is to a higher degree than Laos coloured by recent post conflict processes, and it is just until recently the internal political violence appears to have ceased. The legacy of the Khmer Rouge and civil war in Cambodia should not be underestimated in terms of destruction of social fabric and lack of trust. In terms of economic transition Laos has suffered from economic mismanagement and slow policy responses, but at the same time economic competition does not play a threat to the regime in the way it does in Cambodia where politics and economic power are more intertwined. Both countries are developing but with increasing societal inequalities, very much in accordance with the urban-rural divide, and in the case of Laos also according to ethnic belonging. The urbanisation process has just begun, with the majority of the populations still living in rural areas. Donors heavily influence the developments in both countries, and today the per-capita foreign aid is somewhat higher in Laos and in Cambodia.

The health care sector - captive of the transition processes

The economic transition has led to increasing inequalities in the Cambodian and Lao societies. Even if poverty in general has been reduced, more people have become vulnerable. One of the new poverty traps is health care. Poor pay more for health than others relatively speaking, and even comparatively modest out-of-pocket health expenditure may cause indebtedness leading to poverty (Van Damme *et al.* 2004). In Cambodia, “catastrophic health expenditure is identified as a major cause of indebtedness and destitution among the rural poor” (Kassie 2000 in Hardeman *et al.* 2004). An explanation is that even if the economic liberalisation has led to better access of drugs, as in Laos, and better performance at some public hospitals in Cambodia (Akashi *et al.* 2004), the cuts in public expenditure and introduction of health fees have had negative consequences for many of the poor. The poorest should be exempted from paying, but this has not always worked in practice. In the cases where patients do not have to pay a fee, there are still problems with other costs such as transport, lack of income,

informal charges and drugs (Hardeman *et al.* 2004). The liberalisation process has also encouraged the use of inappropriate drugs, which eventually affects health and health expenditure.

Until 1996, the official policy in Cambodia was to provide free health for all. When user fees were introduced through the National Charter on Health Financing, the poor were supposed to be exempted, but this failed due to conflicting interest about who should pay for the poor. Since then the Cambodian Ministry of Health has provided pro-poor actions through organisational and financial reforms. For example, the first health equity fund was introduced in 2000 in order to lessen the negative effects of user fees for the poor (Meessen *et al.* 2005/2006).⁹ Currently social health insurance is high on the political agenda, and both health equity funds and the insurance scheme are part of the NPRS, although the coverage of the insurance scheme still remains marginal.

Even though the government spending on health in Cambodia is growing, the government only stands for 17 percent of the health spending. The rest of the spending is paid by users fees, arguably one of the world's highest out-of-pocket expenditure, mainly in private practices and drug sellers. Through funding from international banks and donors, most health facilities are today constructed or renovated and supplied with equipment. But even so, the public health facilities remain under utilised (Hardeman *et al.* 2004; Barber *et al.* 2004). There can be several reasons. For example, in Cambodia there is a discrepancy between public and private salaries. Consequently the services are often better in the private sector (Huff-Rousselle and Pickering 2001), and according to Barber, patients frequently have to pay under-the-table fees at public facilities (Barber *et al.* 2004). Many providers work both in the public and the private sector hence leading to major conflict of interests. It has been pointed out that in general there is low trust in the public health system in Cambodia (Van Damme *et al.* 2004), even if the Ministry of Health and its partners have implemented initiatives to change this situation. Huff-Rousselle and Pickering argue that "unlicensed drug sellers represent the first choice of treatment, with a private practitioner being the second choice" (Huff-Rousselle and Pickering 2001).

In Laos the hospital system is almost exclusively public. The private health sector includes licensed pharmacies, clinics and unlicensed providers.

⁹ A health equity fund identifies the poor and pays on their behalf.

Eighty percent of the private clinics are located in urban areas, mostly in the capital Vientiane. The government spending on health is low, and out-of-pocket expenditure on drugs and hospital services is high, as in Cambodia (Paphassarang *et al.* 2002; Vang *et al.* 2006).

Also the Lao health care sector has undergone changes in recent years. From the early 1990s, international aid has increased dramatically together with the number of actors, even if there has been a recent decrease in aid (Perks *et al.* 2005). In 1995, the policy of free care from 1975 was replaced by the Prime Ministry Decree 52, which paved way for the introduction of an official cost recovery system that ensured that everybody should pay for services - with the exception of certain groups such as government employees, children, pensioners, monks, disabled persons, students, military personnel, and the poor (Boupha *et al.* 2005). Moreover, Ministry of Health employees became allowed to engage in private practices after working hours, and it was recognised that not only the government was responsible for improving health status but also other public institutions such as Lao Women's Union and the Youth organisation should be involved together with the community (Noel 1999). Drug revolving funds were introduced at some hospitals and later on a national scale, to secure the availability of drugs and services at the hospitals. The Lao National Drug Policy was adopted in 1993 and the drug law in 2002 (Paphassarang *et al.* 1995). The poorest were exempted from paying, but in practice the identification of the poor turned out to be difficult. The chief of village was supposed to provide a certificate of poverty, but due to financial constraints - the health facilities had to use their revenues to cover for the poor for example - the number of cases was reduced to a minimum, which in turn opened up for nepotism. This led to the poor mostly skip examination and diagnosis and go directly for the drugs. In urban areas, many patients prefer private services due to unwelcoming attitudes of public health staff and procedural barriers, if affordable (Paphassarang *et al.* 2002). Arguably, the Lao policy reform has in practice "resulted in a highly inequitable system where those better-off have access to unlimited quality care options, while the poor's access to health care is very limited" (Paphassarang *et al.* 2002). Today there is increasing discontent concerning the difficulties of the poor to access health services, both in society and among policymakers (Personal communication 2006). There are pilot community health insurance programmes, and they cover

roughly ten percent of the population in the district where it is implemented, but the poorest cannot afford the monthly contribution (Perks *et al.* 2005). Health equity funds exist as pilot projects in Nambak and Sepone districts in Luang Prabang and Khammouane province respectively, and in the whole Vientiane province. These funds are focusing on the poorest part of the population, from less than five percent up to 20 percent. In late 2005 a Law on Health Care was passed by the General Assembly, almost at the same time as Decree 381/PM on technical revenues in public facilities (generalising users fees at all levels). These new regulations replace Decree 52/PM, in order to better cater for the poor. It is yet too early to see the results of the new law and regulations.

When comparing the health care sector in Cambodia and Laos it is important to take into account some differences in terms of diseases. In Laos the most common infectious diseases are diarrhoea, pneumonia, acute respiratory infections, dengue fever, measles, and meningitis. Cambodia has all these diseases plus HIV/AIDS. In Laos the HIV/AIDS prevalence is very low (0.1%), while Cambodia has one of the highest in the region (1.6%) (www.unaids.org, 2 February 2008). This is not only a current problem with high mortality rates and an increasing number of orphans, but it will be a big burden for a foreseeable future. Nowadays when effective treatment is available, HIV/AIDS increasingly can be regarded as a chronic disease with high demand on anti retroviral treatment. Additional differences between the health systems in the two countries are utilisation and coverage, which is lower in Laos than in Cambodia. In Laos there is a lack of health staff, low funding for separate health facilities, and thus also low quality of health services and ultimately low utilisation rates. Finally, the government in Cambodia provides most drugs while in Laos the patients in principle have to pay for the drugs in public facilities.

TO SUMMARISE

There are many similarities between Cambodia and Laos in the field of health care. The liberalisation of the health care sector has in general led to many improvements in terms of quality and access to health care, but at the same time it has made poor or near poor people more vulnerable than previously, both due to malfunctioning health care systems, and user fees that are too high for the poorest in society. Both countries have acknowledged this by exempting the poorest from paying for health care, but

the solutions to the problem have varied. In Cambodia health equity funds have been preferred and lately social insurance schemes have entered the political agenda. In Laos health equity funds exist only as pilot projects and health insurance only covers a smaller part of the population. The Decree 52/PM stated that the poorest should get free health care, but it did not always work in practice. The newly adopted Law on Health Care foresees social protection mechanisms for the poor.

Policymaking with constraints

As shown above both Cambodia and Laos are countries with many struggles in the field of health and poverty. However, in order to enhance the understanding of why certain policies are developed and adopted and not others, it is useful to elaborate on the policy process framework presented earlier in this paper and to apply it on the two cases.

AGENDA SETTING AND THE ROLE OF POLICY DIFFUSION

It is clear that the health and poverty reduction agendas in Cambodia and Laos are subject to external influences, both by initiatives such as the MDG, PRS and different donors. Cambodia has been open to these influences for a longer period of time than Laos, but both countries have poverty and ill-health on their political agendas. At a national level, it can be noted that at least in Laos, there has been a lack of research in the health care sector, and consequently, new evidence of the links between poverty and ill-health can change the perceptions of the policymakers, even it may be difficult to actually get research into policy and practice (Tomson *et al.* 2005; Jönsson *et al.* 2007). What is special about Cambodia and Laos is that both countries are experiencing rapid societal changes, and it might be difficult for the policymakers to keep up with these changes and what is most needed at that specific time. At the same time there is a lack of expertise, think tanks, independent media etc. to influence the agenda, making policymakers dependent on external advice and experiences from other countries. There is also pressure to comply with “global policies”, and so far the national policy documents in the field of poverty and health care in Cambodia and Laos have adapted to the global “poverty reduction paradigm”.

THE COMPLEXITY OF DECISION-MAKING

Once on the political agenda, a solution must be found to the identified problem, i.e. strategies and policies should be formulated. In Cambodia the funding agencies clearly have influenced the introduction of health equity funds. They have also been dominant in setting rules and standards for the funds (Meessen *et al.* 2005/2006). What is interesting in the cases of Cambodia and Laos is that relatively small national elites are involved in policy formulation together with external actors such as donors and international agencies - and in some cases civil society (including NGOs) and the private sector. This means that the actual decision-making is centralised and to a large extent opaque for outsiders and the general population. Again the lack of human capacity creates a need for advice, as most policymakers only have partial knowledge about problems as well as solutions. This makes the countries exposed to external influences, which *may* create political problems at the domestic arena if the influences are not perceived as legitimate.

There is a difference between Cambodia and Laos insofar that in Cambodia the policymaking, at least to some extent, is a result of negotiation between political parties while in Laos no major policy decisions are made without the sanction of the party. In Laos the government and the party overlap, and party guidelines are decisive for policy development. However, the lack of transparency in decision-making creates problems for accountability, which was acknowledged at the 8th Party Congress. Lack of transparency, in turn, promotes corruption, which is another problem the governments in the two countries have to deal with. In Cambodia it is said that the donors' patience is running out due to slow progress of government's reform process, and it is likely that aid will become increasingly conditional on progress in reforms in the future. In a recent World Bank report it was noted that both Cambodia and Laos were reforming far more slowly than the some of the countries in Eastern Europe (Regional Outlook 2006). According to Stuart-Fox, in Laos many decisions are made to satisfy donors (Stuart-Fox 2006), which reduces the possibilities of successful implementation.

Implementation is always the most difficult stage in the policy process, even if the policy as such is of good quality, as the success of implementation is very much dependent on institutional arrangements and access to resources. In the case of Cambodia and Laos, it is important to consider the fact that around 80 percent of the population still live in rural areas, often with inadequate infrastructure and lack of human resources needed for successful implementation. What makes the situation even more complicated is that frequently a great number of actors are involved in implementation, public as well as private, that are not always complying with governmental policies and regulations. For instance, in Cambodia there are some 300 NGOs involved in service delivery. There are membership organisations such as MEDiCAM (with 110 working in the field of health), Cambodian Cooperative Committee (CCC) with 70 NGOs working with rural development, and NGO Forum with 72 NGOs working with environment and land abuse, etc. (MEDiCAM, Phnom Penh, 25 March 2005). In the field of health care in Laos, the NGOs mainly operate through public health staff.

According to Perks, there is government commitment in Laos but little capacity to implement social programmes to help the poor (Perks *et al.* 2005). The implementation difficulty in this case is not only funding but also targeting, i.e. how to identify the poor (the same problem exists in Cambodia) (Hardeman *et al.* 2004). The explanation can partly be found in the political structure. In Laos the party and the party congress decide the overall plans. The ministries formulate policies and strategies, provinces are strategic units, districts are planning and budgeting units and villages are implementing units. Today districts are increasingly responsible for planning and budgeting, but the “newly decentralised provincial and district health offices are struggling to cope with their increased technical and management responsibilities” (Perks *et al.* 2005; Chagnon 2003). Another problem is legislation. Both Cambodia and Laos have made a fast transition from command to market economy with an increasingly growing private sector, and the legal and judicial systems have not yet adapted. Consequently both establishing new legislation and enforcing it become problematic in the two countries (Van Damme *et al.* 2004). Also, the knowledge of new legislation is sketchy. In many rural areas in Laos, the Party still serves as the “highest law” (Stuart-Fox 2006). In Laos there is also a lack of initiatives because of fear of

being exposed to criticism and censure. Consequently, senior officials make even minor decisions, which in turn may slow down the policy process. (Stuart-Fox 2006). Many implementation difficulties are similar in Cambodia and Laos, such as the urban/rural divide and lack of resources, but there are also some differences. For example in Cambodia compliance of NGOs can be a problem, while in Laos it might be difficult to get local officials to comply with new policies.

THE (RE)USE OF EXPERIENCE-RECONNECTING TO AGENDA SETTING

Some policies are considered successful and put on the agenda elsewhere, while others are quickly forgotten. The question is, however, how to assess success. It might well be that a policy is considered to be successful in one setting but is of no use in another, which may depend on special needs and contextual factors. Another point is that there might be vested interests influencing the assessment in one way or the other. For example, a funding agency might want results that support their wish to either continue or close down a project. A politician or official might profit from a certain result and so on. Very often there is no evaluation at all. At the same time success in one place can lead quickly to replication in other places, like the adoption of HEFs in Laos following the Cambodian example. In general, the policymaking agencies in Southeast Asia have, in a relatively short period of time, had to get used to switching from terms stemming from the post-colonial period such as “nation-building, self-reliance, basic needs and citizens’ welfare” to “joint venture, partnership, service quality, and customer satisfaction” (Haque 2005). This is of course a major shift in thinking with consequences on how to assess policies. The difference between Cambodia and Laos is that Cambodia has been exposed to a higher degree of “policy experiments” than Laos through a larger number of external actors and projects.

TO SUMMARISE

By applying a policy process framework the questions “why, who and how” of decision-making are highlighted together with specific issues related to each and every one of the different phases in the policy processes. The agenda setting phase underlines the role of external influences in the national policymaking process, in this case putting poverty and health on the national political agenda (through MDGs etc.). The policy formulation phase

emphasises “policy ownership” and that it is important to acknowledge that decisions largely are negotiated giving those with power and resources a better chance to influence the decisions than others. Both Cambodia and Laos learn through policy diffusion and external advisers, and policies are often streamlined to follow international standards. In Cambodia many actors try to influence the policy process, governmental as well as non-governmental, while in Laos the Communist Party is the main authority in directing policy-making. The policy implementation phase stresses the difficulties to translate policies into practice, especially in resource weak settings. Both Cambodia and Laos have to struggle with the urban/rural divide and lack of resources, human as well as material, for successful implementation. The evaluation phase points out that we live in an era of global mainstreaming of policies, and that policy success also depends on contextual factors. Finally, variations in institutional and political structures also have an impact on the policymaking process. In Cambodia it appears that policy reforms are more easily introduced than in Laos, where a slower reform pace is preferred, regardless of implementation success or failure.

Discussion and further research

The aim of the paper was to better understand the constraints of public policymaking in transitional economies in general and in the field of poverty reduction and health in Cambodia and Laos in particular. The intention was to discuss what kind of policies are developed and adopted and why, and what kinds of implementation difficulties there are. A second aim was to investigate the role of policymaking context in a comparative perspective so that questions could be derived for further research.

From the analysis above, a few tentative conclusions can be drawn. Both Cambodia and Laos follow the global poverty-health paradigm by introducing governmental measures to reduce poverty with special attention to the poorest in society. However, the policy implementation is hampered by the urban/rural divide in combination with the lack of resources, among other things. The reasons for this can be several, but questions concerning the role of policy ownership, the stage of transition, political and economic systems, and the relation to the international community automatically arise. A comparative perspective has in this case been fruitful in producing questions that warrant further research concerning policymaking in the field

of poverty and health in Cambodia and Laos.

The first set of questions, related to agenda setting, is: Are there any differences between Cambodia and Laos concerning the role of networks and “gate-keepers” in setting the agenda? Who can influence the political agenda? What is the role of national and international actors in the respective country? Are there any differences in which issues get prioritised in the two countries? The second set of questions, related to policy formation, is: why do the governments opt for a certain solution to their problems? Or, why are they in some cases hesitant to adopt particular policies? What role do networks and institutional set-up play in this process? Does the stage of transition play a role for the choice of policies (i.e. are there any special needs to address)? The third set of questions, related to implementation, is: Does it matter who implements the policies, i.e. what type of actors? Also, what kind of institutional and legislative arrangements are necessary for successful implementation? The fourth set of questions, related to evaluation/feedback, is: how do different stakeholders, both at local, central and international level perceive the implemented policies and what role does context play in relation to this, for example are there any differences between Cambodia and Laos? Another issue concerns on what criteria and for how long a project should be tested before making it a national policy (or to export/import it to another issue area or country). Finally, how do policymakers use the results of policy evaluations?

The four-stage policy process framework has been useful insofar as it has facilitated the identification of these questions. However, in order to answer the questions in a comprehensive way, the analytical framework needs to be developed for each and every one of the four phases, or be complemented with additional analytical tools highlighting aspects such as process, organisational and structural factors and the role of interests. For example, the relationship between the participating actors and the actual policy process (i.e. rules and procedures for policymaking), together with policy content and context could be analysed more in detail, as process, content and context frame the room of manoeuvre of the actors and thus also shape the political outcome (Walt and Gilson 1994). One could also analyse the match between the political environment (i.e. the support of the policy issue), the identified problem to be solved and the available policy solution in order to further elaborate on the so-called “implementation-gap”, i.e. why a policy is implemented as intended or not (Kingdon 1995; Ridde

2007; Walt 1994). In order to investigate how the interests of different actors shape the policy process a so-called stakeholder analysis would be helpful. The stakeholders can be individuals, groups and organisations that may influence the policy process in one way or the other depending on their interests and available resources (Brugha and Varvasovsky 2000). Information from a stakeholder analysis can be used to “help understand how policies have developed and to assess the feasibility of future policy directions; to facilitate the implementation of projects, specific decisions or organizational objectives; and to develop strategies for managing important stakeholders” and thus also eventually to inform health policy (Varvasovsky and Brugha 2000). In other words, there are several options on how to move forward.

References

- Akashi H, Yamada T, Hout E, Kanal K, Sugimoto T (2004). User fees at a public hospital in Cambodia: effects on hospital performance and provider attitudes, *Social Science and Medicine*, **58** : 553-564.
- Barber S, Bonnet F and Bekedam H (2004). Formalizing under-the-table payments to control out-of-pocket hospital expenditures in Cambodia, *Health Policy and Planning*, **19**, 4 : 199-208.
- Billon PL (2002). Logging in muddy waters. The politics of forests exploitation in Cambodia, *Critical Asian Studies*, **43**, 4: 563-586.
- Boupha B, Akkhavong K, Siengsounthone L, Phongluxa K (2005). *Report on the formulation process on user fee and exemption policy in the context of Lao PDR (1975-2005)*. Ministry of Health, National Institute of Public Health, Lao PDR.
- Bourdet Y (2000). *The economics of transition in Laos. From socialism to ASEAN Integration*. Cheltenham, UK and Northampton, USA: Edward Elgar.
- Bottomley R (2002). Contested forests. An analysis of the highlander response to logging, Ratanakiri Province, Northeast Cambodia, *Critical Asian Studies*, **43**, 4 : 587-606.
- Bruce St John R (2006). *Cambodia's failing democracy*. Foreign policy in focus (FPIF) commentary, January 23 (www.fpif.org).
- Brugha R and Varvasovsky Z (2000). Stakeholder analysis: a review, *Health Policy and Planning*, **15**, 3 : 239-246.
- Chagnon PDA, Rumpf, Van Gansberghe, Binh (2003). *Governance and participation in Laos*. Stockholm: The Asia Department, Sida.
- Cohen MD, March JG and Olsen JP (1972). A garbage can model of organizational choice, *Administrative Science Quarterly*, **17**, 1 : 1-25.

Downie S and Kingsbury D (2001). Political development and the re-emergence of civil society in Cambodia. *Contemporary Southeast Asia*, April.

Etcheson C (2006). *Cambodia's comprehensive political settlement - fifteen years later*. Paper prepared for the Georgetown Southeast Asia Survey Group, February 21.

Evans G (1995). *Lao peasant under socialism and post-socialism*. Thailand: Silkworm.

Freeman NJ (2001). Laos. Timid transition. In J. Funston (ed.) *Government and politics in Southeast Asia*. Singapore: Institute of Southeast Asian Studies.

Forbes D and Cutler C (2006). Laos in 2005. 30 years of the People's Democratic Republic, *Asian Survey*, **46**, 1 : 175-179.

Gollogly L (2002). The dilemmas of aid: Cambodia 1992-2002, *Lancet*, **360**: 793-798.

Gottesman E (2004). *Cambodia after the Khmer Rouge: Inside the politics of national building*. Changmai: Silkworm Books.

Haas PM (1992). Introduction: epistemic communities and international policy coordination, *International Organization*, **46**, 1 : 1-35.

Haque MS (2005). Reforming public administration in Southeast Asia: trends and impacts, *Public Organization Review: A Global Journal*, **4** : 361-371.

Hardeman W, Van Damme W, van Pelt M, Kimvan H and Meessen B (2004). Access to health for all? User fees plus a health equity fund in Sotnikum, Cambodia, *Health Policy and Planning*, **19**, 1 : 22-32.

Harmer A (2005). *Global health partnerships as new players in the global health arena: An international relations perspective*. Report prepared for the Department of Public Health, Institute of Tropical Medicine, Antwerp.

Hill M and Hupe P (2002). *Implementing Public Policy*. London: Sage Publication.

Howlett M and Ramesh M (2003). *Studying public policy. Policy cycles and Policy subsystems*. Oxford: Oxford University Press.

Huff-Rousselle M and Pickering H (2001). Crossing the public-private sector divide with reproductive health in Cambodia: out-patient service in local NGO and the national MCH clinic, *International Journal of Health Planning and Management*, **16** : 33-46.

Hughes C (2003). *The political economy of Cambodia's transition, 1991-2001*. London and New York: RoutledgeCurzon.

Hughes C (2006). Cambodia. In Rosser ed. *Achieving turnaround in fragile states*, *IDS Bulletin*, **37**, 2.

Jacobs B and Price N (2006). Improving access for the poorest to public sectors health services: insights from Kirivong operational health district in Cambodia, *Health Policy and Planning*, **21**, 1 : 27-39.

Jönsson K (2002a). *Translating foreign ideas into domestic practices. Pharmaceutical policies in Laos and Vietnam*. Lund: Department of Political Science (Doctoral dissertation).

Jönsson K (2002b). Globalization, Authoritarian Regimes and Political Change: Vietnam and Laos, in Kinnvall C and Jönsson K (eds). *Globalization and democratization in Asia: the construction of identity*. London Routledge.

Jönsson K, Tomson G, Jönsson C, Kounnavong S, Wahlström R (2007). Health systems research in Lao PDR: capacity development for getting research into policy and practice, *Health Research Policy and Systems*, **5** : 11.

Kevin T (2000). Cambodia's International Rehabilitation, 1997-2000, *Contemporary Southeast Asia*, December.

Kingdon John W (1995). *Agendas, alternatives, and public policies*. New York: Harper Collins College Publishers. 2nd ed.

Kurlantzick J (2003). Open dissent stirs against Laos' regime, *The Washington Post*, 11 April.

Lawson S (2005). Regional integration, development and social change in the Asia-Pacific: implications for human security and state responsibility, *Global Change, Peace and Security*, 17, 2 : 107-122.

Lizée Pierre P (2002). Human security in Vietnam, Laos and Cambodia, *Contemporary Southeast Asia*, 24, 3.

Marshall M (2006). Rural poor flock to cities. *Phnom Penh Post*, Issue 15/2, January 27-February 9.

Ngozi OI, Kwakwa V, Beckwith A and Ahmed Z (1999). Impact of Asia's financial crisis on Cambodia and the Lao PDR, *Finance and Development*, 36, 3.

Noel A (1999). *Historical development of primary health care in Lao PDR*. The primary health care expansion project (ADB TA No. 3058-lao).

Olsen JP (2001). Garbage cans, new institutionalism and the study of politics, *American Political Science Review*, 95, 1 : 191-198.

Paphassarang C, Philavong K, Boupha B and Blas E (2002). Equity, privatization and cost recovery in urban health care: the case of Lao PDR, *Health Policy and Planning*, 17, suppl 1 : 72-84.

Perks C, Toole MJ and Khamla Phouthonsy (2005). District health programmes and health-sector reform: case study in the Lao People's Democratic Republic, *Bulletin of the World Health Organization*, 84, 2 : 132-138.

Regional Outlook. Southeast Asia 2006-2007 (2006). Singapore: Institute of Southeast Asian Studies.

Rehbein B (2005). *Configuration of globalization in Laos and Cambodia*. Unpublished paper presented at Focus Asia, Lund University, 23 November. (To be published in *Internationales Asienforum/International Quarterly for Asian Studies* 1/2007).

Ridde V (2007). 'The problem of the worst-off is dealt with after all other issues': The equity and health policy implementation gap in Burkina Faso, *Social Science and Medicine*, doi: 10.1016/j.socscimed.2007.10.26 (in press).

Rigg J (2005). *Living with transition in Laos: market integration in Southeast Asia*. Abingdon: Routledge.

Rigg J (2006). Forests, marketization, livelihoods and the poor in the Lao PDR, *Land Degradation and Development*, 17 : 123-133.

Roberts D (2003). From 'communism' to 'democracy' in Cambodia: a decade of transition and beyond, *Communist and Post-Communist Studies* 36 : 245-58.

Rose R (1991). What is lesson-drawing?, *Journal of Public Policy*, 11, 1 : 3-30.

Rosser A (2006). Introduction. In Rosser ed. *Achieving turnaround in fragile states*, *IDS Bulletin*, 37, 2. (+ "Lao PDR").

Sorpong P (2001). Cambodia. After the killing fields. In J. Funston (ed.) *Government and politics in Southeast Asia*. Singapore: Institute of Southeast Asian Studies.

Stuart-Fox M (2006). The political culture of corruption in the Lao PDR, *Asian Studies Review*, 30 : 59-75.

Tomson G, Paphassarang C, Jönsson K, Houamboun K, Akkhavong K, Wahlström R (2005). Decision makers and the usefulness of research evidence in policy implementation - a case study from Lao PDR, *Social Science and Medicine*, **61** : 1291-1299.

Van Damme,W (2005). *Why illness-related poverty is on the increase in transitional Asia. Or How transitions in society are leading to a health financing crisis in transitional Asia*. Department of Public Health, Institute of Tropical Medicine, Antwerp (draft).

Van Damme W, Van Leemput L, Ir P, Hardeman W and Meessen B (2004). Out-of-pocket health expenditure and debt in poor households: evidence from Cambodia, *Tropical Medicine and International Health*, **9**, 2 : 273-280.

Vang C, Tomson G, Kounnavong S, Southammavong T, Phanyanouvong A, Johansson R, Eriksson B and Wahlström R (2006). Improving the performance of drug and therapeutics committees in hospitals - a quasi-experimental study in Laos, *European Journal of Clinical Pharmacology*, **62** : 57-63.

Varvasovsky Z and Brugha R (2000). How to do (or not to do). A stakeholder analysis, *Health Policy and Planning*, **15**, 3 : 338-345.

Vientiane Times, 15 June 2006, Bouasone makes first Prime Ministerial address, web version.

Walt G (1994). *Health policy. An introduction to process and power*. London and New Jersey: Zed Books.

Walt G and Gilson L (1994). Reforming the health sector in developing countries: the central role of policy analysis, *Health Policy and Planning*, **9**, 4 : 353-70.

Weggel O (2006). Cambodia in 2005. Year of reassurance, *Asian Survey*, **46**, 1 : 155-161.

Weggel O (2007). Self-promotion and self-deception, *Asia Survey*, 47, 1 : 141-147.

Providing access to health services for the poor: Health equity in Cambodia

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Abstract

Cambodia is developing cutting-edge initiatives needed to break the links between poverty and ill-health. The most effective of these are the Health Equity Funds, fee-waiver schemes that aim to provide increased access to health services and greater community involvement for the poor. Recent research indicates that HEFs successfully reach the poor, work best with strong management and interventions to improve service quality and can be used alongside community-based health insurance with good effect. Now, HEF and CBHI schemes are being developed and scaled up within the broader framework of Cambodia's emerging national health financing strategy to provide social health protection for the poor.

Introduction

In recent years an original and effective approach to providing access to health services for the poor has emerged in Cambodia. Health Equity Funds (HEFs) are one of a number of different innovative schemes for regulating user fees, improving the delivery of district health services and removing financial barriers to access to health care for the poor that have been developed first in Cambodia. This has occurred in a context where a history of foreign and domestic conflict had caused economic and social decline, widespread poverty, an extensive need for health care, high household out-of-pocket payments and the inability of the poor to afford health care. The HEFs are now a key building block in the overall strategy being developed by the government and its development partners for tackling inequities in the health sector.

How and why did the now numerous HEF schemes emerge in Cambodia, what are the conditions that enabled their rapid growth and why have they been so effective? This paper discusses the origins, nature and impact of the HEFs and their role in Cambodia's emerging strategy for

national health financing. First, we look at the issues and challenges facing health planners and policy makers related to the economic and social context, health status and health systems' development. Second, we consider the rationale, history, coverage and effectiveness of the HEFs. Third, we discuss the lessons from Cambodia and identify the major issues still to be resolved.

The material used to make this analysis comes from a wide range of documentary sources and from the published literature on health and poverty in Cambodia. The analysis draws particularly on operational research conducted for the 2005-2007 Ministry of Health/WHO 'Access Study' - the *Study of Financial Access to Health Services for the Poor in Cambodia* (Annear *et al.* 2006; Annear *et al.* 2007). The Access Study has provided part of the evidence base for the development of national health policy in Cambodia and has been used in the preparation of the Health Sector Strategic Plan and the draft Strategic Framework for Health Financing. Each of the authors has long-term experience in Cambodia and has played an important part in the development of the HEFs and national health financing policies.

Context, issues and challenges

DEMOGRAPHY AND ECONOMY

Cambodia is a low-income country, ranked 129 out of 177 countries on the UN Human Development Index. With an annual growth rate of 2%, the total population passed 14 million in 2005. More than 80% of the population live in rural areas and are engaged mainly in subsistence agriculture. More than 90% of the population are ethnically Khmer and Buddhist, the remainder being Islamic Cham people, upland communities in the remote Mondulakiri and Rattanakiri provinces and immigrant groups. Per capita gross national income (GNI) was US\$430 in 2005 in current USD, and 35% of the population is extremely poor, living below the national poverty line of US\$0.59 per person per day in 2004 (MOP 2006; World Bank 2006; 2007). However, the rate of economic growth is impressive, averaging 8% per annum over the last decade and reaching an estimated 13% in 2005. Development assistance plays a large role in the economy, though it is falling as a share of GNI - down to 10% in 2005 from more than 16% in 1995. Nonetheless, aid still constitutes a greater

proportion of GNI than tax revenues.

POLITICAL CONDITIONS

This economic growth has paralleled an extended period of political stability since the late 1990s and has paved the way for improvements in health status. Following the international and domestic conflicts of the 1970s - which began with the American war in neighbouring Vietnam and ended with the 1979 defeat of the Khmer Rouge regime - the economy and the health system were utterly destroyed. Under conditions of international isolation and resource shortages, reconstruction began in the 1980s, but progress was slow. Foreign assistance was provided on an emergency basis only by UNICEF and Red Cross and later by other UN agencies and non-government organisations (NGOs) (Annear 1998). While the economy was exclusively government-run and health care was provided officially free of charge through the public health system, under-the-table charges by government health staff were universal and relatively expensive, and private provision of health care, especially drug sales, had begun.

From the signing of the 1989 Paris Peace Accords, which ended Cambodia's isolation, the MOH expanded its program for rebuilding the public health system. Following the 1993 UN-sponsored national elections, a new phase of health reform was initiated, leading to the 1996 Health Coverage Plan for rebuilding the health infrastructure and the Health Financing Charter, which aimed to regulate and control user charges and mandate exemptions for the poor. From 1999, a number of unique and effective pilot projects in health financing and relief for the poor were initiated, and significant recent improvements in service delivery and health status have been recorded. Even so, the MOH continues to face serious challenges in improving the quality of health care.

While Cambodia was considered a part of the socialist bloc through the 1980s, it has been an economy in transition at least since 1989. Today, it is a fully fledged market economy with a democratically elected government. Despite certain difficulties in implementing the democratic process, the political situation is stable and election procedures are being extended at commune and provincial levels. In these conditions, there has been a flowering of civil society organisations and a massive growth in the number of local and international non-government agencies working in the social sectors, including in health.

HEALTH STATUS

Recent marked improvements in health status are evident, though challenges remain. Average life expectancy rose to 64 years for women and 58 year for men in 2005 from 58 and 54 years in 1998. Most significantly, infant and under-5 mortality rates have fallen dramatically, according to the Cambodia Demographic and Health Survey 2005 (CDHS 2005) (see Table 1). However, while the situation has improved, the maternal mortality rate remains unacceptably high, and 36% of children under-5 are stunted or underweight (NIPH and NIS 2006).

Table 1. Key health indicators in Cambodia

	CDHS 2000	CDHS 2005
Life Expectancy (years)		
Female	58	64
Male	54	58
Mortality rates (per 1000 live births)		
Neonatal mortality	37	28
Post-neonatal mortality	58	37
Infant mortality	95	66
Child mortality	33	19
Under 5 Mortality	124	83
Maternal Mortality (per 100,000 live births)	437	472

Source: NIPH, NIS. 2006. *Cambodia Demographic and Health Survey 2005*. Phnom Penh: National Institute of Public Health and National Institute of Statistics.

However, while relative levels of health spending are often higher, Cambodia still lags behind many of its regional neighbours in life expectancy and mortality rates (Table 2). The reductions in childhood mortality vary across Cambodia both geographically and by socio-economic group. Early childhood mortality rates, for example, are three times higher in the lowest compared to highest income quintile (Table 3). One reason for the maldistribution of health gains is the impact of financial, cultural and other barriers on access to health services for the poor. Moreover, the cost of health care, particularly catastrophic cost for unforeseen illness, has been reported as the single most important cause of new impoverishment in Cambodia (Biddulph 2004).

Table 2. Selected indicators for neighbouring countries in Southeast Asia, 2003

	Health spending per capita - USD	Under-5 mortality rate /1000 l.b.	Maternal mortality rate /100,000 l.b.	Male life expectancy at birth - years
Cambodia (CDHS 2005)	37	83	472	58
Lao PDR	11	91	650	58
Vietnam	26	23	130	68
Indonesia	30	41	230	65
Thailand	76	26	44	67

Source: World Bank, 2006, *World Development Indicators 2006*; Cambodia data from the 2005 *Demographic and Health Survey* and WHO, UNICEF data - adapted from Lane, 2007, *Scaling Up for Better Health in Cambodia*, Phnom Penh: WHO, AusAID.

Table 3. Early childhood mortality rates by income quintile, 2005

	Income quintile				
	Lowest	Second	Middle	Fourth	Highest
Mortality rates (per 1000 live births)					
Neonatal mortality	34	45	38	38	22
Post-neonatal mortality	66	64	60	39	12
Infant mortality	101	109	98	78	34
Child mortality	29	23	18	15	9
Under 5 Mortality	127	129	114	92	43

Source: NIPH, NIS. 2006. *Cambodia Demographic and Health Survey 2005*. Phnom Penh: National Institute of Public Health and National Institute of Statistics.

Infant mortality rates fall dramatically as the level of mothers' education rises and as household income rises and are two-thirds lower in the most wealthy compared to the least wealthy households. Vaccination levels also increase with household wealth and mother's education. Significant disparities are also evident in the rural-urban distribution of health gains. In urban compared to rural areas, rates of infant and child mortality are considerably lower and the use of health facilities for deliveries is three-times more likely. Mortality rates are highest in remote provinces such as Mondulakiri and Rattanakiri, where infant mortality is more than three-times the level in Phnom Penh (NIPH and NIS 2006).

HEALTH EXPENDITURES

Health financing in Cambodia is characterised by an unusually high level of total health expenditure, relatively low government spending and high household out-of-pocket (OOP) spending. The best current estimates (Lane 2007) indicate that:

- At approximately 8% of GDP in 2005 (or US\$27-37 per capita per year),¹ total health expenditure is almost twice the level of comparable developing countries.
- With recurrent budget spending at little more than 1% of GDP (or approximately US\$4 per capita per year), government health spending is relatively low.
- Reaching a total of US\$114 million in 2005 (or US\$8 per capita per year), donor funding for health care is high and rising.
- Private household OOP spending accounts for approximately two-thirds of all health expenditure; this amounts to approximately US\$25 per capita per year.

While small in absolute terms, the public health budget now constitutes a large and increasing proportion of fiscal expenditures, possibly reaching as much as 12% of recurrent expenditure in the 2007 national budget or \$7 per capita (Lane 2007).² Nonetheless, budget allocations to public health facilities, particularly district-level referral hospitals and health centres, are constrained and most facilities rely on regulated user fees to earn additional revenues for operational costs and staff incentives. In 2003 and 2004, only 36% and 32% of the provincial government health budget was spent on providing services in health centers and referral hospitals respectively (or 18% and 17% of the national health budget). The major part went to administration and national health programs (World Bank *et al.* c.2007).

Private OOP payments are diverse, with few risk-pooling or pre-

¹Estimates of health spending per capita vary depending on source of data for out-of-pocket spending. OOP is estimated at: US\$15 by the secondary assessment of Cambodian Socio-Economic Survey data published in the Cambodian Poverty Assessment (World Bank 2006); US\$18 by the WHO NHA website (for total spending of US\$30); US\$25 by the secondary analysis of CDHS 2005 data in Lane (2007).

²Consistent accounting of total health expenditure is not available, though various estimates have been made, including this one.

payment mechanisms generally available. They comprise user fees to public and private providers, payments to government staff working privately, payments to traditional and non-medical providers and the direct purchase of medicines from pharmacies and drug sellers. Approximately three-quarters of this OOP health expenditure is financed by cash in hand and savings and one-quarter by gifts, borrowing and household asset sales (NIPH and NIS 2006).

The excessive burden of OOP payments represents a misallocation of resources in the health sector and constitutes an ongoing financial barrier to access to health services for the poor. Having the money needed to access services is the greatest difficulty faced by women and their families requiring health care. Survey results from the CDHS 2005 showed that three-quarters of those respondents who were women of child bearing age cited 'getting money needed for treatment' as a problem in accessing health services. This was the single most important problem cited and the difficulty was significantly greater for the lowest wealth quintile (86% of respondents) than for the highest quintile (54% of respondents) (NIPH and NIS 2006).

SUPPLY-SIDE ISSUE

Strengthening the supply of public health services following a long period of conflict, destruction of physical and human resources and international isolation has been central to Cambodian health policy and planning for more than a decade, supported by extensive international assistance.

The public health infrastructure has been largely rebuilt through implementation of the 1996 Health Coverage Plan (HCP).³ Under the plan, health facilities have been built or upgraded in many areas where they had not existed or had been inadequate: at least 881 health centres receive MPA (Minimum Package of Activities) drug kits out of a planned total of 972; full

³Administration of the health care delivery function of the MOH is based on the 1996 Health Coverage Plan (HCP). Under the HCP, the country is divided into 76 health Operational Districts (ODs) in 24 provinces; each province is directed by a Provincial Health Department (PHD). Each OD covers a population of 100,000-200,000 and includes a Referral Hospital (RH), 10-20 Health Centers (HC - each with a catchment population of 10,000-20,000) and an OD Administrative Office. The HCP set minimum standards for district-level service delivery (the Minimum Package of Activities/MPA for health centres and the Complementary Package of Activities/CPA for district referral hospitals) that require adequate buildings, staff and drug supply.

MPA services are available at only 447 health centres, up significantly from 294 in 2003; referral hospitals with surgery services (Complementary Package of Activities - CPA2 and CPA3) have been established in 44 out of a targeted 69 health districts nationally, with 16 additional hospitals providing CPA1, without surgery facilities (MOH 2006a; 2007).

Under the 1996 Health Financing Charter (HFC), the right was given to public health centres and hospitals to levy their own official user fees as a pilot project and after approval by the MOH. The main aims were to provide supplementary revenue and to regulate unofficial charges in a situation where under-the-table payments to public health staff were common and expensive (Barber *et al.* 2004). In stark contrast to most developing countries, the introduction of official fees in Cambodia effectively *lowered* the costs of access to health services by replacing more expensive under-the-table charges and increased utilization at most government health centers and some referral hospitals (Wilkinson 2001). Whether the reduced prevalence of under-the-table charges has been maintained under the pressure of inflation and continued low salaries is an issue that requires further investigation. Ninety-nine per cent of user-fee revenues remain with the health centres and hospitals to provide funds for additional staff incentives and running costs.⁴ Most health facilities have approved fee systems.

While the user-fee regulations provided for exemptions for the poor granted at facility level, the official exemptions system was unfunded and provided inadequate coverage, with a low rate of exemptions. The failure of the official fee-exemption system has been attributed to conflict of interest on the part of health staff responsible for granting exemptions, the absence of a mechanism to properly identify the poor and granting of exemptions to the non-poor. Exemptions were therefore a drain both on facility revenues and on staff incentives and the proportion of patients receiving exemptions remained low.⁵ In 2006, exemptions for the poor averaged around 18% of patient consultations at health centres, 16% of total cases at referral hospitals

⁴The MOH Annual Operational Plan for 2007 of the MOH estimates that user fees will finance up to US\$5 million out of planned MOH recurrent spending (including loan funds and NGO contributions) of US\$80 million.

⁵ Because staff salaries are extremely low and do not cover the living costs of a normal family, health staff must seek additional incomes. Under the 1996 HFC, 50% of user-fee revenues were mandated for staff incentives, raised to 60% in 2007. Official exemptions reduced the fee revenues collected and therefore the funds available for staff incentives.

and 10% of national hospital cases (MOH 2007), compared to the national poverty rate of 35%. Exemption levels have varied widely across health districts, ranging between 2% and 25% of patients (Espinosa and Bitran 2000) while poverty levels could be as high as 70% in some districts.

CHALLENGES AND RESPONSES

Currently, the principle issues in health planning in Cambodia are to improve the quality of public health service delivery, reduce OOP spending, increase the utilization of public facilities and provide access to health services for the poor. While the government is the main provider of the health care infrastructure, only 22% of reported treatment episodes are provided by the public sector, where the quality of service delivery remains low. The private sector, which is largely informal, unregulated and of unknown quality, accounts for 48% of treatment episodes. The non-medical sector, with a variety of providers such as drug vendors, traditional and religious healers and traditional birth attendants, attracts 21% of patients (NIPH and NIS 2006).

Consequently, despite the expansion of the health infrastructure through the Health Coverage Plan, there has been only a partial response on the demand side and the low utilization of public health services remains a chronic problem. Various efforts have been made at national and local level to address these challenges. Among the schemes introduced are supply-side initiatives (such as the sub-contracting of district-level public health service delivery to non-government providers) and demand-side initiatives (including the HEFs and pilot programs for health micro-insurance). Table 4 below provides a description of these schemes.

In 1998 the MOH began a pilot project in the sub-contracting of district health service delivery supported by loan funding from the Asian Development Bank. Under the pilot, the management and/or delivery of health centre and referral hospital services were sub-contracted by the MOH to international NGOs in selected health districts - now called simply 'Contracting' (see Table 4 below). In 2004 the MOH introduced a second phase of Contracting in 11 poorly-performing health districts under the Health Sector Support Project funded by the Asian Development Bank (ADB), the World Bank, the UK Department for International Development (DFID) and the United Nations Population Fund (UNFPA). In those districts, Contracting is designed to strengthen facility management, increase

staff remuneration through performance agreements and improve service delivery indicators, such as immunization levels. A recent evaluation indicated that Contracting had acted to increase utilization and to restore confidence in the public health system. It also raised questions, however, about the overall cost of Contracting and its place within the broader framework of public health planning and service delivery (MOH and AFD 2007).

Other forms of contracting have also been piloted. In two provinces (Siem Reap and Kampong Cham), the MOH has worked with the Belgian Technical Cooperation to implement a form of 'internal contracting' in a number of districts. In this form, health centres, district hospitals and district and provincial health administrative offices are managed through performance contracts within the MOH. The Belgian Technical Cooperation example builds on similar 'New Deal' arrangements developed earlier by *Médecins Sans Frontières* and UNICEF in Siem Reap as well as staff performance agreements first developed at Takeo Provincial Hospital. More recently, through the Health Sector Steering Committee, the Government has suggested it intends to move in the direction of similar internal contracting arrangements. It is possible that such a policy could emerge as part of a new provincial project developed by the French Development Agency (AFD) or potentially through a new phase of the World Bank-supported project.

Table 4. Selected supply-side and demand-side financing schemes in Cambodia

Supply-side		Demand-side	
User Fees	Contracting	Health Equity Funds	Community-Based Health Insurance
Decentralised, affordable user fees at public health facilities were introduced in Cambodia through the 1996 Health Financing Charter. The Charter certifies the imposition of official fees according to an agreed schedule at affordable rates following consultation with the community. The initiative to implement fees remains with hospitals and health centres, which retain 99% of fee income. Health facilities must apply to the MOH for permission to implement fees, based on minimum standards of service delivery. A non-subsidized exemption system is implemented as part of the user fee scheme	Denotes a scheme in which all government health services at health-district level, including primary-level care at health centres and secondary-level care at district referral hospitals, are managed and delivered by a non-government operator working under contract to the MOH, using MOH staff with performance agreements. Currently donor-funded; may in future include a form of 'internal contracting' managed through the MOH.	Third-party payer schemes for indigent patients in which a fund is managed at district level by a local agent, usually a local NGO, supervised by an international NGO, and funded by donors or in some cases by government or through community collections. The poor are identified at or prior to the point of service and receive free care at the health facility. They are also reimbursed for associated treatment costs such as transport and food. The facility then receives reimbursement monthly directly from the HEF for services provided to the poor. Could eventually become tax-funded.	Voluntary, non-government and non-profit local-level insurance schemes funded by user premiums and managed commonly by an international or local NGO. The insurer contracts public health facilities to provide approved health services. Patients pre-pay insurance premiums to the scheme and receive free health care at contracted facilities. In most cases, facilities receive a monthly capitation payment in advance and in some cases reimbursement of user fees. May eventually be included under the umbrella of the anticipated contributory social health insurance scheme.

Health Equity Funds emerged as locally generated projects developed by a number of international NGOs assisting the MOH to provide health services at district level. They now cover more than a half of all health districts (see Annex 1). The aim is to provide financial access to public health services for the poor. Based on the experience in implementing these schemes, support for HEFs became an integral part of the National Poverty Reduction Strategy 2003-2005 (CSD 2002) and the Health Strategic Plan 2003-2007 (MOH 2002). The MOH developed its first Strategic Framework for Equity Funds in 2003 (MOH 2003) and produced a National Equity Fund Implementation and Monitoring Framework in 2006 (MOH 2006b).

More recently, a 2007 inter-ministerial *Prakas* (or Decree) stipulated that state health budget be allocated to subsidize access to health services for the poor through reimbursement of user fees. This was the first initiative taken by the government to finance the health care costs of the very poor.

Community-Based Health Insurance (CBHI) has been piloted by different organisations in a number of locations, beginning in 1998 (see Annex 2). Schemes are operated in four locations by Groupe de Recherche et d'Echanges Technologiques (GRET), a French NGO. Since 2005, the local NGO Cambodian Association for Assistance to Families and Widows (CAAFW) has operated a scheme in one district. Schemes have also been initiated by local NGOs including the Reproductive and Child Health Alliance (RACHA), Buddhism for Health (BFH) and the Cambodian Health and Human Rights Alliance (CHHRA) in three different districts in 2006 and 2007. CBHI targets the not-so-poor, who comprise in theory about half the population who live just above the poverty line. These pay premiums to cover the costs of attendance at contracted health centres and hospitals. CBHI has grown slowly and the risk pool remains limited. Even so, the potential benefits of CBHI have been recognised through its incorporation into the 2003 Master Plan for Social Health Insurance together with the HEFs.

A Law on Social Security enacted in 2002 stipulates that these social security schemes will function under the National Social Security Fund (NSSF), established by an Inter-Ministerial *Prakas* in 2007. The NSSF operates as a public self-financing institution outside any government ministry. It is governed by an independent Board with tri-partite representation of government, employers and employees and including the Ministry of Health. Following the adoption of the Social Health Insurance (SHI) Master Plan by the MOH in 2005, an inter-sectoral SHI Committee composed of key stakeholders, including four key ministries (Health, Social Affairs, Labour and Economics) and donor and technical support agencies, was formed. This committee has to spearhead the development of social health insurance initiatives, including compulsory social health insurance for public and private salaried sector workers and their dependents and voluntary CBHI.

Health Equity Funds in Cambodia

In the late 1990s, the MOH and NGOs working to deliver health services in various district locations faced a common problem. Having strengthened the supply of health services, they found that utilization of the public health facilities, particularly district hospitals, remained limited and that large numbers of poor people in both rural and urban locations simply could not afford the costs of attending services. The key issue for them was, therefore, how to improve facility utilization and increase access for the poor.

RATIONALE

The rationale for the HEFs is therefore to improve access to health services for the poor. The HEF functions as a funded fee-exemption system (Bitran 2002; Knowles 2004) and is consistent with the concept of 'health need' (Wright *et al.* 1998; Durán 2006).

Emergence of the HEFs was the appropriate response in a situation where:

- The supply of services (i.e. the quantity of facilities, staff and drugs provided as inputs) had been strengthened to a certain level even though quality of service may still have been limited.
- A regulated fee system had been put in place, with fees known in advance and accepted by community representatives.
- Official hospital fee-exemption systems were available but worked inefficiently and provided coverage for only a proportion of the genuinely poor.
- Severe constraints existed on the demand-side, particularly the lack of ability to pay for user fees and other costs by the very poor. Additional constraints include limited knowledge of and acquaintance with the user fees schemes across the population.⁶

HISTORY AND DEVELOPMENT

The first HEF schemes were launched in 2000 through the Urban Health Project sponsored by WHO and Options UK, who supported the Phnom

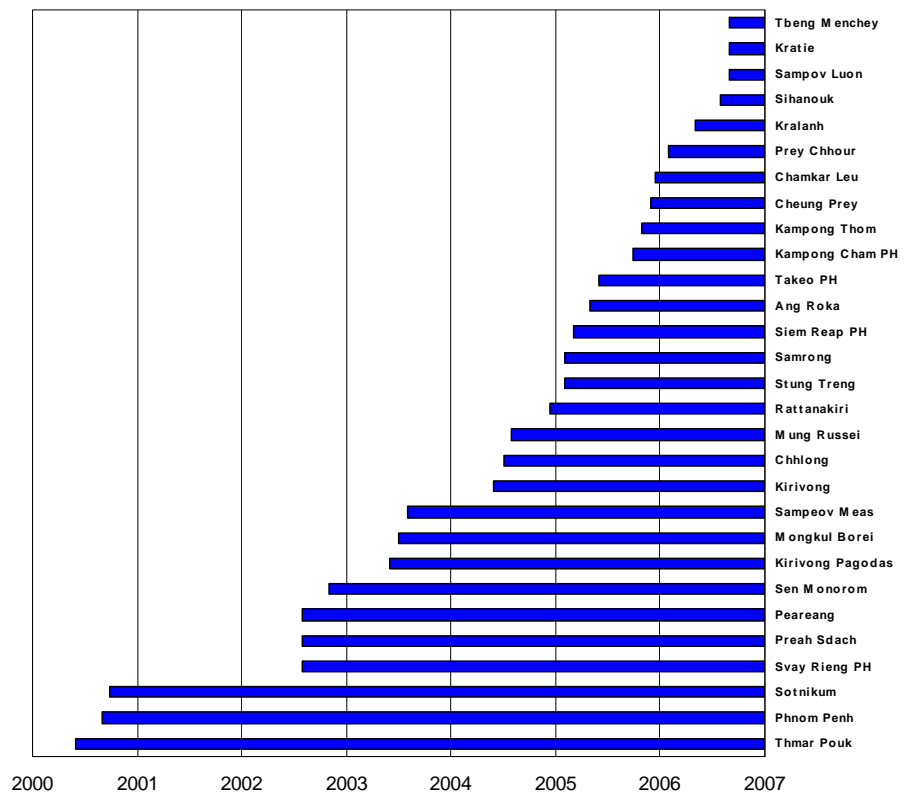
⁶ The common experience in Kirivong health district, for example, is that those who know the fee schedules in advance were more likely to seek care at public facilities than those not knowing them. The latter consequently often used private providers.

Penh Municipal Health Department and initiated schemes in two urban squatter areas. Independently, *Médecins Sans Frontières* and UNICEF combined through their New Deal project to support HEF schemes at Sotnikum district in Siem Reap province and Thmar Pouk district in Banteay Meanchey province in the country's north-west.⁷ Initially identified by the local name *Mulnithi Sangkrus Chun Krey Krar* (a fund to save the poor), these schemes later became known universally as 'Health Equity Funds'. This term drew on the established concepts of social assistance and purchaser-provider split.

By showing convincing results, the early HEF pilots drew the attention of donors and policy makers and were quickly replicated by NGOs in numerous locations. HEF schemes were implemented at Svay Rieng provincial hospital by UNICEF and at Pereang in Prey Veng province and Kirivong in Takeo province district hospitals by Health Net International and *Enfants et Développement*. WHO encouraged the introduction of an HEF at Pursat provincial hospital and provided support to the MOH and Swiss Red Cross to begin an HEF at Takeo provincial hospital. In 2004, the Belgian Technical Cooperation agency initiated a project in three provinces (Siem Reap, Oddar Meanchey and Kampong Cham) based on the New Deal experience, including several new HEF schemes. At the same time, the US University Research Company was the first NGO to implement HEFs on a larger scale and convinced USAID to support HEF projects at several district hospitals.

⁷ The New Deal was first instigated in 1999 in Sotnikum district when the Ministry of Health, *Médecins sans Frontières* and UNICEF agreed on a common approach to arrangements in which health staff received higher monthly incomes and pledged to respect working hours and new regulations strictly forbidding any informal payments or prescriptions for private pharmacies. Contracts were established between all actors involved and lump sum user fees agreed upon to reduce patient's uncertainty about the cost of treatment. The approach immediately resulted in better staff motivation and higher utilization rates and was later taken over by the Belgian Technical Cooperation (Van Damme *et al.* 2001; Meessen *et al.* 2002).

Figure 1. Starting dates for all HEF schemes, 2000-2007



Note: This illustration is based on the reported starting date for each HEF scheme up to December 2007; it should be noted that some schemes have suffered discontinuity in implementation due to interruption in funding (which is not represented in the illustration). Source: the authors, using data collected directly from HEF providers and verified by the MOH Bureau of Health Economics.

The rapid expansion of HEF schemes to new locations is shown in Figure 1 above, which illustrates the launching of new schemes in the years from 2000. A few of these schemes have suffered discontinuity, however, due to funding difficulties.

In this spontaneous replication, the different HEFs were implemented using flexible forms with different designs depending on circumstances,

while also developing the key principles: that a third-party NGO fund manager was advisable, that HEFs should meet non-user-fee costs and that HEFs should also implement community support activities. The pre-identification of the poor prior to attending facilities and the use of hospital-based HEF committees was pioneered effectively in Svay Rieng. There the HEF also proved to be an efficient way to channel donor funding for the hospital with associated staff performance incentives. The use of community structures, such as the Buddhist pagodas, to collect household contributions for the HEF was pioneered in Kirivong health district.

As sponsors of the MOH flagship Health Sector Support Project, the World Bank, the ADB, DFID and the UNFPA all played a central role in supporting policy development (along with the World Health Organisation), health systems strengthening and a number of HEF schemes.

The Ministry of Health itself retains responsibility for health service delivery through the public health system and has led the process of policy formation. This includes: support for HEFs in the Health Strategic Plan 2003-2007; the 2005 SHI Master Plan, which covers civil servants and formal private-sector employees as well as voluntary health insurance and forms of social assistance; the 2005 National Equity Fund Implementation and Monitoring Framework, designed to guide local HEF implementers; the 2006 Guidelines for Implementing CBHI, designed to provide a common approach to administrative and technical requirements, common benefits and portability between different CBHI schemes; and the Strategic Framework for Health Financing 2008-15, which positions the HEFs as a building block for the later introduction of universal health insurance coverage. More recently, the MOH committed budget to itself fund fee exemptions for the poor in an additional ten health districts (see Annex 1).

In a major display of cooperation between these different bottom-up and top-down processes, all major NGOs implementing HEFs met together with the MOH and international agencies to share and exchange evidence at a National HEF Forum in February 2006 sponsored by the MOH, WHO and the Belgian Technical Cooperation. The Forum brought important issues to the attention of policy makers, in particular: the need to adopt practical and common modalities for HEF implementation, the importance of choosing the most appropriate method for identification of the poor and the need to see HEFs in the larger perspective of an overall health sector strategic plan and national health financing policy.

THE CURRENT BODY OF EVIDENCE

There is a growing published literature on the implementation and effectiveness of the HEFs. One rural study showed that increased utilization of health facilities under normal conditions was concentrated among people of higher socioeconomic status and that the introduction and subsequent increase of user charges over time could still represent a 'medical poverty trap' for many users (Jacobs and Price 2004). The HEFs were designed in these conditions to address the financial, geographical, informational and socio-cultural barriers faced by the poor (Van Damme *et al.* 2004). This requires, however, that the identification of the poor is effective; otherwise timely and appropriate care seeking is impeded (see the article by Jacobs and Price in this volume).

There have been several studies in specific locations, most commonly in Sotnikum health district, one of the first rural sites to have pioneered an HEF (Hardeman 2001; Van Damme *et al.* 2001; Meessen *et al.* 2002; Meessen and Por 2003; Hardeman *et al.* 2004). Comparative studies have been made of the different HEF models in Sotnikum, Thmar Pouk, Phnom Penh, Takeo and Svay Rieng (Bitran *et al.* c.2003) and of HEF systems in Siem Reap, Otdar Meanchey, Kirivong and Sotnikum (Noirhomme *et al.* 2007). Two prospective studies discussing options for health financing, user fees, HEFs and community insurance have contributed to planning the introduction of different pro-poor schemes (Bautista 2003; Chettra 2003). In different locations, HEFs have increased access for the poor and facilitated community participation in health service improvement, particularly through pagoda-based funds (Jacobs and Price 2003; Por and Hardeman 2003; Jacobs and Price 2006).⁸ In Phnom Penh squatter communities, equity funding was found to protect the poor from the impact of health costs and to increase access to health services (Knowles 2001; van Pelt and Bun Mao 2004). A study in one rural district indicated that the financial sustainability of equity funds may be improved by working through grassroots institutions, such as pagodas, though external support may still be required (Jacobs *et al.* 2007). A recent international comparative study contrasted the impact of HEFs on access for the poor in Cambodia with the removal of user-fees in Uganda. It

⁸ In Kirivong health district, one HEF scheme uses pagodas, or Buddhist temples, as the focal point for collecting health equity funds from the community and distributing them to health centres to finance health costs for the poor.

concluded that contextual issues were paramount in the success in both cases, and another recent study considered the more general application of equity funds in low-income countries (Meessen *et al.* 2006; Brikci and Philips 2007).

UTILIZATION OF PUBLIC HEALTH FACILITIES

Using routine data, the Access Study also made the first national assessment of the impact of the HEFs on access to services for the poor. Through different qualitative methods - including extensive key informant interviews, patient exit interviews and focus group discussions - the Access Study also made in-depth case studies in one urban location in the capital, Phnom Penh, and in one rural location at Ang Roka health operational district in Takeo province.⁹

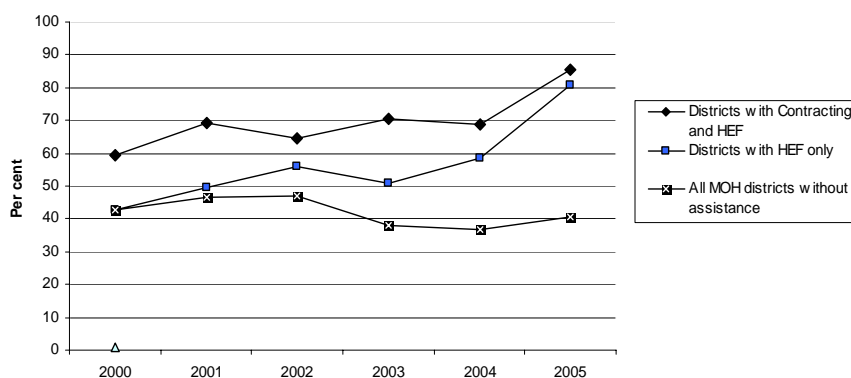
The bed occupancy rate (BOR) is a common and comparable indicator between referral hospitals and reflects both trends in hospital utilization and the degree to which hospital capacity is fully utilized.¹⁰ As the Access Study showed, without assistance from Contracting, HEFs or CBHI, referral hospitals on average are typically used at only half their capacity. Figure 2 indicates that those hospitals that now receive support from HEFs began in 2000 at similar BOR levels to MOH districts generally. Subsequently there was a marked upward trend in utilization and bed occupancy in HEF facilities. In the districts that also had Contracting the improvement appears to be even greater.¹¹

⁹ The number of respondents included in the case-studies in Phnom Penh and Ang Roka included: Exit interviews - 220 patients at Phnom Penh Municipal Hospital, 242 patients at eight Phnom Penh health centres, 95 patients at Ang Roka Referral Hospital and 150 patients at nine Ang Roka health centres (total 697 patients); Focus Group Discussions - in Phnom Penh, two focus groups with 14+15 HEF beneficiaries, two focus groups with 13+15 CBHI beneficiaries and two focus groups with 6+15 non-beneficiaries; in Ang Roka, two focus groups with 18+9 HEF beneficiaries, two focus groups with 15+14 CBHI beneficiaries and two focus groups with 15+17 non-beneficiaries (a total of 166 focus group participants); Key Informant Interviews - in Phnom Penh 22 key informants and in Ang Roka 20 key informants from the MOH administrative offices, hospitals and health centres and NGO service providers (a total of 42 key informants).

¹⁰ As a measure of appropriate utilization, the BOR may be distorted if user fees are linked with length-of-stay; however, this is not often the case.

¹¹ Coverage by CBHI schemes is in most cases too limited to enable the collection of meaningful comparative data on utilization. CBHI coverage is currently offered through six schemes by four international and local NGOs working in five health operational districts

Figure 2. Average monthly bed occupancy rate per year at selected referral hospitals by type of financing scheme: Contracting, HEFs and MOH health districts



Note. The averages are formed by the number of districts with reliable routine data available at the time of the Access Study. The number of facilities included in these averages is as follows:

Number of districts with Contracting and HEFs = 4 from Jan 2000; 5 from Dec 2004

Number of districts with HEFs only = 3 from Jan 2000; 4 from August 2000; 6 from Jan 2002

Number of MOH districts without assistance = 4 'control' districts from 2000

In those districts with HEFs only and for those with Contracting and HEFs the average is formed by the number of districts with available data from 2000 regardless of when HEFs or Contracting began (i.e. the trend over time indicates the impact of introducing these schemes).

Note that some districts chosen for HEFs already had above average facilities and supply of services (which is a prerequisite for HEF introduction). Districts chosen for Contracting were more remote, poorer performing and required assistance particularly with service delivery.

Source: Based on Annear *et al.* 2006. *Study of Financial Access to Health Services for the Poor in Cambodia - Phase 1: Scope, Design and Data Analysis*. Phnom Penh: MOH, WHO, AusAID, RMIT University Melbourne.

In general, both patients and providers from Phnom Penh and Ang Roka interviewed for the Access Study testified that the impact of HEF and CBHI schemes was to draw more people into the public health system.¹² It

nationally (including Ang Roka), with a total of approximately 30,000 beneficiaries. However, in Ang Roka, at least, CBHI does appear to play an important role along with HEF in promoting the use of public health facilities. See also Jacobs, Price and Sam (2007).

¹²For this reason, and to reinforce the referral system, Jacobs, Price and Sam (2007) recommend the extension of HEF benefits to first-line facilities (i.e. health centres).

appeared that these schemes also catered for the existing needs of poorer women. Women and their children are the main users of public health services. Data from the MOH Health Information System indicate, for example, that 71% of out-patients attending the Phnom Penh Municipal Hospital in 2006 were female, a common result across most referral hospitals in Cambodia. By comparison, from among all those patients who provided exit interviews for the Access Study, 74% of the patients with HEF benefits and 63% of the patients with CBHI benefits were female.

ACCESS FOR THE POOR

It can be shown directly that in many districts where HEFs has been implemented utilization rates have increased. But exactly who are the people who comprise this increased utilization? Household and patient health-facility surveys would be needed to answer this question directly, but such data are unavailable. For purposes of approximation, therefore, the following approach can be used, not to measure the precise impact of HEFs on access for the poor but to judge whether the poor who were previously excluded from services may be providing the increased utilization.

The approach is based on the following steps:

- Measure the level of poverty according to the official poverty line within the health district.
- Add together the percentage of all patients who receive official exemptions and those receiving HEF benefits to calculate the total exemptions.
- Where the level of total exemptions rises to the average level of poverty then it is likely that poor people are using public health facilities in proportion to their numbers in the total population.
- In these circumstances we can conclude that the poor have been provided with access to health services.¹³

While this approach does not provide a precise measure of effectiveness, it is a guide to analysis. There are two caveats however. First, that some HEF-supported patients may not necessarily be under the official

¹³ A methodological limitation of this assumption is the potential influence of 'false positive' identification of 'non-poor' families as 'poor' for HEF purposes, which would inflate the coverage figures and constitute a case of negative cross-subsidization. False-positive identification needs to be balanced against false-negative identification (excluding eligible poor families from HEFs).

poverty line, as criteria used to define HEF beneficiaries are different from the official poverty-line measurements. Second, that district hospital patients may come from areas outside the health district catchment, although in practice this is commonly only a small minority of patients. With these limitations in mind, the Access Study found that:

- In health districts without HEFs, CBHI or Contracting, on average the proportion of patients at referral hospitals receiving fee-exemptions was about half the level of prevailing poverty. This suggests that the official facility-based and un-funded fee exemptions authorised by the Health Financing Charter do not work fully to protect the poor.
- In health districts with HEF schemes alone, the proportion of patients receiving HEF exemptions commonly rose to a level slightly below average poverty rates in those districts.
- In those health districts where further improvements in management had been instituted, such as those health districts with Contracting, the average proportion of HEF exemptions rose to equal the level of poverty.

The analysis suggests that HEF, especially when combined with improved management practices, provides increased access to public health services for the poor. This was confirmed by patients interviewed for the case studies in Phnom Penh and Ang Roka. Among HEF-supported patients interviewed for the Access Study, a quarter had *not* previously attended the facility, and of those half said the reason was the lack of money. This indicates that HEF provided access to services for people who could not previously afford to attend. Significantly, the same was not true of CBHI beneficiaries interviewed for the Access Study, of whom only one person (in an urban health centre) had not attended the facility due to cost prior to holding a card.¹⁴ These results were confirmed by testimony from key informants and focus group participants. The results also indicate that CBHI may be more effective in reducing OOP expenditures rather than in providing increased access to services. CBHI and HEF therefore appear to play different but complementary roles in addressing concerns with health costs and access to services.

¹⁴ All patients with HEF or CBHI cards were asked: “Before you had your ... card did you come to this hospital or health centre when you were sick?” and “If not, why not?”

REVENUES RECEIVED FROM FEES AND FUNDED-EXEMPTIONS

The reported costs of providing HEF benefits to patients vary widely. Data provided by HEF operators at the February 2006 National HEF Forum in Phnom Penh indicate that the cost of *direct benefits* paid to HEF beneficiaries (fees, transport and food costs) were in the range of \$6-34 a year. Administration costs were in the range of 15-38% of *total costs* (which include direct costs to beneficiaries plus administration costs).

The general impact of HEF and CBHI is to increase total revenues earned by health facilities, provide funds for supplementary staff incentives and provide the means to keep facilities operating on a 24-hour-per-day basis when otherwise they would not. This is particularly so when HEFs are used in combination with management strengthening arrangements like Contracting. Moreover, the performance agreements and incentive payments funded by HEF, CBHI and Contracting arrangements provide the means to control, if not to completely eliminate, the problem of under-the-table charges for patient treatment.

According to the Director of the Phnom Penh Municipal Hospital:

The number of patients has increased a lot. For example, the number of HEF patients is over 100 per month and the number of CBHI patients is about 30-40 per month. There are many patients also coming through other NGOs. I guess that about 30-40% of patients being treated in this hospital were sent by NGOs. We can earn about 15 million Riel per month [approximately US\$ 3,750] for such patients out of total revenue of 40 million Riel [approximately US\$ 10,000], so it might be one third of the total revenue.

The Provincial Health Director in Takeo Province told the Access Study:

User fees are very important, and in order for user fees to work best, the HEF is a must. If we give exemptions to too many patients, the user fee system will fail. Thus, I believe that the HEF must complement the user fee system; previously, we recognised that the [financing of the] Provincial Hospital might have collapsed since the HEF was not present then.

HEFs provide funds only for patient user fees and related costs, which in absolute terms are relatively small. The main costs of service provision at public facilities (infrastructure, staff and drugs) are still paid by the public

health system with government and donor funding and through user fees. According to one estimate, the total cost of nation-wide implementation of HEF schemes would be US\$ 7.3 million per year to cover the poorest 36% of population (Lane 2007).

FAIRNESS, STIGMA AND QUALITY OF CARE FOR THE POOR

Qualitative patient exit interviews, focus group discussions and key informant interviews conducted for the Access Study revealed little evidence among health facility users or service providers that stigma was an issue attached to the provision of HEF benefits. HEF card holders felt they had a worthwhile benefit. The HEF process, which depends on a means-test evaluation through household interviews conducted against objective poverty criteria, was regarded as fair. That is, the genuinely poor were not wrongly excluded and the less-poor were not wrongly included.¹⁵ The evidence from the Access Study suggests that nearly all HEF and CBHI patients were satisfied with the behaviour of the staff. Other informants testified that discrimination between fee-paying and supported patients was not common. Often, the HEF and CBHI patients were valued because they were known to be a source of guaranteed income.

The HEF also has a social role. In principle, it provides the opportunity to work within the community to identify and support those most in need, not only with financial assistance but also to tackle different household problems and to empower the poor in their attempts to receive appropriate care. However, the effectiveness with which the social role is carried out also depends on the administrative structure and the management practices of the HEF provider. Some HEF models, such as the pagoda-managed funds, are based on the active participation of the community itself through its own structures. The effectiveness of this social role is often related to the breadth and penetration of the beneficiary pre-identification process. If the administrative costs of HEF implementation appear to be high in some cases, in the range 25% or above, this may often be due to the costs of implementing the social role. The latter has its own associated benefits beyond meeting health costs.

¹⁵ These results were qualitative and are not presented as statistically significant. Interviewees were identified passively at the facility and not by random sample; interviewees included HEF beneficiaries, CBHI beneficiaries and non-beneficiaries.

Lessons and conclusions

In Cambodia, an extended period of political stability and sustained economic growth has been associated with significant improvements in health status. At the same time, these gains have not been equitably distributed. In particular, the underutilization of the public sector, the high level of household out-of-pocket expenditure for health care and the failure of official fee-exemption systems have created barriers that prevent the poor from accessing the health care they need. The HEFs emerged to address these challenges. What are the main lessons from their implementation?

LESSONS FROM CAMBODIA

The HEF model developed in Cambodia is most suitable for situations where demographic and social conditions are relatively uniform across the country, where the level and distribution of poverty is clearly defined, where the supply of public health services is supported strongly by government and donor funding and where the targeting of potential beneficiaries is practicable. A number of important lessons flow from an understanding of the situation in Cambodia:

- Targeted demand-side financing strategies are essential if public health services are to be fully utilised and the poor are to gain equitable access to the health services they need.
- The main impact on improving access to health services for the poor has been achieved by the HEFs.
- HEFs appear to be most effective when they are linked to the community and adopt a pro-active social approach.
- HEFs are often particularly effective in providing increased access to health services for the poor when used in combination with complementary supply-side and demand-side financing initiatives like Contracting and CBHI.
- HEFs require donor support until government can accept financial responsibility. However, compared to other donor investments in the health sector, the HEF is a relatively low-cost program with significant benefits and strong externalities continuing for a long period into the future.

CURRENT AND EMERGING CHALLENGES

Among the main challenges facing health planners and policy makers in Cambodia today are three important issues related to access to health services for the poor: excessive out-of-pocket spending, scaling-up of successful schemes and increasing sustainability.

Persistent high levels of out-of-pocket spending on health care suggest a misallocation of resources that needs to be corrected. A positive effect of the HEFs is to transfer the burden of expenditure from the household to the public level. In principle, this will lead to a more equitable and efficient use of resources as patients receive more effective care at public facilities than they might through various unregulated means of private service and self-medication. A parallel challenge is to continue to strengthen the delivery of public health services, improve their quality and increase their utilization.

A significant challenge is the need to scale-up the successful pilot and district-level programs to national coverage.¹⁶ This implies a financial commitment by government and donors, one that has been shown to be affordable (Lane 2007), is already evident in recent initiatives and needs to be expanded. For the HEF program, the challenge is to achieve national coverage and increased funding from government sources without damaging the decentralised, third-party and independent nature of the fund arrangements.

It is argued that HEFs are sustainable only as long as donor funding is provided. In fact, government has already begun to fund health facility fee exemptions for the poor. Another important concern is the administrative stability of the organizations that implement HEF schemes. In one or two cases the instability of these organizations has threatened the continuation of HEF schemes. The further institutionalisation of HEFs within the health system can address these concerns. More broadly, it needs to be acknowledged that HEFs are already widespread and cannot be easily removed or reduced without causing considerable social hardship and damage to the health system. Ultimately, the sustainability of the HEFs and other demand-side schemes depends on broadening the revenue base. While

¹⁶ An example of the challenges confronted in scaling-up to national coverage for the poor is provided by Frenk J, González-Pier E, Gómez-Dantés O, Lezana M, Marie Knaul F (2006). Comprehensive reform to improve health system performance in Mexico, *Lancet*, 368 : 1524-1534.

many different sources of revenue can be tapped to provide increased funding, the most important will be the commitment by government to provide support through the fiscal system, which has the added advantage of improving equity in resource allocation.

ISSUES FOR FURTHER RESEARCH

With these challenges in mind it is possible to identify a number of areas where new research could provide the evidence base for further development of demand-side financing policies. In particular, defining best-practice in implementation, defining the optimum relationship between demand-side financing schemes and developing national health financing strategies need to be the focus of further research.

While there is a growing body of evidence on the effective implementation of HEF schemes, further research is needed to identify best practice in HEF design and management and in related demand-side and supply-side schemes. The most immediate issues and problems are:

- The most appropriate forms of HEF administration: an independent third-party payer, through the MOH or via an independent government agency.
- The recommended roles of HEF operator: beneficiary identification, benefits administration, social role, fund raiser.
- The most efficient and effective process of beneficiary identification: targeting, pre- or post-identification, a national poverty identification process (see the article by Jacobs and Price in this volume).
- The content of the benefits package: fees and related costs, scaling according to poverty level, exclusions, services at health centre level as well as hospital level, gate-keeping function at first line-health facilities.
- The provider payment system: fee-for-service reimbursement or capitation payment, controls on over-consumption, over-servicing and/or under-servicing, satisfying unmet need.

Strong arguments have been advanced for closer collaboration between different demand-side financing schemes, particularly between HEF and CBHI schemes. Closer collaboration may increase administrative efficiencies, expand the risk-pool and increase sustainability. However, the financial relationship between HEF and CBHI schemes is complex: the two schemes serve different population segments and operate with fundamentally different financial requirements. One potential risk, therefore, is a form of

'negative cross-subsidisation' should HEF budgets be used to supplement CBHI programs where, for example, HEF funds are used to purchase CBHI premiums for the poor. Even so, subsidisation of CBHI may contribute to the development of institutional capacity and increase population knowledge about prepayment and insurance schemes. A detailed investigation of the HEF-CBHI relationship is required to identify the most important issues, quantify the financial implications and determine the most equitable and efficient forms of cooperation.

To date, the various demand-side and supply-side financing schemes pioneered in Cambodia have emerged independently. A pressing need is to determine the best means to manage these different approaches within a single national health financing strategy. Further research on the cost-effectiveness and the cost-benefit of the various schemes - both individually and in combination within a single strategy - is needed to determine the best means to increase their sustainability. These questions may best be addressed within the context of developing the strategies and mechanisms needed to achieve adequate social health protection in the longer term. They may take place logically through the further development of the Strategic Framework for Health Financing 2008-15.

The innovative approaches that have emerged in Cambodia provide evidence that effective mechanisms can be developed to protect vulnerable communities from health-related impoverishment. The effectiveness of the HEFs and related schemes provides planners with the building blocks of a strategy through which, over time, a system of national universal health insurance coverage scheme may be constructed. For lower-income countries in the early stages of planning for improved national health financing, the experience has produced many important lessons.

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References

Annear PL (1998). Health and development in Cambodia, *Asian Studies Review*, 22 : 193-221.

Annear PL, Bigdeli M, Ros CE, James P (2007). *Study of financial access to health services for the poor in Cambodia - Phase 2: In-depth analysis of selected case studies*. Phnom Penh: Ministry of Health, WHO, AusAID, RMIT University (Melbourne).

Annear PL, Wilkinson D, Men RC, van Pelt M (2006). *Study of financial access to health services for the poor in Cambodia - Phase 1: Scope, design, and data analysis*. Phnom Penh: Ministry of Health, WHO, AusAID, RMIT University (Melbourne).

Barber S, Bonnet F, Bekedam H (2004). Formalizing under-the-table payments to control out-of-pocket hospital expenditures in Cambodia, *Health Policy and Planning*, 19 : 199-208.

Bautista M (2003). *Health financing schemes in Cambodia: Reaching the poor with quality health services*. Phnom Penh: University Research Co.

Biddulph R (2004). *Poverty and social impact Assessment of social land concessions in Cambodia: Landlessness Assessment*. Phnom Penh: Oxfam GB.

Bitran R, Turbot V, Meessen B, Van Damme W (c.2003). *Preserving equity in health in Cambodia: Health equity funds and prospects for replication*. World Bank.

Bitran R, V (2002). *Protecting the poor under cost recovery for healthcare in Cambodia*. Draft mimeo, World Bank.

Brikci N, Philips M (2007). User fees or equity funds in low-income countries, *Lancet*, 369 : 10-1.

Chettra (2003). *Existing health financing schemes in Cambodia - Lessons Learned and Perspectives*. Phnom Penh: University Research Co.

CSD (2002). *National poverty reduction strategy 2003-2005*. Phnom Penh: Council for Social Development.

Durán A (2006). *Health policy - scope and outline: the European experience*. PowerPoint presentation, Sharing Experiences in Health Policy Development in Europe, Workshop March 7 2006, Tallinn, Estonia.

Espinosa C, Bitran R (2000). *Health financing report: Draft Report of a World Bank Identification Mission to Cambodia*. Phnom Penh.

Frenk J, González-Pier E, Gómez-Dantés O, Lezana M, Marie Knaul F (2006). Comprehensive reform to improve health system performance in Mexico, *Lancet*, **368** : 1524-1534.

Hardeman W (2001). *Considering equity in health sector reform: Case study of a New Deal in Sotnikum, Cambodia*. The Hague: Institute of Social Studies.

Hardeman W, van Damme W, van Pelt M, Ir P, Heng Kimvan, Meessen B (2004). Access to health care for all? User fees plus a health equity fund in Sotnikum, Cambodia, *Health Policy and Planning*, **19**: 22-32.

Ir P, Hardeman W (2003). *Health Equity Funds: Improving access to health care for the poor - MSF's experience in Cambodia*. Phnom Penh: Médecins Sans Frontières.

Jacobs B, Price N (2003). Community participation in externally funded health projects: lessons from Cambodia, *Health Policy and Planning*, **18** : 399-410.

Jacobs B, Price N (2004). The impact of the introduction of user fees at a district hospital in Cambodia, *Health Policy and Planning*, **19** : 310-21.

Jacobs B, Price N (2006). Improving access for the poorest to public sector health services: insights from Kirivong operational health district in Cambodia, *Health Policy and Planning*, **21** : 27-39.

Jacobs B, Price N, Sam Oeun Sam (2007). A sustainability assessment of a health equity fund initiative in Cambodia, *International Journal of Health Planning and Management*, **22** : 183-203.

Knowles J (2001). *An economic evaluation of the health care for the poor component of the Phnom Penh Urban Health Project*. Phnom Penh. Health Sector Reform III Programme - London School of Hygiene and Tropical Medicine, Options UK, Department for International Development.

Knowles J (2004). *The poverty reduction Impact of Cambodia's health programme*. Phnom Penh: Oxford Policy Management, UK Department for International Development.

Lane C (2007). *Scaling up for better health in Cambodia - A country case study for the Royal Government of Cambodia/World Health Organization/Post-High Level Forum on Health Millennium Development Goals*. WHO/HDS/2007.1 Manila: WHO and Ministry of Health.

Meessen B, Ir P (2003). *Decentralisation of health equity fund in Sotnikum district: Assessment of the pilot schemes in Kvav and Samrong health centres*. Rep. Working Paper. Phnom Penh: Médecins Sans Frontières Belgium.

Meessen B, Van Damme W, Kirunga Tashobya C, Tibouti A (2006). Poverty and user fees for public health care in low-income countries: lessons from Uganda and Cambodia, *Lancet*, **368** : 2253-7.

Meessen B, van Damme W, Ir P, van Leemput L, Hardeman W (2002). *The New Deal in Cambodia: The Second year, confirmed results, confirmed challenges*. Working Paper Phnom Penh: Médecins Sans Frontières and UNICEF.

MOH (2002). *Health sector strategic Plan 2003-2007*. Phnom Penh: Ministry of Health.

MOH (2003). *Strategic framework for equity funds: Promoting access to priority health services among the poor - Guiding principles for design, management and evaluation*. Phnom Penh: Ministry of Health.

MOH (2006a). *Mid-term review report 2003-June 2006: Health Sector Support Project*. Phnom Penh: Ministry of Health.

MOH (2006b). *National equity fund implementation and monitoring framework*. Phnom Penh: Ministry of Health, Department of Planning and Health Information.

MOH (2007). *Joint annual performance review*. Phnom Penh: Department of Planning and Health Information, Ministry of Health.

MOH, AFD (2007). *Cambodia health services contracting review: First draft inal report*. Phnom Penh: Health Sector Support Project, Ministry of Health and Agence Française de Développement.

MOP (2006). *Cambodia socio-economic survey 2004*. Phnom Penh: Ministry of Planning.

NIPH, NIS (2006). *Cambodia demographic and health survey 2005*. Phnom Penh: National Institute of Public Health and National Institute of Statistics.

Noirhomme M, Meessen B, Griffiths F, Ir P, Jacobs B *et al.* (2007). Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia, *Health Policy and Planning*, **22** : 242-62.

Van Damme W, Meessen B, Von Schreeb J, Heng TL, Thomé J-M *et al.* (2001). *Sotnikum New Deal: The first year*. Phnom Penh: Médecins Sans Frontières.

Van Damme W, van Leemput L, Ir P, Hardeman W, Meessen B (2004). Out-of-Pocket health expenditure and debt in poor households: Evidence from Cambodia, *Tropical Medicine International Health*, **9** : 273-80.

van Pelt M, Bun Mao (2004). *A contextual evaluation of the Urban Sector Group Equity Fund*. Phnom Penh: University Research Co., Health Systems Strengthening in Cambodia (HSSC) Project, U.S. Agency for International Development (USAID).

Wilkinson D, Holloway J and Fallavier P (2001). *The impact of user fees on access, equity and health provider practices in Cambodia*. Phnom Penh: MOH/WHO Health Sector Reform Phase III Project.

World Bank (2006). *Halving poverty by 2015? Cambodia poverty assessment 2006*. Phnom Penh.

World Bank (2007). *World Development Indicators 2007*. Washington.

World Bank, MOH, MOEF (c.2007). *Cambodia health PETS: Public Expenditure Tracking Survey Report*. Phnom Penh: Ministry of Health, Ministry of Economics and Finance.

Wright J, Williams R, Wilkinson J (1998). The development of Health Needs Assessment. In *health needs assessment in practice*, ed. J Wright, p. 5. London: BMJ Books.

Annex 1. HEF schemes in Cambodia c.2007

Table A1-1. Cambodia: HEF schemes functioning as at December 2007

# of OD and Hosp.	Province	Health Operational District	Facility	Donor	INGO	LNGO	HEF began	At RH	IPD y/n	OPD y/n	At HC	# of HC	Pop. Coverage
HEF schemes supported by NGOs													
1	Banteay Meanchey	Mongkul Borei	Prov. Hosp.	USAID	URC	CFDS	6/'03	Y	Y	Y	N	0	302,061
2	Banteay Meanchey	Thmar Pouk	Ref. Hosp.	CIDA	MSF/HNI	CAAF W	5/'00	Y	Y	N	N	0	130,621
3	Battambang	Mung Russei	Ref. Hosp.	USAID	URC	AFH	7/'04	Y	Y	N	N	0	196,939
4	Battambang	Sampov Luon	Ref. Hosp.	USAID	URC	AFH	8/'06						93,287
5-6	Kampong Cham	Chamkar Leu-S.Treng	Ref. Hosp.	BTC	BTC	AHR DHE	12/'05	Y	Y	Y	N	0	157,184
7-8	Kampong Cham	Cheung Prey-Batheay	Ref. Hosp.	BTC	BTC	AFH	11/'05	Y	Y	Y	N	0	195,449
9-10	Kampong Cham	K. Cham-K. Siem	Prov. Hosp.	BTC	BTC	AFH	9/'05	Y	Y	Y	N	0	286,254
10-11	Kampong Cham	Prey Chhour-Kong Meas	Ref. Hosp.	BTC	BTC	AFH	1/'06	Y	Y	Y	N	0	184,388
12	Kampong Thom	Kampong Thom	Ref. Hosp.	HSSP	GTZ	AFH	10/'05	Y	Y	N	N	0	290,443
13	Kratie	Chhlong	Ref. Hosp.	USAID	URC	AFH	6/'04	Y	Y	N	N	0	158,197
14	Kratie	Kratie	Ref. Hosp.	USAID	URC	AFH	8/'06						193,352
15	Mondul-kiri	Sen Monorom	Prov. Hosp.	HSSP	HNI	CFDS	10/'02	Y	Y	N	Y	6	44,913
16	Odor Meanchey	Samrong/Anlong Veng	PH and HC	BTC	BTC	CHH RA	1/'05	Y	Y	Y	Y	1	147,913
17	Phnom Penh	Municipality (4 ODs)	Mun. RH	USAID	URC	USG	8/'00	Y	Y	Y	Y	7	391,595
18	Preah Vihear	Thbeng Meanchey	Ref. Hosp.	HSSP	HU		'06-'08	Y	Y	Y	N	0	
19	Prey Veng	Peareang	Ref. Hosp.	HSSP	HNI	AFH	7/'02	Y	Y	N	Y	16	191,429
20	Prey Veng	Preah Sdach	Ref. Hosp.	HSSP	HNI	AFH/RHAC	7/'02	Y	Y	N	N	0	116,984
21	Pursat	Sampeov Meas	Prov.l Hosp.	USAID	URC	CFDS	7/'03	Y	Y	Y	N	0	296,792
22	Rattanakiri	Rattanakiri-Banlong	Prov. Hosp.	HSSP	HNI	AFH	12/'04	Y	Y	N	N	0	128,107
23	Siem Reap	Siem Reap PH	Prov. Hosp.	BTC	BTC	CHH RA	2/'05	Y	Y	Y	N	0	386,263
24	Siem Reap	Sotnikum	RH and HC	BTC	BTC	CFDS/CH	9/'00	Y	Y	Y	Y	5	240,663

						HRA								
25	Siem Reap	Kralanh	RH	BTC	BTC	CHH RA	4/'06	Y	Y	Y	N	0	102,256	
26	Sihanoukville	Sihanouk	Ref. Hosp.	USAID	URC	RHAC	7/'06	Y	Y	Y	N	0	223,608	
27	Stung Treng	Stung Treng	Prov. Hosp.	VSO	VSO	Hospital	1/'05	Y	Y	Y	N	0	109,705	
28	Svay Rieng	Svay Rieng PH	Prov. Hosp.	UNICEF	UNICEF	EFS Ctree	7/'02	Y	Y	Y	N	0	308,261	
29	Takeo	Ang Roka	Ref. Hosp.	EU	SRC/HNI	AFH	4/'05	Y	Y	N	N	0	122,466	
30	Takeo	Kirivong	Ref. Hosp.	EU	SRC/HNI	BFH	1/'05	Y	Y	N	N	0	221,942	
31	Takeo	Kirivong	Health Centers	CIDA	EED/SRC	Pagodas	5/'03	N	N	N	Y	20	221,942	
32	Takeo	Takeo PH (Daun Keo)	Prov. Hosp.	SRC	SRC	CFDS	5/'05	Y	Y	Y	N	0	203,447	
Districts supported by MOH														
33	Kampong Chhnang	Kampong Chhnang		RGOC	MOH	ODO	6/'07						226,028	
34	Kampong Speu	Kampong Speu		RGOC	MOH	ODO	6/'07						381,250	
35	Kampot	Angkor Chey		RGOC	MOH	ODO	6/'07						123,818	
36	Kampot	Kampong Trach		RGOC	MOH	ODO	11/'06						160,963	
37	Kandal	Ksach Kandal		RGOC	MOH	ODO	6/'07						128,078	
38	Kandal	Takhmao		RGOC	MOH	ODO	6/'07						243,348	
39	Prey Veng	Kampong Trabek		RGOC	MOH	ODO	6/'07						127,619	
40	Svay Rieng	Romeas Hek		RGOC	MOH	ODO	6/'07						137,617	
41	Takeo	Daun Keo		RGOC	MOH	ODO	6/'07						203,447	
42	Pailin	Pailin		RGOC	MOH	ODO	6/'07						35,234	
National hospitals supported by MOH														
43	National Hospital	Ang Doung		RGOC	MOH	Hospital	'07							
44	National Hospital	MCH		RGOC	MOH	Hospital	'07							
45	National Hospital	Calmette		RGOC	MOH	Hospital	'07							
46	National Hospital	Preah Kossamak		RGOC	MOH	Hospital	'07							
47	National Hospital	National Paediatric		RGOC	MOH	Hospital	'07							
48	National Hospital	Kampuchea-Soviet		RGOC	MOH	Hospital	'07							

Source: Based on MOH, Bureau of Health Economics; Annear *et al.* 2006. *Study of Financial Access to Health Services for the Poor in Cambodia - Phase 1: Scope, Design and Data Analysis*. Phnom Penh: MOH, WHO, AusAID, RMIT University (Melbourne).

Notes: AFH-Action for Health; BFH-Buddhism for Health; AHRDHE-Association for Human Resource Development and Health Education; BTC-Belgian Technical Cooperation; CAAFW-Cambodian Association for Assistance to Families and Women; Care-Care

International NGO; CFDS-Cambodian Family Development Services; CHHRA-Cambodian Health and Human Rights Alliance; CIDA-Canadian International Development Agency; EED-Enfants et Developpement; EFS Cttee-Equity Fund Steering Committee; EU-European Union; GTZ-German Technical Cooperation; HC-health centre; HNI-Health Net International; HSSP-Health Sector Support Project (MOH/donor-funded); HNI-Health Net International; HU-Health Unlimited; MH-municipal hospital; OD- health operational district; PH-provincial hospital; RACHA-local reproductive health NGO; RH-referral hospital; RHAC-Reproductive Health Alliance of Cambodia; SCA-Save the Children Australia; SRC-Swiss Red Cross; UNICEF-United Nations' Children's Fund; URC-University Research Company (USA); USAID-United States Agency for International Development; USG-Urban Sector Group; VSO-Volunteer Services Overseas (UK).

[NB. To correct or update information in this table please contact Peter Annear, email: lowannear@bigpond.com]

Annex 2. CBHI schemes in Cambodia c.2007

Table A2-1. Cambodia: CBHI already functioning as of December 2007

Year began	Province	Health district	Operator	Facilities covered	Benefit	Payment mechanism	Membership/Population
'98	Kandal	Koh Thom	GRET	Roulos HC with referral to Chey Chumnas RH (Takhmao OD)	OPD	Capitation	565/153,694
'01	Takeo	Ang Roka	AFD/ GRET	From June 2005, Ang Roka RH, Takeo PH and all nine HCs in the OD	IPD & OPD	Capitation	5,774/29,466
'03	Takeo	Kirivong	GRET	Prem Rundeng HC with referral to Kirivong RH and Takeo PH	IPD & OPD	Capitation	1,166 members*
'05	Phnom Penh	Municipality	GRET	GRET/SKY dedicated HC with referral to Phnom Penh MH	IPD & OPD	Capitation	2,417 members*
02/'05	Banthey Meanchey	Thmar Pouk	CAAFW	1 RH and all 8 HCs in the health district	IPD & OPD	Case payment	25,341/130,621
08/'05	Odar Meanchey	Samrong	CHHRA	2 HCs	OPD	Case payment	1,386/102,835
04/'06	Takeo	Kirivong	BFH	All 8 HCs, Kirivong RH and Takeo PH	IPD & OPD	Capitation	1,335/221,942
08/'06	Pursat	Sampeou Meas	RACHA	4 HC and 1 RH	IPD & OPD	Capitation	1,257/296,792
'07	Kampong Thom	Kampong Thom	GTZ/ GRET	Three contracted HC and Kampong Thom RH	IPD	Capitation	565/290,443
				Total coverage by December 2007			36,248

Source: MOH, Bureau of Health Economics

Notes: AFD - French Development Agency; BFH - Buddhism for Health; Care - Care International NGO; CAAFW - Cambodian Association for Assistance to Families and Women; CHHRA - Cambodian Health and Human Rights Alliance; GRET - French NGO operating the 'SKY' micro-insurance scheme; GTZ - German Technical Cooperation; HC - health centre; IPD - In-patient department; MH - municipal hospital; OD - health operational district; OPD - Out-patient department; PH - provincial hospital; RACHA - local reproductive health NGO; RH - referral hospital.

*Population number not available.

Table A2-2. Cambodia: New and proposed CBHI schemes as of December 2007

Year began	Province	Health district	Operator	Facilities covered	Benefit	Payment mechanism	Membership
..	Odar Meanchey	Samrong	Malteser/CAAFW	1 RH and all HCs in the district	..	..	..
..	Kampot	..	GTZ/GRET	CBHI with GRET and/or pagodas (?) funded by World Bank, with AusAID support; combined HEF-CBHI pilot scheme	..	..	..
..	Kampong Thom	..	GTZ/GRET	CBHI with GRET; combined HEF-CBHI pilot scheme	..	..	..
..	Takeo	All ODs	AFD/GRET	All facilities in the entire province	..	..	..
..	Koh Kong	Smach Meanchey	Care/RACHA	..	..	..	..
..	Koh Kong	Srey Ambel	Care/RACHA	..	..	..	..
..	Prey Veng	Peareang	HNI	..	..	..	..
..	Takeo	Kirivong	GRET/SRC	To cover whole administrative district	..	..	..

Notes: Care - Care International NGO; GRET - French NGO operating the 'SKY' micro-insurance scheme; GTZ - German Technical Cooperation; Malteser - Order of Malta international NGO; HNI - Health Net International; RACHA - local reproductive health NGO; SRC - Swiss Red Cross.

[NB. To correct or update information in these tables please contact Peter Annear, email: lowannear@bigpond.com]

Moving towards greater equity in health: recent initiatives in the Lao PDR and their implications

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Abstract

Achieving equity in health care is a challenge in the Lao PDR, where poverty is concentrated mainly among remote and ethnic minority communities. Now Health Equity Funds are being trialed to address these needs. This paper assesses the potential for and the challenges facing the implementation of the HEF approach in Laos within the context of broader health care financing and social health protection policies. The paper draws on evidence from planning for and preliminary results of the different pilot HEF programs designed to meet the country's particular geographic, demographic, cultural and socio-political characteristics. HEF procedures that are based on recorded health and poverty status, demand-side conditions and public-health needs are required. Concerns still to be confronted include cost-effectiveness issues and appropriate service-delivery mechanisms.

Introduction and methods

Health Equity Funds (HEF) have been introduced in recent years into the public health system in the Lao PDR, following the experience in neighbouring Cambodia. This process of policy diffusion is illustrated elsewhere in this volume (see the articles by Jönsson; Annear *et al.*). However, the geographic, demographic and cultural characteristics of the Lao PDR present a series of challenges to the implementation of equity funds. The main population activities occur in the Mekong River basin and population in the surrounding highland areas is sparse and scattered. These highland areas mainly include a wide range of ethnic minority groups who have particular needs and cultural characteristics.

This article is an exercise in policy analysis based on three broad approaches. First, the analysis is based on an understanding of the particular

distribution and composition of poverty that rests mainly on national surveys. Second, the analysis reviews the key official documents on socio-economic conditions, health sector development and health care financing and provides an overview of the policy framework being developed by the government and its partners. Third, the analysis draws on the first-hand experiences of the authors, who have all been instrumental in different ways in developing the basic approaches to and structures of HEF in Laos.

As the experience in implementing HEF is still relatively limited, covering a small range of districts and operating for only a few years, the discussion is understandably limited to the reliable data that is currently available. The purpose of this article is not to provide a comprehensive discussion of each of the schemes but rather to analyze the key issues and main challenges in a way that informs future policy formulation, planning and the implementation of new schemes.

First we consider the social context as defined by demographic, political, economic and health-status characteristics. Next we look at health expenditure, utilization, legislative structures and private service provision. Then the existing and newly planned HEF schemes are considered followed by a discussion of the key issues arising, such as population targeting, benefit packages, barriers to access, coverage, administrative arrangements and sustainability of HEF.¹ The final section provides a discussion of the main implications for policy and suggestions for further research.

The social context

The Lao PDR is a low-income country in South-East Asia ranked 133 out of 177 countries on the UNDP Human Development Index (UNDP 2007). With a population of 5.9 million, Laos had a per capita GDP of US\$500 in 2006. Only 20% of the population is classified as urban. Economic developments immediately following the end of the US war in Indochina in the years after 1975 were modest and market-based economic reforms, which began in 1986, were initially prudent and slow-paced. However, with the recovery from the 1997 Asian economic crisis, Laos' acceptance into

¹ The analytical approach in this paper draws on similar frameworks developed by researchers studying HEF in Cambodia. Reference to these studies can be found in the chapter in this volume by Annear, Bigdeli, Ros and Jacobs.

membership of ASEAN, improvements in communications and an accelerated pace of private investment, economic growth has increased markedly in recent years, reaching 7.6% in 2006 (World Bank 2007).

The political system continues to be dominated by the Lao People's Revolutionary Party, which first came to power in 1975. Despite the beginning of market reforms, it remains a strongly administrative system in which extensive cooperation from public authorities in the implementation of public programs is essential. For example, to date, no local non-government organizations (NGOs) have emerged in Laos (as they have in Cambodia) though a number of 'mass organizations' play an important role in delivering social programs, such as the Lao Front, Lao Youth and the Lao Women's Union. The Lao Red Cross has a special mixed status, and a range of international NGOs also play an important role in the health sector (see for example (Perks *et al.* 2006).

The Lao PDR has 17 provinces and 141 administrative districts, which are the operational units for general public service delivery. In large parts of the country - particularly the far north, far south and in Bolikamxai-Xiang Khouang in the central region - population density is sparse, less than 15 persons per square kilometer. The highland regions are inhabited by about 32% of the population who mainly belong to ethnic minority groups living in small and isolated settlements. The remaining (mainly ethnically Lao) population occupies the fertile riparian areas of the Mekong River and its tributaries. These demographic characteristics give poverty in Laos a particular character.

Table 1. Poverty prevalence and percentage of ethnic minority population in 10 selected provinces

Provinces	Ethnic minorities as % of provincial population	Poverty prevalence as % of provincial population
Phongsaly	95.7	64.2
Oudomxay	90.9	73.2
Luangnamtha	97.7	57.5
Bokeo	86.6	37.4
Huaphanh	70.0	74.6
Sayaboury	81.0	21.2
Luangprabang	71.1	49.4
Sekong	91.4	45.7
Attapeu	63.1	63.1

Source: (ADB 2006)

Table 2. Population of the identified 47 ‘priority’ poor districts

Indicator	Value
Total population of the 47 districts	1,264,695
Pop. of the 47 districts as a % of the national population	22.5%
Average total population per district	26,908
Max. and min. range of actual district population	4,183-64,555
Average level of poverty in the 47 districts	67%
Max. and min. range of actual district poverty level	47-99%

Source: The authors (based on data from the Lao Population Census 2005).

Definitions of the different ethnic minorities vary widely and comprehensive demographic data on the distribution of poverty is not available. However, from different studies it is known that poverty is mostly concentrated in the rural and remote highland areas populated by scattered ethnic minority communities (ADB 2001; HSIP 2005; Andersson *et al.* 2006). This concentration is illustrated in Table 1 above, which identifies 10 provinces with the highest ethnic minority composition. The 2003 National Growth and Poverty Eradication Strategy (NGPES) and subsequently the National Socio-Economic Development Plan 2006-2010 identified 47 very poor (and all rural and remote) districts for implementation of ‘priority’ poverty alleviation programs (Table 2). In addition, 25 districts were ‘identified as poor’ and 70 were ‘not identified as poor’ (Lao PDR 2004; 2006).

Though it has been falling, the average level of poverty is significant and urban poverty is now beginning to emerge in Vientiane city. The percentage of people living below the national poverty line fell from 45% in 1992-93 to 34% in 2002-03 (Kakwani *et al.* 2002; Lao PDR 2006).² At the same time, income disparities are rising, with an increase in the Gini coefficient from 28.6 in 1992 to 34.6 in 2002 (UNDP 2007). While studies used by the NGPES do not indicate that household health expenditures are a major cause of impoverishment, it is known that poor families spend less per capita on health care than the more-well-off and have more limited access

² The food poverty line threshold in Laos is 2,100 calories per day per person, which WHO and other international organization have determined as the basic average requirement in the country. The cost of acquiring this intake, plus 20 per cent for non-food necessities (e.g. shelter, clothing), determines the overall poverty line, which lies between US\$1 and US\$2 per day.

to services. A 2004 household health survey reported that among the poorest income quintile, 34% of households sold possessions and 29% borrowed from relatives to pay for hospital care, compared respectively to 5% and 7% in the highest quintile (Schwartz and Viravong 2006).

Poor health status remains a pressing issue (see Table 3): life expectancy is low at 61 years; maternal mortality of 405 per 100,000 live births is high; and child mortality rates have improved little. The Infant Mortality Rate is 70/1,000 live births, Under-5 Mortality Rate 98/1,000 live births and mortality rates are even higher in isolated and remote communities. The 2006 Common Country Assessment (United Nations and Lao PDR 2006) indicates that communicable diseases are still widespread. Poor nutrition contributes to half of all child mortality and diarrhoeal diseases (including cholera) account for one quarter. Fertility rates are high (4.5 children per woman 15-49 years). And these national averages conceal marked disparities between low-land and upland populations.

Table 3. Main health indicators, Lao PDR, 2005 (unless otherwise indicated)

Indicator	Value
Life expectancy at birth - males (years)	59
Life expectancy at birth - females (years)	61
Under-5 mortality rate (per 1,000 live births)	98
Maternal mortality ratio (per 100,000 live births)	405
1-year-olds with 3 doses Diphtheria-Pertussis-Tetanus vaccine (%)	49
Antenatal care coverage - at least one visit (%) ^a	44
Births attended by skilled health personnel (%) ^b	21
Prevalence of tuberculosis (per 100,000 population)	306
Children under five years of age stunted for age (%) ^c	48
Access to improved drinking water sources - rural (% pop) ^d	43
Access to improved sanitation - rural (% pop) ^d	20

Source: The authors, based on WHO statistics, 2007.

Notes: a. 2001; b 2006 (Lao National Statistics Centre 2007); c. 2000; d. 2004

HEALTH CARE DELIVERY

The Lao PDR is characterised by low national health expenditures. Only 3.2% of GDP is spent on health care compared to an average of 4.6% in Least Developed Countries, and national health spending is well below that in neighbouring countries (Table 4). However, the Lao averages are reduced because of the much lower levels of income and health spending in highland

rural-and-remote areas compared to lowland and urban areas and the differences with comparable countries may therefore be exaggerated.

Table 4. Key indicators of health financing for selected countries SEA c.2003

Indicator (in US\$)	Laos	Cambodia	Vietnam	Thailand	EA & P ^c	LDC ^d
GDP per capita ^a	364	321	471	2,238	1,160	290
Total health exp/capita ^b	11	33	26	76	64	41
Total health exp % GDP	3.2	10.9	5.4	3.3	5.0	4.6
Public health exp % GDP	1.2	2.1	1.5	2.0	1.9	1.9
Private health exp % GDP	2.0	8.8	3.9	1.3	..	..

Source: World Bank, World Development Indicators 2006.

Notes: ^a USD constant 2000; ^b USD current; ^c East Asia and the Pacific; ^d Least Developed Countries

According to WHO estimates, households account for approximately 60% of total health expenditure, donors 30% and the Government health budget 10% (WHO 2005). Table 5 summarises national health expenditures: government spending is mostly on staff salaries; donor funding comprises the major proportion of total government expenditures; and household spending is mostly on drugs and on health services at both public and private facilities (Ministry of Finance 2007). Generally, recurrent costs at public health facilities are met mainly by user fees paid through facility-based revolving drug funds (RDF) and other service charges (see also Syakhang *et al.* in this volume). These low overall health expenditures are consistent with the uneven availability and low utilization of services despite high morbidity rates.

Table 5. Per capita national health expenditure, Lao PDR, c.2005

Indicator (in US\$)	Sub-total	Total
General government health expenditure (GGHE)		5.60
Of which:		
Ministry of Health	1.50	
Social Security Funds	0.40	
Donor grants and loans	3.70	
Private health expenditures (PvtHE)		13.90
Of which:		
Private household OOP payments	12.80	
Prepayments and risk-pooling	1.00	
Non-government organizations	0.10	
Total health expenditure (THE)		19.50

Source: *National Health Account Series* data for the year 2005 (Ministry of Finance 2007).

Despite the low levels of spending the health infrastructure has been strengthened, though both the quantity and quality of health service delivery remain constrained. The public health care network has expanded significantly in the last 15 years with the construction or renovation of the majority of planned provincial and district hospitals and a network of more than 700 rural health centers now completed (as reported at the National Health Conference in August 2007). Officially, it is claimed that 94% of the population has physical access at least to a village drug kit, the most peripheral element of the public health network.³ If this estimate is accepted as accurate, it appears that the health infrastructure is not the major constraint on service provision, but many gaps occur in remote areas.

However, utilization of public health facilities remains very low, with a nationwide 2001-2006 average attendance rate of only 0.2 curative contacts per inhabitant per year (as reported at the National Health Conference in August 2007). Inequalities in access to services are still evident in poorer districts, and in highland areas low population densities and limited physical access make the provision of health services difficult and expensive.

The delivery of quality health services in the public sector is impaired by a range of factors. There is a chronic problem of irregular and uneven service provision with consequently low demand-side expectations. Long term under-funding of public health care has created dependence at facility level on margins gained through the sale of drugs. The low salaries paid to health staff and the absence of substantial official incentive schemes has led to low motivation, poor staff performance and increased authorized private practices by public health staff. Demand is further restricted by the problem of unofficial payments to health staff.

The private sector comprises some clinics and a number of private drug sellers. The clinics are few, mainly confined to urban areas, particularly Vientiane city, and are commonly run after hours by senior medical staff from the public sector. Registered drug providers are more numerous and widespread but rarely reach beyond the district capital and are commonly run by former public health staff who have obtained a license. Those few private drug sellers who operate in remote areas are often the spouse of a senior public practitioner, operate after hours and commonly offer drugs or

³ The provision of drug kits remains problematic. These kits contain only 28 selected essential drugs and are constantly partially out of stock.

brands that are in short supply or not available at the hospital. Some offer flexible payment terms and supply private village drug sellers, which can lead to conflict of interest.

The health sector is currently governed by 16 policies and four laws, of which the main one is the comprehensive 2005 Law on Health Care. With Prime Ministerial Decree No. 52 in 1995 the government ceased to accept responsibility for providing health care free to the public and authorized the collection of official user fees at facilities. Based mainly on charges levied through revolving drug funds, user fees have created a barrier to access for the poor. Issued in 2005, Prime Ministerial Decree 381 on Technical Revenues was intended to regulate user fee collection across the public service generally (including user fees at public health facilities). The Decree defined the acceptable sources of revenue as well as criteria for the use of income on staff salaries, incentives, administration and organizational development but provided no regulations related to protection of the poor.

While Decree 52 also provided for fee-exemptions for the poor, the application of the law and the implementation of the exemptions policy proved to be very difficult (see for example (Boupha *et al.* 2006). In practice, facilities were reluctant to grant exemptions as this deprived facilities of needed revenues. Identification of the poor rested with the village head and ultimately exemptions were applied mainly to civil servants and medical staff rather than the poor. A 2003 study by the MOH and WHO indicated that exemptions at district hospitals ranged from 0.3% to 11.9% of total fee revenues.

The 2005 Law on Health Care (Lao PDR 2005) provided comprehensively for administration of the health sector, national health financing and social health insurance, including in Article 50 the establishment of a 'social security fund' (or health equity fund). The Law provided that all citizens regardless of sex, age, ethnic origin, race, religion or socioeconomic condition had the right to receive health-care services and required the delivery of health care in an equitable manner. It gave administrative authority to provincial and district health authorities including the right for public facilities to implement user fees and exemptions and nominated the legitimate service charges.

Different social health protection mechanisms have also been initiated. Beginning in 1999, the Social Security Organization (SSO) was set up to provide health insurance for employees and their families in private-

sector companies. This was intended as a compulsory social health insurance mechanism funded by employer and employee contributions. It now covers around 62,000 persons in Vientiane city and Vientiane Province and is being extended to other provinces, as reported in SSO Annual Reports (MOLSW 2007). In 2003, different schemes in community-based health insurance (CBHI) began in five pilot regions and the regulation of CBHI was formalized by an MOH decree in 2005. CBHI now covers around 25,000 persons in 6 locations and will expand. Compulsory health insurance for government staff was re-organised in 2006 through the Civil Servants Scheme (CSS) with 900,000 potential beneficiaries. It is currently being piloted only in Vientiane province and Vientiane Capital for 65,000 civil servants.

In 2007 the Ministry of Health, working through the World Bank-funded Health Services Improvement Project (HSIP), initiated the development of draft National Guidelines for Health Equity Funding (MOH 2007). The four-volume set of draft Guidelines outlines recommended procedures for HEF implementation and management, including a model designed to meet the needs of ethnic minorities and remote districts. The Guidelines will be used first to initiate HEF schemes through the MOH under the HSIP and more broadly (following consultation) to increase collaboration between the non-government organizations currently providing HEF services. The Guidelines also include currently the most extensive discussion of issues related to the nature and composition of poverty in Laos and the ways in which HEF might be used most effectively to provide access to public health services for remote communities.

EXISTING HEF PROGRAMS

Three different HEF programs have been implemented in the Lao PDR since 2003 and 2006: in Nambak district in the north, Sepone district in the south and Vientiane Province in the central region of the country (covering a total of 14 different districts). A summary of these programs is included in Table 6 (with a more detailed account in Annex 1).

Table 6. Current HEF programs in the Lao PDR 2007

Indicator	Nambak District	Vientiane Province	Sepone District
Year HEF began	2004	2005	2006
Catchment population	59,000	400,000	44,000 (34,000 covered by HEF)
Poverty status (NGPES)	Non-poor	Province close to Vientiane Capital with 2 very-poor districts out of 12	Very-poor
% Poor in 2005	20%	9%	34%
Supported facilities	1 DH + 4 HC	1 PH + 1 IDH + 17 HC	1 DH + 4 HC
Targeted for common health care benefits	Poor	Destitute	Poor
Target for additional benefits	IPD patient/ceiling, poorest villages, lower primary school pupils, remote villages	IPD patients without money, civil servants	
Pop. pre-identified for HEF	4,652	11,230	7,957
% pop. pre-identified	8%	3%	23%
Other insurance schemes	CSS and CBHI	CSS, SSO and CBHI	None

Source: The authors (based on information from the Nambak, Vientiane and Sepone projects).

Notes: Acronyms: CBHI - Community Based Health Insurance; CSS - Civil Servants Scheme for social protection; DH - district hospital; HC - health center; HEF - Health Equity Fund; IDH - inter-district hospital; IPD - in-patient department; NGPES - National Growth and Poverty Eradication Strategy; PH - Provincial Hospital; SSO - Social Security Organization.

These programs cover mostly rural areas, including three very poor (or 'priority') districts, while some of the less poor districts covered include ethnic minority communities with high poverty rates. All three programs were introduced by international agencies to complement projects supporting service delivery at public health facilities. In each case, the dual objective was to provide improved access to essential health care for the poor

and to reinforce a global approach to health financing. Following a short description of each of the four main programs, in the next section we provide a critical analysis of the main issues.

Nambak District

The district of Nambak is situated in the north-east of Luang Phrabang province, more than two hours drive from the provincial referral hospital. Ethnic minorities make up 35% of the district population of 59,000. According to NGPES criteria the poverty rate is estimated at 20%. The HEF began in March 2003 through the Swiss Red Cross and is now managed by Lao Red Cross. It operates at the district hospital and all four health centers (HC). A total of 62 district health staff provides relatively good quality care at the hospital (including basic surgical procedures) and in at least two of the four HCs. About one-third of the population, who live in remote mountainous locations, is regarded as not having physical access to a HC.

The Nambak HEF was established within a broader package of financial support to health facilities in the district, including salary supplementation and a quality improvement program, initiated with support from the Swiss Red Cross. Implementation of the HEF is district-based and managed by a 'third party', the Lao Red Cross (with technical and financial support from the Swiss Red Cross). Through a village-based family pre-identification mechanism controlled by a screening grid, about 13% of the district population was initially identified as HEF beneficiaries; this fell to 8% in 2007. Post-identification of poor patients at facility level is also practiced. HEF benefits include free curative care at all facilities (HCs, district hospitals and provincial hospital) as well as transportation costs and food costs for the hospitalized patient and one attendee. To prevent impoverishment the HEF also makes payment on behalf of non-poor patients (apart from those having access to CBHI) for hospital costs exceeding a pre-set ceiling of roughly \$US15. Other activities include outpatient consultation during rounds at local markets, health promotion activities, social support for ethnic minorities, linking of social workers/mediators to the Expanded Program on Immunization, water and sanitation activities, support for the Insecticide Treated Nets program, Vitamin A and Mebendazole campaigns at lower primary school and relief to families in a critical situation.

Sepone District

Sepone district, a mountainous area on the Vietnam border about two hours drive from the provincial referral hospital, is located in the most eastern part of Savannakhet province in central Laos. Three quarters of the district population of 44,000 are from ethnic minority groups and 76% are classified as poor. The district is one of the 47 identified NGPES 'priority' poor districts. However, the opening of the second bridge over the Mekong River, the opening of the road to Vietnam and the development of gold and copper mining have all contributed to rapid changes in the poverty situation. HEF benefits cover attendance at the inter-district hospital (providing basic surgery services) and four HCs, with a catchment including about 70% of the district population. The HEF began in early 2006 as one component of a broader project co-funded by the Belgian Technical Cooperation to build a model integrated district health system and is managed by a committee formed by the district health authorities. The HEF provides quarterly monitoring reports for evaluation by the provincial health office and receives technical support from Belgian Technical Cooperation project staff.

The poor are pre-identified as a part of a routine household census by health center staff working with village leaders to create 'family files' at health centers. Twenty-three per cent of the population have been identified as poor and issued with membership cards. In addition, a post-identification process provides HEF eligibility to poor patients not pre-identified or from outside the covered area. HEF benefits include free curative care at all facilities (health centers, the inter-district hospital and the provincial referral hospital), transportation costs, social services for hospitalized patients and one relative and funeral costs.

Vientiane Province

The Vientiane HEF is a provincial program operating in all hospitals and about 15 rural health centers. The program was initiated in 2004-05 by Luxembourg Development (in ten districts) and the Belgian Technical Cooperation (in two districts). Managed by the Provincial HEF Office with financial and technical support from both international agencies, the scheme is part of a more comprehensive health financing scheme under the control of the Health Financing and Audit Unit of the Provincial Health Office that also provides staff performance incentives, CBHI, some regulation of the revolving drug funds, basic accounting at all facilities, subsidies for recurrent

costs, quarterly audit and monitoring. Poor families are pre-identified by house visits carried out by health staff in collaboration with village leaders and based on pre-defined objective criteria. In practice only the most destitute are identified as beneficiaries, averaging 3-12% of families per district even though 33% of households are classified as poor by the NGPES. The benefit package is similar to the Sepone scheme. Additionally, from 2007 free caesarean section performed on medical indication has been offered to all patients from non-urbanized areas of the province.

PLANNED HEF PROJECTS SCHEDULED TO BEGIN

Based on experience from existing schemes, the National Guidelines for Health Equity Funding will guide the implementation of new schemes supported by the World Bank and the Asian Development Bank.

The objectives of the 2006-2010 Health Services Improvement Project implemented by the MOH with grant funding from the World Bank are to improve the delivery of a basic package of health services in eight southern and central provinces and to increase access to services. From 2008, the project will pilot test different HEF models in selected districts in different settings: in very poor, poor and non-poor districts. The schemes will be implemented through third-party mechanisms using either non-government providers or district HEF management committees established through the MOH. As a first step, the National Guidelines for HEF have been translated into regulations for HEF implementation and approved by the MOH. Five target districts for piloting HEFs have been selected. Based on the lessons learned, the four-volume National Guidelines will be revised and adopted as a guide to country-wide HEF implementation.

A second major project is funded by the Asian Development Bank during 2007-2011. Province-wide HEF programs will be piloted in three areas (Xaignabouri, Xiangkhouang and Oudomxai) in the northern part of the country. All those living below the poverty line, an average of about 25% of the population in the targeted provinces, will be eligible for HEF benefits and it is expected that about 185,000 poor people will be provided with free health care services. Means testing using pre-identification of the poor through NGPES criteria and village lists of poor households is in place and the eligible poor have been identified. Benefits include medical services, drugs, supplies, laboratory tests, transport, food and soap. Provider payments will be made on a fee-for-service basis at hospitals and on a capitation basis

for health centers and Village Health Volunteers. Hospital provider payments will be made through monthly reimbursement using a category-based fixed-fee schedule (OPD, minor surgeries, a.o.). Technical support and capacity building will be needed to train fund management committees, health staff and field-support staff and oversight of fund management will be provided by an accounting firm. The project will also strengthen primary health care delivery by providing financial support for recurrent costs at health facilities and at provincial and district health offices, linked to performance criteria.

Key issues in health equity funding

The implementation of the existing HEF programs and the preparation of new pilot projects have given rise to a number of questions about the most effective structures and means for providing health equity and increased access to services. Among the main questions are the methods of targeting the poor and the identification of beneficiaries, the content and nature of benefits provided, the coverage and quality of public health service delivery, cultural barriers and the needs of ethnic minorities, administrative mechanisms and costing, payment mechanisms and quality improvement, links between HEF and CBHI and sustainability (MOH 2007). Similar issues arise in the published literature on pro-poor health funding in developing countries (World Bank 2005). In the following section we review these questions with reference to current experiences and the newly planned projects.

TARGETING AND ELIGIBILITY

For the existing HEF programs, the official level of poverty recorded by the NGPES was taken as the starting point for targeting and assessing the eligibility of the poor. All schemes carried out a household pre-identification survey to select beneficiary families, who received an identification card. In all three HEF programs, the pre-identification process began with lists of poor families compiled by village leaders and then screened a second time using objective criteria. However, the proportion of all people registered as eligible for HEF is substantially lower than the official poverty level. This is especially evident in Vientiane province, where pre-identification seems to have been applied in a quite restrictive manner.

Pre-identification methods are not standardized and there is considerable opportunity for subjective interpretation by HEF assessors. Cases of pressure applied by village authorities for favouritism and unjustified inclusions on the HEF list as well as improper use of HEF cards have been reported. Also, uncertainty about continued funding for HEF might have encouraged health staff and village leaders to restrict the selection of the poor to those who are the most destitute. In all cases, post-identification remains necessary both for poor patients excluded by pre-identification or for those from outside the covered area. Post-identification is generally carried out by facility staff after which identified patients are referred to the HEF committee or managing NGO for assessment.

The majority of the HEF benefits are provided at provincial hospitals. In the case of additional specific HEF benefits provided more broadly, for example those related to public health concerns, the HEFs generally use what might be called 'categorical' targeting. This includes patients who face costs above a pre-set ceiling, medically required caesarean section and lower-primary school students or very poor communities without access to clean water. 'Geographic' targeting of communities with very high levels of poverty has not yet been attempted but will be trialed through the World Bank-funded project.

BENEFITS TO PATIENTS

The first responsibility of the HEF is to reduce financial barriers for common health services. Benefits include: (1) the common range of health care services delivered by public health providers, (2) transportation to and from the health facility within the referral system and (3) support for food costs for the patient and a care-taker in case of hospital admission. This package is common also in Cambodia. How the benefit package might be used more broadly to promote public health concerns or target groups with special needs is a further interesting question. The schemes in Laos have already attempted to address issues such as catastrophic health costs for non pre-identified users, ceilings on health costs for all patients, maternal health needs and supplementation for preventive care, out-reach services and support to health-related projects.

CULTURAL BARRIERS AND ETHNIC MINORITIES

No special provision is made in the existing schemes for the particular needs of ethnic minorities and remote communities, though at Nambak each of the three Lao Red Cross HEF staff is from the different major ethnic groups. Furthermore, administration of the existing schemes (apart from Nambak) is carried out by MOH health staff, with emphasis on curative care at health facilities, and none employ trained social workers. Geographic targeting of ethnic minority communities will be trialed in one district supported by the World Bank project. Thus, most of the existing schemes fall short of achieving the pro-active social role that should be one of the main concerns of the HEF. Such a social role would include informing, empowering and motivating the poor in their health seeking behaviours. The need to implement professional procedures to bridge gaps in language and other socio-cultural characteristics that seem to inhibit ethnic communities from using public health facilities should be acknowledged. Further consideration should be given to the possibility of specifically employing staff from ethnic minority groups.

COVERAGE AND QUALITY OF PUBLIC HEALTH SERVICES

The existing HEF programs cover only services provided by the public health system. Each scheme covers health centers (and in one case mobile health teams), district hospitals (including inter-district hospitals that service more than one district) and provincial hospitals (with referral to central hospitals only in Vientiane Province). The quality of health care delivery, especially in remote districts, remains a major concern and additional special programs may be required. The relatively low population catchment area of each scheme - for district hospitals an average of only 37,000 catchment population and for health centers only 1,000-1,500 - imposes limits on the absolute level of facility utilization, reduces patient turnover and limits the development of medical skills. Therefore, achieving efficiency in service delivery and in HEF implementation is made more difficult (see main service delivery indicators in Table 7).

Nonetheless, there are a number of opportunities for improving the delivery of health care. For example: (1) The broader implementation of HEF procedures works to increase utilization by providing increased access for the poor and contributes towards improving the quality of health service

delivery; (2) as a third-party stakeholder, the HEF can play a major role in monitoring and assisting in the quality improvement process; (3) from a socio-demographic and a financial point of view, the HEF scheme may implement procedures that are designed specifically to assist in improving coverage for preventive health services. Additionally, some form of public-private service cooperation or sub-contracting with non-profit stakeholders - following the example of Cambodia, with performance-based staff incentives - may also be used to improve the quality of service delivery.⁴

**Table 7. Utilization rates for existing HEF programs,
1st semester 2007**

Indicators	Nambak	Vientiane Province	Sepone
Out-patient department:			
HEF Cases per month	220	299	84
HEF % of total cases	15%	2%	7%
Contact rate per HEF beneficiary p.a.	0.09	0.30	0.13
Contact rate per non-HEF beneficiary p.a.	0.34	0.20	0.38
Contact rate per HEF beneficiary: Lao Thai-Khamou-Hmong	n.a.	Lao Thai: 0.29 Khamou: 0.18 Hmong: 0.52	n.a.
In-patient department			
HEF Cases per month	26	51	33
HEF % of total	9%	4%	28%
Contact rate per HEF beneficiary p.a.	4%	1%	5%
Contact rate per non-HEF beneficiary p.a.	2%	1%	8%
Contact rate per HEF beneficiary: pre-identified/ethnic group	n.a.	Lao Thai: 0.04 Khamou: 0.02 Hmong: 0.06 (Lao Thai: 0.97 of hospital-based exemption)	n.a.

Source: The authors (based on information from the Nambak, Vientiane and Sepone projects).

⁴ However, it should be noted that the situation in Laos is very different from that in Cambodia: in Laos, HEF payments to facilities are mainly to reimburse drug and transportation costs and contribute very little to supplementation of staff incomes.

HEF FINANCING

The main financial indicators for the existing HEF programs are summarised in Table 8. While it appears high in some cases, the proportion of costs spent on administration is acceptable in the existing HEF programs and is justified by the efficiencies derived from comprehensive patient identification and management. The proportion may be higher in Sepone because the rate of utilization and benefit distribution is below expectations (and may fall as utilization improves). In Nambak, the involvement of the HEF in financing additional benefits (not accounted for in Table 8) further reduces the administration ratio there. Moreover, the value of benefits derived from improvements in coverage and quality of care for the whole population must be taken into account, including village rounds, health promotion, better information and community support. In particular, the cost of pre-identification and the periodic updating of identification may appear to be high, especially when the proportion of the population identified is low. For example, the cost of pre-identification in Vientiane Province was up to US\$ 20,000 while only 3% of the population was identified for HEF benefits. Still, at about US 50 cents per head of the catchment population over two years, the cost was not large. In comparison, the value of HEF benefits provided in Vientiane Province so in 2007 alone was around US\$ 50,000.

Table 8. Average costs of HEF implementation by program, 1st semester 2007

Indicator	Nambak	Vientiane Province	Sepone
<i>HEF benefits</i>			
Total benefits per month (all beneficiaries) (US\$)	1,457	4,242	805
Distribution of benefits: OPD-IPD (%)	18/82	17/83	23/77
Distribution of benefits: medical fees/transport/other (%)	55/41/4	76/15/9	77/13/0
Distribution of benefits per provider: provincial hospital/ district hospital/health center (%)	61/28/11	61/32/7	n.a./75/25
Distribution of benefits: pre-identified/hospital based/CBHI (%)	56/44/n.a.	44/51/5	n.a.

Indicator	Nambak	Vientiane Province	Sepone
Average benefits per beneficiary per case: IPD and OPD (US\$)	<u>IPD</u> PH \$53 DH&HC \$14 <u>OPD</u> PH \$10 DH \$1 HC \$0.70	<u>IPD</u> PH \$120 DH \$30 HC \$12 <u>OPD</u> PH \$8 DH \$3 HC \$2	<u>IPD</u> PH n.a. DH \$30 HC \$4 <u>OPD</u> PH n.a. DH \$7 HC \$2*
Average benefits per pre-identified HEF beneficiary (excluding post-ID)	\$2.1	\$2.9	\$1.1
% benefits in total user fees (RDF+Service Fees+CBHI+HEF)	12	8	22
Administration			
Total administration costs per month (US\$)	363	400	300
% administration in total HEF costs	20	9	27
% HEF costs in total user fees (RDF-Fees-CBHI-HEF)	10	8	28

Source: The authors (based on information from the Nambak, Vientiane and Sepone projects).

Notes: All data for 1st semester 2007 except* 2006; only health-care-related benefits are included for Nambak.

Acronyms: IPD - in-patients department; OPD - out-patients department; PH - provincial hospital; DH - district hospital; HC - health centre; CBHI - community based health insurance; RDF - revolving drug fund; n.a. - not available or not applicable.

MANAGEMENT ARRANGEMENTS

Maintaining the third-party status of the HEF is important. For the existing programs, funding is provided directly to the HEF by the donor organizations, bypassing the MOH. Nonetheless, in Sepone and Vientiane local health authorities manage the funds through independent committees with donor participation and only in Nambak is the fund managed independently by Lao Red Cross. While external technical assistance was needed to initiate all three programs, these 'hidden' costs have been reduced progressively over the course of implementation. For the World Bank and the Asian Development Bank pilot projects, grant and loan funding will be

provided to the HEF through the MOH. For the World Bank project, management by a contracted third-party agent working with facility-based HEF committees is recommended by the National Guidelines, though in practice an independent HEF committee structure based entirely on the MOH may eventuate.

All schemes face common constraints in identifying public health staff with the necessary administration, accounting and computer skills needed to administer the funds and motivating them appropriately. Separation of health-service and HEF-management tasks is also of concern, raising issues related to conflict of interest, the risk of over prescription and moral hazard. Such separation is maintained in Nambak district as it is in most of the Cambodian schemes.

PAYMENT MECHANISM AND QUALITY IMPROVEMENT

For the existing programs, the HEF pays facilities according to itemized bills for each of the services provided to beneficiaries; caesarean-sections in Vientiane Province are paid at a flat fee. Claims are based on patient records and commonly made through a detailed monthly invoice sent by the facility to the HEF provider: in Nambak district this is the Lao Red Cross office and in other locations the HEF administration office. Claims generally pass through district and/or provincial health authorities for verification and approval. Payments are then made by the managing NGO directly to the facility (or via the MOH finance department in Vientiane Province) though payments to health centers commonly pass through the district HEF committee for convenience.

In practice, the current itemized billing and payment system creates a moral hazard and a perverse incentive to over-prescribe drugs and to over-service patients. There is also an incentive for excess demand as there is no expenditure constraint. For this reason, the HEF National Guidelines propose a capitation system for payments to public health providers. The capitation system also has potential constraints, such as a restriction on the supply of services for the poor or restrictions placed on the identification process. A mix of the two mechanisms may prove more satisfactory, both for controlling misuse and for promoting quality improvement and could eventually be combined with more sophisticated mechanisms based on flat fees or rates for diagnostic related groups.

LINKS WITH CBHI

Implementation of CBHI began in 2002 and schemes currently operate in seven districts in four provinces. In Laos, CBHI is an independent, voluntary, non-profit, decentralized insurance program. The Lao schemes operate under the responsibility of the MOH and have a well developed management structure. They are based on District Management Committees (comprising district governor, health sector, village leader, MOH) and supervised by Ministerial Management Committees (comprising MOH, district governor, Provincial Health Office, others). The CBHI arrangements are formalized in government regulations.

The CBHI target population is not the poor but rather the not-so-poor who make up the informal sector in urban and rural areas, including agricultural workers. With a potential population catchment of a potential 1.7 million nationally, the existing CBHI schemes have achieved on average 10% population coverage. Family insurance premiums are levied according to a progressive flat-rate scale adjusted for family size and collected monthly by local CBHI volunteers. The number of beneficiaries is used as the basis for calculation of capitation payments to contracted hospitals and a ceiling of 10% of total costs is mandated for management expenses. The CBHI benefits package includes primary, secondary and tertiary medical care at contracted referral hospitals, including drugs supplied according to the essential drug list. Exclusions include cosmetic or elective surgery, complicated surgery (coronary, neurology, oncology), antiretroviral drugs, spectacles, treatments covered by Government and motor vehicle accidents.

In Nambak and some districts in Vientiane Province, CBHI and HEF schemes operate side-by-side. Because households may move into or out of poverty over time they may be eligible for different protection schemes at different stages. Therefore, some level of cooperation and collaboration between the two schemes is desirable. However, there are also clear differences between the schemes: they target different segments of the population (the poor and the not-so-poor), they use different mechanisms (social transfer versus insurance), they cover different facilities (HEF includes health centers and CBHI does not) and they offer different benefits (HEF includes transport and food costs, CBHI does not). Table 9 below illustrates the differences in benefits provided.

Financial cooperation between the schemes has proved to be complex.

Because HEF is a social transfer mechanism while CBHI relies on risk-pooling and individual premium payments, there is a danger that funds earmarked to meet the health needs of the poor could be used, by design or by default, to fund the health activities of the not-so-poor. This danger of negative 'cross subsidization' contradicts the principles of social health protection for the poor and threatens the sustainability of HEF schemes. In Nambak district, for example, the practice of using HEF funds to buy CBHI premiums was discontinued when it became evident that the value of health benefits received was far less than the value of premiums paid. This, in effect, constituted a transfer of income from the very poor to the less poor. Further investigation and close monitoring of this issue are therefore needed.

Table 9. Comparison of benefits offered by HEF, CBHI and other schemes, 2007

Benefits	Coverage				
	HEF	CBHI	CSI	SSO	Other financing
	Extremely poor	Near-poor	Civil servants	Employees	Non-poor
Health centre and hospital costs	100%	Covered by CBHI	Covered by CSI	Covered by SSO	User charges or private insurance
Transport from HC	100%	Not covered	Not covered	Not covered	Out-of-pocket
Transport for referral	100%	Not covered	100%	Not covered	User charges
Food allowances	Standard daily rate	Not covered	Not covered	Not covered	Out-of-pocket
Funerals	Negotiated	Not covered	Covered	Covered	Out-of-pocket
Other	Negotiated	Not covered			Out-of-pocket

Source: The authors based on information from the Nambak, Vientiane and Sepone projects).

SUSTAINABILITY

While the financial sustainability of HEF schemes in the absence of donor funding has so far received little consideration, each of the existing schemes faces this prospect during 2007 and 2008. Only in the case of Nambak, where Lao Red Cross believes it can find alternate sources of revenue, and

eventually in the Vientiane Provincial Hospital is it thought that the HEF scheme can be maintained without external support. Concerns about the sustainability of HEF are justified. The role of the HEF is to distribute funds; it functions as a social transfer that requires an ongoing source of external funding and does not earn revenues in the normal course of activities. HEF is, therefore, no more and no less sustainable than any aspect of health service delivery that requires donor support. Even so, there are reasons to think that HEF will remain an attractive option for donor health investments: HEF is a relatively low cost program, it effectively targets the poor, there are strong externalities associated with improved health status resulting from increased access for the poor and the stream of indirect benefits associated with HEF implementation continues well into the future.

Discussion and conclusions

Both the implementation of HEF programs and the achievement of health equity in Laos face special challenges. These challenges arise primarily from the geographic and demographic characteristics of the country and from the specific nature and distribution of poverty. In these ways, the situation in the Lao PDR differs from other places where HEF has been implemented successfully, especially in Cambodia. Laos and other countries considering the introduction of similar schemes must therefore develop their own unique strategies. While still limited, the Lao experience with HEF schemes and the development of plans to pilot-test new arrangements has already provided a number of lessons. Based on this evidence, some preliminary conclusions are possible. Even so, more experience is needed to determine the most effective approach to breaking the link between poverty and ill-health in the Lao PDR.

A more comprehensive plan for targeting the poorest communities is needed. Such a plan requires attention to three main areas: (1) the selection of districts where HEF is implemented; (2) within selected districts, the definition of the poor; and (3) the targeting of ethnic minority communities. A particular challenge is to devise procedures that effectively protect the poor who are concentrated overwhelmingly in the 47 'priority' poor districts identified by the NGPES. Of the 14 districts currently covered by HEF only three are 'priority', only two are 'poor' and the remainder are 'not-poor' and in the newly proposed schemes, not all are 'priority' districts. In the

expansion of HEF, therefore, closer attention needs to be paid to selecting the poorest areas.

In all existing programs, the coverage of the poor with HEF benefits is below the official levels of poverty. Moreover, the nature of poverty in Laos means that within 'not-poor' districts the proportion of people living below the poverty line is often low. In Vientiane province, the definition of the poor who are eligible for the full HEF benefit package includes only those who are destitute while the non-HEF poor must seek exemptions from the hospital during admission. The definition is broadest in Sepone district, where 24% of the population is pre-identified as HEF beneficiaries. It is likely therefore that these schemes under-represent the poor and do not yet provide access to health services for all those who need it. Consequently, the definition of poverty used within the existing schemes could be regarded as too narrow. Future HEF programs would benefit from a broader and more complete definition of poverty. This may in fact be cost-effective as there is a recognized trade-off between the costs of expanded beneficiary pre-identification and increased utilization of services with greater accountability in the management of beneficiary funds.

Currently, no specific provisions are made in the existing schemes for the particular needs of ethnic minorities and remote communities. In some districts, the correlation between ethnic composition and levels of poverty is so close that location is an excellent proxy for poverty targeting (see for example (Kakwani *et al.* 2002; Andersson *et al.* 2006). This method is therefore appropriate in many 'priority' poor districts and the geographical targeting approach to be piloted by the World Bank-funded project is an important step in the right direction. In future schemes, targeting of ethnic minority communities will be required and, in this regard, the example of neighbouring Vietnam could prove to be very instructive (Axelson *et al.* 2005; MOH Vietnam 2006; Nguyen Hoang Long 2006).⁵

Management arrangements for HEF are still under consideration and implementation of the third-party-payer principle faces particular challenges. The situation is less complex where an international NGO is the initiator of

⁵ In Vietnam, the government established the Health-Care Fund for the Poor in 2002 as a scheme that covers the rural and urban poor living below the poverty line and uses geographic targeting to include as beneficiaries all people living in 135 poor communes and all ethnic minority people in twelve highland provinces.

the scheme. With schemes administered through the MOH, either a non-government manager must be sub-contracted by the MOH or the independence of any MOH-based manager must somehow be guaranteed. This issue will be tested through the World Bank-funded pilot projects. A third option may be to provide management through institutional third parties such as the provincial or district offices of the Ministry of Labour and Social Welfare.

With continuing economic growth and the further progress of the health transition, the issue of chronic, non-communicable and severe illnesses will become even more important (Bobadilla *et al.* 1993; Mosley *et al.* 1993). The inability of existing HEF schemes to meet such costs within current budget limits impinges upon the principles of health equity and access to service for the poor. Moreover, the issue raises the question of what means are best to provide health equity and access to services on a national (as opposed to a local HEF) scale. For this reason, national approaches to health equity must address the assessment of real health needs and the means to provide affordable health care for all. The Asian Development Bank-funded project will provide the opportunity to test the implications of meeting these additional costs at a province-wide (if not a national) level.

A number of additional issues are on the agenda for further consideration in the continued development of HEF arrangements, including: developing strategies that improve investment in health service delivery and strengthen routine procedures for access to services; using the supplementary funding for health facilities provided by HEF in a way that increases incentives, improves the quality of services and is based on an appropriate mix of payment methods to facilities; expanding the social role of HEF in a way that strengthens beneficiary and health-provider interactions, including some role for consumer rights' organizations and proactive social work within communities; and broadening the base of HEF funding and establishing an appropriate form of collaboration with CBHI schemes.

More importantly, to be financially secure HEF requires ongoing sources of external funding. One of the most equitable and most effective ways to achieve this would involve a move away from donor funding and towards progressive global budget support from government taxation revenues. However, in a situation of tight government budget constraints the opportunity to move in this direction may be limited. The draft National

Guidelines for HEF discusses other possible initiatives. In the first place, the government must find effective ways to fund free health care for the poor through the budget and not rely solely on aid funds. Secondly, establishing an independent HEF trust fund or independent bank account would provide a mechanism through which funding for HEF from various sources could be pooled and managed. Thirdly, such an account could provide the vehicle for raising and managing revenues from multiple sources (donors, government, international agencies, local organizations, local private enterprises, community contributions and other charitable organizations), thus reducing the dependence on funding from a single donor. As a prerequisite, the HEF schemes will have to prove that they are effective, equitable and accountable.

Finally, and perhaps most importantly, the HEFs will be more sustainable the more they are integrated into the national social health protection system and the more they are supported by a national health financing strategy. In the longer term, the process of protecting the poor may become one part of the broader process of universal coverage guaranteed by the government.

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References

ADB (2001). *Participatory poverty assessment*. Vientiane: Asian Development Bank.

ADB (2006). *Technical consultant's report: Lao People's Democratic Republic - For Preparing the Basic Education Development Project, June 2006 (based on Lao Population and Housing Census 2005)*.

Andersson M, Engvall A, Kokko A (2006). Determinants of poverty in the Lao PDR. In *Working Paper 223, Stockholm School of Asian Studies, Stockholm School of Economics*. Stockholm, Sweden.

Axelsson H, Cuong DV, Phuong NK, Oanh TTM, Luong DH, Tuan KA. (2005). The impact of the health care fund for the poor in poor households in two provinces in Vietnam *Global Forum for Health Research*. Forum 9, Mumbai, India, 12-16 September.

Bobadilla J, Frenk J, Lozano R, Frejka T, Stern C (1993). The epidemiological transition and health priorities. In *Disease control priorities in developing countries*, ed. D Jamison, WH Mosley, A Measham, JL Bobadilla, pp. 51-63. New York: Oxford University Press/World Bank.

Boupha B, Akkhavong K, Siengsounthone L, Phongluxa K (2006). Study of the formulation processes on user fee and exemption policy in the context of Lao PDR (1975-2005) MOH, Vientiane.

HSIP (2005). *Ethnic Group Development Plan*. Vientiane: Project management unit, health services improvement project, Department of Planning and Budgeting, Ministry of Health.

Kakwani N, Datt G, Sisouphanthong B, Souksavath P, Wang L (2002). *Poverty in Lao PDR during the 1990s*. Vientiane: Committee for Planning Cooperation, National Statistics Centre.

Lao National Statistics Centre (2007). *Lao maternal and infant care survey (MICS) 2006*. Vientiane.

Lao PDR (2004). *National growth and poverty eradication strategy*. Vientiane.

Lao PDR (2005). *Law on health care*. Vientiane: National Assembly.

Lao PDR (2006). *National socioeconomic development plan*. Vientiane.

Ministry of Finance (2007). *Official Gazette 2006, Volume 1, 13th Year*. Vientiane.

MOH (2007). *Draft National Guidelines for Health Equity Funding in the Lao PDR*. Vientiane: Project Management Unit, Health Sector Improvement Project, Department of Planning and Budgeting, Ministry of Health.

MOH Vietnam (2006). *Health care support to the poor of the Northern Uplands & Central Highlands: Overall Work Plan 2006-2010*. Hanoi: Ministry of Health, Project N° 2004/16 810, Budget Line: BGUE - B 2004- 19 10 01.

MOLSW (2007). *Lao social security organization, Annual Report 2005 and 2006*. Vientiane: Ministry of Labor and Social Welfare.

Mosley WH, Bobadilla J, Jamison D (1993). The Health Transition: Implications for Health Policy in developing Countries. In *Disease Control Priorities in Developing Countries*, ed. D Jamison, WH Mosley, A Measham, JL Bobadilla, pp. 673-99. New York: Oxford University Press/World Bank

Nguyen Hoang Long PDM (2006). Health care fund for the poor in Vietnam: Implementation and revisions. *Regional Seminar: District Health Systems in South-East Asia - Current Status and Challenges* Vientiane: PowerPoint presentation.

Perks C, Toole MJ, Phouthonsy K (2006). District health programs and health-sector reform: case study in the Lao People's Democratic Republic, *WHO Bulletin*, 84 : 132-8.

Schwartz B, Viravong V (2006). *Health care financing in Lao PDR, sub-sector analysis. report prepared for the Health System Development Project.*

UNDP (2007). *Human development report 2006.* Geneva: United Nations Development Program.

United Nations, Lao PDR (2006). *Common country assessment.* Vientiane.

WHO (2005). *Western Pacific country health information profiles, health system of Lao PDR.* Manila: Western Pacific Regional Office.

World Bank (2007), *World Development Indicators 2007.*

World Bank Institute (2005). *Reaching the poor with health services.* Development Outreach, 7, 2.

Annex 1. Detailed description of the HEF schemes in the Lao PDR, 2007

Part A	Indicators	Nambak	Vientiane Province	Sepone
WHO DOES WHAT? Actors & Roles	Initiation of the scheme	Swiss Red Cross (SRC)	PHO/Lux-Development/BTC	Belgian Technical Coop (BTC)
	Definition of eligibility criteria	SRC/DHO	PHO/Lux-Development/BTC	PHO/DHO/BTC
	Funding	SRC	Lux-Development/BTC	BTC
	Operator of the scheme	Lao Red Cross (LRC)	PHO HEF Office	DHO/BTC
	Daily administrator	LRC	Health Facilities	Health Facilities
	Pre-identification	LRC + Village Chief	Government staff (HC staff) + Village Chief with monitoring Lux/BTC	HC staff + Village Chief with monitoring BTC
	Passive identification	Rare (LRC)	Frequent at PH	Rare (Hospital)
	Monitoring Prov Level	None	PHO Audit & Monitoring Unit +HEF Office	None
	Monitoring District Level	SRC Yearly	PHO Audit & Monitoring Unit +HEF Office	BTC
	Data analysis and steering	LRC/SRC	HEF Office assisted by Lux-development/BTC	BTC

Part B		Indicators	Nambak	Vientiane Province	Sepone
HOW TO IDENTIFY?	Identification Process	Cross-sectoral use	Internal to health sector	Internal to health sector	Internal to health sector
		Selection place	In village	In village	In village
		Selection time	1x/2 years	1x/2 years (automatic with patient file)	1x/year + automatic with patient file
		Selection process	Visit HEF team in village, Proposal village chief, agreement in village, card issuing	List of poor from village chief (visit HC team), verification by team in village, temporary card issuing, card issuing	Visit HC team in village, Proposal village chief, agreement in village, card issuing
		Entitlement document	Family Card + ceiling	Family Card + C/S	Family Card + C/S
		Identification code	Code for HEF card	Code for HEF card (+ family file code)	Family file code + HEF code
		Alternative process		Post-exemption by Hospital	Post-exemption by Hospital (rare)
		Communication	By HEF team + administrative	Administrative (+ HC) - Very Limited	Administrative + HC
	Criteria	Primary method	Means testing questionnaires with 11 criteria's (score <10 or 10-11 if proposed by chief village)	NGPES 5 criteria's (8 districts) Questionnaire 11 criteria's (2 districts) + C/S	Questionnaire with 11 criteria's
		Scoring	Score <10 or 10-11 if proposed by chief village	(Score <10)	Score <10

Part C		Indicators	Nambak	Vientiane Province	Sepone
HOW TO ASSIST?	Benefit Package	Health care facilities	PH+DH+HC	PH+DH+HC	PH+DH+HC
		Health services at hospital level	OPD, IPD, Surgery	OPD, IPD, Surgery	OPD, IPD, Surgery
		Health services at health centre level	OPD, IPD	OPD, IPD	OPD, IPD
		Food & soap	Yes	\$1/day for patient + 1 accompanying person	Yes
		Ambulance transportation	Yes to PH	Yes to PH & CH + contract with private from HC to DH & PH	Yes to PH
		Extra services	Vit. A & round EPI in poor villages	C/S for all in non-urban districts	-

Part D		Indicators	Nambak	Vientiane Province	Sepone
HOW TO MAKE THE PROVIDER ACCOUNTABLE?	Agreement	Type of contract	SRC/LRC/DHO /PHO	PHO/Lux/BTC + HF Committee + contract with some facilities	PHO/BTC + contract with facilities
		Social Control Mechanism	LRC + District authorities	PHO authorities (+ HC Management Committee)	HC Management Committee
	Reimbursement	Allocation base	Fee for service	Fee for service + flat fee for C/S + max rate transport + daily rate food	Fee for service
		Extent of the reimbursement	100%	100%	100%
		Frequency	In theory 1x/month but in practice longer period esp. for PH	In theory 1x/month but sometimes 1x/2-3months	In theory 1x/quarter
		Claim process	Claim form to HEF office; direct reimbursement	Claim form to HEF office, verification project, reimbursement to facility	Claim form to HEF office, verification project, reimbursement to facility

Source: The authors (information from the Nambak, Vientiane and Sepone projects).

Abbreviations in this table include BTC - Belgian Technical Cooperation; CH - Central Hospital; DH - District Hospital;

DHO - DH Office; HC - Health Centre; EPI - Extended Program of Immunization; HEF - Health Equity Fund; HH - household;

HF - Health Financing; IPD - In Patient Department; Lux - Luxembourg; PH - Provincial Hospital; PHO - PH Office;

NGPES - National Growth and Poverty Reduction Strategy; OPD - Out Patient Department.

Part 3 : Scheme design and implementation

Public interventions targeting the poor: An analytical framework

Bruno Meessen and Bart Criel

Abstract

Targeted interventions are a key strategy in the toolbox of governments. Their design, implementation and assessment set several challenges. In this paper we propose an analytical framework for interventions targeting the poorest. The framework splits the intervention into sub-components. For each sub-component, key issues and options are identified and roles of different actors are reviewed. We illustrate the framework with an example from the health sector, the experience of the health equity funds in Cambodia.

Introduction

Targeting is seen today as a key intervention in the toolbox of governments (Coady, Grosh, and Hoddinott 2004). In low- and middle-income countries, it has been particularly advocated during the last decade as a strategy to reduce poverty (Ravallion 2003; van de Walle 1998). An outstanding application has for example been the rapid development of conditional cash transfers in Latin America (Rawlings 2004). In the health sector, the concern for poverty reduction and equity has also contributed to bringing targeting on the agenda (Gwatkin, Wagstaff and Yazbeck 2005).

Because of the straightforwardness of the idea, it is commonly believed that “the conceptual issues of targeting are well understood” (Grosh 1994). We would argue the contrary. Many reports used concepts that deserve further scrutiny. Many empirical studies or intervention assessments have a narrow focus. This weakness stems often from a corresponding vagueness in terms of policy objectives.

While “there is no clear recipe for how to target” (Coady, Grosh and Hoddinott 2004), we believe that policy making could benefit from some analytical tools. A high priority is to assist the policy makers in making up

their mind among the many alternative operational options. For that purpose, some organisation of the existing knowledge would be helpful: the lessons learned so far are a bit scattered; organising them in some logical structure would be helpful. Such a framework would be beneficial to future work by scientists and experts as well. Documentation and assessment of targeting interventions would maybe be less ad hoc and more accurate in their findings. A good framework could contribute to a better intervention design, more careful implementation, more informed evaluation and eventually a better outcome for the targeted group.

The purpose of this paper is to take a step in this direction. Our idea is to build the framework around the main objective of the policy makers: to reach the target group. While our framework was initially developed to analyse a very specific experience in the health sector, we believe that, with some adaptations, its relevance can be much broader.

The structure of the paper is the following. First, we come back on the rationale for targeting. We then introduce our field of application: targeted health care for the poor in low-income countries, with particular attention for the health equity fund experience in Cambodia. In the next sections, we develop the framework. We conclude by identifying some ways forward.

Targeting: the rationale

Targeting is the policy option of concentrating the benefits of an intervention on a pre-identified specific group (Atkinson 1995; Sen 1995b). In fact, every policy involves to some extent targeting. As Amartya Sen put it, “Economic policies - those aimed at poverty removal as well as others - try to achieve some results. And any such attempt must involve *some* targeting. If the aim is to increase female literacy or to vaccinate children, surely the policies must somehow concentrate on the illiterate females or the unvaccinated kids. Like Monsieur Jourdain in Molière’s *Le bourgeois gentilhomme* who spoke prose “without knowing it,” we are all targeting all the time if any selection of beneficiaries counts as that” (Sen 1995b). Talking about targeting therefore amounts to discussing policy.

Targeting has sometimes been interpreted in a narrow sense: it is the delivery of a good or a service *only* to a select group of individuals (Grosh 1995). The key point behind this restrictive approach is that “some group of

individuals should be excluded from receiving the program benefit” (Grosh 1995).

For a funding agency, there can be two main motives for concentrating its resources on a specific group. One is purely normative: by mandate or preferences, the agency has to focus on one specific group of beneficiaries (e.g. UNICEF’s mandate to focus on children). From the agency perspective, a beneficiary of the target group has more value than a beneficiary of the non-target group. In some extreme cases, the agency may even attach a negative value to benefits accruing to members of the non-target group (‘they do not deserve’). The second motive is instrumental and has to do with efficiency: the agency has no specific preferences as far as the different groups are concerned, but it has observed that the return of its intervention in terms of its objectives is higher for a specific group (e.g. the case of UNICEF deciding to target mothers with various interventions as a way to improve child health).

Excluding other groups from the benefits of an intervention obviously stems first from the constraint of limited resources (the inputs) that the agency faces: some choices have to be made. Furthermore, it may be that the good or service delivered by the program (the output) has some rivalry features: one must exclude others because their consumption of the good or service restricts the possible consumption by the members of the target group. An underlying assumption is that the consumption of the considered good or service is valued as well by those who are not the ‘target’, they have a demand for it. Their demand for the good or service creates a second possible reason to restrict their access: the agency may make their utilisation of the good or service conditional upon paying a fee, which will allow to maximise resources for the program.

Targeting henceforth often boils down to organising the *excludability* for a rival good or service in reference to a group of concern. If exclusion is not an objective per se, but only a means to maximise resources for the target group, the ‘leakage’ of resources to the non-target group and the resources going to the administration process of the program are on the same footing.¹ This makes the decision for the agency easy: for a given amount of resources,

¹ If we assume that the agency is indifferent to who implements the administration process (e.g. its own administration, a non-governmental organization) and attaches a value of zero to benefits accruing to the non-target group members.

it should choose the intervention that maximizes the total benefits for the targeted group.

The best way to understand targeting probably is to look at a peculiar situation.

Targeting health care for the poor

As long as they were under the free universal health care model, low-income countries paid little attention to the utilisation of their public services by the poor.² It is only around the late eighties, when user fees were widely introduced, that the barriers to access became a topic for research and policy. Policy makers and international agencies acknowledged very early the fact that user fees could constitute a barrier limiting utilisation of public health services. In order to tackle this equity problem, most of the governments decreed that the poor should be exempted from paying.

There is a large body of evidence today that such waivers by fiat have failed (Kivumbi and Kintu 2002; Stierle *et al.* 1999; Willis and Leighton 1995). A first cause is the conflict of interests at the level of the health facility. As an organisation that faces the obligation to raise its income (to cover its running costs, purchase drugs or top-up health workers' incomes), a health facility has no reason to bear a cost without any compensation. Indeed, every patient leads to more medical and paramedical work, more drugs, more catering and more troubles. These costs - i.e. the poor patient - are not welcomed by the health facility if they are not compensated by an income. Regulating only is clearly quite a myopic solution.

Nevertheless, this explanation does not explain the poor performance of all waiver schemes. In some countries, hospitals are compensated for the poor patients they treat. In spite of this, the coverage remains very low. The limited budget is of course an explanation, but there is another one: there are participation costs for accessing the free treatment (Abel-Smith and Rawal 1992). Fees are just one of the many costs for the patients. The problem is particularly substantial for hospital care. Poor people statistically live far from hospitals. In order to benefit from the free medical care, they

² Targeting on the basis of medical criteria has of course a long history in public health. As far as tropical countries are concerned, the first trypanosomiasis programs, for example, were launched by the colonial powers in the early twentieth century (Van Lerberghe and De Brouwere 2000).

have to cover some transportation costs. Hospitalisation induces other private costs. For example, at least one adult has to care for the patient during the whole hospital stay. This means important direct and indirect costs. Moreover, there may be some uncertainty about the eligibility for the waiver. The poorest may then decide to stay at home and forego the treatment. Finally, if the hospital staff has some leeway to decide whom to exempt, one can expect that people with some formal or informal connections with the hospital will manage to be among the beneficiaries. Social capital is not an attribute of the poorest.

Confronted with the failure of the regulatory approach, a few countries have been exploring alternatives that would pay more consideration to the institutional arrangements. A promising experience is the health equity fund in Cambodia (see other papers in this book and Hardeman 2004, for example).

The logic of the health equity fund model is quite straightforward. It rests on two principles: (1) a sponsor (e.g. the central government) commits a specific fund to compensate an identified health facility for its services to poor patients; (2) the management of the fund is subcontracted to a purchasing body independent of the health facility (e.g. a welfare office at local level). The first principle ensures that 'non-paying patients' are accepted by the health facility. The second principle increases the chance that the beneficiaries of the assistance are selected within the poorer group.³

Through a double 'purchaser - provider split' (i.e. the establishment of activities under the responsibility of agencies autonomous from each other, whereas the bundling of activities under a single agency was the previous option), the model sets apart the respective functions. Every organisation does what it does the best: the sponsor focuses on financing and organising the general accountability of the arrangement; it contracts an independent body for identifying the poor and tailoring the assistance according to their needs; this body contracts the health facility for the health care delivery.

³ Some important conflicts of interests remain with the other option (the management of the fund entrusted to the health facility). The maximising strategy for the health facility is indeed to spend the fund (1) as quickly as possible, (2) regardless of the actual socio-economic status of the beneficiaries (3) on user fees exclusively. With an independent body, especially if it is really committed to the poor (e.g. a local welfare non-governmental organisation), these risks can be limited. They will care more that benefits accrue to the poorest including through an extension of the package to barriers other than the user fees (e.g. transport costs).

The first health equity funds were initiated in Cambodia in 2000. Early assessments disclosed that they were effective in enhancing access by the poor to hospital services. The good results and the attractiveness of the model for the different stakeholders prompted a replication of the approach by other organisations in other provinces. Emulation has led to a variety of models and implementation approaches (Noirhomme *et al.* 2007). Their results do vary to some extent, but they have largely confirmed the initial findings.

Framework : A sequential view on targeted intervention

Interestingly enough, our short introduction to waiver schemes for health services already gives some insight into the difficulty of designing a targeted intervention. First, it shows that designing an intervention targeting the poorest is not straightforward. It is definitely much more than issuing an official decree. The experience with the health equity funds proves that it has a lot to do with resources, incentives and the right interplay of actors. A second lesson from Cambodia is that a similar intervention can be implemented in a variety of ways. Finally, the Cambodian experience has revealed that assessing the intervention can be complex, as there can be an impact on various metrics (see for example, Jacobs and Rice in this book).

If these few elements confirm the need for a framework, they also set the challenge. Policy analysis is indeed not an easy task; as said by Barker, "policies are slippery things" (Barker 1996). Several policy definitions have been proposed in the literature. Some definitions stress the fact that a policy is an in time and space situated set of practices. For example, Barker defines health care policy as "the networks of interrelated decisions which together form an approach or strategy in relation to practical issues concerning health care delivery" (p.6). By this logic, the lack of purposeful action of a government toward a problem is already a policy. Other definitions do not consider the policy phenomenon at a point of time, but over a period of time. These definitions stress the fact that any effort to induce a change into a set of societal practices will take time and will probably go through some stages. There has been a tradition to identify at least four stages in the policy process: agenda setting, policy formulation, implementation and evaluation (Walt 1994). It is widely recognized today that this sequential view of the policy process, largely inspired by the planning paradigm, is more an ideal

norm on how to develop a policy (what the policy maker should aim at); it doesn't really correspond with reality. Contemporary societies are indeed characterized by a plurality of actors, including governmental ones, who may pursue antagonistic goals. In such contexts, the policy (as a set of practices) is open to the influence of multiple actors and it will not always evolve in a logical and linear way.

Policy development is therefore a quite long and complex process. Yet, for those willing to bring some benefits to a specific group, some direction with regard to operational issues is needed. We propose in this paper to focus on such technical matters only; the political aspects will not be covered (on the latter, see for example papers by Jönsson and Yunping in this book). More particularly, we will develop here a view we think useful for national and international experts in charge of designing or assessing interventions. From their perspective, we believe that the sequential normative view is helpful: it highlights some necessary conditions for a targeting intervention to be successful.

Both the review of the literature and our personal involvement in the design of different targeting programs has led us to the conclusion that any effort to bring benefits to a targeted group has to go through a set of different procedural steps. Each step consists in some specific action by at least one actor. It is the different content of these actions and its subsequent consequence (there may be an economic advantage to establish some division of labour and get some actors specialized) that delineate the boundaries of each step. If a step is incorrectly taken, there is a risk that some intended beneficiaries are 'lost' for the intervention; an obvious source of failure that one wants to avoid for a targeting intervention.

While the steps can vary from one intervention to another (some are simpler than others), there are commonalities across experiences. We would contend that at least six actions deserve close attention: (1) the formulation of the intervention; (2) the definition (in measurable terms) of the intended group of benefit; (3) informing the stakeholders, including the target group; (4) the identification of individuals meeting the eligibility criteria; (5) the entitlement; (6) the utilisation of the service subsidised by the programme.⁴

⁴ The number of stages and their order can be different. In some programs, the beneficiary first uses the service and then claims the subsidy. The identification and entitlement is then

All these actions require resources, something which obviously sets also obligations in terms of things to do (e.g., allocating a budget, executing it, auditing...); just like the activities of monitoring and evaluation, these are standard actions and they will not get our attention here.

One caveat has to be formulated with respect to these steps. We do not want to deny that policy is a never ending cycle with feedback loops. Our concern is to highlight that performance of a step is constrained by the coverage achieved by preceding ones. Obviously, someone will use a service if he is entitled to it. Moreover, if it is true that procedures can be revised (for example, after observation of low performance), there are rigidities and dependencies that will constrain the range of manoeuvre for correcting measures. Complementarities and dependency between the different actions required by targeting plead for a good design, including securing enough room for flexibility and feedback loops (e.g. mechanisms for the individuals to appeal against an unfair decision).

We contend that designing a targeted intervention has a lot to do with giving clear-cut content to these six different actions. For the expert, this basic 'framework' can then be seen as a checklist of issues and procedures to address. This division in steps can also be adopted ex post for the evaluation of an intervention. Indeed, on each of these six actions, a head counting approach is theoretically possible (see figure 1 at the end of the paper). The framework then reveals that early choices are quite crucial for the final performance of the programme. This ex post utilisation will be developed in a later section of the paper.

In the present section, we will first develop the framework. While it probably applies to any policy, we will discuss it from a social assistance perspective (i.e. any intervention whose intended beneficiaries are poor). We will review the six components. For each component, we will try to state its content precisely, the key challenges related to it and which actor is in the best position to undertake the related actions. Each time, we will illustrate with the experience of the health equity funds in Cambodia.

carried out, for example, by the tax department on the basis of the tax return form. The subsidy comes as a seventh stage in the form of a tax discount.

STEP 1: THE PROGRAMME FORMULATION

We propose to gather under this step all the activities related to the initiation of the intervention.⁵ In the sphere of public interventions, the participation of political representatives, governments, relevant ministries and programme managers is required. Participation of other key stakeholders (e.g. think tanks, civil society groups, representatives of local agencies) is maybe not a formal obligation, but they are key to a well-informed policy. Involving some representatives of the beneficiaries at a very early stage is particularly crucial, both because of the support and the information that they can bring.

For an intervention targeting the poor, the key tasks to achieve are: (1) share a common awareness and understanding of the issues and challenges; (2) agree on the target group (in broad terms); (3) come to an agreement on desirable goals; (4) design the programme (a plan for action, the relevant institutional arrangements and a broad idea of the benefit package); (5) commit resources (including funding) and (6) turning the programme into a legal right for poor citizens.

This step is the step in which the policy makers should clearly formulate their ambition (in the midst of some political arbitrages). The first step will usually be a process by which all of them receive sufficient information about the problem: why the situation has to be changed, what can be done... Once there is a common awareness among the key stakeholders, there is an opportunity to make their concern explicit. A reference to a vision of social justice can be useful. Policy makers must also specify the target group. This includes a minimal conceptualisation of their

⁵ The political process by which a societal problem becomes a priority issue for a government is not covered in this paper. We do so because this crucial step normally comes before the involvement of the experts. The reality is that many poverty programs in low-income countries suffer some weaknesses at this level (World Bank 2003). The weakness has of course a lot to do with the limited agency of the poor, but also probably with the imported nature of too many programs. Although the lack of sound political support by the constituency does not prevent experimentation and initiatives funded by international aid, it may limit the sustainability of the program or its scaling up nation-wide. The existence of a trade-off between national political support and fine targeting - "Programs for the poor are poor programs" - is well-known (Besley and Kanbur 1990; Gelbash and Pritchett 1995).

specific situation⁶ and some basic idea of what it means as a human experience in the national context.

The clarification of the goals is crucial. Policy makers must specify the needs to be tackled. The history of welfare programmes has shown that nearly any need could be covered, from basic needs such as water, food, health care, education, heating, housing to other needs such as holidays for the children or cultural events (Barr 1987). But the goals may reach beyond the target group. The government may prefer a strategy supporting a national producer, a public provision or local employment. Obviously, the programme will not be a mere distribution of goods and services. Policy makers are trying to achieve different objectives with the programme. Trade-offs will have to be made. The early clarification of the objectives may prevent some policy mistakes. As Grosh put it: "A school lunch program may choose the right children to feed, but if it serves them expensive foods or too few calories, it will not be cost-effective" (Grosh 1995). Only early specification of goals by the policy makers will allow later assessment of the programme performance (Atkinson 1995).

The design of the programme includes deciding on the targeting method (Coady, Grosh and Hoddinott 2004; van de Walle 1998). Should one rely on household assessment, geographical targeting, categorical targeting, self-selection, or more probably on a combination of them?⁷ The different administrative, private, incentive, social and political costs of the targeting methods will be determining. The incentive structure, determined by the distribution of decision rights and the source of funds, should be a constant concern (de Neubourg 2002). The benefit package should be at least broadly defined, according to the objectives. A key to success will be the right distribution of tasks among actors (see next sections). This includes clearly identifying the respective obligations for the different involved parties. The commitment of resources, the financial ones in particular, and

⁶ As far as poverty is concerned, there is today a consensus among experts that it is a multidimensional reality. The conceptualization by Amartya Sen of poverty as a deprivation of basic capabilities has been quite influential in this respect (Sen 1995a).

⁷ These are the standard terms in the targeting literature. It is debatable whether they are the most appropriate ones. 'Self-selection', a key component of most targeting programs, hides for example the fact that some household members may have limited decision rights within the household.

the enactment of the new rights for the poor (including the right to appeal when a decision is perceived as unfair) will make things happen.

What is the experience in Cambodia with this first step? The first health equity funds were based on the initiative of non-governmental actors. Their approach to the problem has been quite intuitive and pragmatic. Their key objective was to give access to hospital services to those encountering some difficulties in this respect. In the pioneer experience of Sotnikum, the health equity fund was in fact an addendum to a more global strategy trying to boost the performance of the health facilities (Meessen *et al.* 2002; Van Damme *et al.* 2001). The success of the health equity fund was a bit unexpected.

The field practice unveiled the full potential of the model. An early finding - which requires still some rigorous confirmation - was that some models of health equity fund (those informing or entitling the poor before arrival at the hospital) could possibly bring some benefits in terms of welfare protection as well (Van Damme *et al.* 2004). This occurs if the health equity fund induces assisted households to substitute expensive and ineffective treatment in the private sector (a quite dominant practice in Cambodia) for an early use of adequate services in public health facilities. The model can also be implemented in such a way that it contributes to reassurance and empowerment in the event of disease, protection of dignity and self-esteem during the hospital utilisation, i.e. different 'beings' probably highly valued by the beneficiaries (Alkire 2002; Sen 1993). This variety of possible impacts is welcome, but has obvious implications for the programme formulation. Policy makers have to decide which aim they value the most. Enabling access by the poorest and protecting hospital users against catastrophic healthcare expenditure do not necessarily refer to the same target groups, selection mechanisms and benefit packages.

At the beginning, the Ministry of Health mainly encouraged international agencies to experiment and implement health equity funds in their projects. It progressively developed its own view on the strategy. As reported by Annear *et al.* in this book, this has recently led to the promulgation of a decree. Yet, assistance by a health equity fund is not yet a universal right for the poor in Cambodia and it still largely depends on the presence of an international actor willing to allocate funds to the strategy (Meessen *et al.* 2006).

STEP 2: DEFINING ELIGIBILITY

Targeting obviously requires that one goes beyond a general view of the profile of the targeted individual: one has to set very explicit eligibility criteria. While this exercise is, to some extent, part of the policy formulation process, it serves our purpose to identify it as a different step.

One faces here the difficulty of the vagueness of poverty. This vagueness is horizontal and vertical (Qizilbash 2003). The horizontal vagueness refers to the dimensions that must be included in the definition of poverty: should one look at one dimension only (e.g. income) or to several ones (e.g. literacy, health, nutrition...)? This question is certainly relevant for a basic capability approach (Sen 1995a), but it is also the case for an income or consumption approach, as one has to select the goods and services on which the consumption or income poverty line will be calculated (Van den Bosch 2001). The vertical vagueness refers to the level of the threshold below which one is poor. There is eventually some inescapable arbitrariness in the decision.

To deal with this double vagueness problem, there seem to be two main sources of expertise to tap. There are the 'poverty scientific experts'. Thanks to rigorous methods, they can produce major insights into what poverty is in a given context. One of the key strengths from this approach is that the exercise can be centralised and standardised nation-wide. The actors daily confronted with poverty form the second source of expertise. One can think of NGOs, welfare workers, and of course the 'experience experts': the poor themselves.⁸

The way forward for defining the eligibility criteria will often be a combination of both expertises. For its programme formulation, the government needs a basic understanding of the scope of the social problems: what are the characteristics of those struggling in daily life, how many are they, where do they live, and so forth? Estimates are necessary for budgeting and distribution of resources. Some explicit definition of the target group is also necessary for organising the accountability of the programme (monitoring and assessment). But the criteria relevant for the allocation between groups are probably not valid for allocation to individuals. Some

⁸ Participatory assessment seems a particularly powerful approach. See for example (Asian Development Bank 2001). Yet, one should not underestimate the challenge to implement it. Opposition may even come from professional social workers themselves.

flexibility must be granted to the frontline social workers dealing with individual cases (see also Criel *et al*, in this book). Making a parallel with medicine is probably relevant. In the health sector, it is well accepted that the decision criteria used by health system managers are not the ones practised by the clinical doctors in their daily practice. Adopting different social justice and ethical criteria according to the respective levels of decision making could also make sense for social assistance interventions.

It is important to acknowledge that the setting of the eligibility criteria is closely related to the budget available for the intervention. Fixing the thresholds eventually is a political decision. They may diverge from the poverty lines just because of the tight budget constraint; sometimes to a point that the programme loses any chance to have an impact.

Finally, at the stage of definition of the eligibility criteria, policy makers must keep in mind the possible impact of the programme on individuals' behaviours. There is a risk that in order to become eligible for assistance, people pick options that are not the best ones from the society's perspective or are even detrimental to themselves in the long run. This is referred to in the literature as the incentive costs of the intervention. Poverty traps due to welfare programmes are a well-known problem in high-income countries (Barr 1987).

What complementary insights do we get from the health equity fund experience in Cambodia?

A recent review of four experiences has shown that health equity funds are using quite different definitions of poverty (Noirhomme *et al*. 2007). Some use lists of criteria and scores, most of them developed by local actors.

Interestingly enough, none of the ongoing health equity funds has referred to the existing national poverty lines. The reason is not so much the non-verifiability of actual household incomes; more fundamentally, this non-reference to the poverty lines corresponds with the primary goal of the health equity funds, i.e. enabling access to hospital services by households having economic difficulties to do so. An ad hoc definition of poverty is then preferable. As experience has revealed, a mere change in the level of the user fees at hospital level may require a change in the threshold (Meessen and Ir 2003).

Obviously, if the goal is to go towards a national policy, there is a need for some harmonisation. The first step will certainly be to agree on some common criteria to be used at central level to allocate the scarce national

resources. If entitlements are to be granted nation-wide, horizontal equity will also require some convergence in the frontline practice.

STEP 3: INFORMING THE STAKEHOLDERS

This step refers to the different actions to inform the different stakeholders about what the programme has to offer. This requirement of good information has two main reasons: agency and efficiency. The agency argument refers to the need to inform the citizens about the programme and the new rights and entitlements it establishes. Citizens have to be able to take proactive actions, including applying for enrolment, claiming benefits and appealing to authorities. The poor must of course be a particular group of focus.

The efficiency argument is straightforward: poverty reduction is a multi-sector effort and coordination among the many actors is a key to success. This means that the information about the programme should reach not only actors directly involved (e.g. the agency in charge of the implementation, the poor), but also all the actors regularly in contact with the poor through other programs.

To whom should one entrust this function of providing information? Economy of scale may suggest some centralisation (production and printing of guidelines, organisation of training, radio communication...). Centralisation can be also a solution for some conflicts of interests. Nevertheless, in order to reach the poor households, some activities at frontline level will also be necessary. Targeting programmes, especially those relying on household assessments, require an administrative process. Poor households are not acquainted with administrative procedures. Face-to-face information, guidance and adapted messages are necessary. Some local actors must actively interact with the households likely to be eligible for assistance.

We can draw some lessons from the experiences in Cambodia. First, one can notice that most of the transfer of information has been itself targeted. The key concern was to identify the poor and inform them about their entitlements (see the next sections). The actors in charge of the identification have directly gone to the communities and, as much as possible, straight to the households potentially eligible for assistance. Interestingly enough, some local NGOs in charge of the identification have been very reluctant to reveal the eligibility criteria (Noirhomme *et al.* 2007). Obviously there is a conflict between the information and the identification

steps: good information contributes to reducing the exclusion errors (as poor people are then in a position to appreciate their own eligibility and take action accordingly), but may lead to more inclusion errors (as non-poor have enough clues to communicate their profile in a distorted way in order to get the entitlement). The experience of Cambodia reveals a second fact: mouth-to-mouth communication can be a quite powerful strategy in rural communities. Once poor patients are back at home, they are quite keen to share their experience in the hospital with fellows and relatives. Uptake of the benefits - i.e. experience - is also probably a major way to consolidate one's own knowledge about the scheme. Health staff are also good promoters of the scheme. Information on the programme is definitely a step involving a lot of different actors and a never-ending process.

STEP 4: THE IDENTIFICATION OF THE INDIVIDUALS ELIGIBLE FOR ASSISTANCE

This step amounts to screening an actual population to identify individuals meeting the eligibility criteria set in Step 2. This role is carried out by an identifying agent/agency. The challenge here is to deal with a double asymmetry of information: the one between the sponsor and the identifying agent and the one between the identifying agent and the population. Both asymmetries may lead to inclusion or exclusion errors.

The sponsor of the programme (e.g. central government, donor) has difficulties in assessing the performance of the identifying agent. How can a central government, far away from the communities, be sure that the local agency identifies the households correctly? How can one protect the programme against clientelism, bribes or mere laziness? Obviously, good accountability mechanisms have to be set up; administrative procedures, data reporting and field monitoring will help; some contractual arrangements are also good at reducing incentives for frauds (e.g. a matching grant system may ensure that local governments are careful about the use of the program resources). We believe that one of the keys for the incentive problem is to choose the right agent for identification. In many countries, the elite captures the identification process. Experience in the health sector has shown that entrusting this role to the health care providers was not a good idea either.

The problem of finding the right arrangement is compounded by the second information asymmetry, the one between the identifying agent and the individuals pretending to meet the eligibility criteria. This exercise entails

some administrative costs. If the criteria rest on variables for which data are available (e.g. the national income-tax database) or easily verifiable at the point of use (e.g. gender), the cost can be kept under control. But this is not the general situation in low-income countries. Targeting the poor often requires the collection of specific data through visits, interviews and questionnaires.

If the benefit is attractive enough and not too stigmatising, there will be an incentive for some households to cheat on their actual status. In order to avoid fraud, the eligibility criteria will have to be based on non-alterable variables. Clearly a link should be established between this step and Step 2. Observable proxies (e.g. house condition) are preferable, but they will require home visits. In some contexts, observable variables capture too little of the reality. Obviously, ownership of cattle is easier to observe than the amount of savings on a bank account. There may also be some laws securing privacy. A last problem is the fact that households' socio-economic status is dynamic. The identification process must be flexible enough to deal with households moving above or below the threshold. Updates are necessary; they are costly.

All these factors mean that administration costs can be quite important. If these costs weigh on the programme budget, they will reduce resources available for benefits. If they weigh on the households (e.g. participation costs such as submission of certificates), it will reduce the coverage of the intervention.

In terms of assignment of the identification function to an actor, it is noteworthy that a solution addressing quite well one of the two asymmetries may fare badly with the other one. Local elites, for example, have good and updated information on household characteristics within the communities, but if accountability mechanisms to the sponsors or the community are not in place, they may use their information rent to capture the programme benefits (Conning and Kevane 2002; Galasso and Ravallion 2001).

Another point is to be aware of economies of scope and externalities. Economies of scope refer to the efficiency gain obtained from entrusting the identification for different kinds of assistance (food, health care and education...) to one single body.⁹ The externality problem refers to the

⁹ The efficiency gain can exist in terms of targeting outcome (poor rightly identified), but also in terms of poverty reduction outcome (poor eventually lifted out of poverty), if addressing several needs at the same time increases the chance of success of each individual program.

possible side effects of entrusting the identification to an agent that also has some other roles in the community. The teachers are certainly very able to provide a list of pupils eligible for a free daily meal, but this may undermine their relationships with the parents (Coady, Grosh and Hoddinott 2004).

Regarding identification, what are the key lessons from Cambodia? A first observation is that the different projects have entrusted the identification function to different local bodies (Noirhomme *et al.* 2007). Local NGOs, pagodas, or a team mixing staff from different agencies have been quite successful alternatives for identifying poor households in the community or at the point of use. Those who have pre-identified households in the community (i.e. before a specific episode of illness) have sometimes used an identification process in two steps: first an inclusive listing by an identifying agent member of the community (e.g. the village chief), then a restrictive screening by an identifying agent accountable to the sponsor (e.g. staff of a local NGO). One lesson seems to be that such a two-stage approach is quite protective for those in charge of the first stage, as it allows them to deter pressure by non-poor (Meessen and Ir 2003).¹⁰

It is noteworthy that in order to reduce exclusion errors, several schemes have established two opportunities for a household to be identified: one within the community (before any episode of illness) and one at the hospital (once they use the services). The second solution permits to include poor people who were not identified by the community screening (including those who were not poor at that time) and poor patients from 'non-screened' communities.

Both monitoring and assessment have shown that the different identifying agents were very good at limiting inclusion errors. We see three main explanations. The first one is that poverty of a rural household is quite easy to observe in Cambodia. Economic growth has increased the inequality between different layers of society (as not everybody has benefited from the growth), which 'helps' to identify those lagging behind (Ministry of Planning 1997). A second explanation is that the asymmetry of information between the sponsor and the identifying agent seems to be kept under control by good accountability mechanisms. A third explanation is that social workers in charge of selecting households for assistance seem to be particularly

¹⁰ The most cost-effective strategy would probably be to entrust the identification to some community members, with the second stage only applied to some samples as a cross-check.

concerned about leakage to non-poor. It is unclear yet if this stems from social pressure, a directive by the managers or is more a result of the importance attached to truth and honesty by the social workers.¹¹

STEP 5: THE ENTITLEMENT

This step refers to the action of granting the entitlement for assistance to the sub-population identified in Step 4. The key issue is to establish the new status of the individual as a right they can vindicate. The identified households must indeed have faith with regard to their new rights; they must feel secure about the fact that they will get the benefit once they request it and will be supported by someone if their rights are denied.

This purpose implies that this step is carried out by an organisation with some authority. This authority could be granted by the law or stem from a good reputation among the beneficiaries. The individual enrolment requires that some formal certification occurs. One reason is to ensure that enrolled individuals will be clearly identifiable in the future by concerned parties (e.g. shops that must grant a discount). If identity cards are not available, certificates with pictures are useful.

As the entitlement has an economic value, it is important that the certification is fraud-resistant at every level. The agency and individual workers granting the entitlement must be highly accountable with respect to this. A computerised database, an option today feasible even in very poor countries, can help.

Ideally, the entitlement must quickly follow the identification, our Step 4. A reduced time lag between both steps is an element of a well performing targeting system. The entitlement must be clear on the benefit package to which it gives access (see Step 6). The entitlement stage is another opportunity to inform the individual about his right; this is useful for complex interventions (e.g. assistance conditioned upon some behaviours, see below). This informing better takes place through face-to-face contacts, especially if the target group largely consists of illiterate people. The face-to-

¹¹ We have observed similar patterns of behaviours with social workers in Belgium. A hypothesis would be that the personal nature of the relationship between the social worker and the recipient creates high expectations in terms of honest disclosure of status and behaviours. This could be particularly true if the social worker is the one who calibrates the assistance and defends the applicant's case before the managers.

face contact will moreover allow the social worker to provide complete information and to answer any questions.

It is noteworthy that the entitlement step permits establishing supplementary conditions for eligibility, not in terms of characteristics (something already done at Step 3) but in terms of behaviours. Conditional cash transfers, for example, provide money to poor families contingent upon certain patterns of behaviour, such as sending children to school or bringing them to health centres on a regular basis (Rawlings 2004). Waiver schemes, vouchers and other consumption subsidies only benefit entitled individuals if they actually use the service.

In terms of actors, there are obvious reasons to entrust part of the tasks related to the entitlement to the agent in charge of the identification. Nevertheless, a complete overlap must be avoided. For the identifying agent, it will be much easier to interact with the applicants if they know that a superior authority has the final say on the enrolment (see also Criel *et al.* in this book for the practice in the Belgian welfare system). Protecting the identifying agent is particularly crucial if he is also the social worker in charge of calibrating the assistance.

In Cambodia, the different projects have entitled individuals through different ways. The major difference lies between the schemes that have decided to entitle households before any episode of illness (in their communities) and those that entitle the households at the point of use (at the hospital) (see Jacobs *et al.* in this book, for a comparison in terms of outcome). The first strategy provides of course a much stronger entitlement. In fact, a health card system is tantamount to a real health insurance. Receiving one's entitlement only at the hospital level causes uncertainty for people from remote areas. The fact that they are not sure about their eligibility for assistance may deter them from using the hospital.

While weaker in terms of entitlement, the second track has the advantage to save resources. Organising the identification and the entitlement at community level may be costly. Creation and management of the database of enrolled households consume resources as well. It is known that one project in Cambodia depleted the resources available for assistance because of its willingness to screen the whole population for distributing health cards to eligible households. In another project, there has been a considerable time lag between the identification and the final entitlement (Noirhomme *et al.* 2007). However, as reported by Ir *et al.* in this book, the

main challenge to pre-identification is the fact that poverty is a dynamic phenomenon; time may eventually render the identification out of date.

STEP 6: THE DELIVERY OF ASSISTANCE

This step consists in the action of delivering the assistance to the sub-population entitled in Step 5. The key issue here is to provide the assistance that will bring a real benefit for the assisted person. Just like in the definition of eligibility, the policy makers and the frontline actors share a responsibility.

We have seen that policy makers have to decide in their programme formulation on: (1) the need(s) to be tackled; (2) the actual institutional arrangement; (3) the broad content of the benefit package.

Inasmuch as the arrangements are concerned, a key decision for the government is whether it is better to make or buy the goods or services able to respond to the identified need. If the goods or services are unavailable on the local market, the intervention can not refrain from setting up a local resource (e.g. digging of a well, construction of a school), either as a direct provider or with subsidies to attract possible providers. If the government opts for direct provision, a related issue is whether the goods or services should be accessible to the poor only or open to a large group (possibly with a fee charged upon those able to pay). The second option is particularly interesting as it increases the political support for the program in the whole population and reduces the stigma upon the poor.

But the problem often is not availability, but utilisation by the poorest. There are four kinds of determinants of the utilisation of the good or service: the content of the benefit package, private participation costs (such as transportation costs, opportunity cost for the user or the relatives, the fees, the complementary goods or services to buy to bring about an effective outcome, stigma), information and decision rights.

Households may decide not to participate in the program if they see little value in the accessible services, for example because of their low quality. Participation costs may create insurmountable barriers, especially for the poorest. If poorly informed, households may wrongly assess the final outcome from the service. Finally, the target group (e.g. girls) may have limited decision rights within the household.

Because of the inescapable role of self-selection in any targeting programme, the definition of the benefit package is fully part of the targeting arrangement. Different assistance packages differently address the four

determinants (e.g. a cash transfer is theoretically more empowering than assistance in kind, but a transfer can have limited impact if households are misinformed or if they face a monopolistic provider).

Policy makers have some key choices to make in this respect, but many policies entrust a major role to front line actors as well. Their key responsibility will be to tailor the assistance to the individual profiles. For some households, financial assistance will be enough. For others, social care and support will be necessary. To some extent, the benefit package has to be personalised. It is noteworthy that this calibration may contribute to making the assistance more efficient (Sadoulet and de Janvry 2004).

An element that should not be overlooked is the incentives set by the mode of remuneration of providers. A lump sum payment, for example, is not equivalent to a reimbursement of actual expenditures. More generally, rules for disbursement of funds (e.g. credit facilities, monthly invoice) must be set.

The experience of Cambodia has been rich in lessons learned (see Annear, Bigdeli *et al.* in this book). A key characteristic of the health equity fund model is the distribution of tasks along a purchaser - provider split. One should note that the agencies managing the health equity funds do not only purchase from the health care facility; local shops and taxis are other providers of goods or services. The need to tackle the different barriers has been acknowledged very early in most of the schemes.

In terms of health care package, a majority of schemes have decided to limit themselves to hospital services. This level of care is seen as a source of greater impact than health centres, both in terms of health and welfare protection. Lump sum payments have been adopted by most of the schemes. It is seen as a good strategy to prevent over-prescription and cost escalation. Moreover, promoters of the model have stressed the importance of implementing the schemes only in public hospitals with a satisfactory level of quality of care. Interestingly enough, an ongoing experiment in Phnom Penh is trying to go one step further in the empowerment of its beneficiaries by taking an active role in defending their patient rights as hospital users (van Pelt, Mao and Vannak 2004).

OTHER THINGS TO DO

We believe that the six steps developed above deserve particular attention. This is crucial for a successful targeting intervention. This does not mean

that there are no other ways to increase the chance for the intervention to reach its objective. Knowledge is crucial throughout the existence of the program. At the early stage of the policy design, it is important to have a good understanding of the actual situation of the poor: who are they; where do they live; what are their needs; what are their own views on possible solutions? As already mentioned, their involvement in the discussion could be very useful. Systematic reviews (Lavis *et al.* 2004), study tour and pilot studies are nice ways to inform policy makers about the pros and cons of alternative strategies.

Once the program is in place, monitoring and evaluation are standard processes to accumulate knowledge and eventually improve the intervention. Monitoring can be understood as the routine follow-up of the different steps structuring the intervention: are the different actors complying with agreed procedures and rules? Evaluation refers to the assessment of the outcomes generated by the programme: is the programme achieving its objectives? Both activities are expected to hint at possible corrections of the intervention.

Monitoring and evaluation have mainly to do with collecting useful and reliable data; processing them into analysis; and using the accumulated knowledge to review the programme and its operation. Most of the data will document Steps 2 to 6: were the eligibility criteria the right ones; was the information correctly disseminated in terms of message content and coverage; was the identification fair and exact; was the entitlement process rapid and empowering; were the funds used properly; did the benefit packages get delivered to the target group; did it make a difference? In order to process this knowledge into action, a feedback loop will have to be activated. Information has to be transmitted to actors capable of correcting processes (e.g. take disciplinary sanction, interrupt a contract), reorganising the overall arrangement or setting new objectives.

Just like for the six steps, there are questions about who should take up this monitoring and evaluation role. Obviously, sponsors are concerned about the right use of their funding. Local actors are usually in a good position to monitor the delivery of the benefits (Conning and Kevane 2002).

In Cambodia, there were not so many studies to prepare the launch of the health equity funds. The approach has been quite pragmatic. The international agencies behind the experiences have paid more attention to monitoring and evaluating. Besides accounting, the quality of targeting has

been a focus of interest. For the quality of the health care services delivered to the beneficiaries, the general practice has been to rely on existing mechanisms internal to the health system.

In terms of impact assessment, the projects have relied mainly on indicators that are easy to monitor (e.g. number of beneficiaries, average benefit). One must acknowledge that measuring the outcomes generated by a targeting intervention is not easy, especially if it achieves different outcomes. There is clearly a challenge for researchers there.

Reaching the targeted group: the framework as an evaluation tool

In the previous section, we have developed our framework mainly as a way to identify the key operational issues that are present in any targeted intervention. From that perspective, the framework can for example serve as a check-list for those in charge of designing targeting interventions. Besides this 'soft prescriptive' power, we believe that the framework has also some utility for all those trying to assess the performance of a targeting intervention.

Performance assessment is a complex task that cannot be fully developed here. Obviously, a key dimension of an intervention's performance is whether it reaches its intended population of benefit or not.¹² There are different ways to assess that; the simplest one is to adopt a head count approach and calculate the proportion of the targeted population that has actually been reached by the program.¹³

¹² Two other issues are the link between the benefit and the outcome for the individual (e.g. hospital admission and health recovery) and the actual contribution of the intervention to the utilisation of the service by the individual. Take the example of the health equity fund scheme: if there had not been any intervention at all, some poor would have used the hospital anyway. In that case their utilisation of the hospital can not be considered as an outcome of the program (yet, the savings made by the household thanks to the waiver are one of its results). The assignment of a change in an outcome variable to an intervention raises several methodological challenges (Angrist and Krueger 1999; Duflo, Glennerster, and Kremer 2006).
¹³ A more sophisticated approach is to compound the share of the assistance that has actually benefited different socio-economic groups. For an exposition to benefit-incidence analysis, see for example Demery (2000).

As a reminder, there is a normative dimension implicated in head counting, as it assumes specific weights for the 'counted' individuals (regardless of their needs or distance to the threshold, the targeted households get a score of 1; all the non-targeted ones get a score of 0).¹⁴

It is easy to see that adding a head counting approach to our framework of the targeting intervention as a sequence of steps results in a 'head count framework'. This allows to assess how many people are 'in' at the different stage of actions. For obvious reasons, the number of poor reached in one stage will largely depend on the number of poor covered by the previous stages.¹⁵

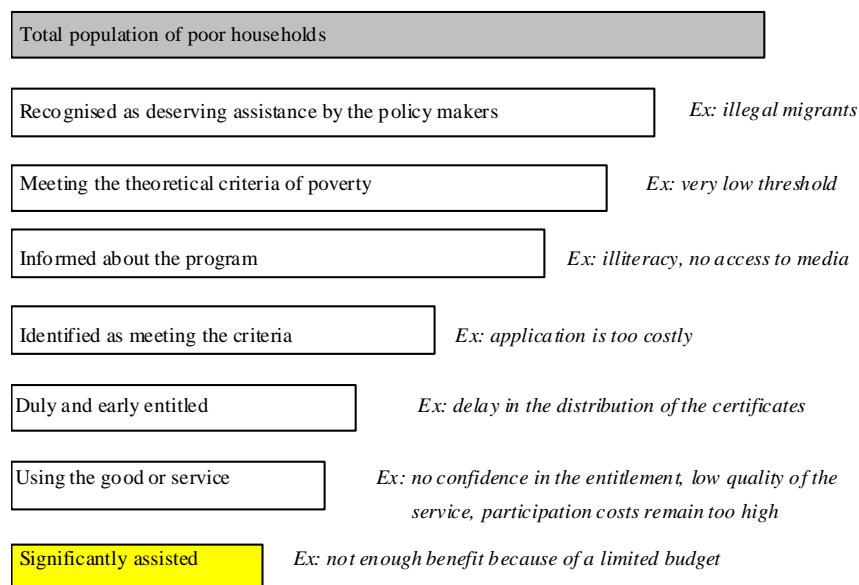
Figure 1 illustrates this logic. From a given population of poor individuals, some of them may not be recognised as deserving assistance by the policy makers (e.g. illegal migrants). Once the target group is specified, there is an issue to agree on the indicators (the variables and their cut-off values) that can identify those belonging to the group. If the threshold is too strict, many poor will be excluded. Communication on the intervention is another step where many poor can be 'lost': those who have no access to the media and other sources of information will not hear about the program and undertake the subsequent steps (e.g. submit an application). If there are important participation costs for being identified (e.g. to go to an office to fill in an official application), many poor will not show up. Ideally, the agency in charge of the identification should be very close to the target population (both physically and informatively). There is also a risk that the entitlement stage becomes a bureaucratic and time-consuming process. This can temporarily reduce the access of the target population to the intervention. Eventually, the entitled individuals may have a low interest in taking up the benefit. This will be the case if the service that is offered by the program is of low relevance or quality, or if major participation costs remain. If the final resources are too limited (because of a too low initial budget or a

¹⁴ An alternative would be to assign weights according to the distance to the threshold. Negative weights would apply if exclusion of some households is an objective per se of the intervention. The decision about the 'right' weights is obviously a responsibility of the policy maker, not of the evaluator.

¹⁵ Noteworthy, for some stages, the measure of program participation may require a clear definition. For example, the same household using several times the supported service should be counted only once.

low efficiency in the processing of the six steps), the final outcome for the target group could be disappointing.

Figure 1. Targeting, step by step



For this head count application of the framework, clear definitions of what program participation actually is at each stage will be necessary. On the numerator side, for example, the same person using several times the supported service should be counted only once. Yet, utilisation by different members of the same household provides another statistic. On the denominator, one can take the total population, the eligible one or the one reached at the previous stage. This produces different indicators and helps to organise those already present in the literature (Hernanz, Malherbet and Pellizzari 2004).

In many situations, especially in countries with developed tax systems, the framework will have to be adapted to the intervention of interest. In some programs, the utilisation of the service comes before the identification and the entitlement stages. This is for example the case with child care subsidy in the United States. Yet, this does not invalidate the idea of a chain

of stages that create each possible bottlenecks: the limited supply of service can, for example, be the main reason for the low take-up of the benefit (Queralt and Witte 2002).

Obviously, these different ideas still require empirical validation. This is one of the objectives of the POVILL project (see Lucas *et al.* in this book).

RELEVANCE AND PROSPECTS

At the start of the paper, we have argued that the design and the study of targeting interventions could benefit from some kind of a framework. As the prime concern of such interventions is to reach their target group, it makes sense to build the framework around this objective.

We have put forward a framework that views any targeted intervention as a chain of specific actions. We have distinguished these steps by the possibility of entrusting them to different actors. Noteworthy, a possibility does not mean a necessity: it could be, like in the case of the health equity funds in Cambodia, that the same actor eventually carries out several of the steps. Such a set-up is not rare in targeting schemes, but is not necessarily optimal. Key attention should be paid to the possible conflicts of interests; accountability mechanisms and incentives must be right.

The sequential nature of our targeting framework must not be misunderstood. It is a logical one, not a real time one. It does not mean for example that a step is carried out once and for all by the agency in charge of it. Most of the steps are in fact performed on a continuous basis (but for different individuals). Neither does the sequential nature preclude the simultaneous execution of some of the six actions. The core idea is that the performance of the whole targeting process is determined by the performance of each isolated step and that these steps are successive from the individual's perspective.

The development of this framework has largely been inspired by our professional involvement in the health equity funds in Cambodia. No surprise, the framework fits this experience well. Its relevance for other contexts or programs still needs to be assessed. Comparative analyses would in fact be a nice way to assess the descriptive power of the framework. Our intuition is that it could be a useful tool for understanding the difficulties encountered by many programs. The low take-up of welfare benefits is a reality in many countries; it deserves more scrutiny.

Ironically enough, the framework can also be used to map the tricks

used by agencies when they purposely try to ration their assistance (for example, because of budget constraints): restrictive definition of eligibility, poor marketing of the program, very limited benefit package, participation costs such as bureaucratic steps to undertake...

Whatever the outcome of such validation exercises, we believe that in terms of scheme design, the framework will never provide any blueprint. It is more a tool for mapping issues and difficulties than a source of easy solutions. Ideally, it should be completed by other analyses (e.g. a stakeholder analysis, policy risk analysis).

We have ended the paper by making the hypothesis that the framework could be a useful tool for assessing the distributional performance of interventions as well. The division in steps shows that it could make sense to make a sub-analysis of programs: exclusion and inclusion errors may happen at each step. What is the point to screen accurately the households, once most of the poor are missed because of a too restrictive definition of poverty?

Hopefully, the framework will help those trying to fix bottlenecks not to lose track of the main goal: to have an impact on the poorest.

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References

- Abel-Smith B and Rawal P (1992). Can the poor afford 'free' health services? A case study of Tanzania, *Health Policy and Planning*, 7 : 329-341.
- Alkire S (2002). Dimensions of human development, *World Development*, 30, 2 : 181-205.
- Angrist JD and Krueger AB (1999). Empirical strategies in labour economics, in *Handbook of Labor Economics*, 3, O Ashenfelter and D Card, eds., Elsevier, Amsterdam : 1277-1366.
- Asian Development Bank (2001). *Participatory poverty assessment in Cambodia Manila*.
- Atkinson AB (1995). On Targeting social security: theory and Western experience with family benefits, in *Public Spending and the Poor*, D van de Walle and K Nead, eds., The Johns Hopkins University Press, Baltimore, pp. 25-68.
- Barker CE (1996). *The health care policy process*. Sage Publication, Thousand Oaks, CA.
- Barr N (1987). *The economics of the welfare state*. Oxford University Press, Oxford.
- Besley T and Kanbur R (1990). The principles of targeting. Washington, World Bank. Country Economics Department Paper.
- Coady D, Grosh M and Hoddinott J (2004). *Targeting of transfers in teveloping countries: Review of Lessons and Experience* World Bank, Washington.
- Conning J and Kevane M (2002). Community-based targeting mechanisms for social safety nets: A Critical Review, *World Development*, 30, 3 : 375-394.

de Neubourg C (2002). Incentives and the role of institutions in the provision of social safety nets. [226]. Washington, World Bank. Social Safety Net Prime Series.

Demery L (2000). Benefit incidence: a practitioner's guide. Washington DC, World Bank.

Duflo E, Glennerster R and Kremer M (2006). Using randomization in development economics research: A toolkit. Cambridge, MA, MIT. Working Paper.

Galasso E and Ravallion M (2001). Decentralized targeting of an anti-poverty program. Washington, World Bank. Development Research Group.

Gelbach J and Pritchett L (1995). Does more for the poor mean less for the poor? The politics of tagging. [1523]. Washington, World Bank. Policy Research Working Paper.

Grosh M (1994). Administering targeted social programs in Latin America: from platitudes to practice, The World Bank, Washington.

Grosh M (1995). Towards quantifying the trade-off: Administrative costs and incidence in targeted programs in Latin America, in *Public Spending and the Poor*, D. van de Walle and K. Nead, eds., The Johns Hopkins University Press, Baltimore, 450-488.

Gwatkin DR, Wagstaff A and Yazbeck AS (2005). *Reaching the poor with health, nutrition, and population services; What works, what doesn't, and why*. The World Bank, Washington DC.

Hardeman W, Van Damme W, van Pelt M, Ir P, Heng K and Meessen B (2004). Access to health care for all? User fees plus a health equity fund in Sotnikum, Cambodia, *Health Policy and Planning*, 19, 1 : 22-32.

Hernanz V, Malherbet F and Pellizzari M (2004). *Take-up of welfare benefits in OECD Countries: A review of the evidence*, OECD, Paris. Social, Employment and Migration Working Papers 17.

Kivumbi GW and Kintu F (2002). Exemptions and waivers from cost sharing: ineffective safety nets in decentralized districts in Uganda, *Health Policy and Planning*, 17 (Suppl 1) : 64-71.

Lavis JN, Posada FB, Haines A and Osei E (2004). Use of research to inform public policymaking, *Lancet*, 364, 9445 : 1615-1621.

Meessen B, Van Damme W, Ir P, Van Leemput L and Hardeman W (2002). The new deal in Cambodia: the second year - Confirmed results, confirmed challenges, MSF, Phnom Penh.

Meessen B and Ir P (2003). Decentralisation of health equity funds in Sotnikum district: Assessment of the pilot schemes in Kvav and Samrong Health centres, Institute of Tropical Medicine, Antwerp.

Meessen B, Van Damme W, Tashobya CK and Tibouti A (2006). Poverty and user fees for public health care in low-income countries: lessons from Uganda and Cambodia, *Lancet*, 368, 9554 : 2253-2257.

Ministry of Planning (1997). A poverty profile of Cambodia-1997, Kingdom of Cambodia, Phnom Penh, Cambodia.

Noirhomme M, Meessen B, Griffiths F, Ir P, Jacobs B, Thor R, Criel B and Van Damme W (2007). Improving access to hospital care for the poor: Comparative analysis of four Health Equity Funds in Cambodia, *Health Policy and Planning*, 22, 4 : 246-262.

Qizilbash M (2003). Vague language and precise measurement: the case of poverty, *Journal of Economic Methodology*, 10, 1 : 41-58.

Queralt M and Witte AD (2002). Take-up rates and trade-offs after the age of entitlement: some thoughts and empirical evidence for child care subsidies. NBER Working Paper n° 8886.

Ravallion M (2003). Targeted transfers in poor countries: Revisiting the trade-offs and policy options. Washington, World Bank. Social Safety net Primer Series.

Rawlings LA (2004). New approach to social assistance: Latin America's experience with conditional cash transfer programs. Washington, World Bank. Social Protection Discussion Paper Series.

Sadoulet E and de Janvry A (2004). Making conditional cash transfer programs more efficient. [Paper 989]. Berkeley, University of California. CUDARE Working Papers.

Sen A (1993). Capability and well-being, in *The quality of life*, M. C. Nussbaum and A. Sen, eds., Clarendon Press, Oxford, pp. 30-66.

Sen A (1995a), *Inequality reexamined* Oxford University Press, New Delhi.

Sen A (1995b). The political economy of targeting, in *Public spending and the poor*, van de Walle D and Nead K, eds., The Johns Hopkins University Press, Baltimore, pp. 11-24.

Stierle F, Kaddar M, Tchicaya A and Schmidt-Ehry B (1999). Indigence and access to health care in sub-saharian Africa, *International Journal of Health Planning and Management*, **14** : 81-105.

Van Damme W, Meessen B, von Schreeb J, Heng TL, Thomé JM, Overtoom R and Ir P (2001). Sotnikum new deal, the first year - Better income for health staff; better service to the population, MSF, Phnom Penh.

Van Damme W, Van Leemput L, Ir P, Hardeman W and Meessen B (2004). Out-of-pocket health expenditure and debt in poor households: evidence from Cambodia, *Tropical Medicine and International Health*, **9**, 2 : 273-280.

van de Walle D (1998). Targeting revisited, *The World Bank Research Observer*, 13, 2 : 231-248.

Van den Bosch K (2001). *Identifying the poor; using subjective and consensual measures* Ashgate, Aldershot.

Van Lerberghe W and De Brouwere V (2000). Etat de santé et santé de l'état en Afrique subsaharienne, in La santé en Afrique, anciens et nouveaux défis, Gruénais M-E and Pourtier R, eds., *Afrique Contemporaine* n° 195, La Documentation Française, Paris, pp. 175-190.

van Pelt M, Mao B and Vannak S (2004). A contextual evaluation of the equity fund managed by Urban Sector Group, URC, Phnom Penh.

Walt G (1994). *Health policy. An introduction to process and power.* London, Zed Books.

Willis CY and Leighton C (1995). Protecting the poor under cost recovery: the role of means testing, *Health Policy and Planning*, 10, 3 : 214-256.

World Bank (2003). *World Development Report 2004: Making services work for poor people*, The World Bank, Washington.

Medical Financial Assistance in Rural China: Policy design and implementation

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Abstract

This paper reviews the development of the Medical Financial Assistance program (MFA) in rural China, including design and implementation processes, and assesses major areas for improvement. Jointly financed by the central and local governments, MFA provides cash assistance to poor households for the purchase of medical services. Because policy design and implementation are decentralized to local governments, the schemes vary markedly across localities in terms of financing, benefit levels and payment methods. Constrained by limited financial resources, MFA benefits are granted only when recipients qualify by meeting a number of conditions. These conditions are disadvantageous to the poor, leading in general to low utilization of benefits by poor households. With increased financial input from central and local governments, the MFA schemes have been improved compared to their early design. However, additional institutionalized funding sources are needed in order to improve the policy further.

Introduction

Since the latter half of the 1990s, social assistance has received increasing attention from the Chinese government as an integral part of its overall social protection system. A variety of means-test programs have been rolled out rapidly throughout the country. In the countryside, reforms in the economic and institutional structures that started in the early 1980s have markedly improved the livelihoods of millions of people. Combined with decades of development-based anti-poverty policies, rural poverty has been substantially reduced. However, rural economic and institutional reforms have also led to the dismantling of community-financed social protection programs, including those programs relating to access to the health care system. Therefore, at the same time as various social assistance schemes

supporting a subsistence-level standard of living among rural poor households have been implemented, poverty due to illness has increasingly become a significant social problem in rural China. This led to the formulation and establishment, early in the 21st century, of a new health program for the rural population, the New Rural Medical Cooperatives (NCMS). The NCMS is intended to work as a mutual assistance program covering a portion of the recipient's medical expenses. Meanwhile, a medical financial assistance program (MFA) was also implemented, based on the existing social assistance programs, in order to support the participation of rural poor households in NCMS and to give them direct support for receiving medical services. Jointly financed by central and local governments, MFA is a highly decentralized program, with local governments having discretion over both policy design and implementation based on local circumstances. As a result, marked variations are noted across localities. Although its goal has been defined as protecting rural poor households against the impoverishing impacts of major illness, both the implementation and effectiveness of MFA schemes depend on the performance of other social assistance programs and NCMS.

This paper reviews the implementation process associated with MFA, for the purpose of identifying areas for policy improvement. The paper briefly introduces the facts of rural poverty and the main features of corresponding social assistance programs currently operating in rural China, upon which MFA has been built. This is followed by a description of the dismantling and rebuilding processes of rural community-financed medical insurance programs, which both necessitates and is closely related to the implementation of MFA. Then the paper reviews the implementation processes of the MFA system and its policy design features across localities, focusing mainly on financing, benefit levels and methods of payment, and eligibility conditions. The paper concludes with a brief assessment of the problems and challenges China faces in providing an effective social protection system for the rural population.

The emergence of social assistance in rural China

China has experienced a substantial reduction in the size of its rural poor population since reforms in the rural economic system began in the early 1980s. The numbers fell from 250 million in 1981 to 23.65 million in 2005, based on an annual per capita net income of 683 Yuan in 2005 as the official poverty line (China State Statistics Bureau 2006). Particularly in the early years of the reforms, the removal of tight state control over the economic activities of farmers certainly resulted in marked increases in their incomes, contributing directly to lifting the majority of the rural poor population out of poverty. Therefore, economic reforms are regarded as the most important factor in the reduction of the development-related poverty that characterized pre-reform China (Wang *et al.* 2004). Another major policy that has played an important role in bringing down the size of rural poverty has been the geographically targeted Development-based Approach to Poverty Alleviation projects which started in the mid-1980s. This has been an important tool for the government to use in addressing rural poverty since that time¹.

However, in the second half of the 1990s rural poverty reduction slowed down, largely because an increasing proportion of the poverty was caused by disability or illness. This is in contrast to the early years of the reforms, when rural poverty was mainly a development-related phenomenon, and the poor population was mostly composed of people who were able to work but lacked the necessary means or opportunities to engage in income-earning activities. Since the mid 1990s, however, the distribution of the rural poor population has not been limited to the mountainous and ethnic minority areas, but has also occurred in many non-poor counties and even in the wealthy areas. The elderly, the sick and the disabled are becoming the major component of the rural poor population. Nationally, various estimates

¹The project consists of a number of county-based programs, in which poor counties were chosen by either the national or local governments as targets for poverty reduction. The main focus was to create income-generating sources and improve living conditions for rural people, by such measures as improving rural infrastructure, providing employment opportunities through public works or enterprises funded by state poverty alleviation funds, and organizing the migration of poor people to well-off places.

have been made on the magnitude of rural poverty caused by illness². A recent random sampling survey of 4,515 rural households in five provinces of China showed that 39 percent of poor households had at least one member who was either sick or disabled, 23 percent had at least one member who was 65 years old or older, and 17 percent had no members working full time (Xu *et al.* 2007). Obviously, many of the remaining poor households are unable to benefit from the development anti-poverty programs, which rely on the employability of their members to lift them out of poverty. Changes in the incidence and causes of rural poverty have led to increasing concern among both policymakers and researchers about whether geographically based approaches still have the capacity and effectiveness necessary to continue achieving their objectives. Thus, towards the turn of the century government paid increasing attention to setting up social assistance programs focusing on household-level interventions to support the rural poor, in addition to ongoing development anti-poverty programs.

By the end of 2007, major social assistance programs currently operating in the countryside in China included three schemes³: the Five Guarantee Program (Wubao), the Minimum Income Guarantee Scheme (Dibao), and Assistance for the Extremely Poor Households (Tekun). The Wubao program was first established in the early 1950s as a collective safety-net catering to the rural elderly and orphans without family caregivers and sources of income. For most of the time during the reform period Wubao has been the only social welfare program for the rural population. Recipients are provided with a locally defined rate of benefits in cash and in kind, which cover five categories of need, including food and fuel; clothing, bedding articles and pocket money; housing, along with the basic necessities; medical care; and funeral costs⁴. The Dibao program is a means-tested

² According to the information disclosed by the Deputy Minister of Health, Zhu Qingsheng, at a State Council's press conference on November 5, 2004, illness was the cause of poverty for 40 to 60 percent of the rural poor.

³ Contributory rural old-age pension schemes were experimented in the early 1990s, but proved to be a non-viable tool to provide rural old-age security. The number of participants decreased from 82 million in 1997 to 53.74 million in 2006, with a total number of 3.55 million farmers receiving pensions, mostly in the well-off regions.

⁴ According to the revised "Regulations on the Rural Five Guarantees" passed in 2006, benefit levels for Wubao recipients should be the equivalent of the average living standard of local residents.

benefit, which began in local trials in the mid-1990s in a few economically developed provinces and had been extended to most counties by the end of 2007. Before 2007, the schemes were almost exclusively financed by local governments, which often shared the funds among different administrative levels (e.g. provincial, prefecture, municipal, county and township governments) and village collectives. In 2007, for the first time, the central government allocated 3,000 million Yuan to subsidize local governments for the schemes, an amount that is expected to increase in the years to come. The design of the rural schemes is a modified version of the urban ones. In general practice, a poverty line or standard of benefits would first be determined by the county government. Households with a per capita income falling below the poverty line would be eligible for benefits, and they would receive the difference between the total eligible benefits (the local poverty line times the number of persons in the household) and the total household income.

Meanwhile, Tekun schemes have been promoted in economically less developed regions as an alternative to the Dibao system. This is mainly because only the regions that were developing rapidly economically were able to afford the Dibao schemes, due to the absence of financial transfers from the central government. In response to this situation, the State Council and the Ministry of Civil Affairs (MoCA), which is responsible for administering social assistance programs in China, issued new policy guidelines in 2003, cautioning local governments not to rush into the Dibao program. In particular, Dibao schemes were encouraged in places where local economic conditions would allow it, whereas in economically constrained localities the central government advised the adoption of the Tekun schemes, which provide temporary relief to households impoverished by major illness or loss of family labor. Consequently, the Dibao system came to be maintained only in the economically developed counties. Many counties in the less developed regions dropped out of the experiment and moved on to the alternative Tekun schemes. The attitudes of the central government toward the establishment of the Dibao schemes changed following the 2006 CCPC Sixth Plenary Session, which concluded that local governments should be encouraged to set up the schemes instead of exploring them based on local economic affordability. The decision to establish a rural Dibao system nationwide was restated in Premier Wen Jiabao's Government Work Report to the March 2007 National People's Congress, and was further announced

in the State Council Circular on Establishing a Rural Dibao System Nationwide in July 2007, which anticipated that the schemes would be established throughout the country by the end of 2007.

The dismantling and re-building of the rural medical cooperatives

China's rural economic and institutional reforms have also been accompanied by the dismantling of the community-financed Co-operative Medical System (CMS). In brief, the abolition of the commune system not only led to difficulties in the financing of rural collective health care, but also removed its organizational basis (Hillier and Xiang 1994). Beginning in the early 1950s, the PRC government started to build a rural health care system based on the county, communes, and village collectives (e.g., production brigades and teams). The CMS schemes provided rural people with cheap and easy access to medical care, with the brigades taking on the responsibility for funding, administering and delivering the services. Funding came mainly from collective income and partly from individual farmers, who were required to pay a small registration fee in order to receive services. These schemes subsequently became an internationally recognized innovation for tackling the health care needs of rural populations. By the mid-1970s, when the rural Collectivization Movement reached its peak, the majority of China's rural population was covered under CMS. Shortly after the rural economic and institutional reforms, however, most of these schemes and facilities were abolished, and in most places the barefoot doctors⁵ were replaced by private practitioners. By 1986 only 5.4 percent of the villages had CMS schemes (China Health Statistics Yearbook 1987). One investigation showed that in 1985 only 9.4 percent of the rural population was covered by such schemes (Hu 1994). Another source revealed that about 90 percent of the farmers were paying fees for treatment in 1986 (Shao 1988). For most of the rural population, free or cheap health care had become a thing of the distant past.

⁵ The barefoot doctors were selected from among the local villagers and were often given a short practical training in either the county or township hospitals. They usually worked as both field laborers and doctors, and were paid with work-points, as were the rest of the villagers.

The collapse of the rural communal healthcare schemes has been accompanied since the early 1990s by nationwide privatization or market-oriented reforms in China's health system, which further exacerbated problems of access to health care for the rural population. For the government, several mutually related objectives were attached to the market-oriented reforms in the health sector. One was to make publicly owned hospitals compatible with the socialist market economy toward which China was moving. Others included cost containment and privatization⁶ of social services, as well as providing incentives for hospitals, all of which were potential alternatives to government funding. A variety of reform policies first implemented in the restructuring of state-owned enterprises were adapted to the process of reforming hospitals. As a result, hospitals were increasingly given autonomy in financing, service delivery, and remuneration of their employees. Most hospitals, including township and county ones, were consequently turned into self-financing institutions, which relied increasingly on fees-for-service, leading to soaring prices for medicine and medical service in subsequent decades (Bloom 2001). This produced an increasing phenomenon nationwide of rural poverty stemming from chronic and major illness. According to the China Third National Health Service Survey, poverty due to illness increased from 21.6 percent in 1998 to 33.4 percent in 2003 (Ministry of Health 2004). Other research revealed that nationally about 41 percent of poor households fell into poverty because of illness-related factors, such as loss of family labor or high costs of medical care (Han and Luo 2005). In brief, since the mid-1990s both the media and academic research have frequently reported that rural families often borrow money, sell their productive assets, or cut short their children's education in order to pay their medical expenses, or simply do not go to see the doctor when falling ill due to their inability to pay⁷.

Indeed, market-oriented reforms in the health care system have produced some disastrous results on livelihoods within the general population. The impoverishing impact of catastrophic illness due to the combined effects of the collapse of rural CMS and rapid increases in the

⁶ In Chinese term, privatization is called "societalization" .

⁷ According to the Third National Health Service Survey by the Ministry of Health in 2003, nationally 48.9 percent of people did not go to see a doctor when falling ill, and 29.6 percent did not receive hospitalization service when they should.

prices of medicine and medical services have been well recognized by the government. Throughout the 1990s, a major concern of the central government was to explore new schemes for rural health financing⁸. Beginning in 1993, a number of provinces were selected to experiment with various forms of community-financed health insurance schemes, based on low annual premiums and voluntary enrolment. Due to the absence of financing from the central government, however, these efforts resulted in only sporadic improvements, and some localities even dropped out of the experiment later due to financial constraints. By 1997, only a small number of the schemes proved to be successful, mostly in wealthy areas such as coastal or suburban areas. More importantly, as the new schemes were primarily township or village-based, they were obviously non-viable solutions for the rural poor.

It was not until 2002 that the role of the central government was substantially expanded. In that year, the State Council issued the noted "Decision of the Central Government to Strengthen Rural Health Work." Labeled the "New Co-operative Medical System" (NCMS), the Decision announced that from 2003 onward, the central government would subsidize local governments in the middle and western regions for NCMS by providing 10 Yuan for each participant. Furthermore, in early 2003 the State Council approved the "Proposals on Establishing Rural New Co-operative Medical System" jointly prepared by the Ministries of Health (MoH), Finance (MoF), and Agriculture (MoA), in which the basic directions and principles for the implementation of the rural NCMS were outlined.

Compared with previous schemes, the Proposals incorporated three major changes: One, the requirement for NCMS was to focus on covering the expenses of catastrophic illness or inpatient services rather than minor illness or outpatient care, as was the case with most former schemes. Second, county-based pooling replaced the previous township or village-based pooling, allowing localities to start with township schemes and then move gradually onto county ones. Finally, the central government became one of the major sources of funding in the middle and western regions, in that local

⁸ Between 1993 and 1997, the central government issued several documents concerning the reestablishment of rural medical cooperatives. Among them, the most important document was the State Council 1997 "Decision on Health Reform and Development," which emphasized the establishment of CMS as a major direction for China's rural health reform.

governments were required to jointly provide a minimum of 10 Yuan for each participant in 2003, which was the same rate subsidized by the central government⁹. Thus, funding responsibility in the less developed regions came to be shared equally between the central and local governments. Two other features in the previous schemes were maintained in NCMS: voluntary enrolment and co-payment by the participant, which was set at a minimum of 10 Yuan in 2003. With these changes, provincial governments were required to select at least two or three cities or counties for trials, anticipating that the schemes would be established nationwide in rural areas by 2010.

Central transfers had an immediate impact on the nationwide establishment of NCMS. By 2006, over half the counties across the country had set up the schemes, which varied considerably from place to place in both design and implementation. However, NCMS is not a pro-poor social policy by design, though its goal was defined in the State Council 2002 Decisions as protecting rural people against poverty due to catastrophic illness. Similar to MFA in design (described below), NCMS primarily provides coverage for expenses related to inpatient services. Benefits are paid based on the same rates for all participants, including poor households, mostly ranging from 20 to 50 percent of the total medical costs and varying according to the service provider; also, participants have varying floors for self-payment, above which reimbursement is payable. In addition, there are ceilings of maximum payments by the schemes. Across the schemes, differences are found only in the details of the benefit structure and benefit levels.

The implementation of rural Medical Financial Assistance (MFA)

Local experiments with medical assistance schemes for rural poor households started in Shanghai and a few cities in Guangdong province in 2000 and 2002 respectively, where rural and urban residents were treated

⁹ Since 2006 the total amount of government subsidies for each participant has increased to 20 Yuan for both the central and local governments (Department of Social Assistance, MoCA).

under the same package¹⁰. Among them, the schemes in Guangdong covered costs for both inpatient and outpatient services, and the benefit rates were also more generous. In early 2002, the provincial government of Guangdong issued "Notice on relieving the poor of the difficulties in seeking medical treatment," which called for the establishment of an urban-rural integrated medical assistance system with funding from local finance at different levels and a social donation component. Local finance at different levels was required in order to allocate an additional 14 percent of funds, based on the monthly Dibao benefit rates (300 Yuan per month per person in 2002). The provincial government was to arrange for an annual amount of 20 million Yuan to subsidize the funds. For the social donation portion, in addition to money from other forms of fundraising, governments at each level were required to set aside a maximum of 20 percent of their welfare lottery income for use in medical assistance funds starting in 2002.

The medical assistance schemes in Guangdong were administered jointly by the health and labor, and social security departments. The intended targets were Dibao recipients without medical insurance coverage, who were eligible for reimbursement of outpatient service costs up to 42 Yuan per person per month, usually on a quarterly basis. In addition, an emergency assistance fund was also established to support Dibao recipients and low income households (defined as households with incomes 20 percent above the 300 Yuan Dibao line) for receiving medical services for 14 types of catastrophic illness. A floor of 500 Yuan was set for self-payment, above which individual households would pay 20 percent of the costs, and the rest would be covered by the funds. However, there was a ceiling of 20,000 Yuan, which is the maximum amount of subsidies payable by the funds for each person per year. Finally, preferential policies were also made available for Dibao recipients to receive medical treatment. In Shunde and Foshan, for instance, Dibao recipients were exempted from registration fees for medical service, and they could also get a 20 percent discount in medical treatment costs or drug purchases.

In Shanghai, medical assistance schemes piloted in early 2001 covered poor households in both rural and urban areas. Financing was also shared by

¹⁰An earlier experiment of medical assistance programs in rural China was the World Bank-supported Health project, which started in 1998 and contained a special medical assistance component in its project areas.

the government at various levels, and the civil affairs department was put in charge of administering the schemes. Eligibility was defined as rural Dibao households with members having a major illness such as uremia, mental illness or cancer, and having difficulty paying their medical expenses. Similar to the schemes in Guangdong, a floor of 1,000 Yuan for self-payment by individual households was established, above which 25 percent of the costs could be reimbursed by the funds. An eligible person could be subsidized to a maximum amount of 5,000 Yuan each year.

Nationally, the decision to implement Medical Financial Assistance (MFA) for rural poor households was announced first in the State Council 2002 Decisions as an integral component of the new rural health system. While MoH was put in charge of designing and implementing NCMS, the mandate to implement MFA was given to MoCA. Thus, following the State Council 2002 Decisions, a special document, "Proposals on the Implementation of Rural MFA," was issued in 2003 by MoCA, jointly with MoF and MoH. The document set down basic principles for the program's implementation. In brief, the goal of MFA was broadly defined as protecting the rural poor households against poverty due to major illness. Therefore it provides assistance mainly for poor people to cover expenses for inpatient services or the treatment of major illnesses. Funds are used to support poor households' participation in NCMS and also to cover part of their medical expenses after reimbursement by NCMS. The program is financed jointly by the central and local governments. Funding from the central government has been used to subsidize provinces in the middle and west regions, and local governments at different levels were required to share funding. Starting from 2004, provincial governments were required to select two or three counties or cities as demonstration cases and then spread the schemes gradually to other localities. By the end of 2006, most counties and cities with rural population had established the schemes.

Faced with many constraints, particularly the lack of decision-making power over government funding sources and limited control over health service providers, MoCA has adopted a learning-from-practice approach to the task. The implementation is decentralized to county authorities, which have considerable discretion over both policy design and implementation - including financing, eligibility, types of illness or services to be covered, and levels of benefits and payment methods - leading to marked variations across localities.

FINANCING

According to the 2003 Proposals by MoCA, the financing of MFA rests on a wide range of sources, including transfer payments from the central government, revenues of local governments, incomes from lottery funds administered by civil affairs at various levels, social donations and other funds available to the locality. Among them, money from the central government was used to subsidize local governments in the middle and western regions¹¹, the amount of which increased from 300 million Yuan through 2003 and 2005 to 950 million Yuan in 2006 (including 600 million Yuan from welfare lottery funds) along with the schemes being extended nationwide. Accordingly, budgeted funds from local governments also increased, from around 755 million Yuan in 2004 to over 1,800 million Yuan in 2006. Table 1 provides information on the financing of rural MFA between 2003 and 2006.

Table 1. Situation of financing of rural MFA, 2003-2006 (in million Yuan)

	By central government	Budgeted funds by local governments
2003	300	
2004	300	754.57
2005	300	794.96
2006	950	1,812.65

Sources: Department of Social Assistance, the Ministry of Civil Affairs.

At the local levels, the financing situation of MFA is often confusing. Available data show that although multiple channels of financing are generally stated in MFA policy documents, government revenues and the welfare lottery funds have contributed the bulk of the funds, and funding through other channels has been negligible. Data from a survey of 32 provincial-level governments show that in 2004 provincial governments made a total contribution of 200 million Yuan, of which approximately 69 percent came from government revenues, 26 percent from welfare lottery

¹¹ Between 2003 and 2007, 22 out of the 31 provinces and cities directly under the State Council received subsidies from the central government in various amounts usually based on the numbers of eligible households reported by the local governments (Department of Social Assistance, Ministry of Civil Affairs 2007). The provinces and cities are responsible for further distribution of the funds to the lower level governments.

funds, and 6 percent from social donations; in the first half of 2005, total provincial contributions increased to more than 335.00 million, of which 71 percent was from government revenues, 27 from lottery funds, and 2 percent from other channels (Xu 2006). In 2006, budgeted funds by provincial governments increased further to 643 million Yuan (Department of Social Assistance, Ministry of Civil Affairs 2007). At the county level, county governments contributed over 300 million Yuan in 2004, 88 percent of which came from government revenues, 4 percent from the welfare lottery funds, and 8 percent from social donations; in the first half of 2005 the figures changed to 89, 2.4 and 8.2 percent respectively (Xu 2006). As social donations were primarily being raised from local enterprises, this channel of funding was available mainly in wealthy regions. For instance, in 2004 over 80 percent of the total social donations was raised by two provinces, Jiangsu and Zhejiang, which totaled approximately 120 million Yuan (Ibid). In terms of shared funding by governments at different levels, which is also stated in both central and local policy documents, counties tend to play the more important role in financing the schemes. This is particularly true in developed regions or wealthy counties, where subsidies from governments at higher levels (e.g., provincial and city governments) are usually available only for financially constrained counties. As a result, in many counties the schemes are based on funding from a single level of government, either the county itself or a higher level government¹². In 2004, 45 percent of the counties funded their MFA schemes solely with money from government at higher levels, 8 percent solely with money from the counties themselves, and the rest had money from both counties and higher level governments; in the first half of 2005, 24 percent of the counties were financed solely by money from higher level governments, over one third had funding only from the counties, and the rest were able to use funds from both the counties and higher level governments (Ibid). It is calculated that in the first three months in 2006, in the eastern region where county or township economies are more developed, more than 60 percent of the funds came from county or district government revenues. In the middle and western regions, county and provincial governments often shared the bulk of the funding on an equal basis, varying slightly across individual localities (Department of Social

¹² In the statistics of counties, transfers from the central government are often included in the category of allocations by higher level governments.

Assistance, Ministry of Civil Affairs 2006).

Funding allocation for MFA is usually made on an annual basis. The county civil affairs department first submits a draft budget for the government to approve, which varies considerably across localities. In wealthy provinces and counties, where governments have additional money for the schemes, budgets would be established based on the agricultural population in the county. For instance, in Zhejiang the provincial government stipulated a minimum of 6 Yuan per person based on the local agricultural population figures; in Xiamen, the capital city of Fujian province, the municipal government set a minimum of 80 Yuan per person by the number of eligible households; in Gansu, the provincial government required lower level governments to allocate a minimum of 1 Yuan per person based on the number of the local agricultural population for rural MFA. Still, in a number of counties a certain percentage of funding from other existing social assistance programs is used to fund MFA, or alternatively, a lump sum was decided upon first and then allocated among various sources (Ministry of Civil Affairs 2007). In summary, variations in funding methods can be found across the schemes, shaping the funding of MFA mostly in the form of temporary arrangements, which are revised annually.

BENEFIT LEVELS AND METHODS OF PAYMENT

MFA benefits are paid out in two ways. One is to provide a premium for the poor households, e.g., the current social assistance recipients, to participate in NCMS in localities where the scheme has been implemented. The other method is to allocate direct cash assistance from the funds. For poor households who receive support for NCMS participation, direct cash assistance is also available after the reimbursement of medical costs by NCMS; this is often called a “second assistance.” For other, non-poor households that are eligible for assistance, only direct cash assistance is available. In localities where NCMS is yet to be established, all eligible households are paid in direct cash subsidies. A general feature of the MFA system is that it provides support for the cost of inpatient care or treatment for a major illness only and usually does not cover costs associated with outpatient care.

Apart from the fixed premium for NCMS enrolment, which is paid as a flat rate for all poor households (e.g. 10 Yuan), direct cash payments from

MFA funds are made on a reimbursement basis. The amount of money for which an applicant can be reimbursed is usually set as a percentage of the total medical costs, which vary with different categories of eligible households as well as the amount of medical expenses. Generally, recipients of Wubao are subsidized at a higher rate than other poor households, and non-poor households at a lower rate than poor ones. Reimbursement rates are usually designed based on a progressive structure. That is, the higher the medical costs, the larger the proportion to be reimbursed. In addition, most schemes have a fixed amount of floor money to be borne by the applicant, above which the costs are calculated for subsidizing. Nationally, the floor amount falls mostly between 400 and 800 Yuan, averaging 637 Yuan in the first quarter of 2006; in several provinces and counties the floor was set as high as 1,000 or more than 2,000 Yuan. Finally, most localities have set a maximum payment ceiling that the funds will cover, which usually falls between 2,000 and 5,000 Yuan, except in a few provinces in wealthy regions where it is over 10,000 Yuan (Department of Social Assistance, Ministry of Civil Affairs, 2006). Overall, provinces and counties in the east region tend to have a lower floor, a higher ceiling and larger reimbursement rate than those in the middle and west regions, and consequently can provide a higher rate of benefits for eligible households than the latter. Table 2 summarizes the benefit structure across regions for the first quarter of 2006.

Table 2. Average floors and ceilings by regions in the first quarter of 2006

Regions	Average floors (Yuan)	Average ceilings (Yuan)
Eastern region	600	9,000
Middle region	800	3,000
Western region	600	3,000

Sources: Department of Social Assistance, Ministry of Civil Affairs, 2006.

The benefit structure is the most complicated component of the MFA system and also accounts for the major differences among the schemes, which are otherwise similar in design. Across the counties, the reimbursement rates were generally very low, mostly ranging from 20 to 50 percent of the total costs reimbursable in 2005 (Xu and Song 2006). Some counties use a simplified payment method. For instance, in Jinmen City in Hubei province, a unified 30 percent benefit rate was applied to all eligible households with

medical costs in excess of 1,000 Yuan (Department of Social Assistance, Ministry of Civil Affairs 2004); in counties where MFA was designed to support medical expenses for a specifically defined category of major illness, a fixed amount of subsidies would be provided to an eligible household, varying with the type of illness and without reference to the actual expenses. Still, in some provinces and counties a fixed sum of cash assistance is paid to the household, which varies according to actual expenses. For instance, in Jinchang City in Gansu province, a fixed amount of assistance ranging from 500 to 1,000 Yuan is paid to a household if its actual expenses fall between 10,000 and 15,000 Yuan; 1,000 to 1,500 Yuan are reimbursed for expenses between 15,000 and 20,000 Yuan; and 2,500 to 3,000 Yuan are paid out when over 30,000 Yuan in expenses are incurred¹³.

Therefore, in most counties MFA may cover only a small fraction of actual medical costs, and poor households still bear the bulk of the costs even if they receive the support for which they are eligible. On the other hand, it is widely reported that poor households have limited opportunity for support from NCMS because of its stringent conditions for the receipt of benefits. Theoretically, poor households that are able to participate in NCMS are eligible for reimbursement from the schemes. However, the floors and co-payment in NCMS tend to present problems for poor households. While MFA can sometimes be very flexible in providing assistance to poor households, payment by NCMS is often based on a strict reimbursement basis requiring applicants to present evidence of costs, which is often impossible for poor households¹⁴. Therefore, for poor and destitute households, MFA tends to be the only possible source of support for medical costs. As benefits from other social assistance schemes do not cover expenses for medical costs, the standard of living for poor households will inevitably be affected if they have members falling ill and incurring any medical costs.

One major factor that has led to generally low levels of benefits and benefit payment methods that are disadvantageous towards poor households is that local civil affairs departments are concerned about the availability or sustainability of the funds. In spite of multiple funding sources for MFA, as described previously, funds allocated from both the counties and higher level

¹³ Government of Jinchang County (2006), "Notice on Temporary methods on rural MFA".

¹⁴ In fact, local civil affairs usually do not use the term "reimbursement" for MFA assistance. Instead, they use the word "subsidies" in policy documents.

authorities tend to be unstable and insufficient. Interviews with local officials reveal that, although funds for MFA are usually part of government budgets, the actual allocation of funds to the program is frequently delayed or reduced. This is particularly the case within less developed regions, where the removal of agricultural taxation has resulted in limited sources of revenue for county governments. Therefore local civil affairs officials tend to set policies with cost containment as their primary consideration, and various measures such as setting high floors, low reimbursement rates, and low ceilings are used to restrict the flow of benefits to the applicants. While they recognize that these methods are flawed, they cannot risk finding themselves in a situation where funds suddenly become unavailable, as this would likely result in social instability. In this way, less money tends to lead to more stringent conditions on the receipt of assistance. Priority for MFA funds in most counties is given to supporting the poor households' participation in NCMS, and direct support is strictly controlled to avoid funding deficits. The concern over the availability of funding also accounts for the contradictory phenomenon of huge funding surpluses in many counties while at the same time claiming fund insufficiency for the operation of the MFA system¹⁵. Nationally, surplus funds reached over 67 percent of the total funds raised in 2004 and 28 percent in 2005 (Xu 2006). In 2006, the total expenditure of the MFA system amounted to 1,500 million Yuan, which was about 55 percent of the total 2,750 million Yuan raised by the central and local governments in that year¹⁶.

Recently, a number of provinces have made attempts through financial incentives to encourage or force the counties to increase funds and spend money. For instance, one measure adopted in Chongqing was that the municipal government would increase its financial subsidies to counties where budgeted funds were allocated in a timely manner by the county government; however, the amount of transfers would be reduced if the county's surplus funds were found to be unacceptably large (Ministry of Civil Affairs 2007). In another example, early in 2007 the municipal civil affairs department in Zigong City of Sichuan province went so far as to specify the time span to be followed and a minimum amount of MFA spending to be

¹⁵ Claims for increasing funds are present in most local reports (see Ministry of Civil Affairs, 2007).

¹⁶ Calculated based on statistics from the Department of Social Relief, MoCA.

allocated by the counties. For most provinces and counties, attempts to reduce funding surpluses are primarily made by increasing benefits to the poor households by such means as abandoning floors, raising ceilings, expanding eligibility for outpatient services, and establishing more institutionalized funding sources.

TARGETS FOR ASSISTANCE AND CONDITIONS OF BENEFIT RECEIPT

In the 2003 Proposals by MoCA, the intended beneficiaries of MFA were primarily the Dibao, Tekun and Wubao recipients, who constitute the poor households in rural areas. However, local governments were given discretion to include other categories of people to receive assistance. Localities usually have several locally defined categories of eligible people, in addition to the poor households specified by the central government. These often include recipients of various preferential policies administered by civil affairs, such as families of servicemen or martyrs, people with disabilities in public posts or single-child households. In most localities, eligibility has been extended to all households whose livelihoods were severely affected by the unexpectedly high cost of medical services, even though they are not currently receiving social assistance. As such, all households are potential MFA beneficiaries. Research has shown that, while poor households constituted the major beneficiaries of MFA in that the scheme usually provided the premium for all of them to participate in NCMS, in most localities it was mainly the non-recipients of social assistance who tended to receive most of the direct cash assistance under MFA (Xu and Song 2006).

This phenomenon is largely due to the reimbursement methods that have been followed and the limited rate of benefits as described above, which make the receipt of MFA subsidies dependent on a variety of conditions that are met only with great difficulty by the poor households. Potential beneficiaries, including the poor households, are generally required to provide evidence of their medical expenses when they apply for assistance. That is, they have to pay their medical expenses before they can apply for support and then get the costs reimbursed. Combined with the fact that MFA covers only medical expenses for receiving inpatient services and that lump sum pre-payment for hospitalization is common practice in most hospitals, poor households usually have to spend a large sum of money to pay their costs before they qualify for assistance. This led to a rather ironic situation in the MFA system, namely that receipt of benefits depends on the

financial ability of eligible households to spend or borrow money in order to receive medical services. Poor households who cannot afford or manage to pay the costs first would not receive the support. Obviously, this is contrary to the goals of MFA, which aims to help the poor exactly because they cannot afford to pay the costs of medical care.

Since early 2007, the failure of the MFA system to reach the poorest of the poor due to high floors, low rates of reimbursement, and low ceilings has been increasingly recognized by both central and local governments. Along with the recent shift in emphasis from economic to social development in China and increased funding from the central government, local governments began to be less reluctant to engage in social spending and have generally increased funding for social programs. Similar to other social assistance schemes in China, the MFA system is basically a supply-led program in that policy design considers primarily resources available. Increased financial inputs are thus crucial for improvement in both policy design and implementation. As such, many provinces and counties have adjusted their schemes to increase the utilization of funds by the poor households. One major change is that basing the reimbursement method on evidence of medical expenses has been loosened and more flexible measures are used to enable poor households to receive medical services. Now, in most localities, poor households can apply for and receive cash support before they are hospitalized or during the hospitalization period. In fact, in many localities, civil affairs officials have never strictly adhered to the reimbursement procedures, particularly when the applicants are current recipients of social assistance. Instead, they simply provide them with a discretionary amount of assistance on a case-by-case basis, which differs little from other social assistance payments. Second, in most localities, eligibility for MFA assistance has been expanded to include outpatient service. For instance, in some counties in Zhejiang, Chongqing and Jiangxi, poor households living on Wubao and Dibao schemes are each given a medical care card and then a fixed amount of money is deposited in it for them to cover medical expenses related to outpatient care and buying medicine. This is partly in recognition of the fact that poor people tend to acquire major illnesses or often need to be hospitalized because they have neglected small illness. There is also more and more evidence that not only inpatient costs could lead to catastrophic expenditure, but also outpatient care. Finally, most localities have raised ceilings and reimbursement rates to varying

degrees, and in a number of localities the self-payment floors have also been removed for recipients of social assistance. However, these changes are limited only to the destitute, particularly the Wubao recipients. As for other poor households and non-poor eligible households, changes have been limited.

Conclusion

Despite limitations in the operation of the rural MFA system, its implementation has provided an important source of support for the rural poor households. For most of the time, since the dismantling of the rural collective welfare apparatus following reforms in the early 1980s, alternative support for rural people in need other than from extended family has been scarce. Indeed, in the context of rural China today, while starvation is no longer an issue even for the most destitute, the general inability of rural households to access medical services has proved to be the most crucial factor in leading them into poverty and in preventing the poor from rising out of it.

To a large extent, the MFA's implementation process typifies the Chinese approach to delivering social protection programs. That is, experiment first and adjust policies later based on a learning-by-doing approach (Leung 2003 and 2006). The role of the central government has been limited for the most part to establishing broad guiding principles, while local governments are encouraged to experiment with different solutions or models based on local circumstances and financial capacity. The strength of this approach is that it encourages policy innovations and facilitates readjustments through feedback directly related to program implementation. Indeed, a unified method to provide social protection programs in the current context of China is neither possible nor desirable, given the vast disparity in social and economic development across regions. One shortcoming is that regional disparities can be substantial, leaving the needs of the poor households in less developed regions unattended by the government. Another problem with this approach is that decentralization without adequate governance at the grass-roots level may lead to abuse of the system in various forms, a phenomenon that is frequently reported in the media.

The role of the central government in financing local social programs has proved to be the most important factor in the establishment and improved functioning of the MFA system. In fact, the establishment of an effective social security system for the rural population has long figured on the agenda of the central government, and many attempts have been made to address this need since the mid-1980s. However, due to the practice of fiscal and welfare decentralization, most of the responsibility for financing social programs was transferred to local governments, particularly the counties – a factor which has contributed greatly to the scarcity or absence of social protection programs in rural areas. Indeed, over-reliance on local governments for financing social protection measures for the rural population has not only left vast unmet needs in the poor areas, but has increased regional and rural-urban disparity in social and economic development. The financing of rural social programs, with the counties assuming the major financing responsibility, means that there is an absence of transfers from urban to rural areas. This may make the establishment of rural social protection benefits almost an impossible task in less developed regions.

With the shift of China's developmental priorities from predominantly economic growth to social development, the central government has taken an increasing role and responsibility for the funding of rural social assistance programs through central transfers. This is a good indication of progress. Meanwhile, local governments are also becoming less reluctant to spend money on social programs. However, a more institutionalized funding mechanism needs to be established for the sustainability and sound functioning of the MFA system.

References

Bloom G (2001). Primary health care meets the market: lessons from China and Vietnam. *IDS Working Paper 53*.

China State Statistics Bureau, China's rural poverty report (2006). [In Chinese].

China Health Statistics Yearbook (1987). [In Chinese].

Department of Social Relief, Ministry of Civil Affairs (2004). A compilation of MFA policy documents. Unpublicized document. [In Chinese].

Department of Social Assistance, Ministry of Civil Affairs (2006). *An analysis report of rural MFA*. Unpublicized document. [In Chinese].

Department of Social Assistance, Ministry of Civil Affairs (2007). Unpublished statistics. [In Chinese].

Han J and Luo D (2005). Report of medical care system in rural China (www.cncms.org.cn/Content.asp?ID=2045&LClass_ID=139). [In Chinese].

Hillier S and Xiang Z (1994). Health and rural health insurance in China in Krieg R & Schadler M (eds.) *Social security in the People's Republic of China, papers presented at the workshop on social security in the PRC*, Hamburg, February 5-7 : 159-177.

Hu Y (1994). Current conditions of the medical insurance system of China and directions for reforming, *Social Work Studies*, May 1994, Beijing: Social Work Studies Press : 39-42. [In Chinese].

Leung J (2003). Social security reforms in China: issues and prospects, *International Journal of Social Welfare*, 12, 2 : 73-85.

Leung J (2006). The emergence of social assistance in China, *International Journal of Social Welfare*, 15 : 188-198.

Ministry of Civil Affairs (2007). *A collection of documents for national urban and rural MFA work conference*. Unpublished documents. [In Chinese].

Ministry of Health (2004). *China health service survey: report of the third national health service survey*. Beijing: China Xiehe Medical University Press: 15. [In Chinese].

Shao Y (1988). *Health care in China*. London: Office of Health Economics.

Wang S, Li Z and Ren Y (2004). *China's eight-seven poverty alleviation project - the national plan and its impact*. paper presented in the 2004 Shanghai conference on poverty. [In Chinese].

Xu Y (2006). *A study of the financing and funds management of rural MFA schemes*. *Consultation report to the Ministry of Health*. [In Chinese].

Xu Y, Liu F and Zhang X (2007). *Revisiting China's rural anti-poverty policies*, *China Social Sciences*, 3 : 58-72. [In Chinese].

Xu Y and Xinming S (2006). *A study on the design and implementation of the rural medical financial assistance program in China*. *Consultation report to the Ministry of Health*. [In Chinese].

*Helping the poor against major illness:
a comparative analysis of medical financial
assistance in four counties of China*

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Abstract

Over the last decades the poverty resulting from major illness has become more and more serious in rural areas of China. Medical financial assistance (MFA) for rural areas is a scheme that helps rural poor people cope with major illness and alleviate their burden from major illness.

This paper reviews four counties' medical financial assistance in Hubei and Sichuan province in 2006 and draws lessons for future policy making.

To some extent, MFA was helpful to solve the problem of poverty due to major illness, but the scheme needs to be improved further. Substantial problems remain for instance in financing, utilization and management of funds. The scheme uses several ways to ration a limited budget and provides only very partial assistance. Some views on how MFA can be perfected will be raised in the study.

Introduction

Over the last few decades, the Chinese economic success story has caught deservedly the attention of the whole world: double digit growth for almost 30 years, a reduction of poverty which many developing countries envy China for, the modernization of infrastructure over the whole country at breakneck speed. The market-driven economic boom seems unrivaled in the world.

Nevertheless, there is a downside to this story: a rising gap between rich and poor, overlapping to some extent the rural - urban divide and the regional disparities between the wealthy east coast and the poorer heartland and western regions of China, skyrocketing expenses for education and health care by private citizens. The "economy first" policy has had vast

repercussions on the Chinese society that only now begin to sink in fully.

Chinese rural health care is a case in point. The Rural Cooperative Medical System (CMS), established in the 50s and highly successful in the 1960s and 70s collapsed after the reforms started. The abolition of the commune system and the decreasing political support for the scheme left tens of millions of people without insurance. CMS coverage dropped from 90 % (during the seventies) to as low as 10 % in 1993 (Gu 2006). The rural population's access to medical treatment suffered, even more so because at the same time the supply-side went through major changes. A market-driven overhaul of China's health system led to more autonomy for township hospitals, as they were no longer financed through the communes or local government. Lack of government funding induced the need for self-financing. Phenomena such as over-prescription of medication and a general increase in medical expenditure resulted. Prices in city hospital and in rural health centers did not differ much in spite of the increasing income gap between cities and the countryside; consequently in the poor rural areas many people could no longer cope with the escalating costs of seeking health care (Gu 2006; Lu *et al.* 2004). This triggered the vicious cycles of 'poverty due to illness' and 'illness due to poverty'. Illness accounts for 32.2 % of all cases of poverty, out of the 25 million¹ poor people, according to Chen (2004) and Yan *et al.* (2004).

The Chinese leadership is increasingly concerned about the rural poor's health care predicament (see Wang in this issue). More and more high-level policymakers and policy think tanks emphasize that social development should complement economic growth. So there has been a shift in thinking², which - in the case of rural health care - materialized later on in a series of decisions, decrees and regulations, aiming at establishing social and medical protection for rural people. The 'Decision to further strengthen rural health work' (2002) established the New Cooperative

¹ This figure comes from the baseline survey of the civil affairs ministry. A national poverty county is identified by the state council according to a series of criteria including per-capita annual income, living status etc.

² On October 15th, 2007, Hu Jintao addressed the 17th National People's Congress and referred to the aim of an 'all-round affluent society' (*xiaokang shehui*) - an ambition stated for the first time in 2002 - to be reached by 2020. This would include a social insurance system and affordable medical care for the whole population, both in urban areas and the countryside.

Medical System (NCMS) and stated that its purpose would be to solve the poverty trap due to major illness. A scheme that focused on very poor rural households, Medical Financial Assistance (MFA), would be another building block of the new rural health policy. After a few pilot projects with MFA for the rural poor in Shanghai and in Guangdong province, a national decision was taken to implement MFA in the State Council 2002 Decisions (see Xu *et al.* in this issue). In the document 'Proposals on the Implementation of Rural MFA' (2003), principles were outlined for the implementation of MFA.

It goes without saying that the MFA scheme could become an important component in this social security framework. It is indispensable in order to build a truly harmonious society (hexie shehui).

However, with the development and progressive rolling out of the MFA scheme, a series of questions appeared. How should MFA be implemented and what are the main difficulties? How extensive should the scope of assistance be? How is MFA integrated in the health service system? The discussion of these and other questions will allow local governments to develop and implement MFA in a more efficient way. At the same time, elaborating on these questions is very important for the sustainable development of MFA. It will also provide relevant reference for policy makers and researchers.

According to Liang *et al.* (2006), MFA schemes vary across localities and counties. This is also highlighted by Xu *et al.* in this book. Hence it is important and necessary for us to assess MFA in different counties.

The aim of this paper is mainly descriptive, as we provide an overview of how MFA is being implemented in four counties in Hubei and Sichuan province, and emphasize commonalities and differences. Meanwhile, we also hope to give the governments at various administrative levels some clues to develop and implement MFA a more efficient way.

In the first section, the methods and study sites of the study are presented. Next, we make a case for using an analytical framework to research the way MFA is performed in these four counties. In section three, which focuses on the results, we try to give an overview of some of the more common features of this implementation through a comparative framework, while at the same time we also point out striking differences between the counties' schemes. The final section features a discussion of the main findings, including their policy relevance.

Study sites and methods

Comparative studies can shed light on the current problems and challenges of MFA. Through comparison of four counties, we will summarize the views of experts in different research fields, compare relevant patterns of MFA and outline similarities and differences. Eventually this will allow us to put forward recommendations to improve the MFA policy.

Our comparative study rests on four cases: Xiaochang, Hongan, Langzhong and Fushun counties. The former two are located in Hubei, the latter in Sichuan province. Hubei province is one of the central provinces in China while Sichuan is situated in the southwest of China. There were four key criteria for the selection of the sites: (1) the counties were covered by MFA in 2006. Xiaochang, Hongan and Langzhong were selected as poverty-stricken counties, while Fushun (Sichuan) was selected as representative of counties that are not poverty-stricken; (2) The counties met the purpose of the POVILL project (for more information on POVILL: see the paper by Lucas et al. in this issue); (3) The counties provided an illustration of the variety of models (all were covered by NCMS in 2006 except Xiaochang); (4) MFA had been in place for some time in order to allow for reliable data on the experience.

Table 1 shows the basic information of the four counties (2006) in terms of population, economic situation, medical facilities. The specific year the implementation of MFA and NCMS started in the counties, is also being provided. Fushun has a higher population, a better economic situation and more medical facilities than the other three counties. Fushun started to implement NCMS in 2005, hence it did so earlier than the other counties.

Table 1. Basic Information of the four counties in 2006

	Xiaochang	Hongan	Fushun	Langzhong
Population (thousand)	643	654	1,016	860
Rural population (thousand)	557	544	825	598
Average annual income in rural area (yuan*/person)	2,051	2,328	3,400	2,889
Threshold* for defining a poor family (yuan/per person per year)	683	720	625	668
Number of medical facilities	387	210	1,021	593
The year MFA started	2005	2005	2005	2005
The year NCMS started	2007	2006	2005	2006

1 RMB=0.1251 USD on 30th June, 2006 ; 1 RMB=0.0987 EUR on 30th June,2006

Data were gathered through the study of official documents of the four counties (issued jointly by the county civil affairs bureau, county health bureau and county financial bureau), interviews with policy-makers and the relevant officials (officials of the county civil affairs bureau, county health bureau, county hospital, township hospital and civil affairs office). All data were collected from January 2006 to December 2006.

Questionnaires were submitted to the civil affairs bureaus and health bureaus in the four counties. Semi-structured interviews were conducted by researchers with officials of county health bureaus, county civil affairs bureaus, county hospitals, township hospitals and civil affairs offices. The interviews focused on policies related to MFA, its implementation, performance and problems and suggestions for MFA. All data and information were progressively integrated into the framework presented in the next section. We conducted a comparative analysis of these four counties iteratively and systematically; while doing so, we came across some previously relatively neglected aspects of MFA that will necessitate further study.

Analytical framework

In this paper, we draw on the framework developed by Noirhomme *et al.* (2007) for Health Equity Funds in Cambodia to divide our research question into two main themes: (1) who does what and (2) how is it being done? The main benefit of such a comparative framework is that it requires researchers

to identify and document key aspects of the schemes. The comparison may - by highlighting similarities and differences - reveal possible determinants of scheme performance neglected otherwise. Furthermore, similarities and differences are informative in themselves. Similarities may indicate similar constraints for the scheme operators (e.g. the obligation to implement a law or to follow a guideline); differences are indications of some decentralization in the design or implementation. So our framework zooms in on actors, functions that are to be fulfilled and the strategies for carrying out these functions.

The first part of the framework documents the possible actors involved in financing as well as the MFA operators (on a daily basis), identifiers of beneficiaries, health care providers, and monitoring and evaluation agents. Obviously, an actor may fulfill more than one task. The second part compares the strategies developed for these functions. There are various ways to identify the poor, purchase the services and contract with the provider. Unfortunately the health outcomes of the scheme could not be addressed due to a lack of data. Consequently, we were not able to explore the determinants of MFA performance in these 4 counties, as we had no good measures of their respective performance. Hence we will only provide some tentative data on the MFA performance in these counties. However, general flaws and common problems with MFA in all the 4 counties could be detected.

The data on the four cases will be reviewed and compared along this framework in the next section. It also provides the backbone for the discussion section as we will be able to draw some lessons from the application of the framework in the 4 counties.

Results

WHO DOES WHAT?

Starting in October 2002, a series of policies were promulgated by key ministries of the central government, like the Ministries of Health (MoH), Civil Affairs (MoCA) and Finance (MoF), sometimes jointly. Policy measures announced were respectively 'the decision to further strengthen rural health work' made by the Central Committee of the Communist Party of China and the State Council (China 2002), 'The view on implementing rural

medical financial assistance' (MoCA 2003), 'The notice from MoF and MoCA to print and distribute Temporary Measures of Rural Medical Financial Assistance Fund Management' (MoF 2004), 'The notice from MoCA, MoH and MoF to promote rural MFA' (MoCA 2005). Through this series of policies, the rural MFA system was established. The policy measures were helpful to guide, supervise and promote the scheme and to organize the implementation of MFA.

WHAT IS THE SITUATION IN THE FOUR COUNTIES IN TERMS OF ACTORS?

According to the central policy decrees and the local situation, the four counties have adjusted their corresponding policies and assigned the workload to different sections and bureaus.

The county civil affairs bureau is in charge of the daily operation of MFA, the county financial bureau takes charge of the collection and supervision of funds, whereas the county health bureau is in charge of supervising the provision of medical services.

The county civil affairs bureaus are in charge of the management, supervision, auditing, the opening of an account, the distribution of funds and data analysis. The county civil affairs bureaus are under the administrative command of municipal civil affairs bureaus and under the financial supervision of county finance bureaus. The township civil affairs offices, which are under the supervision of the county civil affairs bureaus, deal with propaganda, identification of beneficiaries and the visiting of households; the village civil affairs cadre or village cadre is in charge of (limited) publicizing, the (tentative) selection of beneficiaries, household assessment, gathering feedback on qualification.

Of the four counties, Fushun is a little different from the other counties. To streamline the procedure of MFA in Fushun county, funds were transferred to the town civil affairs office at the end of 2006. The illnesses with medical expenditure less than 800 yuan are taken care of (through assistance) by the town civil affairs office. The county civil affairs bureau allocated a part of the MFA fund to the town civil affairs office. A person specially assigned is responsible for the management of the fund.

The county financial bureaus (which are supervised by municipal financial bureaus) are in charge of financing and fund supervising. MFA funds are allocated by the upper level financial department to the relative lower level financial department, for instance, funds are being transferred from the

central to the provincial level. And eventually the funds from all sources are under the management of the county financial bureaus through a special account (see Figures 1 and 2). The county health bureau (supervised by the municipal health bureau), is responsible for providing medical services through the hospitals in the four counties, because all the hospitals are under the management of the county health bureau.

Although no single special department is in charge of supervising the three departments (county civil affairs bureaus, county financial bureaus, county health bureaus), all the departments are supervised by the related department from a higher level. Moreover, the work of county civil affairs bureaus is checked by the county financial bureaus. Eventually, meetings that gather officials from the three departments are organized to discuss affairs of MFA.

Table 2. Who does what in the four counties in 2006?

	Xiaochang	Hongan	Fushun	Langzhong
Actor and roles				
Policy formulation	Jointly by three departments of the central government (MoCA, MoH and MoF)			
Design	According to the MFA policies of the central government and taking into account the local situation, the county civil affairs, the public health and the county finance bureau design the local MFA policies			
Financing	Central, provincial and county finance department	Central, provincial and county finance department	Central, provincial and municipal finance department	Central, provincial, municipal finance department, county finance department
Allocating and managing the fund	County financial bureau			
Monitoring & supervision	County civil affairs bureau, Township civil affairs office, County Financial bureau			
Data analysis and management	County civil affairs bureau, Township civil affairs office(activity report)			
MFA daily management*	County civil affairs office, Township civil affairs office, Village civil affairs cadre		County civil affairs office, Township civil affairs office, Village cadre	

	Xiaochang	Hongan	Fushun	Langzhong
Identification of beneficiaries	Village civil affairs cadre		The village cadre	
Approval of beneficiaries	County civil affairs bureau			
Supply of medical services	County hospitals, Township hospitals for those living far away from the county centre	Hospitals appointed by NCMS	Any hospital	
Coordination with NCMS	Not applicable	County civil affairs bureau pays the premium of NCMS for the households eligible for MFA, and the county civil affairs bureau and public health bureaus are responsible for the coordination between MFA and NCMS		

* Village civil affairs cadre: somebody mainly in charge of social welfare in the village in Xiaochang and Hongan;
Village cadre: is in charge of the daily operation of the village (including social welfare) in Fushun and Langzhong.

From Table 2, we can derive that the duties of different departments are similar across the four counties. This is clear evidence that the central level has been very influential in terms of the design of the scheme. The providers of medical services are more specifically defined in Xiaochang and Hongan, while in Fushun and Langzhong any hospital is acceptable for MFA. In Xiaochang, no coordination with NCMS existed at the time of research because NCMS had not been implemented yet in this county in 2006. In Hongan, Fushun and Langzhong on the other hand, the county civil affairs bureau pays the NCMS premium for the objects eligible for MFA, and the county civil affairs bureau and public health bureaus are responsible for the coordination between MFA and NCMS.

ELIGIBILITY CRITERIA AND IDENTIFICATION

In order to be eligible for MFA, people should meet certain criteria (see Table 3), which are different for respective categories of (potential) beneficiaries. The (*ex ante* and *ex post*) criteria you find in the table are the theoretical criteria in place in the counties; in practice the scope of the possible recipients of assistance in the four counties is much more flexible: actually almost everybody who suffers from illness and is in desperate need of help can get assistance from MFA.

Table 3. How are the poor identified in the four counties in 2006?

	Xiaochang	Hongan	Fushun	Langzhong
Criteria*				
<i>Household characteristics</i>	Wubao, Dibao, Tekun, Youfu, the households with special difficulties identified by the county government	Wubao, Dibao, Tekun, Youfu	Wubao, Tekun, the households that became poor due to major illness	Wubao, Dibao, Tekun, Youfu
<i>Health status</i>	Suffered from major illness 1 month before applying Illness categories: cerebral apoplexy; chronic renal failure; serious empyrosis, psychosis, acute abdomen; cancer or aplastic anemia; tuberculosis; cardiac disease; major illness authorized by county government.	Suffered from major illness 3 months before applying Illness categories: cerebral apoplexy; chronic renal failure; serious empyrosis, psychosis, acute abdomen; cancer or aplastic anemia; major illness authorized by county government.	Suffered from major illness (defined as an illness with a major impact upon daily life)	Suffered from major illness (defined as: inpatient expenditure of over 5,000 yuan)

	Xiaochang	Hongan	Fushun	Langzhong
<i>Health care expenditure*</i>	The out of pocket expenditure is more than 1,000 yuan		None	The inpatient expenditure is more than 5,000 yuan
<i>Other</i>	None		The one who gets reimbursement from NCMS	has priority for MFA
Identification process				
<i>Selection process</i>	After receiving the application for MFA assistance from the targets, the village committee, town and county civil affairs management check the entitling documents and make a household assessment through home visits. Eventually, the county civil affairs management approves the eligible beneficiaries. (see figure 2)			
<i>Entitling documents</i>	<ul style="list-style-type: none"> - Certification of household characteristics - Receipt of hospitalization - Certification of discharge from the hospital 		<ul style="list-style-type: none"> - Certification of household characteristics - Receipt of hospitalization - Certification of discharge from the hospital - Certification of getting reimbursement in NCMS 	
<i>Approval frequency</i>	Once every month	Once every 2 months	No more than 1 month after the application	Once during the first half year and once every three months during the last half year

* Criteria: due to budget constraints in the 4 counties, the criteria are usually stricter than what is displayed in table3. MFA must take budget constraints into consideration, thus the more serious the situation the applicants face, the higher the possibility that they will get assisted (although the ranking system is not completely commensurate with the size of the problem).

Out-of-pocket expenditure: the amount of medical fees paid by the patients themselves.

The main categories of households that are being assisted in MFA are Wubao, Dibao, Tekun, Youfu (see also Xu *et al.* in this issue). These households are identified by the Five Guarantee Program (Wubao), the Minimum Income Guarantee Scheme (Dibao), the Assistance for the Extremely Poor Households (Tekun) and the Regulations on Special Care and Treatment for Servicemen (Youfu) respectively, hence they are not identified by MFA. These categories are mutually exclusive and defined before the process of beneficiary identification of MFA.

The Regulation of supporting Wubao states that Wubao households must meet the following criteria: firstly, there is no caregiver in the family to support him or her, or the caregiver is incapable of bringing him/her up; secondly, they must lack the ability to work; thirdly, they lack resources to lead a normal life. The government provides Wubao with food, clothing, housing, medical care and a funeral. Dibao are those households whose annual income per person is lower than the local poverty line. Most of them are suffering from disability or are old people and lack the ability to work or lead a difficult life. Tekun are the households whose annual income is lower than the local 'extreme poverty' line or households that have a certificate of extreme poverty. The Tekun households are poorer than Dibao households. Youfu are preferential poverty aid targets including disabled soldiers, veteran, martyrs' family members, etc. Dibao, Tekun and Youfu can get cash assistance directly from the local government to ensure their livelihood.

In Hongan and Langzhong, Wubao, Dibao, Tekun and Youfu households can be included in MFA. In Xiaochang besides Wubao, Dibao, Tekun and Youfu households, other households suffering from major illness who live a hard life can also be included in MFA as long as their situation is confirmed by the county government. In Fushun besides Wubao and Tekun, people who suffer from poverty due to major illness can also be included in MFA.

The health status of targeted people is defined specifically in Xiaochang and Hongan, the illness categories included in MFA are very well circumscribed and clear in these counties, while in Fushun and Langzhong the definition of major illness is relatively vague. In Fushun major illness is only identified as illness which has a major impact on daily life such as cancer, nephropathy ect.. In Langzhong, major illness means illness with inpatient expenditure of over 5,000 yuan.

After getting the application for MFA, the village civil affairs cadre or

village cadre makes a household assessment of poverty and diseases by paying a visit to the applicants' homes and their neighbors, checking their household characteristics, as well as through village cadre discussion. Then the applicants are ranked at township level according to the extent of poverty and medical fees. According to the quota of assistance as allocated by county civil affairs bureau, beneficiaries are identified. After verification by the civil affairs office, certificates are awarded as evidence of MFA qualification. The number of assisted beneficiaries depends on the budget.

As indicated in Table 3, household characteristics including Wubao, Dibao, Tekun, Youfu are *ex ante* criteria, whereas other criteria are applied during the beneficiary identification process, which means after the household submits its application for MFA.

In the process of identification, the county civil affairs bureau bears the main financial risk, it allocates the funds only after receiving the money from various administrative levels. Consequently the identification process is relatively conservative, especially in the first half year, to prevent a fiscal deficit in MFA.

In short, identification processes in the four counties are quite similar, but in Fushun and Langzhong, households who receive reimbursement in NCMS get priority for MFA assistance over other households.

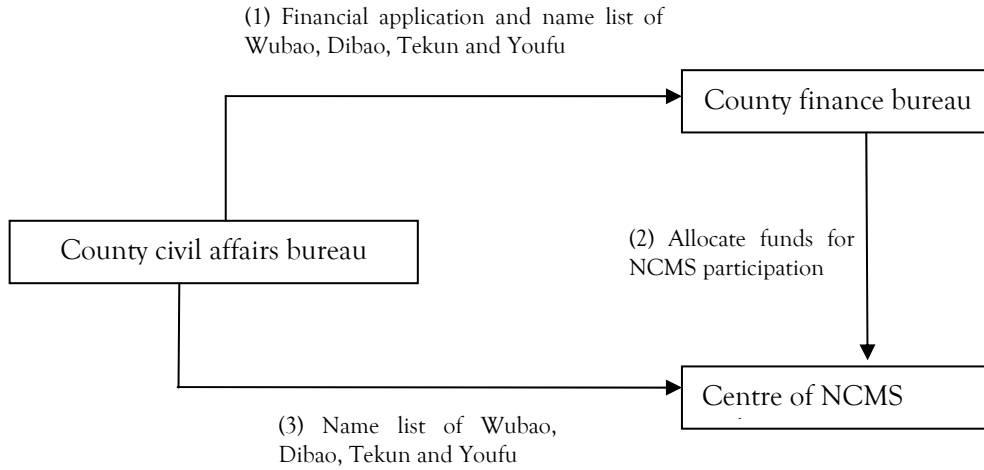
HOW ARE BENEFICIARIES ASSISTED?

MFA benefits are paid out in two ways. One way is to give direct cash assistance from the funds, as is the case in Xiaochang, the only county where there is no NCMS in 2006: eligible households are paid only with direct cash subsidies (*ex-post*). In the counties where there is NCMS on the other hand (like in Hongan, Fushun and Langzhong), MFA provides the premium for the households meeting the criteria of household characteristic in Table 3 to participate in NCMS once a year: a NCMS *ex-ante* pre-identification in other words. For households supported for NCMS participation, direct cash assistance of MFA is also available after their medical costs are reimbursed by NCMS. Indeed, MFA and NCMS are relatively independent social insurance systems; once households have paid the premium of NCMS by themselves or MFA has done so for them, they can be partially reimbursed by NCMS. If the out-of pocket expenditure is still high though and the applicants meet the eligibility criteria of MFA, they can get direct cash assistance.

The basic mode of paying the premium NCMS for the applicants

eligible for MFA in Hongan, Fushun and Langzhong where NCMS is already implemented in 2006, is illustrated in Figure 1. In Xiaochang NCMS is only introduced in 2007.

Figure 1. Paying the premium of NCMS for Wubao, Dibao, Tekun and Youfu in Hongan, Fushun and Langzhong³

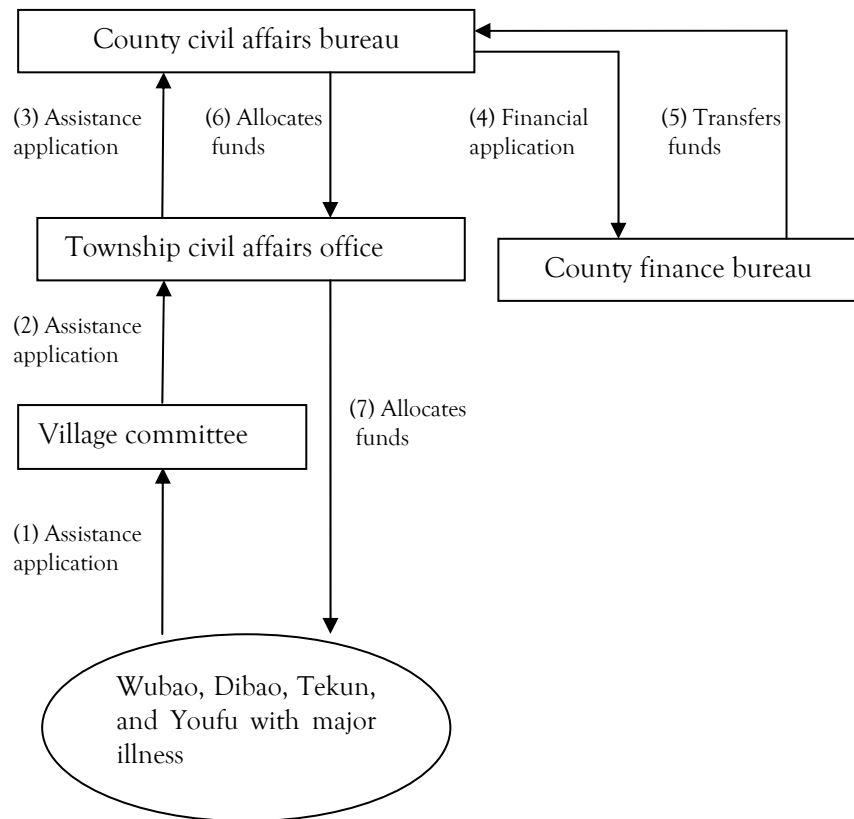


The county civil affairs bureau submits financial applications (for paying the premium of NCMS) to the county financial bureau for Wubao, Dibao, Tekun, or Youfu (Action 1). According to the name list submitted by the county civil affairs bureau, the county financial bureau allocates the funds for NCMS participation to NCMS (Action 2). In the meantime, the name list of participants in NCMS is handed over by the county civil affairs bureau to the centre in charge of NCMS (Action 3).

The mode of direct cash assistance in the four counties in 2006 is illustrated in Figure 2.

³ Xiaochang did not have this procedure at the time, as NCMS had not been implemented yet in 2006.

Figure 2. Direct cash assistance in the four counties in 2006⁴



Wubao, Dibao, Tekun, or Youfu with major illness eligible to apply for MFA assistance submit an application to the village committee⁵ after the utilization of medical care (which means MFA is implemented in the form of post-assistance) (Action 1). Once the application is approved by the village committee, the applicant list is publicized. If there is no resistance from any

⁴ The County civil affairs bureau allocates the funds to the applicants directly in Xiaochang.

⁵ The Village committee deals with public affairs and public welfare undertakings, mediates civil disputes, helps maintain social order and reflects the views, requirements and recommendations of the villagers to the governments.

villager against the names on the list, the application will be submitted to the township civil affairs office (Action 2). Since many households may apply for MFA and the funds are relatively limited, in order to let households have equal access to MFA, this publication policy has been adopted at village and township level. Every stage of the MFA procedure is made public to ensure that the households that desperately need MFA can get help, while at the same time guaranteeing that MFA remains under public supervision. The application is checked by the township civil affairs office, and as said before made public again. Once approved by the township civil affairs office and if there is no opposition to this decision, the application is submitted to the county civil affairs bureau (Action 3). The County civil affairs bureau verifies the application and submits a financial application to the county finance bureau (Action 4). There is a special account for MFA in each county. The county civil affairs bureau submits an application for the utilization of the MFA fund. After auditing by the finance bureaus, the fund is transferred to the county civil affairs bureau (Action 5). The County civil affairs bureau allocates the funds to the township civil affairs office (Action 6). Eventually, the applicants get the assistance in cash in the township civil affairs office (Action 7). Usually the whole process from applying for MFA till acquiring the cash takes several days to half a year. This mainly depends on the frequency of approval (See Table 3). Once approved, the beneficiaries can get the money within several days.

In Xiaochang and Hongan, there is some extra aid for Wubao, Dibao, Tekun, and Youfu targets. With the relevant certifications, they can get the registration in the hospital and the diagnosis for free, and just have to pay part of the fees for bed, nursing, operation, examination and medicine. The assistance standard and threshold are more specified in Xiaochang and Hongan than in Fushun and Langzhong.

Table 4. The assistance standards & package of MFA in the four counties in 2006

	Xiaochang	Hongan	Fushun	Langzhong
Premium for NCMS participation (yuan/person)	Not relevant	15	10	10
Direct cash assistance standard	According to illness and out-of-pocket expenditure ; (the amount of out-of-pocket expenditure-1,000 yuan) ×reimbursement rate (reimbursement rate: 30%)	According to illness and out-of-pocket expenditure ; (the amount of out-of-pocket expenditure-1,000 yuan) ×reimbursement rate (reimbursement rate: 20% ~ 30%)	According to the level of hospital, out-of-pocket expenditure and reimbursement of NCMS the amount of out-of-pocket expenditure ×reimbursement rate (reimbursement rate: 15%-30%)	No specific assistance standard, just according to the expenditure of hospitalization
Threshold (yuan/person)	1,000	1,000	non-specific	non-specific
Ceiling (yuan/person)	2,000	3,000	3,000	3,000
Other help	100% of the clinic service and diagnosis fees; 50% of the bed fees ; 10% of the nursing, operation and examination fees if any of these are over 100 yuan	100% of the registration fees, 10%-20% of examination fees, 5%-10% of injection fees, 5%-10% of drugs fees	None	None

CONTRACTS BETWEEN THE ACTORS INVOLVED AND SCHEMES

As we have seen, there are coordination mechanisms between the three key departments at county level. An interesting question is whether there are also contracts formalizing obligations and rights of the different actors involved in the scheme.

A remarkable feature of the schemes in the four counties is the absence of a formal contract between MFA and providers. MFA reimburses health services to households who purchased them from health care providers. The administrators of MFA complain that providers are overcharging which makes MFA funds insufficient.

As for the contract between the County Health bureaus (which are under the supervision of the MoH) and the providers: in Xiaochang and Hongan, the County health bureau helps hospitals designated by MFA develop assistance service, publicize the exemption regulation and provide good health services for MFA targets.

The contract between NCMS and providers contains the appointment of some NCMS hospitals by the health bureau. These hospitals must comply with the rules of the NCMS scheme when they provide services to patients covered by NCMS and prepay the reimbursement for NCMS to the patients. If the patients' expenditure is later proven to be eligible for reimbursement of NCMS, the hospitals will eventually get back the money from NCMS. If not, NCMS will not reimburse for the patient and the hospitals will suffer the loss.

MFA coordinates with the NCMS scheme as follows. In 2006, MFA pays the premium of NCMS for the Wubao, Dibao and Tekun in Hongan, Fushun and Langzhong. In Fushun, MFA applicants have to apply for MFA with a voucher of having (the right to) reimbursement from NCMS and only the out of pocket expenditure will be taken into account. That means MFA and NCMS share part of the bill of health services of those people. In Langzhong, due to limited funds, the applicants with NCMS get a high priority to receive MFA assistance. So there is rationing of the (limited) budget there, as households' applications for MFA are ranked. These households with NCMS get reimbursement from NCMS first, after which they can apply for further assistance by MFA.

Table 5. Contract between the provider, MoH, NCMS and MFA in the four counties in 2006

	Xiaochang	Hongan	Fushun	Langzhong
MFA and providers	None			
County Health Bureau and providers	County Health Bureau helps providers develop assistance service, and advertise the exemption services of MFA		None	
NCMS and providers	Not applicable (because there is no NCMS scheme in this county)	Pays part of the expenditure for the patients with NCMS		
NCMS and MFA	Not applicable	MFA pays premium of NCMS	MFA pays premium of NCMS; Apply for MFA after NCMS reimbursement	MFA pays premium of NCMS; Due to limited funds, the applicants with NCMS are more likely to get MFA assistance

FRAGMENTARY AND EARLY EVIDENCE ABOUT PERFORMANCE OF MFA AND PROBLEMS

As mentioned earlier, we do not have full data on the utilization of Medical Financial Assistance by the rural poor. Nevertheless, in Table 6 we provide some fragmentary data of the four counties, that give an indication of MFA's assistance to the rural poor people in 2006.

Table 6. The utilization of MFA in the four counties in 2006

	Xiaochang	Hongan	Fushun	Langzhong
Budget (thousand yuan)	810	490	1,240	1,640*
Poor households as confirmed by government in rural areas(%*)	14,336(6.9)	27,400(13.0)	Not available	19,355(7.1)
Pay NCMS premium for the applicants eligible for MFA (thousand yuan)	Not relevant	230	132	105
Persons enrolled in NCMS due to MFA (thousand)	Not relevant	15	13	11
Beneficiaries(direct cash assistance ^l (person-time)	263	179	338	688
Benefit/beneficiary (yuan)	1,883	2,200	700	1,293

*Versus the total number of households

The MFA budget of Xiaochang and Hongan (Hubei province) is lower than the budget of Fushun and Langzhong (Sichuan province), but the benefit amount per capita in Xiaochang and Hongan is higher than the amount in Fushun and Langzhong. The number of peoples enrolled in NCMS thanks to MFA is relatively similar in Hongan, Fushun and Langzhong, but the total expenditure of paying the NCMS participation fee is substantially higher in Hongan than in Fushun and Langzhong due to the higher NCMS participation fee per person in Hongan. It is remarkable that the number of people enrolled in NCMS through MFA in Hongan and Langzhong is much lower than the number of households identified as poor by the local governments.

Another source of information on the effect and performance of MFA consisted in our interviews with local officials.

Officials in the four counties all claim that the funds of MFA are limited. The governments above county level had allocated the funds on time, but Xiaochang and Fushun had not received the funds of the budget from the county-level government timely in 2006.

The MFA officials in Xiaochang said MFA had been implemented for three years (up to 2006), but MFA was too limited to solve the problem of poverty due to major illness. When the poor were unable to prepay for hospitalization, MFA was incapable of paying either. Hence MFA just reflects the government's concern for the poor with major illness, but it can not solve the problem, at least for now.

The MFA officials in Hongan acknowledged that MFA was a good scheme, but stated at the same time that its impact was limited. For example, the expenditure for some major illnesses such as leukemia and uremia was huge, but the relief as provided by MFA was inadequate in dealing with major illness because the ceiling of MFA was only 3,000 yuan. In other words, MFA just mitigated the problem instead of solving it. Even though the government made efforts to help the poor cope with major illness, it proved to be very difficult to assist them sufficiently.

The MFA officials in Fushun said that MFA was useful in relieving poverty due to major illness. According to them, in order to solve the problems, some measures should be taken such as allocating more funds by governments at all levels, lowering the thresholds of MFA and increasing the reimbursement rate. But these measures all depend on the funding of MFA. They said that they had paid the premium of NCMS for some poor, but none of them got assistance from MFA in 2006. The reason was obvious: the poor were not able to prepay for the major illness. For those who need pre-assistance, the MFA scheme that is currently in place is ineffective due to the post-assistance mode, that only provides assistance after people have paid their bills in the hospital.

The MFA officials in Langzhong said that over 90% of beneficiaries were satisfied with MFA. However, again, owing to a lack of funds, MFA could not solve the poverty trap due to major illness completely. In the officials' view, better MFA mainly depends on new MFA policy making and more funding.

Discussion

The purpose of this paper was to illustrate MFA with cases from the field, and evidence similarities and differences between practices and counties. More in particular, in this study MFA was examined in four counties in Hubei and Sichuan province, in terms of design, implementation, the actors

involved, eligibility and identification of beneficiaries, the mode and amount of assistance. We drew on a comparative framework developed by Noirhomme (2007) to analyze MFA in these four counties. Based on this comparative field research, we tried to find out whether in these four counties MFA solved the problem of poverty due to major illness.

As for the design of MFA in these counties, the four counties developed their MFA policies and assigned the work to different sections and bureaus according to the central policies and local situation. The duties of different departments were similar across the four counties. The county civil affairs bureau played a key role in dealing with MFA application, the financial bureau was mainly in charge of funds supervision, whereas the health bureau was responsible for the supervision of medical service provision. Obviously the central government plays a key role in the MFA policy making, but the local government has sufficient leverage to adjust this central policy, if necessary, to local conditions, for example with respect to the assistance standards and packages of MFA. The providers of medical services were more specifically defined in some counties.

From the previous section it is clear that MFA (local) policy is jointly made by the county civil affairs bureau, county financial bureau and county health bureau, and is implemented by the civil affairs, financial and health departments at all levels. Thus MFA is a scheme in which several administrative departments - and not just the civil affairs bureaus and departments - are involved, in spite of the link of MFA with social assistance programs. The fact that coordination is mostly organized through the government bureaucracy is remarkable; contracts are not used as key instruments, which is very different from current practice in Cambodia. This may impede the full seizure of benefits stemming from purchaser-provider split arrangements (Hardeman *et al.* 2004).

Generally speaking, Wubao, Dibao, Tekun or Youfu households can be eligible for MFA. Eligibility follows a rights-based approach, and is linked to the social assistance scheme categories (Wubao, Dibao, Tekun or Youfu). We believe that this integration of different assistance programs and the fact that the policy establishes a clear entitlement is a strong asset for future developments (see Criel *et al.* in this book for an example of social assistance in a high-income country).

Households suffering from major illness who live a hard life could also be included in MFA in some counties as long as their situation was

confirmed by the county government. People who suffered from poverty due to major illness were also included in MFA in some counties. In practice, the scope of possible objects in the four counties was even wider than implied by the criteria in Table 3. Hence, more rural residents in desperate need of MFA could be covered even if they were theoretically speaking - according to the criteria - not eligible. In other words, sometimes this practice violated the (design) assistance criteria, which might cause new problems in the implementation of MFA.

The main purpose of MFA is to help the rural people deal with major illness. There were clear definitions of major illness in some counties, while in other counties there was no clear-cut definition. In Langzhong, major illness was defined as disease that required inpatient treatment and with expenditures of more than 5,000 yuan. According to the literature, definitions of major illness varied in different places and different studies (see Lin (2007) for example). Yao *et al.* recommend major illness should refer to diseases with inpatient treatment (even in the case of only a one day stay), or if expenditure exceeds 5,000 yuan (Yao *et al.* (2003)). Lu stated that the definition of major illness should be commensurate with the amount of medical fees which a household can not afford; in other words, to the extent that they render the household poor. In the process of the implementation of NCMS, major illness is usually defined as hospitalization.

Identification processes in the four counties were fairly similar, but in the Sichuan counties, households who received reimbursement in NCMS got precedence for MFA assistance over other households.

As for the assistance mode, MFA benefits were paid out in two ways. In Xiaochang, where there was no NCMS in 2006, only direct cash assistance from the funds was given. In the counties where NCMS was already in place, MFA provided the premium for the current social assistance recipients to participate in NCMS. Nevertheless, (additional) direct cash assistance by MFA was also available after they were already reimbursed by NCMS.

The process to obtain MFA was rather similar in the four counties, although obviously it differed between counties with NCMS and the county without NCMS (Xiaochang). The assistance standard was mainly based on the out-of-pocket expenditure, but was different in the four counties. MFA was only available after the utilization of medical service. Officials in Sichuan counties emphasized the lack of pre-assistance, i.e. getting assistance before

utilization of medical care. In their opinion, due to the post-assistance procedure of MFA, not all the poor who needed help got MFA, because they could not afford to pay for the medical services in advance.

From this overview of MFA in the four counties it is clear that rationing the limited budget was a key issue. There were several ways to do so: through limited advertisement of the program, very restrictive eligibility criteria, limited assistance (see for example the respective reimbursement rates, ceilings, ...) etc.

Effective communication and coordination between the departments in charge of MFA and other relevant departments was mostly lacking. As there was no clear-cut contract between MFA and health service providers, many officials responsible for MFA complained bitterly. However, obviously MFA only reimburses, it does not purchase health services.

In short, in line with what the MFA officials in all four counties stated, MFA seems useful in relieving the poverty due to major illness, at least to some extent. They all admitted though that its relief was inadequate owing to a lack of funds and due to the post-assistance mode. Generally speaking, the funds, items, coverage and impact of MFA in the four counties were limited. Categories of illness covered were rather limited as well in general. The local departments of civil affairs were reluctant to advertise MFA. Limited funding as well as a huge demand explained this phenomenon. Consequently, some of the poor people were unaware of MFA, which prevented them from acquiring necessary medical services. Thus the problem of equity in MFA did exist in these four counties.

It goes without saying that this comparative study only provides indications; based on evidence from only four counties you can not make general conclusions about the implementation of MFA. Another drawback of this study was the lack of good indicators to measure the outcome and performance of MFA in these counties.

If one compares MFA with other experiences in the region - for example Health Equity Funds - then it seems clear that MFA provides only very partial assistance and reimbursement. It appears that so far a clear understanding and analysis of the life and health seeking behavior of the rural poor has been lacking in China. This gap should be addressed, if MFA is to become more effective. Due to the absence of contracts, MFA is at present also a rather weak mechanism in terms of accountability.

In line with what was stated above, the definition of 'major illness'

needs to be broadened. In order to avoid “major illness leading to poverty”, the focus of MFA, all health events with a possible major impact on household economy should be included (see also the paper by Lucas *et al.* in this issue). More specifically, a definition of major illness should implicate at least the following three kinds of cases: firstly, to be an inpatient with high medical expenditure; secondly, to be an outpatient suffering from chronic disease with (recurrent) high medical expenditure; thirdly, somebody who suffers from illness but is not able to afford medical service. Moreover, major illness should be measured at the household level, not just at the individual level.

Ideally MFA should combine pre-assistance, mid-assistance (getting assistance during the utilization of medical service) and post-assistance procedures. In the Chinese context though, this is easier said than done. Indeed, if pre-assistance and mid-assistance were actually implemented on a large scale, the funds of MFA could easily spiral out of control and become virtually unmanageable.

In conclusion: quite a few questions need to be addressed in further studies, among others: what kind of assistance mode should be adopted to ensure the effectiveness of MFA? How should major illness be defined? How can the coordination in and between different departments or schemes be improved? Finally, how can the effect and performance of MFA be assessed?

References

CCCPC (2002). The decision to further strengthen rural health work, No. 13. [In Chinese]

Chen XC (2004). Unscramble. The view on implementation of rural medical financial assistance, *China civil affairs*, 1 : 41. [In Chinese]

Gu X, Gao MT, Yao Y (2006). China's health care reforms a pathological analysis. Social Science Press : 25. [In Chinese]

Hardeman W, Van Damme W, van Pelt M *et al.* (2004). Access to health care for all? User fees plus an Equity Fund in Sotnikom, Cambodia, *Health Policy and Planning*, 19, 1 : 22-32.

Liang H, Zhao DY, Qu DW (2006). The institutional flaw and improvement plan on China medicaid system, *Chinese Health Resources*, 11, 1 : 32-34. [In Chinese]

Lin C (2007). What are the main factors to affect the farmers' participation in the new-type cooperative health-care system in Shanxi Province ? A case in Shouyang County, *Issues in Agricultural Economy*, 1 : 47-50 [In Chinese]

Lu HP (2004). Let the ill rural people afford the disease, *China finance*, 6 : 24. [In Chinese]

Lu HX, Fang QY (2004). A preliminary study on the reason and solution of Chinese low accessibility of health service, *The Hubei Magazine of Preventive Medicine*, 15 : 7-9. [In Chinese]

MoCA (2003). Proposals on the implementation of rural MFA. No. 158. [In Chinese]

MoF (2004). The notice from MoF and MoCA to print and distribute temporary measures of rural Medical financial assistance fund management, No. 1. [In Chinese]

MoCA (2005). The notice from MoCA, MoH and MoF to promote rural MFA, No. 121. [In Chinese]

Noirhomme M, Meessen B, Griffith F, Ir P, Jacobs B, Thor R, Criel B, Van Damme W (2007). Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia, *Health Policy and Planning*, 22 : 246-262.

State council (2006). Regulations on the rural five guarantees, No.256. [In Chinese]

Yao Y, Gao M and Hai W (2003). The analyses of big disease shock impact on household live hood : the 3rd report of the subject. The impact of health risk on household income and consumption in rural area china, <http://www.snzg.cn/article/show.php?itemid-342/page-1.html>. [In Chinese]

Yan LX, Li TS (2004). The new recommendation by four ministries for developing the NCMS in pilot spot, *The reference for hospital leaders on decision-making*, 21 : 3. [In Chinese]

A comparative analysis of public social assistance systems in Belgium and Health Equity Funds in Cambodia: an overview of lessons learned

Bart Criel, Wim Van Damme, Bruno Meessen and Por Ir

Abstract

Belgium has a solidly implemented multi-purposed public social assistance system that is the result of a long social and political history characterised by an evolution from charitable privately funded systems in the 19th century to a publicly funded and operated social assistance system in the last quarter of the 20th century. In a first part of this paper we describe the decision-making structures and processes concerning the delivery of social assistance benefits in Belgium. The main strengths and weaknesses of the Belgian social assistance system are analysed. In a second part, the paper discusses this specific experience of social assistance in relation with the emerging movement in low- and middle-income countries of single-purposed social assistance systems put in place for the payment of health care for the poorest in society. The Cambodian experience with health equity funds is central in this description. Finally, in a third part of the paper, a number of possible lessons from the specific Belgian experience are presented for the design and operation of social assistance systems in low- and middle-income countries. They pertain to the use of social assistants as front-line staff in the delivery of social assistance; to the need for health equity funds to extend their services beyond destitute households; to the importance of stigma as a barrier in the utilisation of social assistance services; to the stewardship role of public administrations of social assistance; and last but not least, it cautions policy-makers for reducing social assistance to a technical issue; they should instead also address its political dimensions.

Introduction

Public social assistance programmes, broadly defined as any public action designed to transfer resources on a non-contributory basis to individuals deemed eligible due to poverty, are solidly implemented in most high-income countries, although important variations exist (Alesina and Glaeser 2004). These systems are the provisional and un-finished result and product of a long social and political history that goes far back in time. Samuel Johnson already wrote at the end of the 18th century that “a decent provision for the poor is the true test of civilisation”. Today, these systems are quite comprehensive in their assistance. Modes of operation can be diverse. Public programmes sometimes directly provide goods or services, but they may also subsidise the costs, partially or totally, of good and services available on the market. Operators can be public or private. In the specific case of Belgium, private organizations have been at the forefront of social assistance systems for a long time. But in the 20th century public authorities have gradually taken over the funding and operation of these systems. Social assistance in Belgium today is characterised by a multi-purpose functioning - it aims to ensure people’s right to a minimum income and to access basic social services. The mission of these social assistance systems is to guarantee each citizen a ‘dignified’ life. The first article of the 1976 law on Public Centres of Social Welfare states that “each person has the right to social assistance”. “This assistance aims to enable each and everyone to live a life that responds to human dignity” (Belgisch Staatsblad 1976).

In Belgium social assistance operates in parallel with a well-performing and universal system of social health insurance covering (most of) the costs of health care for the Belgian citizens even if not all do pay the contribution themselves (e.g. people living on unemployment benefits are automatically covered). Two other pillars in the Belgian social security system are the provision of a replacement income for unemployed and for pensioners. The Belgian social assistance system targets people who fall through these different safety nets. This clarifies why social assistance in Belgium today only marginally addresses issues pertaining to health care. Indeed, as will be illustrated later in this paper, the bulk of the assistance is provided for other purposes than health care.

In low- and middle-income countries, there is today an increasing interest in the development of social assistance systems and safety nets more generally (Holzmann and Jørgensen 2001; Coady *et al.* 2004; Rawlings 2005). It results from a conjunction of factors. First, at global level, there is the paradigmatic shift from 'development' to 'poverty reduction'. This strong attention to the poorest is today very present in the international health policy debate (Gwatkin 2005). Second, in many countries, there is the growing awareness that a substantial part of the populations is excluded from basic social rights - be it health care or other services like education, housing, work, etc. Third, there is the recognition that safety nets could in fact contribute to economic growth thanks to the protection against shocks that is offered to households (Dercon 2002; Ravallion 2003). Last but not least, some recent successes with schemes targeting the poorest - e.g. conditional cash transfers - have confirmed that targeting policies are possible outside OECD countries (Gertler 2004; Rawlings 2005). Social assistance, as a policy, is gradually being rehabilitated in low- and middle-income countries.

The concept of publicly organised multi-purpose social assistance in many low- and middle-income countries is however not new: such systems have existed for decades - at least in theory. They are generally located within the administration of Ministries of Social Affairs. In Africa for example, these systems of public social assistance have often been 'copied' from the former colonial masters. But today these systems do not work properly. People hardly know of their existence. Anecdotal evidence indicates that the functioning and performance of these systems are highly problematic: they are under-funded and under-staffed; they sometimes face excessive bureaucracy and may be fraught with problems of ill-management, corruption and political patronage. There is similar evidence from other parts of the world. The paper by Yuebin Xu *et al.* on Medical Financial Assistance (MFA) in rural China in this issue points to important design problems and to the need for additional institutional funding if MFA schemes are to be more effective.

Social assistance and health care in low- and middle-income countries

In the case of health care delivery, there is a strong interest today in social assistance systems covering the cost of health care for the poorest in society. There is a wealth of evidence pointing to the exclusion of households in low- and middle-income countries from basic health care. The reasons for this are multiple, but paramount in the explanation is the issue of health care financing. Today, the bulk of the expenditure for health care in many developing countries takes place on an out-of-pocket basis and patients who attend a health facility thus have to pay user fees (Ahrin-Tenkorang 2001; Gilson 1997). Policy-makers in low- and middle-income countries increasingly recognize the limitations of systems of exemption of user fees: they were supposed to protect the poor but empirical evidence indicates that they do not serve the purpose they were meant for (Gilson *et al* 1995; Willis and Leighton 1995; Stierle *et al.* 1999). Exemption policies indeed are fraught with ill-management, corruption and patronage relationships (Kivumbi and Kintu 2002). Similar patterns have been identified in China (Qingyue *et al.* 2002). Not in the least, exemption policies meant a loss of income for the health services, and thus also for the health personnel. The latter thus face strong disincentives to apply exemptions of payments for poor patients presenting at their facilities. This poor state of affairs of exemption policies has contributed to the current exploration and increasing testing of alternative models of financing health care for the poorest.

The World Health Organization (2000) has clearly argued in its World Health Report for the need of pooling arrangements in the field of health care financing so as to arrive at risk-sharing between healthy and sick people and between the rich and the poor, rather than leaving the burden of the payment for health care on the shoulders of individual patients and households. Insurance arrangements nicely fit that purpose and health insurance arrangements currently attract a lot of interest from policy-makers, be it under the form of Community Health Insurance (CHI) or statutory Social Health Insurance (SHI) systems. The rapid development in rural China of the New Cooperative Medical Schemes (NCMS), an insurance-based arrangement implemented at county level, is a spectacular development in that respect (see the paper by Wang Yunping *et al.* in this

special issue). CHI is also booming in sub-Saharan Africa, albeit at a much more modest pace: a survey carried out in 2003 indicated that in West-Africa alone more than 600 CHI initiatives operate today (La Concertation 2004). It generally takes a lot of time to develop CHI in a bottom-up fashion - as is the dominant *modus operandi* in Africa. In the case of China, with the considerable top-down support the NCMS policy receives from the government, the development of health insurance has been much faster. However, these systems, be it in Africa or rural China, are not a solution for the poorest in society unless subsidy mechanisms exist - which very often is not the case (Waelkens and Criel 2004). There is evidence today indicating that CHI does not reach the poorest and the destitute - even if CHI can play a significant role in actually *preventing* poverty caused by illness and by excessive, or catastrophic, health care expenditure (Waelkens *et al.* 2005). Social health insurance on the other hand is today only poorly developed in low- and middle-income countries, especially in sub-Saharan Africa. These systems, when they exist, often have a small coverage, limited to households in the formal sector (Normand and Weber 1996). If the poorest in society are to access health care, then other complementary financial arrangements need to be conceived. It is in that perspective that an emerging dynamic of "Health Equity Funds" currently takes place. The operating principle of equity funds (for health care) is simple: since the poorest cannot pay for health care, be it under the form of user fees or insurance premiums, and since exemption policies do not work, somebody else needs to pay for them (Hardeman *et al.* 2004; Jacobs and Price 2005; Noirhomme *et al.* 2007). Health Equity Funds fit the concept and definition of social assistance for health care: i.e. a strategy that aims to enhance access to health care through a transfer in cash or in kind to eligible individuals. Increasingly, the option to combine Community Health Insurance and Health Equity Funds is being explored: the latter then serve to fund the insurance premium in the former for those households who do not have the means to pay the premium themselves (Jacobs *et al.* 2008). Also in China, as pointed out in the paper by Yuebin *et al.* in this issue, priority for MFA funds in many counties is given to supporting the poor households' participation in the New Cooperative Medical Schemes.

The purpose of this paper is threefold: first, briefly present some insight in the way versatile social assistance in Belgium is organized and

decided at the local government level; second, present the experience of Health Equity Funds in Cambodia and compare it along the lines of the analysis made for Belgian social assistance systems; and third, identify and discuss possible lessons from the rich and longstanding Belgian experience for the design and operation of social assistance for health care in developing countries.

Methodology

The first author (BC) combines the academic function of researcher at the Institute of Tropical Medicine Antwerp, Belgium, with the chairmanship of the Public Centre of Social Welfare (PCSW) of the semi-rural commune of Kruikebe (15,000 inhabitants) in the province of East Flanders in the north of Belgium. This chairmanship is a political function and BC has been in charge of the Kruikebe PCSW since early 2001. The combination of both assignments provides a unique opportunity to link insights in the complex reality of social assistance in an industrialized country with the recent developments but also growing pains of the emerging trend of equity funds designed to cope with the cost of health care in health systems in low income countries. The three other authors have been among the architects of the health equity funds dynamic in Cambodia that has grown from a small-sized experiment (Hardeman *et al.* 2004) to a nation-wide policy measure (HEF Forum 2006). They are currently involved in EU-funded research in South-East Asia on the study of the performance of safety nets for health care - 'Poverty and Illness' (PovIII). This study aims at a better understanding of whether and how poor households cope with the cost of illness and what the performance is of collective arrangements designed to overcome these problems (for more details, see the paper by Lucas *et al.* in this special issue).

This paper is divided in three parts. In a first part, the focus is on Belgium with a description of the functioning of Public Centres of Social Welfare (PCSW). Most of the elements highlighted hold for any PCSW in Belgium. Some aspects however are particular to the Kruikebe situation. The paper will largely draw on insight experience in and data of the day-to-day running of social assistance. This first part will more specifically deal with the following aspects: (1) an overview of the main decision-making structures within the PCSW; (2) a short review of the current offer of social assistance services; (3) a presentation of the main milestones in the evolving legal

framework for social assistance in Belgium; (4) a presentation of the operational decision-making process concerning the delivery of social assistance for individual clients; and (5) a strengths-weaknesses-opportunities-threats (SWOT) analysis of Belgian social assistance.

In a second part, a more detailed description of the health equity funds is provided. This presentation will be based mainly on the Cambodia experience, the overseas experience with social assistance for health the authors are most familiar with. Eventually a comparative analysis of Belgian social assistance systems and Health Equity Funds in low- and middle-income countries will be presented. We believe this is relevant for policy makers and researchers in low- and middle-income countries because of the longstanding experience Belgium has with public systems of social assistance in general, and with the rights-based approach to such assistance in particular.

In a third and final part of the paper, possible lessons from the Belgian experience for developing countries will be discussed. Such a comparison is far from obvious: the metaphor of comparing apples and oranges would not be entirely incorrect. The Belgian multi-purpose public social assistance system covers a wide variety of social services and the content of the assistance starts from the felt needs of individual clients. Cambodian health equity funds are structured along the lines of a programmatic logic: they cover costs related to the utilisation of (only) health care services and the content of the assistance is decided by the 'programme' managers - not by the users. Moreover, the social, economical and political environment of the two countries is obviously very different. We nevertheless believe that some general lessons can be drawn.

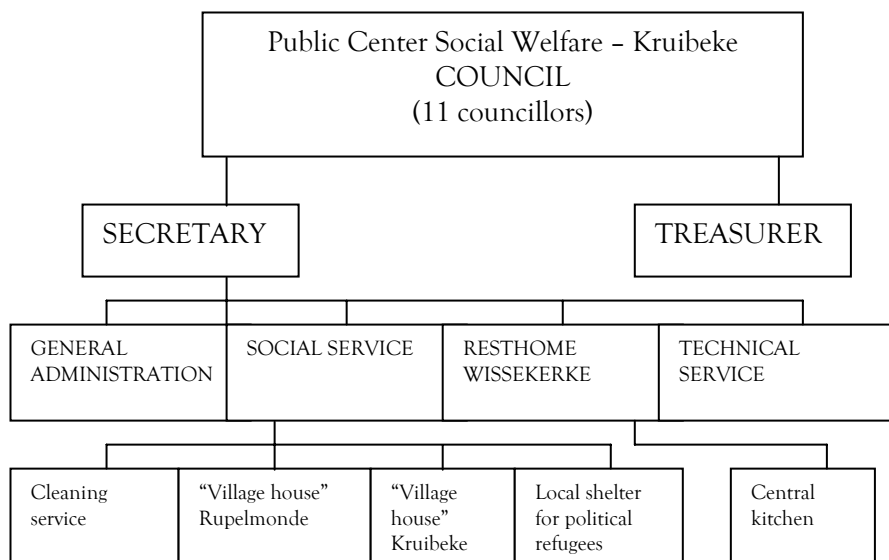
Social assistance in Belgium: the case of the Kruibeke Public Centre of Social Welfare

DECISION-MAKING STRUCTURES WITHIN PCSW

In Belgium, communal elections are held every 6 years. The communal council is established on the basis of direct representation and the majority then elects one of its members as mayor. In a second stage, each political family in the new council proposes and elects candidates for the PCSW council. The latter is a distinct political body that is in charge of the social welfare policies for 6 years. The number of members in the PCSW council is

dependent on the population size of the commune: in Kruibeke there are 11 PCSW councillors. The newly appointed PCSW council then elects a chairman and a bureau composed of the chairman and two other councillors. The PCSW administration is directed by a university-trained civil servant - the PCSW secretary - who is head of personnel and who is closely involved in policy preparation and implementation. Article 1 of the 1976 PCSW law defines the core mission of the Public Centres as follows: “each person has a right to social assistance. This assistance aims to enable everyone to lead a life that responds to human dignity” (Belgisch Staatsblad 1976). The priority target population groups of the PCSW’s action of social care are the elderly, the destitute, and those excluded from mainstream society. The services created for that purpose include a “rest home” for elderly people that provide residential care and a central social service with several peripheral services like decentralised community centres (“village houses”) offering a wide range of social and cultural services, home-care services like cleaning services, shelter and support for political refugees (Figure 1).

Figure 1. PCSW structure



The PCSW council meets once per month and addresses major policy issues in the local design, organisation and financing of local social services. The council meetings are open to the public except for matters pertaining to personnel that are treated confidentially. The council can decide on its policies on a relatively autonomous basis, except for those decisions that have major financial implications. In those cases, the explicit approval of the communal council is to be sought in the frame of the coordination committee Commune-PCSW that is chaired by the PCSW chairman and that meets 4 to 6 times a year. The largest part of the PCSW budget in Kruibeke (approximately 63%) goes towards institutional care of the elderly; about 21% goes to various forms of social assistance (Table 1). The total PCSW expenditure for social care was 606 Euro per inhabitant in 2003: at national level this assistance represents approximately 2.5% of Belgian GDP. This expenditure is financed by revenue coming from federal and local communal taxes: residential care for elderly in 'rest homes', by far the most costly item in the PCSW's activity portfolio, is mainly funded with federal money; the bulk of the social assistance benefits listed in table 1 is mainly paid for with local taxpayer money.

Table 1. Expenditure of the Kruibeke PCSW, data for 2003

Activity centres	Expenditure 2003 (euro)	Relative proportion	Average expenditure per inhabitant of Kruibeke (euro)
Central administration	882,000	10%	59
Various forms of social assistance	1,900,000	21%	127
Various other social services	600,000	7%	40
Elderly house	4,700,000	63%	380
Total	9,082,000	100%	606

The Special Committee Social Service is the structure that handles all decision-making concerning individual social assistance. The composition of this committee is decided in the PCSW council. In the case of Kruibeke, this Committee is made up of a representation of the council, the PCSW secretary, the head of the Social Service - a senior social assistant - and her

team of 4 social assistants. Other personnel are included on *ad hoc* basis: e.g. nursing staff in charge of the elderly houses and the social workers in charge of the different community centres. The Committee meets on a monthly basis and processes each time some 50 to 75 different demands in its monthly meeting that lasts about 2 to 3 hours. The Committee meetings are always closed to the public but the client who has demanded support may be heard by the Committee if she/he wishes so. This happens on average once per month.

OFFER OF SOCIAL ASSISTANCE SERVICES

This social assistance includes a wide range of services - that may slightly vary from one PCSW to another - going from the delivery of financial and material support, guiding and subsidising individual clients in their search for affordable housing, coaching of households in the management of their personal household budget, provision of free legal assistance, etc. A list of the most common types of financial assistance provided in 2004 is presented in Table 2. This list does not include the provision of support in kind (food, clothes, furniture), the offer of shelter and support offered to political asylum seekers under the care of the Kruibeke PCSW (92 individuals in 2004), nor does it mention the wide range of services provided in the frame of the Kruibeke PCSW's considerable support to the promotion of home care for elderly people. The latter includes the provision at home of warm meals and housing cleaning services at subsidised prices, the offer of alarm devices to be used in case of personal accidents at home, the offer of individualised transport at subsidised prices for poorly mobile elders and the payment of a monthly financial bonus to relatives or neighbours who care for elderly or handicapped in their home situation. The eligibility scope of this social assistance is very large: all people with a legal residence in the commune, including foreigners engaged in an administrative process of asylum quest that have been temporarily assigned to a designed commune¹. Emergency assistance (shelter, food, financial aid) is also offered to homeless people while structural solutions are being explored. It is left to the discretion of individual PCSWs to offer humanitarian assistance to refugees

¹ The Belgian federal government has opted for a 'spreading' policy of asylum seekers over the entire territory of the country. In practise this does not always work because many political refugees prefer to live in large cities.

whose request to stay and live in Belgium has eventually been overruled by the federal government (Note: they have then become 'illegal'). In principle, these 'illegal' people are supposed to leave the Belgian territory but in practise this measure is hardly enforced. Many of them rely upon private help.

It is important to highlight that in many instances the person in need of social assistance - who may not be (fully) aware of his rights, or who is ill-informed on what social assistance services actually can offer, or who simply is reluctant to take himself the initiative to consult a social assistant - is referred to the PCSW through the intermediation of one of the actors (public or private) operating in the complex network of the pluralistic Belgian local social system. This 'mediator' may be a general practitioner (self-employed private health worker in Belgium) or nurses, a staff member of one of the several non for profit home care services that operate at communal level, the local schoolmaster or police officer, local politicians, the parish priest,... The referral most often takes place along informal channels: not with a formal referral note, but through a telephone call or an occasional personal contact or with a small informal handwritten note.

Table 2. Provision of social assistance in Kruibeke, data for 2004

Type of support	Number of times support was granted in 2004
Versatile financial support*	110
Living wage (includes social health insurance contributions)	80
Support of cost of medicines and medical care	32
Support of cost of hospital care	31
Support of schooling costs	28
Participation to cost of social and cultural activities for individual clients (e.g. sport activities, leisure activities)	23
Provision of social employment in PCSW facilities	19
Provision of subsidies for house rent	18
Advances on partner allowances in case of divorce	17
Payment of allowances for minor children	16
Payment of taxes for domestic waste disposal bags	8
Payment of house rent guarantee	7
Support for heating services (fuel)	3

Type of support	Number of times support was granted in 2004
Provision of social housing in PCSW housing infrastructure	3
Support of cost of stay in elderly homes	2
Support of funeral costs	1
Support of travel expenses	1

* Urgent allocation of money in about half of cases; to be refunded in instalments in a third of cases

A very important item of this social support is the *living wage* - formerly called subsistence *minimum*. End 2005, the living wage consisted of 626 Euro per month for a person living alone. A one-parent household with minor children received 834 Euro per month excluding child allowances. People above 18 years old and living together received 417 Euro per month per person in 2005. It is to be noted that 50% of these amounts are paid by the Belgian federal government and 50% by the local budget. The latter is financed with the revenue coming from local taxes collected by the commune. This policy of co-funding of the living wage illustrates the articulation that exists in Belgium between the central and the local level. In the case of the living wage, central funds complement local funds in order to alleviate the financial burden on local budgets.

People on a living wage automatically benefit from the full package of services offered in the frame of the Belgian Social Health Insurance system. The PCSW may in addition decide to help them to pay the various co-payments due when they consult a general practitioner, in case of a hospital admission and/or in case of purchase of medicines at a pharmacy. Routine data from the Kruikebeke PCSW concerning people allocated a 'living wage' in the period 1998-2002, show that 254 individuals have benefited at least once from this type of financial support in this 5-year period. The average duration of the time during which these people received the living wage was 9.6 months. It is only for 10 out of 254 people (i.e. 4%) that financial support was provided for the *entire* 5-year period. This indicates that the need for a living wage is only for a minority of households a quasi-permanent situation. The corollary is that the need for social assistance, and more specifically for financial support, is in the majority of cases relatively limited

in terms of time. Interestingly, this fact contradicts the current popular perception in the mind of many Belgian citizens that ‘there would be too many people (ab)using social assistance services on a permanent basis...’

In 2003, some 80,000 people received a living wage in the total of Belgium. With 10.5 million inhabitants, the incidence of the allocation of a living wage in the country is close to 1%. Recent research has indicated that this coverage is very probably well below the volume of true need; this aspect of unmet need will be discussed further in the paper. In the specific case of Kruikeke, the average yearly incidence rate for a living wage in the period 1998-2002 was 0.34%.

LEGAL FRAMEWORK

The framework regulating social assistance policies in Belgium has dramatically evolved over the last 150 years. The principal evolution over time has been a movement from a privately funded charity service in the 19th century to a publicly funded service in the 20th century aiming at societal reintegration of individual clients of social assistance services. In 1925 the autonomous Charity Offices that existed in each municipality were transformed into Commissions of Public Assistance (CPA). The most significant legal breakthrough however took place in the 1970s. The concept of ‘subsistence minimum’ was instituted in 1974. Two years later, in 1976, the law on the Public Centres of Social Welfare (PCSW) was passed: CPAs were transformed into PCSWs and social assistance became a right. More recently, in May 2002, the law on the right for societal integration was voted in the federal parliament. A legal framework was established whereby every citizen was given the right ‘to participate in societal life’. The concept of ‘subsistence minimum’ that existed for half a century was turned into the concept of ‘living wage’. The 2002 law strongly emphasised paid work as the main means to achieve integration in society (although a job is not a guarantee to earn a sufficient income²) and implied a well-defined responsibility of the PCSW vis-à-vis people below the age of 25. This is illustrative for the progressive shift from a purely compensatory to a more enabling and activating approach (von Maydell *et al.* 2006).

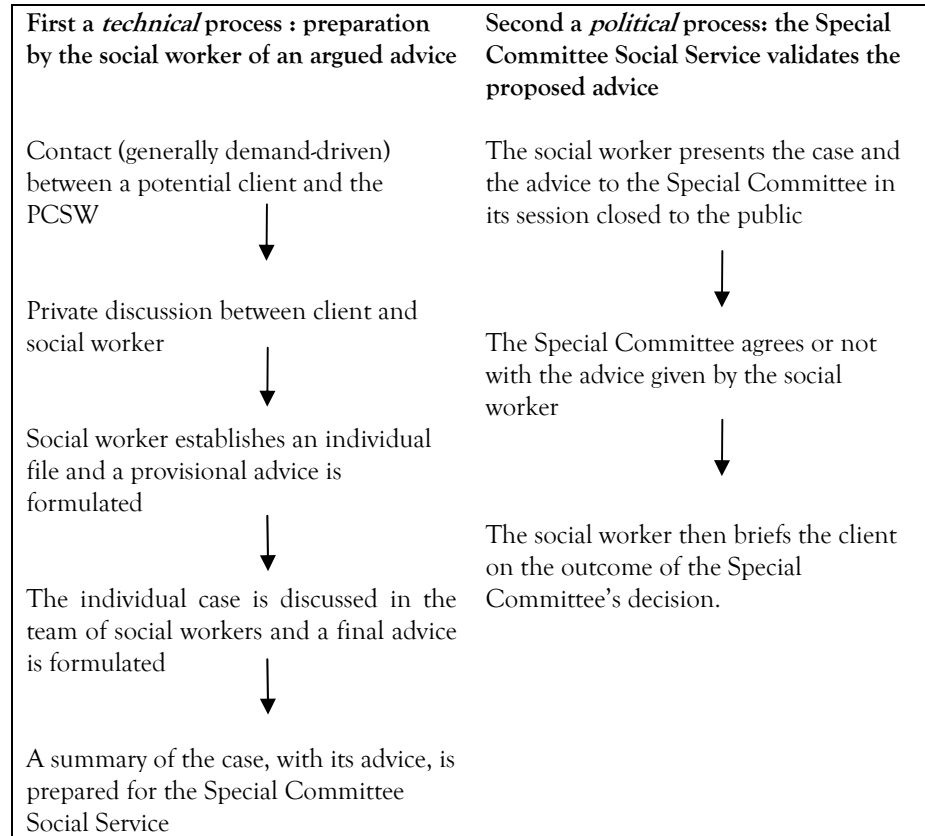
² The Belgian 2005 poverty report indicates that 5% of people with a job have an income below the poverty line (Armoede en sociale uitsluiting. Jaarboek 2005).

DECISION-MAKING CONCERNING INDIVIDUAL SOCIAL ASSISTANCE

The sequence in the decision-making process in Kruibeke, and in most Belgian PCSWs for that matter, concerning individual demands for social assistance is presented in Box 1. There is a clear distinction between the technical process handled by the social assistant on the one hand, and the subsequent political process whereby the Special Committee Social services approves or rejects the proposal formulated by the social assistant. In practise in Kruibeke, the Special Committee objects in less than 5% of cases to the social assistant's proposal. When it does so, the Special Committee may overrule the social assistant's proposal in two ways: either disagree with the proposed allocation of benefits, or disregard the negative advice given by the social assistant in charge and give the green light to the delivery of a benefit. In practice, both types of overruling are roughly equally frequent.

In cases of urgency, the Chairman of the PCSW decides the same day on the basis of an urgent written request formulated by the social assistant in charge of the client's file. The social assistant eventually informs the Special Committee at its first coming plenary meeting. Such urgent demands occur in Kruibeke, on average, once or twice a week.

Box 1. The decision-making process concerning individual social assistance



The criteria used in the social assistant's decision-making process on the allocation of individual social assistance benefits to clients are based on a set of objective and standardised criteria like income, family status and age. There is however room for a more subjective appreciation of the case by the social assistant on the basis of elements generated by a short review of the client's past history, on the basis of home-visits carried out by the social assistant, and, eventually, on the basis of her/his 'gut-feeling' and personal appreciation of the client's situation. *This person has really been doing his best or that person is really not cooperative or this other person has been consistently lying to me...* are examples of personal experiences social assistants face and that play a role in their overall assessment.

The mechanisms in place to balance objective and subjective assessments in the delivery of social assistance are the peer control from the other social assistants in the team (in the Kruikebe PCSW there are 5 full-time social assistants - four female and one male), the need for final clearance from the senior social assistant who heads the team, and finally, the need for approval by the Special Committee composed of local politicians.

The latter may be a subject of controversy: why indeed should local politicians have the final word in the decision to allocate (or refuse) benefits to clients demanding for social assistance? The senior social assistant in the Kruikebe PCSW, who has more than 25 years of experience, when asked how she felt about this, estimated the advantages to outweigh the disadvantages. The same question was put to senior social assistants of 3 neighbouring PCSW in the cities and communes of Lokeren, Sint Gillis-Waas and Sint Niklaas. In Table 3 a synthesis of their arguments is presented.

Table 3. A political body as final authority in the decision on allocation of social assistance benefits

Pro's	Con's
<ul style="list-style-type: none"> • Need to thoroughly prepare the client's case for understanding and approval by non-professionals • Protection of the personal relationship between social worker and client in case of negative judgment by the Special Committee • Allows for control on possible power abuse by social workers • Politicians, and their constituencies, are informed on how local tax money is being used • Politicians are informed on local elements (structural and others) that contribute to poverty and social exclusion: this information is helpful in policy design 	<ul style="list-style-type: none"> • Risk of patronage relationships • Expertise of councillors in deciding on allocation of benefits is not guaranteed • May cause delays in allocating the benefits • Social worker may be entrusted with tasks that are either not feasible or not backed up personally • The composition of the PCSW council may change after the 6-yearly local elections: this can contribute to limited continuity in local social assistance policies*

* One senior social worker considered this also to be a possible advantage: ill-designed policies can be reshuffled by a newly constituted PCSW council.

Apart from the *technical* and *political* decision-making processes concerning the delivery of social assistance described in box 1, a third possible process exists, albeit relatively rarely used: i.e. a *legal* process. If a client disagrees with the outcome of the Special Committee's decision, she/he can make an appeal to the labour court which can then overrule the Committee's decision. In Kruibeke, such appeals occur only a few times per year.

SWOT ANALYSIS

A Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis of the Belgian system of social assistance was performed on the basis of the first author's experience as Chairman of the Kruibeke PCSW (Table 4).

Strengths: a major strength of the system lies in its strong legal framework and more specifically in the rights-based approach to social assistance formalised in the 2002 law on societal integration. Another important strength lies in the specific and earmarked human and financial resources allocated by both federal and local governments to social assistance - even now that it becomes increasingly clear that these resources are insufficient to cope with poverty alleviation.

Weaknesses: among the weaknesses is the fragmentation of information and service delivery in the field of social care: a variety of players, both public and private, are involved in social assistance of some kind. The complexity of the Belgian institutional situation - both federal government and regional governments play a role in the design and financing of social policies - certainly contributes to this state of affairs. An overview on who is doing what is often lacking, with a risk of duplications and inefficiencies. But probably the main weakness of the system is the insufficient coverage of the current social assistance system - in terms of both depth and width. Despite the many efforts made over the years and despite the good intentions of many hardworking PSCWs, a variety of barriers remain in the use of social assistance services. The lack and/or inadequacy of the information potential clients possess on the existence of social assistance services and the strong stigma that is still attached to the use of social assistance services are prominent among the barriers in place (Nicaise and Groenez 2001; Groenez and Nicaise 2002; Van Meerbeeck and Criel 2006). Data for the year 2005 on poverty in Belgium suggest that about 15% of the Belgian households would live below the poverty line (Armoede en sociale uitsluiting, Jaarboek 2005). There is however controversy on the validity of

the (monetary) cut-off point used: the criterion used is a level of income < 60% of the national median income³. It is nevertheless reasonable to state that today only part of the population in need is being reached by social assistance services. A possible indicator of this situation is the recent trend in Belgium whereby non-governmental organisations, Church-related organisations, civil society groups and private households increasingly take care of people falling through the formal safety net (e.g. the NGO *Médecins Sans Frontières* offering health care to people without any residence or that are illegally in Belgium or the organisation *Welzijnsschakels* offering help in cash and kind to the same people). Many of these people are political refugees that, after a relatively long administrative screening process handled by the federal government, were eventually not granted authorisation to legally take residence in Belgium - and who can therefore not claim (anymore) a minimum living wage.

Private forms of social assistance, organized on a discretionary basis, have always existed and will probably always exist. What may however change over time is the relative importance of this type of assistance in relation to more 'rules-based' forms of publicly delivered social benefits. Today in Belgium, private charitable initiatives seem to be again on the rise even if the bulk of social assistance still is delivered through public channels, i.e. via the administration of Public Centres of Social Welfare.

Opportunities: a major opportunity is the recent pressure from the Flemish regional government to coordinate social policies at local government level. This regional authority forces the local players, both public and private, active in the domain of social care, to coordinate and optimise their action. The PCSW is supposed to steer and coordinate this process and to create the conditions for local actors to communicate and to collaborate. Eventually, the PCSW is asked to come up with a comprehensive social policy plan that integrates the action of the various local players. Another opportunity ahead is the increasing interest to involve "experience-experts" in the design and delivery of social assistance policies⁴.

³ For a person living alone this means less than 772 Euro/month - implying that the living wage in Belgium for a single person (626 Euro) is well below the poverty line thus defined.

⁴ The non-governmental association "The Link", that is committed to increasing the involvement of the poor themselves in policy-making for the poor, nicely conceptualised the different gaps that exist today between policy-makers, public social assistance services and social assistants on the one hand, and the poor on the other hand (De Link 2005). The

Threats: among the threats, two seem prominent. One is the increasing workload social workers face. There is more and more paperwork and less and less time for these professionals to leave their offices and visit clients in the community. This situation creates frustration and goes at the expense of the client-centred character of the social care provided. Another threat is the increasing bureaucratisation and progressive ‘toughening’ of the sector of public social assistance with, concomitantly, a creeping resurgence of an attitude whereby individual cases are being held largely responsible themselves for the situation in which they live. This is an attitude Vranken and De Boyser (2004) refer to as the ‘individual guilt model’ consistent with the prevailing social and political mainstream state of mind that focuses on individual responsibilities of clients.

Table 4. Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis of the Belgian system of Social Assistance

Strengths	Weaknesses
<ul style="list-style-type: none"> - Legal framework and rights-based approach - Funding available - Skilled human resources available 	<ul style="list-style-type: none"> - Insufficient coverage - Fragmentation of information and service delivery in the domain of social care
Opportunities	Threats
<ul style="list-style-type: none"> - Regional government pressure to streamline social policies at communal level - Use of experience experts 	<ul style="list-style-type: none"> - Overworked and understaffed departments of social assistance in PCSW - Increasing bureaucratisation of PCSW?

picture established by association “The Link” is straightforward: policy-makers do not speak nor do they understand the language and the reference frame of the poor, hence the existence of a quite fundamental mismatch. One of the strategies proposed by the association is to train people who themselves have experienced (and sometimes still do) a situation of long-lasting poverty that transmits from generation to generation. They then become formal “experience-experts” in the fight against poverty and are used as consultants in the design and implementation of public anti-poverty policies in federal, regional and local governments (Spiesschaert 2005).

Health Equity Funds in low- and middle-income countries: the case of Cambodia

In this section, we intend to present the Cambodia experience with a particular form of social assistance designed to cover health care-related expenditure. We will discuss this specific experience along the same lines as the ones we handled when describing the Belgian experience.

In Cambodia, Health Equity Funds (HEFs) have emerged over the past years as the preferred option for national and international stakeholders alike for health-care related social assistance to the poorest. HEFs have been piloted since 2000, mainly by international non-governmental organizations (NGOs) as a third-party payment mechanism on behalf of the poor for the cost of health care in government hospitals (Hardeman *et al.* 2004). HEFs are usually established inside the hospital, and are implemented by local NGOs that are contracted for that purpose by the funding agency. By 2007 more than one third of the government hospitals had an HEF operational.

PURPOSE OF HEFS

HEFs are single-purposed: they focus exclusively on reducing barriers, especially the financial barriers to health care for people in the lower-income groups. Besides user charges, most HEFs pay transport costs and some subsistence costs for the patient and relatives during hospital admission. Most HEFs cover only hospital costs; some cover also the fees in government health centres. There is consistent evidence that HEFs indeed reduce barriers to health care for the poorest. Hospital utilization by the lowest income groups increased in most health districts with an established HEF (Annear *et al.* 2006; Ministry of Health 2006). It is hoped that HEFs will protect the poor financially, and decrease catastrophic health expenditure, but this has not yet been proven unequivocally. Indeed, studies have shown that most out-of-pocket health expenditure serves to purchase health care from unregulated private health care providers (Van Damme *et al.* 2004). It is hoped that HEFs can modify health seeking behaviour away from private to public providers: the paper by Annear *et al.* in this book presents some evidence on this.

A recent evolution is that some HEFs give increasing attention to the protection of the rights of the users: HEF operators carry out regular hospital

ward rounds to check with their clients whether they need further help, whether they are properly taken care of, or, more generally, to provide them with information and psychosocial support. From time to time, home visits are made for similar purposes, additional to the purpose of confirming eligibility.

ELIGIBILITY FOR SOCIAL ASSISTANCE

In Cambodia, there are two ways of identifying those eligible for HEF benefits: pre-identification, or 'active' identification; and post-identification, or 'passive' identification. "Passive identification" refers to a process whereby patients are interviewed at the time when they arrive at the hospital. They are screened on a series of items like family composition, food security, income and assets, on the basis of which a score is calculated that determines whether a person is eligible for HEF benefits. "Active identification" on the other hand is a process whereby the entire population of a district is screened before any utilization of hospital services, and those falling below a certain level of poverty-rating receive a HEF card, establishing their entitlement, which they can use when in need of health care.

Both modes are presently used, depending on the HEF. A strength of the active identification mode is that it promotes the awareness in the community on the very existence and availability of the scheme, whereas passive identification provides the necessary flexibility to include in the programme those that were not identified by active identification. These issues of identification are discussed in more detail in the papers by Jacobs and Price and by Chean Rithy Men in this book.

Sometimes both modes are used in conjunction, where it is thought that active identification, although relatively costly, will empower eligible people to use their entitlement to free health care and reduce their feeling of vulnerability against illness; as a matter of fact, households with a HEF card are insured against hospital admission costs. Yet, passive identification may remain needed for people falling into poverty because of illness. The people eligible for HEF benefits are estimated at between 10% and 40% of the population, depending on the region and the inclusion criteria and procedures.

Currently, a working group led by the Cambodia Ministry of Planning has developed national standard criteria and procedures to identify poor households and these criteria and procedures are increasingly being applied

on the field. It is the intention of policymakers to entitle eligible households not only to health care, but also to other forms of social assistance.

LEGAL FRAMEWORK

HEFs have started since 2000 and have evolved in the absence of an explicit legal framework. They result from a combination of a civil society and donor-driven initiative and initially had little relation with government bodies or legal frameworks. But after several years, and under the impulse of the Asian Development Bank, the Ministry of Health has developed a national HEF framework, given guidance to operational actors and funding agencies, and established itself as the government agency dealing with HEFs. The framework also stipulates reporting channels and governance structures, which will depend on the primary source of funding. These recent developments are discussed in more depth in the paper by Annear *et al.* in this book.

FUNDING OF HEFS

Till 2006, all HEF funding originated from donors, mostly from international NGOs and from bilateral donor agencies. Cambodia receives considerable amounts of donor aid, and the donor community sees HEFs as a convenient demand-side vehicle to target resources directly to the poorest. Today nine HEFs are funded by USAID and eight by the Belgian Technical Cooperation (BTC). The World Bank currently funds two HEFs and plans to extend its support to ten others. Asian Development Bank has announced a grant for funding 11 HEFs over several years. Since late 2006 the Cambodian government also allocates a budget to subsidize health care cost for the poor in the form of reimbursement of user fee exemptions in settings where no HEF is operating. In 2007 fifteen hospitals without an operational HEF have benefited from such funding. Negotiation is underway to channel these public funds through HEFs to cover the user fees, while the donor funding would be used to cover the administrative costs of HEFs and the transportation and other subsistence costs of patients and their relatives.

DECISION-MAKING

Programmatic decisions on funding, benefit packages, and choice of HEF implementer, have largely been taken by the donor agency that funds the HEF, but the role of the Cambodian Ministry of Health is increasing. Decisions on individual eligibility and benefits lay with the operational staff of the HEF implementer, mostly local NGOs, which are monitored by the HEF funder and the Ministry of Health. Two of the existing HEFs are community-based, with local pagoda committees or mixed committees between local authorities and community representatives playing a key role in operating the HEF (Noirhomme *et al.* 2007). The national HEF framework established by the Ministry of Health specifies different oversight mechanisms depending on the source of funding. The above-described mechanisms are valid for the current 27 donor-funded HEFs. The 15 schemes that receive public subsidy, and which are also labelled HEFs in many instances, are managed by local public health authorities, and report through MoH channels.

In Table 5, a comparative analysis is made of the main features of social assistance in Belgium and the characteristics of health equity funds as they are increasingly being established in low- and middle-income countries.

Table 5. Comparison between social assistance in Belgium and health equity funds in Cambodia

	Social assistance in Belgium	Health equity funds in Cambodia
What? Benefits	Multi-purpose. Cornerstone: cash transfer: life wage.	Single-purpose: only health care in public facilities
To Whom? Target population	People who are socially excluded	People who are excluded from health care
What criteria for eligibility?	Beyond only income and/or material assets, other criteria address the lack of access to social networks, to training opportunities, to social and cultural activities, etc.	Lack of financial means and material assets

	Social assistance in Belgium	Health equity funds in Cambodia
Process of selection /deciding on eligibility	Civil servant social workers play a central role in the operations	Variety of actors involved in the operations: mainly staff of local and international non-governmental organisations, sometimes community members.
Political decision-making	Important democratic control by local politicians and jurisdictional authorities	Politicians not involved
Legal framework	Solid legal framework	Legal framework in development
Funding	Federal and local government tax-revenue	Different sources of funding: mainly donors and non-governmental organisations (possibly government funding in the future)

The comparison is tricky indeed because of the important differences in context. We nevertheless believe it enables us to capture the key differences between the two types of systems.

Possible lessons from the Belgian experience with multi-purpose public social assistance

Despite huge differences in context and history between social assistance in Belgium and Cambodia, or in other low- and middle income countries, we think the Belgian multi-purpose experience of social assistance raises a number of issues that are relevant for the emerging policy option of 'health equity funds' in low- and middle-income countries, more in particular in South East Asia and sub-Saharan Africa. The paper by Chean Rithy Men (on the organisation of pre-identification of Health Equity Funds beneficiaries in Cambodia) clearly illustrates that the principles and procedures that guide the identification processes of beneficiaries in Cambodia sometimes strongly differ from current practice in a country like Belgium.

The issues we intend to discuss in this section are more specifically

situated at five levels: i) the nature of the manpower and the specificity of the professionals that need to be involved in the delivery of social assistance; ii) the dynamic situation of 'destitution'; iii) the importance of stigma as a barrier in the utilisation of social assistance; iv) the stewardship role of public services of social assistance; and last but not least, v) the necessary political dimension of the social assistance debate.

THE NATURE OF THE MANPOWER IN THE PROVISION OF SOCIAL ASSISTANCE

Social assistance requires specific skills and attitudes that health workers or volunteers do not possess. One does not ask nor expect social assistants to decide on the medical treatment sick people would need; the corollary is that health professionals do not have the necessary competencies to decide whether people are eligible for social assistance nor have they the training to organise this social assistance. The very specificity of the work of social assistants lies in their capacity to balance standard criteria for the identification and management of poverty (like for instance income level) with more qualitative elements (the personal history of the client) and even the social assistant's personal impression (the gut-feeling): this client-centred approach - each client being seen as a unique individual with a unique history - fits better the complex and multi-dimensional nature of poverty (Sen 1995). The task of the social assistant is not only to *identify* the poor, but also to personally counsel and *accompany* them. This implies provision of psychological and emotional support to the client and an attitude where the social assistant acts as an independent agent on behalf of the client for the provision of financial and material support, social services and benefits. There is need for somebody to defend the interests of the social assistance client.

When necessary, a long-term (possibly even a lifelong) follow-up must be provided in the frame of a personalised relationship in which the client's privacy is protected as much as possible. This contrasts with the trend in Cambodia and other developing countries that emphasises and relies upon a system of identification of the poor mainly via means testing or proxy means testing - with little or no room for a more subjective assessment by a professional social worker. Eventually, people receive a poverty card (or not) which entitles them to a certain number of benefits, and which makes redundant the judgement of social assistants... However, the recent trend observed in some HEFs in Cambodia to give attention to the general welfare

of the clients (e.g. provision of information and psychological support to hospitalised clients) and to give more room to non standard elements in the clients' situation, especially in the interviews conducted in the course of the passive identification process, indicates a shift in the direction of the client-centred role social assistants play in the Belgian system.

The overall availability of social assistants in low- and middle-income countries is however limited. It is necessary to train more of these cadres. But most importantly, there is a need for more collaboration between the sectors of social assistance and health. The 'walls' between the two sectors should be torn down and bridges between social assistants and health workers should be built so that these two cadres can collaborate in designing and operating systems of social assistance for health care. Such collaboration could contribute to strengthening under-developed departments of Social Affairs in low- and middle-income countries.

THE DYNAMIC SITUATION OF DESTITUTION

A second lesson from the Belgian experience is related to the definition of the population in need of social assistance services. The Kruibeke data on the number of clients receiving a living wage, and on the duration of the allocation of these benefits, illustrate that many households are confronted, somewhere in the course of their life, with an acute need for social assistance, sometimes more than once over the course of several years, that is *time-limited*. These individual clients or households are however not in a situation of chronic poverty *unlimited* in time. Destitution is not to be seen as something that is necessarily of a permanent status - for many it only is a temporary situation. *Destitution is a situation, not a status* (personal communication from Pierre Fournier).

Research carried out in Guinea-Conakry in the 90's indicated that about 5% of the population are in a situation of total economic *and* social exclusion, but also that half of the remaining population lives in an 'unstable' situation of transient poverty with important periods of temporary, often season-bound, exclusion from health care (Criel *et al.* 1999). This fuels the idea that social assistance should not limit itself to the targeting of the group of chronically (extreme) poor with little or no social capital. It should also target the much larger group of poor people who are not excluded on a permanent basis, but who face a temporary shock or crisis (often related to the need for health care). The resource implications of the

latter option are of course substantial.

In Cambodia, the dominant practice is that the poor are pre-identified and are provided with a poor card for a period of 3 years. This procedure is non consistent with the fact that illness can trigger the need for assistance irrespective of the poverty status defined a year or two earlier. On the other hand, pre-identification of the poor may be an acceptable trade-off in a context where social assistants hardly exist and where the financial resources required to cover *all* the needs in terms of assistance for health care lack.

THE IMPORTANCE OF STIGMA

A third lesson deals with the issue of stigma. Anecdotal evidence from the Kruikeke PCSW suggests that stigma, next to information gaps, constitutes one of the barriers in accessing social assistance services. This situation has of course positively evolved over the decades and today an increasing number of 'non-chronic poor' households make use of social assistance services. This evolution certainly contributed to reducing the negative perceptions on social assistance. There is no comparison with the situation 50 years ago when the use of social assistance services was the ultimate dishonour. In addition, PCSWs today increasingly develop services that are also used by middle-class households (e.g. home-care services, institutional care for the elderly). But stigma remains and the numerous informal and formal contacts the first author had with potential clients indicate that many still have strong feelings of shame when the option of using PCSW services is mentioned. It is seen as a personal failure not to be in a position to take care of one's own situation and to cope with the problems that occur in life. Stigma is of course not the only barrier to social assistance, but it definitely is one that is difficult and time-consuming to properly address. In the case of the Cambodia HEF experience, stigma does not seem to be a major issue, but anecdotal evidence from sub-Saharan Africa indicates that being labelled 'destitute' is perceived as a humiliation. The relationship between social assistance and stigma would however need to be investigated much more thoroughly in a variety of settings in low- and middle-income countries. This is an important research priority.

Anyway, the operational implications of stigma-reducing policies are plenty. One would need to have a respectful and empathic attitude vis-à-vis social assistance clients, and maintain a minimum of confidentiality and privacy in identifying social assistance clients, in managing their case and in

following-up their situation. We therefore caution for the use of poverty lists or poverty cards - although we understand the managerial rationale underlying their use in the context of low- and middle-income countries and are aware of the fact that the perception of stigma may strongly differ between cultures. More often than not, such lists are not confidential but are made public: for instance, they circulate between different services and/or are even attached at the notice boards in the health centre nurses' offices where routine outpatient consultations take place...

THE LOCAL STEWARDSHIP ROLE OF PUBLIC ADMINISTRATIONS OF SOCIAL ASSISTANCE

A fourth lesson has to do with the specificity of the local institutional context in which Belgian social assistance operates. The Belgian social system is characterised by an important diversity and plurality of actors. A mix of private and public actors offers social care at the operational level. The PCSW is the (public) body that occupies the central role in the provision of publicly funded financial social assistance. On an *extra-muros* basis it also provides a range of home care support services. General practitioners, pharmacists and nurses are the key players in the local health care delivery system: in the majority of cases they are private self-employed health workers whose activities are regulated by the federal government. Social workers of different qualifications provide a wide range of home care services; they are generally employees of big private non profit organisations that operate on a regional basis.

Increasingly, PCSWs recognise the need to coordinate these different actors and their interventions in this complex local web of the social care delivery system. The legal and regulatory frameworks in which PCSWs function are gradually formalising and institutionalising this coordination and steering role. PCSWs are increasingly investing in the promotion of networking among these actors. In the commune of Kruibeke different initiatives have been taken in that respect: quarterly meetings are organised between PCSW and the local general practitioners; the Kruibeke *Welfare Forum* was instituted a few years ago as a platform for all the players in the local social system to meet, to exchange information and to build collaborative links.

This experience illustrates that the role of a professional social assistance administration cannot not limit itself to the provision of assistance

to clients, but should also extend to a 'stewardship' role in the local social system. If the different actors are to contribute to the identification and follow-up of people at the margin of society in need of social assistance, then the social assistance administration needs to actively liaise with them - beyond the traditional sector borders.

THE NEED FOR POLITICAL ACTION

A fifth and final lesson is the need to keep a 'political' perspective on the social assistance debate. Social assistance definitely should not be confined to the purely technical sphere: there is a need to try and address structural determinants of poverty next to the careful analysis of individual responsibilities of clients themselves.

In that respect, the Belgian situation presents some comparative advantage given the close linkage between the design and operation of social assistance services and local policy-making by PCSW Councils composed of local politicians. The Council has some level of local leverage on issues that have to do with work opportunities, housing, schooling, etc. The multi-purpose nature of Belgian social assistance services also makes it easier to handle the multi-dimensional web that shapes poverty and exclusion. Hence the relevance to try and overcome in developing countries the traditional administrative and bureaucratic barriers between social assistance services and other social services like health care. This tends to question the dominating single-purposed health care focus of Cambodian health equity funds.

Conclusion

Social assistance in Belgium today is comprehensive and multi-purposed. It has a long history and covers today a wide range of social services. It functions in a society where a well-performing social health insurance system operates - making the intervention of the PCSW for issues specifically related to health care a rather marginal issue and event. Health equity funds in Cambodia on the other hand are of a very recent origin; at the basis of their creation - by health systems managers - were the problems poor people experience in coping with the cost of health care. Cambodian health equity funds today focus on health care only - although issues that do not directly pertain to the direct expenditure for health care such as transport and food

costs are increasingly taken into account.

The case of Belgium may appear extremely remote from the realities in the South but a study of its history and current functioning is not without relevance for social policy-makers in low- and middle-income countries. The present paper is an attempt to address such a cross-country, even cross-continental, analysis.

The Belgian social assistance experience has gradually evolved from charitable privately funded systems in the 19th century, to a legally enforced and publicly funded social assistance system in the last quarter of the 20th century. Social assistance in Belgium is today underpinned by an extensive legal framework that gradually evolved with the changing values and priorities in Belgian society. Social assistance has become a right and considerable efforts are made today by social workers to tailor assistance to the clients' specific needs in a capability-based approach. Social assistance is obviously also about politics: its development requires active steps by society and by the State. In the case of Belgium, political decision-making has fostered the creation of publicly controlled and pluralistic institutions that carry the defence of the rights of the poor high in their banner and that stand up for the poor. We believe that these political dimensions should be fully part of the scientific attention for the development of social assistance in other parts of the world.

In many low- and middle-income countries today, public multi-purpose social assistance systems exist on paper, but in practice their functionality is limited. Their design needs to be adapted to local circumstances and embedded in local social and cultural values. These systems would benefit from a sound management with the necessary legal, institutional and organisational frameworks and checks and balances for a democratic control by the public on the usage of public and/or donor funds allocated to these systems. The challenge in low- and middle-income countries is to design social assistance systems - for health care and otherwise - that are effective in reaching the poor, that are protected from patronage and favouritism, and that are socially and culturally acceptable to the local society. Each country must find its own way in developing social assistance systems, but an exchange of experiences and more cross-country comparisons of the functioning of such systems could be helpful in a better understanding of generic conceptual and managerial issues.

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References

Alesina A and Glaser EL (2004). Fighting poverty in the US and Europe : A world of difference. *The Rodolfo Debenedetti Lecture Series*, Oxford, Oxford University Press.

Annear PL *et al.* (2006). Study of financial access to health services for the poor in Cambodia. Ministry of Health, WHO, AusAID and RMIT University. Phnom Penh, 2006.

Arhin-Tenkorang D (2001). Mobilising resources for health: The case for user fees revisited. *Centre for International Development at Harvard University*; working paper No 81.

Armoede en sociale uitsluiting. Jaarboek 2005 (Edts: Vranken J , De Boyser K and Dierckx D), Acco, Leuven, Belgium; 408p.

Belgisch Staatsblad, August 5th 1976. Law of July 8th 1976 concerning the Public Centres of Social Welfare, Article 1.

Coady D, Grosh M and Hoddinott J (2004). Targeting of Transfers in Developing Countries: Review of Lessons and Experience. Washington: World Bank.

Criel B, Sylla M, de Béthune X *et al.* (1999). Impact of financial exclusion on health care utilization: is insurance the answer? The case of Kissidougou in rural Guinea-Conakry. In *Controlling costs: Strategic issues in health care management*. Ashgate Publishers (Edts Davies, Tavakoli, Malek and Neilson), 232p.

De Link (2005). Opleiding en tewerkstelling van ervaringsdeskundigen in armoede en sociale uitsluiting. Krachtlijnen, November 2005. Vzw De Link, Boomgaardstraat 93, B-2018 Antwerpen, Belgium.

Dercon S (2002). Income risk, coping strategies and safety nets, *The World Bank Research Observer*, 17, 2 : 141-166.

Gertler P (2004). Do conditional cash transfers improve child health? Evidence from PROGRESA's control randomized experiment, *The American Economic Review*, 94, 2 : 336-41.

Gilson L, Russell S and Buse K (1995). The political economy of user fees with targeting: Developing equitable health financing policies, *Journal of International Development*, 14 : 81-105.

Gilson L (1997). The lessons of user fee experience in Africa, *Health Policy and Planning*, 12, 4 : 273-285.

Groenez S and Nicaise I (2002). *Traps and springboards in European minimum income systems. The Belgian Case*. Hiva/KULeuven, Leuven.

Gwatkin DR, Wagstaff A and Yazbeck AS (2005). Reaching the poor with health, nutrition and population services: What works, what doesn't and why. Washington DC: The World Bank.

Hardeman W, Van Damme W, van Pelt M *et al.* (2004). Access to health care for all? User fees plus a health equity fund in Sotnikum, Cambodia, *Health Policy and Planning*, 19, 22-32.

Holzmann R and Jørgensen (2001). Social risk management: a new conceptual framework for social protection, and beyond, *International Tax and Public Finance*, 8, 4 : 529-556.

Jacobs B and Price N (2005). Improving access for the poorest to public sector health services: insights from Kirivong Operational Health District in Cambodia, *Health Policy and Planning*, 21, 1 : 27-39.

Jacobs B, Bigdeli M, van Pelt M, Ir P, Salze C and Criel B (2008). Bridging community-based health insurance and social protection for health care - a step in the direction of universal coverage?, *Tropical Medicine and International Health*, 13, 2 : 140-143.

Kivumbi GW and Kintu F (2002). Exemptions & waivers from cost sharing: ineffective safety nets in decentralised districts in Uganda, *Health Policy and Planning*, 17, (Suppl 1) : 64-71.

La Concertation (2004). La concertation sur les mutuelles de santé en Afrique. Inventaire des systèmes d'assurance maladie en Afrique: synthèse des travaux de recherche dans 11 pays. Dakar (Senegal) (www.concertation.org).

Meng Q *et al.* (2002). Hospital charge exemptions for the poor in Shandong, China, *Health Policy and Planning*, 17, (Suppl 1) : 56-63.

Ministry of Health, World Health Organization and Belgian Technical Cooperation (2006). Health Equity Fund Forum Report, Phnom Penh.

Nicaise I and Groenez S (2001). Het gewaarborgd minimuminkomen : vangnet, valkuil of springplank? In, *Armoede en sociale uitsluiting - Jaarboek 2001*, (Ed Vranken J), Acco, Leuven, Belgium.

Noirhomme M, Griffiths F, Ir P *et al.* (2007). Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia, *Health Policy and Planning*, 22 : 246-262.

Normand C and Weber A (1996). Social Health Insurance. A Guidebook for Planning. Geneva, World Health Organization, 136 p.

Ravallion M (2003). Targeted transfers in poor countries. Revisiting the tradeoffs and policy options. *Policy Research Working Paper* 3048. The World Bank, Development Research Group, Poverty Team, May 2003.

Rawlings LB (2005). A new approach to social assistance: Latin America's experience with conditional cash transfer programmes, *International Social Security Review*, 58, 2-3 : 133-161.

Sen A (1995). Inequality reexamined. New Dehli: Oxford University Press.

Spiesschaert F (2005). *Methodology experience experts in poverty and social exclusion. Foundations, training and operation*. Acco, Leuven, Belgium, 146p.

Stierle F, Kaddar M, Tchicaya A and Schmidt-Ehry B (1999). Indigence and access to health care in sub-Saharan Africa, *International Journal of Health Planning and Management*, 94, 2 : 81-105.

Van Damme W, Van Leemput L, Ir P, Hardeman W, Meessen B (2004). Out-of-pocket expenditure and debt in poor households: evidence from Cambodia, *Tropical Medicine and International Health*, 9 : 273-280.

Van Meerbeeck A and Criel B (2006). Gezinszorg nog niet thuis. Onderzoek naar het ondergebruik van de diensten gezinszorg door de senioren in Kruibeke, *OCMW-Visies*, 1 : 23-28.

von Maydell B, Borhardt K, Henke KD, Leitner R, Muffels R, Quante M, Rauhala PL, Verschraegen G and Zukowski M (2006). In: Enabling social Europe, *Series Wissenschaftethik und Technikfolgenbeurteilung*, Springer Berlin Heidelberg Nework, 336p.

Vranken J and De Boyser K (2003). Armoede tussen wereld en leefwereld. In *Armoede en sociale uitsluiting. Jaarboek 2003* (Edts: Vranken J, De Boyser K and Dierckx D), Acco, Leuven, Belgium, 27-46.

Waelkens M-P and Criel B (2004). Les mutuelles de santé en Afrique Sub-Saharienne. Etats des lieux et réflexions sur un agenda de recherche. *Health, Nutrition and Population Discussion Paper*. World Bank, 93p.

Waelkens M-P, Soors W and Criel B (2005). The role of social protection in reducing poverty : the case of Africa. *Extension of Social Security Paper N°22*, Geneva, International Labour Organisation, Strategies and Tools against social Exclusion and Poverty (STEP) Programme, 46p.

Willis CY and Leighton C (1995). Protecting the poor under cost recovery: the role of means testing, *Health Policy and Financing*, 10, 3 : 214-56.

Part 4 : Scheme evaluation

*Challenges in identifying the poor:
An assessment of household eligibility for Health
Equity Fund after four years of pre-identification in
Oddar Meanchey, Cambodia*

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Wim Van Damme

Abstract

In developing countries, waivers and exemptions of user fees often fail to preserve equitable access to health services. In Cambodia, Health Equity Funds (HEFs) have been successful in addressing the failure of waivers to improve access to government health services for the poor. In this study, household eligibility for HEF in Oddar Meanchey was evaluated, based on data collected from a household survey conducted four years after pre-identification. Three tools were used to assess the level of HEF eligibility for each household: a scoring tool that replicated the one used at pre-identification, an assessment by interviewers and a SES index, constructed through principal components analysis. In Oddar Meanchey, the targeting errors that resulted from all the tested tools were high. It seems that the HEF entitlement status of households as it was granted through pre-identification four years earlier does not reflect the real current poverty situation of households anymore. We outline several reasons for this phenomenon and recommend ways to minimize targeting error in the future. Regular updates of pre-identification in combination with post-identification should be considered.

Introduction

In low- and middle-income countries where the public funding of health services is deficient and social health insurance is underdeveloped, access to affordable and effective health care remains a major problem. A large share of health care costs is paid directly out-of-pocket by users, which is a major

cause of impoverishment (Whitehead *et al.* 2001; Meessen *et al.* 2003; Van Doorslaer *et al.* 2006). Furthermore, distribution of health service coverage within low- and middle-income countries is highly inequitable (Gwatkin 2004).

The poor and vulnerable groups often encounter numerous barriers to accessing health care from both supply and demand sides (Ensor and Cooper 2004; O'Donnell 2007). User fees are one of the main barriers to accessing government health services in low-income countries (Palmer *et al.* 2004). Waiver and exemption systems have been introduced to preserve equitable access to health services, but in practice, in most cases they do not work. One of the main reasons for the failure of waiver and exemption systems is the absence of proper tools and an accurate procedure to identify the eligible poor (Arhin-Tenkorong 2001; Tien and Chee 2002; Bitran and Giedion 2003).

Poverty is a multi-dimensional, dynamic and context-specific phenomenon. Despite many available approaches to measuring poverty, it remains a major challenge to determine who is poor and eligible for a targeted intervention, particularly in low-income countries where the majority of the population is illiterate, lives in rural areas and works in the informal sector and thus income criteria are often not reliable and feasible (Falkingham and Namazie 2002; Carr 2004; Coady *et al.* 2004). Waivers are a form of direct or individual/household targeting. Developing an effective mechanism for identifying the poor is crucial for the success of waiver systems, but it is difficult and faces many design issues, including (1) when should the waiver eligibility be determined, at the community before health care demand or when individuals seek care at the health facility; and (2) how often should eligibility be assessed (Tien and Chee 2002; Bitran and Giedion 2003).

In Cambodia, Health Equity Funds (HEFs) have been successful in addressing the failure of waiver systems to improve access to government health services for the poor. HEF is entrusted to a third party purchaser to identify the eligible poor and provide them assistance. HEF beneficiaries are identified according to a set of pre-defined eligibility criteria, either at the community before health care demand (pre-identification) or at the health facilities through interviews (post-identification) (Hardeman *et al.* 2004; Jacobs and Price 2005; Annear *et al.* 2006; Noirhomme *et al.* 2007). In 2007,

there were 27 hospital-based HEF schemes under operation in Cambodia. Some use exclusively pre- or post-identification while others use both. Choice between both methods is debatable; each has its advantages and disadvantages (MoH *et al.* 2006). The study by Hardeman and his colleagues (2004) showed that post-identification as a stand-alone strategy left many potential beneficiaries uncertain about their eligibility. Others argue that post-identification is easy to start and less expensive than pre-identification, while producing similar results. A comparative analysis of four HEFs in Cambodia showed that hospitalisation by the poor identified through post-identification in Sotnikum did not differ from the hospitalisation of those with pre-identification (Noirhomme *et al.* 2007).

In this paper, we will examine the pre-identification procedure for HEF in Oddar Meanchey province, assess the HEF eligibility status of households for years after the pre-identification, and draw some lessons on the strengths and weaknesses of pre-identification in targeting the poor.

In the next section of the paper, the background for this study is being explored, both in Cambodia and more specifically in Oddar Meanchey. A third section focuses on the methodology used in our survey and subsequent statistical analysis. The fourth part presents the results on the HEF eligibility of cardholders versus non-cardholders. Finally, the discussion section explores our research question, i.e. whether the HEF entitlement status (cardholdership) of households as it was granted through pre-identification four years before was still accurate now, several years later and what the use and merits of pre-identification, post-identification or potential other procedures are.

Background

THE CAMBODIAN CONTEXT AND HEALTH EQUITY FUNDS

Even with political stability and economic growth, Cambodia remains one of the poorest countries in the region and in the world. Thirty five percent of the Cambodian population are living under the poverty line and rural poverty accounts for almost 90%.

For the health sector, considerable achievements have been made. The utilization of the public facilities has increased. However, access to government health services remains difficult especially for the poor. The

health service provision is overwhelmingly dominated by the (mostly informal and regulated) private sector. Furthermore, health care in Cambodia is relatively expensive and relies heavily on private spending. Although the public spending on health care is increasing, more than two thirds of health expenditure is paid out-of-pocket by the Cambodian households. (For more information about the Cambodian context, please refer to the paper by Annear *et al.* in this issue). To address the above problems, many health financing mechanisms, including Health Equity Funds, have been developed.

Health Equity Funds (HEFs) are demand-side financing schemes to promote access to priority public health services for the poor in an environment where user fees are charged. HEFs act as a third party purchaser to identify eligible poor and pay for them fully or partially the cost of user fees, transport cost and other costs during hospitalisation. HEF beneficiaries are identified according to a set of pre-defined eligibility criteria, either at the community before health care demand (pre-identification) or at the health facilities through interviews (post-identification) (See also the paper by Jacobs and Price in this issue). Pre-identification is a snapshot screening of poor households in the community at one point in time. The eligible poor households were systematically assessed at their home based on a few observable proxy means-tests, prior to the episode of illness. Post-identification is performed at the point of use. It takes place in the hospital premises, when patients ask for it or when they are referred for financial assistance.

HEF pilots were initiated in 2000 and showed that the HEF effectively improved equity in access to health services and potentially protected the poor from high cost of health care. HEFs were also considered an efficient way to transfer resources to the poor, as it purchased the already-heavily subsidized public health services (Knowles 2001; Van Damme *et al.* 2001; Meessen *et al.* 2002; Hardeman *et al.* 2004). These convincing results drew attention from international agencies, donors and policy makers. Progressively, HEFs were replicated in many other places and produced similar results (Nguyen 2004; Jacobs and Price 2005; Annear *et al.* 2006; Noirhomme *et al.* 2007).

In 2003, HEFs became an integral component of the Health Sector Strategic Plan 2003-2007 and the National Poverty Reduction Strategy 2003-

2005 (see also Annear *et al.* in this issue). In September 2003, the Ministry of Health developed its first Strategic Framework for Equity Funds, laying out the guiding principles for design, management, and evaluation of HEFs. Building on past and current experiences and the lessons learned, and in an effort to translate the strategic framework into a concrete policy implementation tool, the Ministry of Health developed a National Equity Fund Implementation & Monitoring Framework.

In late 2006, the Ministry of Health and Ministry of Economy and Finance jointly issued a *Prakas* (directive) stipulating the allocation of state budget for subsidizing the poor when accessing public health services through reimbursement of user fees. This allowed the Ministry of Health to set up exemption reimbursement schemes in 6 national hospitals and 9 health districts, where there are no HEFs. They are labelled government subsidy schemes. In 2007, there were 27 hospital-based HEF and 15 government subsidy schemes under implementation in Cambodia.

CONTEXT IN ODDAR MEANCHEY, HEALTH EQUITY FUND AND PRE-IDENTIFICATION

Oddar Meanchey is a poor province in the North-West of Cambodia with a total population of 150,000. The poverty headcount in 2004 showed that between 45% and 60% of the population in Oddar Meanchey were under the national poverty line of US\$0.45 per day while the national average was 35% (World Bank 2006). According to the Cambodian Demographic and Health Survey 2005, more than two thirds of the population in Oddar Meanchey were located in the two lowest national poverty quintiles (NIPH and NIS 2006). There are 10 functional government health centres providing first line health services and a provincial hospital providing second level care, including general inpatient care and surgical interventions.

The Ministry of Health with technical and financial support from the Belgian Technical Cooperation (BTC) started a HEF in January 2005 in Oddar Meanchey provincial hospital. Both pre- and post-identification methods have been used to identify the eligible poor. We hereafter describe pre-identification.

Prior to the start of HEF, a systematic pre-identification of poor households was conducted in 2004 in the whole province of Oddar Meanchey. UNICEF helped develop a scoring tool and eligibility criteria to assess a household's socio-economic status. The tool consists of 9 proxy

socio-economic indicators. Each can be scored between 0 and 3 (Table 1). The households who get a total score of less than 8 are considered non-poor and not eligible for HEF. The households who get a score between 8-9 and 10-11 are considered poor and eligible for HEF support of respectively 50% and 75%. The households who obtain a score of 12 or above are considered very poor and eligible for HEF support 100%. In total, 8,084 households (30% of households in the province) were identified as eligible for HEF and given cards with two-year validity. The cards entitled all members of the households to HEF assistance.

The pre-identification was done by the local health authority and community with technical assistance from UNICEF. The process of pre-identification could be summarized in six steps as follows: (1) establishment and training of a pre-identification team composed of three members from the provincial health department and three from UNICEF and NGOs in the area. The team was responsible for all tasks related to the pre-identification, including training of the community representatives at health centres; (2) a workshop by the pre-identification team with community representatives at health centres to sensitize them and teach them the basics of the pre-identification, including the objective, benefit, procedure and tool and how to use the tool. A questionnaire sheet with the scoring tool was given to each of the community representatives to complete for those households they assessed as being poor; (3) collection of the completed questionnaire and calculation of the score for each household by the working team. Based on the score level, a list of the potentially poor households was made; (4) visits by the working team to all listed households who were informed in advance by village chiefs. During the visit, the team interviewed the households to verify the eligibility and took photos and found those poor households who had been overlooked by the community representatives. A temporary card was made on the spot and given to each eligible household with brief explanation about the benefit and use of the temporary HEF card; (5) data entry and card development by the working team. All the household data were systematically entered in the computer using MS Access and a HEF card was printed; and (6) distribution of HEF cards and further explanation about the entitlement, benefits and some instructions for use.

Table 1. Scoring tool developed by UNICEF for pre-identification

	Score 0	Score 1	Score 2	Score 3
Status Head of Family	Married	Divorced, widow, single		
Professional Occupation	Yes regular	Irregular	None	
Children under 18 years	None	1 - 2	3 - 5	> 5
Dependent elderly	None	Yes		
Housing	Concrete, wood	Leaves, thatch, clay	None	
Transport means	Motorcycle	Bicycle, oxcart	None	
Rice Land	> 2 hectares	1 - 2 hectares	<1 hectare	None
Cows and buffaloes	3 or more	1 - 2	None	
Pigs	2 or more	1	None	

Despite pre-identification, many patients without HEF cards still claimed that they were poor and applied consequently for HEF assistance when in need of hospital care. Post-identification was therefore introduced in the hospital as a complement to the pre-identification. Since the beginning, the HEF supported rate among the total inpatients at the provincial hospital has been high with an increasing number of HEF beneficiaries being post-identified at the hospital, which raised an obvious concern about the validity of the cards and the necessity of pre-identification. In 2007, since most of the given cards were expired by then, the BTC had to decide whether to update the pre-identification procedure or cancel the cards altogether and let the HEF beneficiaries be exclusively post-identified. Before making such a critical decision, BTC commissioned an assessment of HEF eligibility among card and non-cardholders.

Methodology

A household survey was conducted in mid 2007 in Oddar Meanchey province, about four years after pre-identification had been implemented. We randomly selected 200 households. Of them, 99 were households with HEF cards (Cardholders) while 101 households had no HEF cards (Non-cardholders). The 99 cardholder households were selected from the list of

HEF beneficiaries, using systematic random sampling while the 101 non-cardholder households were randomly identified in the village from the neighbours of the selected cardholders.

A structured questionnaire was administered to the head of household or his/her spouse of the selected households by two independent and trained surveyors, after an informed consent was obtained. Data were collected on characteristics of the head of household (gender, marital status and job status), HEF cardholdership of household, household composition, housing condition, household socio-economic indicators (ownership of agricultural land, ownership of durable assets, ownership of animals, basic income and expenditure, social capital, indebtedness), perceived change of living condition, and household migration status. The collected data were handled with MS Excel. Both the data collection and entry were supervised by a trained researcher. To allow comparison, the two interviewers were asked to give their assessment whether the household was better-off/non-poor, poor, or very poor, using their subjective criteria, at the end of each interview. The assessment depends very much on the experience and capacity of the interviewers and is based on all the information they have obtained during the interview.

The data analysis was done by the authors of the report, using SPSS version 16. Based on information collected from interviews, we made use of the UNICEF scoring tool (Table 1) to define HEF eligibility for each household. We also calculated a socio-economic status-index, after applying principal components analysis (PCA) on a number of asset-items. Nine items were eventually selected to make up this Socio-Economic Component.¹ This socio-economic status (SES) score was divided into terciles: the lowest category with the poorest, a middle category with the poor, and the highest category with the non-poor. Obviously, just as is the case with the UNICEF tool, there is some arbitrariness in our computed PCA-SES score in terms of the cut-off points and even the respective size of these three categories. Using terciles (or quintiles) is however common practice in this kind of research (For a more detailed overview of the application of PCA on household-asset

¹ The 9 items that were selected, after PCA, were: 'have a motorcycle', 'have a television', 'have a tape recorder or radio', 'have a mobile phone', 'have a *Kouyun*', the amount of riceland, the job status of the household head, the marital status of the household head, and the quality of the housing.

items, see also the paper by Meessen *et al.* in this issue). We then matched these indices and tools with the assessment made by the interviewers and with the cardholdership.

The assessment of HEF eligibility status of the households was made in two stages. First, we assessed the HEF eligibility within two categories of households: the group eligible for HEF and the group not eligible. Second, we subdivided the group eligible for HEF in two sub-groups (the near-poor/poor and the very poor) for the classification by interviewers, three sub-groups (50%, 75%, and 100% eligible) for the classification by UNICEF tool and two sub-groups for the PCA score (lowest tercile; middle tercile). The assessment focused on the very poor, on the 75% & 100% eligible sub-group or on the lowest tercile. This second stage assessment allows us to find out what the targeting outcomes of the HEF would be if it only targeted the poorest or destitute.

Targeting errors, a sum of inclusion and exclusion errors, were estimated based on the HEF eligibility status of the total sample of 200 households. We define inclusion errors as the proportion of households not eligible for HEF among 99 HEF cardholder households and exclusion errors as the proportion of non-cardholder households among those who are eligible for HEF.

Results

GENERAL DESCRIPTION OF THE SAMPLE

Among the 200 interviewed households, 99 are HEF cardholders and 101 are non-cardholders. In the total 200 households, there are 1,052 individuals. The mean size of the household is 5.25 (Std. Deviation = 1.996).

According to some basic socio-economic indicators (Table 2), on average our sample seems to be poorer than the sample of the Cambodia Demographic and Health Survey (CDHS) conducted in 2005. But these socio-economic indicators appear not significantly different for cardholders and non-cardholders (Table 3).

One hundred forty one (71%) of the interviewed households reported that the standard of living of their household has changed compared to four years ago; there is no significant difference between the cardholders and non-cardholders. About 39% (39.4% for cardholders versus 37.6% for non-

cardholders) of them claimed their standard of living was actually better than four years before while around 32% of households (30.3% for cardholders and 33.7% for non-cardholders) assessed their standard of living as worse than before. The three main reasons for an improvement in a household's standard of living were selling land,² better crop production and having good business while the three main reasons stated for worse living conditions were being jobless, having (a) chronically ill person(s) within the household and having too many children.

Many households reported that they had adopted risky coping strategies, such as selling productive assets and borrowing from money lenders, to pay for health care. The incidence of selling assets and borrowing for health care over the last 12 months is not significantly different for cardholders and non-cardholders. Among the total 200 households, 14% (12.1% for cardholders and 15.8% for non-cardholders) reported that they had sold assets, including land, and 19% (23.2% for cardholders and 14.9% for non-cardholders) reported that they had borrowed money due to health care costs. 18% of the loans were taken from moneylenders with relatively high interest.

Among the interviewed households, 67 (33.5%) migrated from other places. 55.2% of the migrant households were non-cardholders and have been living in the village for less than four years (Table 3).

² In some areas of the site, the price of land has increased considerably. Some households sold part of their land and made quite some money that could make them wealthy, at least for the short-term.

Table 2. Some basic household socio-economic indicators

Indicators	Oddar Meanchey Study sample 2007 (N = 200)	Cambodia CDHS 2005
Mean size of households	5.2	5.0
% of households having a bicycle	62.5	68.3
% of households having a motorcycle	34.5	34.6
% of households having a car	0.5	3.6
% of households having a tape recorder or radio	28.5	49.6
% of households having TV	32.5	55.2
% of households having a telephone/cell phone	20.0	20.1
% of households owning farm animals	49.5	73.1

Table 3. Some basic household socio-economic indicators
(cardholders versus non-cardholders)

Indicators	Cardholders (N = 99)	Non-cardholders (N = 101)	P-values
Number of households having a bicycle (%)	63 (63.6)	62 (61.4)	.742
Number of households having a motorcycle (%)	32 (32.3)	37 (36.6)	.521
Number of households having a car (%)	1 (1.0)	0 (0)	.321
Number of households having a tape recorder/radio (%)	27 (27.3)	30 (29.7)	.703
Number of households having TV (%)	32 (32.3)	33 (32.7)	.958
Number of households having a telephone/cell phone (%)	14 (14.1)	26 (25.7)	.040
Number of households owning farm animals (%)	56 (56.6)	43 (42.6)	.048

Indicators	Cardholders (N = 99)	Non-cardholders (N = 101)	P-values
Number of households owning agricultural land (%)	80 (80.8)	78 (77.2)	.534
Number of households having an oxcart (%)	18 (18.2)	14 (13.9)	.405
Number of households having a <i>Kouyun</i> ³ (%)	13 (13.1)	24 (23.8)	.053
Number of households having a better standard of living four years after pre-identification (%)	39 (39.4)	38 (37.6)	.726
Number of households with at least one day not enough to eat in the last 12 months	81 (81.8)	68 (68.0)	.025
Number of households carrying debts (%)	71 (71.7)	64 (63.4)	.207
Number of households ever borrowing to pay for health care within the last 12 months (%)	23 (23.2)	15 (14.9)	.207
Number of households ever selling assets to pay for health care within the last 12 months (%)	12 (12.1)	16 (15.8)	.448
Number of households being migrants (%)	30 (30.3)	37 (36.6)	.343

HEF ELIGIBILITY STATUS

In the bivariate analysis, we first match the eligibility status of the diverse (objective and subjective) tools with cardholdership. So, respectively the (objective) UNICEF tool, the PCA index and the (subjective) assessment by the interviewers are being matched with cardholdership, using a two-by-two table. As for the UNICEF tool and the interviewer assessment, the

³ It is a locally made car, which can be used for plough and transportation.

eligibility status is more or less straightforward. For the PCA index we assume, admittedly, in a rather arbitrary way, for these first tables, that the two lower terciles are eligible for HEF.

According to the eligibility classified using the UNICEF tool, 43 of the total 99 cardholder households (43.4%) are not eligible for HEF (inclusion errors) and 44 non-cardholder households (44%) are eligible for HEF (exclusion errors). In total, 87 of the total 200 households (43.5%) are wrongly included and excluded from HEF (Table 4). According to the classification by interviewers, 26 cardholder households (26.2%) are not eligible for HEF (inclusion errors) and 57 non-cardholder households (43.8%) are eligible for HEF (exclusion errors). In total, 83 households (41.5%) are wrongly included or excluded from HEF (Table 5). Finally, as we can see from Table 6 (PCA-SES score), the arbitrariness of cut-off points does not lead to a result much different from the interviewer assessment, in terms of inclusion errors; 28 cardholder households (28.3%) are not eligible for HEF (inclusion errors). But the exclusion error is higher than for the interviewer assessment; 62 non-cardholder households (46.6%) are eligible for HEF. Our rather arbitrary criterion (the two lower terciles) proves too wide. Eligibility for HEF can not be granted to 66.5% of the households.

Table 4. HEF eligibility classification by UNICEF tool

	Cardholders	Non-cardholders	Total
Not eligible for HEF	(43.4%) 43	57	100
Eligible for HEF	56	(44.0%) 44	100
Total	99	101	200

Table 5. HEF eligibility classification by interviewers

	Cardholders	Non-cardholders	Total
Not eligible for HEF	(26.3%) 26	44	70
Eligible for HEF	73	(43.8%) 57	130
Total	99	101	200

Table 6. HEF eligibility classification by PCA-SES score

	Cardholders	Non-cardholders	Total
Not eligible for HEF	(28.3%) 28	39	67
Eligible for HEF	71	(46.6%) 62	133
Total	99	101	200

In a second stage of the assessment, we will restrict the HEF eligibility somewhat for all these three indices. In the group eligible for HEF, there are two sub-groups (near-poor/poor and very poor) for the classification by interviewers, three sub-groups (50%, 75% and 100% eligible) for the classification by UNICEF tool and two sub-groups for the PCA score (lowest tercile; middle tercile). The very poor group and the lowest tercile are clearly eligible for HEF while the picture of the near-poor/poor group, the 50% eligible group and the middle tercile is more blurred though.

If we do not consider (for the UNICEF tool) the 50% eligible group for classification and (for the interviewer assessment) the near-poor/poor group, while (for the PCA scores) only the lowest tercile is being considered eligible for HEF, then the exclusion errors become smaller, 21 of the total 52 HEF eligible households (40.4%) for the UNICEF measure, 28 of the total 72 HEF eligible households (38.9%) for classification by interviewers and 28 of the total 66 HEF eligible households (42.4%) for the PCA-SES index (Table 7). This suggests that with any identification tool, targeting outcomes would be much better if the pre-identification focused on the extremely poor or destitute.

Table 7. HEF eligibility status defined by UNICEF tool, interviewers and PCA-SES score

Classification		Cardholders	Non-cardholders	Total
HEF eligibility classified by UNICEF tool	Better off/non-poor	(43.4%) 43	57	100
	50% eligible	25	23	48
	75% & 100% eligible	31	(40.4%) 21	52
	Total	99	101	200
HEF eligibility classified by interviewers	Better off/non-poor	(26.3%) 26	44	70
	Near-poor/Poor	29	29	58
	Very poor	44	(38.9%) 28	72
	Total	99	101	200
HEF eligibility classified by PCA-SES score	Highest tercile	(28.3%) 28	39	67
	Medium tercile	33	34	67
	Lowest tercile	38	(42.4%) 28	66
	Total	99	101	200

COMPARISON OF TARGETING OUTCOMES AMONG THE THREE ASSESSMENT TOOLS

Another question we explored is whether, if we assume that the interviewer assessment is our best guess at the current (real) eligibility status of a household - the *golden standard* - the UNICEF index leads to much inclusion and/or exclusion error. We tried to address the same question for the PCA-SES index (Table 8 and Table 9).

From the tables we can derive that - if we restrict inclusion and exclusion errors to movements between extreme categories⁴ - and we assume that the interviewer assessment is the golden standard, we find two inclusion errors and 13 exclusion errors for the UNICEF measure and no inclusion or exclusion error for the PCA-SES index. This indicates that the three tests

⁴ For example, the 'better off/non-poor' as they are being assessed by the interviewers, turn up in the 'very poor' category of UNICEF or PCA measure, or the 'very poor' turn up in the 'better off/non-poor' category of UNICEF.

result in rather similar targeting outcomes for extreme categories of poverty, although the UNICEF tool tends to produce relatively more targeting errors.

Table 8. Targeting outcomes between UNICEF tool and assessment by interviewers

		Classification by UNICEF tool			Total
		Better off/ non-poor	50% eligible	75% and 100% eligible	
Classification by interviewers	Better off/non-poor	58	10	2	70
	Near- poor/poor	29	22	7	58
	Very poor	13	16	43	72
Total		100	78	22	200

Table 9. Targeting outcomes between PCA-SES score and assessment by interviewers

		Classification by PCA-SES score			Total
		Highest tercile	Medium tercile	Lowest tercile	
Classification by interviewers	Better off/non-poor	50	20	0	70
	Near- poor/poor	17	33	8	58
	Very poor	0	14	58	72
Total		67	67	66	200

Discussion

In theory, a perfect targeting procedure does not omit any of those in the target group and does not include those outside the target group. In practice, targeting is seldom perfect. A programme that successfully targets the poor is a programme that can reach the maximum number of the eligible poor with minimum leakage to the non-poor, at low cost and in a transparent manner. It is in general a trade-off between accuracy and cost (Willis and Leighton 1995; Bitran and Giedion 2003; World Bank 2005; Hanson *et al.* 2006). A certain percentage of targeting errors can be accepted, depending on the availability of resources and political commitment and choice. The summary of country case studies on targeting through waivers by Bitran and Giedion (2003) showed that despite tremendous efforts to identify the poor, in many cases, coverage remained low and the leakage was high. The *Kartu Sehat* programme in Indonesia had a coverage of 11%, but the leakage was 39%. The coverage rates of Thailand's Low Income Card Scheme and Chile's National Health Fund were high at respectively above 80% and 90% with leakage of 45% and 50% respectively. In Oddar Meanchey, the HEF eligibility status of households assessed four years after the pre-identification showed that the targeting errors that resulted from all the tested tools were consistently high at about one half. Exclusion errors proved much bigger than inclusion errors. Are these results correct? If they are correct, why are the targeting errors so high? How can the errors be minimised?

The first question - whether the results are correct or not - is related to the limitations of the method used in this study. One can question the relevance of the above assessment tools and selection bias. To avoid bias, we used the same assessment tool of UNICEF which was used for the pre-identification together with an assessment by interviewers and a PCA-SES score. These three tools gave very consistent results of high targeting errors. Furthermore, the sample households were randomly selected to minimise selection bias, even though the sample size was relatively small. Therefore, we believe that generally speaking the above results of targeting errors are correct.

An obvious question is then: why are the targeting errors so high? Excluding the possibility of selection bias, several reasons could explain the errors. First, they could be caused by the errors of the pre-identification

procedure as it was implemented four years ago. During the pre-identification, the tool was applied by community representatives while in our survey the tool was handled by trained surveyors. Although community representatives could have better knowledge about the poverty in their area, administering such a tool to the households was not easy. Furthermore, conflicts of interests and fraud might happen (Conning and Kevane 2002). However, one can argue that the results would be substantially different if this assessment was done immediately after the pre-identification.

Second, the errors could be the result of socio-economic changes in the population. Poverty is not static but indeed a very dynamic phenomenon. The poor consist of those who have been poor for a long time (chronically poor) and those who move in and out of poverty (transiently poor) (CPRC 2004-05). Increasing evidence on poverty dynamics shows that the prevalence of transient poverty is significantly greater than that of chronic poverty. Substantial numbers of people in low-income countries move in and out of poverty from season to season and from year to year (Baulch and Hoddinott 2000; Thorbecke 2004). A five-year round panel data set for rural Pakistan showed that only 3% of the households were poor in all five years and half were poor in at least one period. Similarly, in rural South India, it was found in a nine-year panel survey that 22% of households were below the poverty line in each of nine consecutive years while almost 90% were poor in at least one of the nine years. In Cambodia, a 3.5-year panel survey by Cambodian Development Research Institute (CDRI 2006) showed that just over half of the studied households did not change their status while 48% moved in and out of poverty; 26% moved up and 22% moved down. Hence, identification of the poor at one point in time or pre-identification without regular updates may miss many of the transiently poor. This is particularly problematic if poverty identification is related to waivers of health care fees, as is the case here for HEF, because illness in the household is likely one of the most important factors for households dropping below the poverty line. In our study sample, more than one third of the interviewed households reported an improved living condition and about one third reported a worse living condition.

The socio-economic changes in the population in Oddar Meanchey could be caused by a variety of socio-economic factors. One of these factors could be the mobility of the population. 33.5% of the interviewed households reported to have migrated from other places and more than half

of the migrants had moved in the villages after the pre-identification. Another factor could be the impact of HEF on improving the household socio-economic status. Some evidence of HEF impact on household wealth is presented in two papers by Jacobs and Price and van Pelt *et al.* in this issue. In this study, we don't know to what extent HEF in Oddar Meanchey can affect the socio-economic changes. However, it seems that the HEF impact, if any, was limited because the exclusion errors among non-cardholders were not affected by HEF assistance. Moreover, the three main reasons for an improved living condition reported by one third of the households were selling land, better crop production and having good business.

This indicates that pre-identification, which is a snapshot survey, has some obvious weaknesses in identifying the poor, as it does not address the issue of poverty dynamics. However, it could be a very good approach to identifying the extremely poor or destitute. Evidence from a targeted programme in Mexico, the PROGRESA, showed that pre-identification was relatively more effective at identifying the extremely poor households but less so when it comes to selecting moderately poor households (Skoufias *et al.* 1999). In our sample, the errors, especially the exclusion errors can be minimised if we do not consider the near-poor and poor group. Therefore, to minimise the identification error, pre-identification should be implemented in combination with post-identification. The pre-identification targets the chronically poor or extremely poor while the post-identification targets the transiently poor (i.e. the less poor or the vulnerable group). For pre-identification, there is a need for regular updates of the entitlement (once every year or every two years).

Finally, we can conclude that HEF entitlement status of households, as it was granted through pre-identification four years ago in Oddar Meanchey, does not reflect the real current poverty situation of households anymore. The HEF eligibility should be updated regularly. If the authorities or donors want to continue to use the HEF cards, a systematic review should be considered. Another option is to cancel the cards and use exclusively post-identification.

References

Annear PL, Wilkinson D, Chean MR, van Pelt M (2006). Study of financial access to health services for the poor in Cambodia. Ministry of Health, WHO, AusAID and RMIT University, Phnom Penh, 2006.

Arhin-Tenkorang D (2001). Mobilising resources for health: the case for user fees revisited. *Centre for International Development at Harvard University*. Working Paper No. 081.

Baulch B and Hoddinott J (2000). Economic mobility and poverty dynamics in developing countries. *Journal of Development Studies*; special issue.

Bitran R and Giedion U (2003). Waivers and exemptions for health services in developing countries. World Bank, Social Protection Discussion Paper Series; No.0308.

Carr D (2004). Improving the health of the world's poorest people. *Health Bulletin* 1, Washington, DC: Population Reference Bureau.

CDRI (2006). Moving out of poverty in Cambodia. *Cambodian Development Research Institute*, Phnom Penh, Cambodia.

Coady D, Grosh M and Hoddinott J (2004). Targeting of Transfers in Developing Countries: Review of Lessons and Experience. World Bank, Washington.

Conning J and Kevane M (2002). Community-based targeting mechanisms for social safety nets: A critical review, *World Development*, 30, 3 : 375-394.

CPRC (2004-05). The chronic poverty report 2004-05. The Chronic Poverty Research Centre, Institute for Development Policy and Management, University of Manchester, UK.

Ensor T and Cooper S (2004). Overcoming barriers to health service access: influencing the demand side, *Health Policy and Planning*, 19 : 69-79.

Falkingham J and Namazie C (2002). Measuring health and poverty: a review of approaches to identifying the poor. DFID Health System Resource Centre, London.

Gwatkin DR, Bhuyia A and Victoria CG (2004). Making health systems more equitable, *Lancet*, 365 : 1273-80.

Hanson K, Worrall E and Wiseman V (2006). Targeting services towards the poor: A review of targeting mechanisms and their effectiveness. *Health System Resource Guide*.

Hardeman W, Van Damme W, van Pelt M, Ir P, Kim Van H and Meessen B (2004). Access to health care for all? User fees plus a health equity fund in Sotnikum, Cambodia, *Health Policy and Planning*, 19 : 22-32.

Jacobs B and Price N (2005). Improving access for the poorest to public sector health services: insights from Kirivong operational health district in Cambodia. *Oxford University Press and The London School of Hygiene and Tropical Medicine*.

Knowles J (2001). An Economic Evaluation of the Health Care for the Poor Component of the Phnom Penh Urban Health Project.

Meessen B, Van Damme W, Ir P, Van Leemput L and Hardeman W (2002). The New Deal in Cambodia: the second year. Confirmed results, confirmed challenges. MSF Phnom Penh, Cambodia.

Meessen B, Zhengzhong Z, Van Damme W, Devadasan N, Criel B and Bloom G (2003). Iatrogenic poverty, *Tropical Medicine and International Health*, 8 : 581-584.

MoH, WHO, BTC (2006). Report health equity fund forum. Phnom Penh, Cambodia.

Nguyen A (2004). The Svay Rieng health equity fund: A project evaluation. UNICEF Phnom Penh, Cambodia and University of Texas School of Public Health Dallas, Texas.

NIPH and NIS (2006). Cambodia demographic and health survey 2005. Phnom Penh, Cambodia.

Noirhomme M, Meessen B, Griffith F, Ir P, Jacobs B, Thor R, Criel B and Van Damme W (2007). Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia, *Health Policy and Planning*, **22** : 246-262.

O'Donnell O (2007). Access to health care in developing countries: breaking down demand side barriers, *Cad Saude Publica*, **23**, 12 : 2820-34.

Palmer N, Mueller DH, Gilson L, Mills A and Haines A (2004). Health financing to promote access in low income settings -how much do we know?, *Lancet*, **364** : 1365-70.

Skoufias E, Davis B and de la Vega S (1999). Targeting the poor in Mexico: An evaluation of the selection of households into PROGRESA. *International Food Policy Research Institute*, Washington DC, USA.

Thorbecke E (2004). Conceptual and Measurement Issues in Poverty Analysis. *UNU-WIDER*; Series: WIDER Discussion Paper.

Tien M and Chee G (2002). Literature review and findings: implementation of waiver policies. Partners for Health Reform Plus; No. TE009.

Van Damme W, Meessen B, Von Schreeb J, Thayly H, Thome JM, Overtom R, Ir P (2001). Sotnikum New Deal, the first year. *MSF Cambodia*.

Van Doorslaer E, O'Donnell O, Rannam-Eliya RP *et al.* (2006). Effect of payment for health care on poverty estimates in 11 countries in Asia: an analysis of household survey data, *Lancet*, **368** : 1357-64.

Whitehead M, Dahlgren G and Evans T (2001). Equity and health sector reforms: can low income countries escape the medical poverty trap?, *Lancet*, 358 : 833-6.

Willis CA and Leighton C (1995). Protecting the poor under cost recovery: the role of means testing, *Health Policy and Planning*, 10 : 241-56.

World Bank (2005). Designing and implementing households targeting: Lessons from Latin America and the United States. Social Protection Discussion Paper Series, No. 0526. Social Protection Unit, *World Bank*.

World Bank (2006). Halving Poverty by 2015? Cambodia Poverty Assessment 2006. Phnom Penh, Cambodia.

Community Perceptions of Pre-identification Results and Methods in Six Health Equity Fund Areas in Cambodia

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Abstract

In Cambodia, different methods are used to pre-identify poor households as eligible beneficiaries for support by a health equity fund. This paper reviews the experience in six different schemes; the perspective of local actors is taken. Our postulate is that the perceived fairness of the HEF pre-identification is an important measure of the quality of the targeting process, one which is relatively simple to measure, as well as an important condition enabling the scheme to function properly and to receive ongoing community support. Semi-structured interviews were carried out with local staff involved in the health equity fund program, with village authorities and with beneficiaries. The study shows that pre-identification is carried out in different manners across the schemes: different stakeholders are involved, different eligibility criteria are used and different processes are followed for making lists and enrolling poor households into the scheme. Interviews with beneficiaries suggest that in all the six schemes, the pre-identification was well accepted and assessed. Local informants did not report major mistakes in terms of targeting, but are a precious source of information for making programs even better.

Introduction

In many developing countries, access by the poor and very poor to public health services is an issue. Studies have shown that user fees are one of the main barriers (Noirhomme *et al.* 2007). Among the governments not considering the abolishment of user fees, several have been exploring complementary strategies such as fee waivers, health equity funds (HEFs) and community-based health insurance (CBHI) (Ir and Bigdeli 2007).

The Cambodian government has recently come to recognize that

health financing is one of the core functions of any health system, linking up with poverty reduction (MoH 2006a). In this domain, a number of health reform mechanisms have been tested in the country, such as the user fee system, subcontracting of government health service delivery to nongovernmental providers, CBHI and HEF schemes, the focus of this study (Annear *et al.* 2006, MoH 2006a).

HEFs were pioneered for the first time in Cambodia in 2000 (Bitran *et al.* 2003; Hardeman *et al.* 2004; Jacobs and Price 2006). As early evidence showed that HEFs were effective in removing barriers to accessing public health care services for the poor (Hardeman *et al.* 2004), the strategy spread rapidly across the country (for further information on the history of development of HEF see Annear's article in this book).

The HEF strategy is very straightforward: it consists in improving access to health care services for the poor and poorest by paying the health care provider on their behalf, through a third-party payer. In most HEFs, this third-party role is entrusted to a local non-governmental organization (NGO), with funding from international donors. The benefit package usually includes the user fees, but also other participation costs such as transport and food during hospital stay. One important factor contributing to the effectiveness of HEF is its targeting strategy. Targeting the right beneficiaries is a fundamental objective of HEF schemes. The targeting approach must be accurate, cost-effective and fair to individuals and the community. As indicated by Meessen and Criel (see elsewhere in this book), proper targeting ensures exclusion of the rich from benefits (i.e. prevents leakages) and maximizes resources for the poor (the target group). Till recently, there was no real national guideline on how to operate HEF. This has led to some creativity among local NGOs in their approach of identifying the beneficiaries.

In terms of time of identification and entitlements, two methods are most commonly used in Cambodia. The first is called pre-identification: the poor household is identified at community level (often after a home visit) prior to the episode of illness. The second method is called post-identification, or passive identification. The post-identification is performed when patients come to use health services and ask for assistance, or when health staff refer them for financial assistance. The identification is done by the HEF operator operating inside the hospital, not at the community level.

This study focuses on HEF schemes relying on the pre-identification

strategy. It reviews and compares the implementation approaches adopted by six different HEFs and reports their performance in terms of targeting accuracy and perception of fairness. Local stakeholders, and beneficiaries in particular, are the main source of information.

The study, commissioned by an international organization involved in HEF implementation, served originally two purposes. The first was to provide immediate detailed feedback to the HEF program management team during the time of the study on how processes and actual results were perceived by the communities served. This provided useful management information for the HEF in question and useful monitoring information for HEF implementing agencies. The second purpose was to provide an overall assessment of the effectiveness of each HEF program under study in terms of the acceptability and fairness of their pre-identification process of poor households in selected villages. We believe that this study has also some relevance beyond the six programs under review. Among other things, it opens the research agenda on HEF as seen from a community perspective.

The structure of this paper is as follows. Section 2 describes the methodological approach used. Section 3 presents the results of the study, giving both qualitative and quantitative information to describe the pre-identification methods used by different organizations implementing HEFs in six different areas of the country. The last section of the paper offers a general discussion of the study and its limitations, then concluding with an overall analysis and some key research questions for future study.

Methodology

This study was carried out with six HEF schemes, five implemented in rural areas (Pursat, Chhlong, Mung Russey, Monkolborei and Svay Rieng) and one in an urban slum area in Phnom Penh city. Data collection was carried out in mid-2005, but the information in this paper has been updated using secondary data, such as annual reports and recent studies of HEFs (Annear *et al.* 2006).

Interviews were carried out with local staff managing HEF programs, especially with those involved in the pre-identification process. Interviews were also conducted with village chiefs, to find out if they had been involved in pre-identification in any way and to obtain their opinions and perceptions of the process and results. Not all village chiefs were present during the

study, because they were not informed prior to the fieldwork.

In selecting households for interview, several steps were taken. First, the researchers obtained a list of all the administrative districts covered by the HEF within the province and randomly selected one district. Second, within the selected district, two communes were randomly selected (in Pursat, only one commune was selected). Third, within each selected commune, one village was randomly selected. Finally, from each selected village, a list was obtained of all households that had received HEF cards. From this list, 15 households were randomly selected for interview. This selection process was carried out for all the five rural HEF schemes under study. For the one urban HEF, selection started from five poor communities covered by the Urban Sector Group (USG) in the Phnom Penh area. One slum was randomly selected from the five, then two villages were randomly selected. In each village, 15 households were randomly selected for interview. The total sample selected from the six HEF schemes was 175 households.

Once the households were selected, two researchers each took a list and went separately to the villages to locate the families, with the assistance of NGO staff. Owing to the nature of random sampling, some villages were very remote and difficult to reach. Some families were not home. In these cases, more time was spent locating the households.

Open interview questions were used to interview NGO staff and village chiefs to collect information on the structure of each HEF program, how the pre-identification team was organized, how the list of poor households was made, what the process of pre-identification was, and how the HEF card was distributed in the community.

An open-ended interview technique was also used for interviews with local villagers. One of the objectives of the study was to assess the accuracy of the identification process. To obtain the *false negatives* (i.e. poor families who were not granted the entitlement, for any reason), respondents were asked whether they knew any households in their village that were *just as poor* or *poorer* than them but did not receive HEF cards. If the answer was 'yes', respondents were asked to provide the name and address of those households¹, and their opinion on why the households did not receive HEF cards. Similarly, to obtain the *false positives* (i.e. non-poor families that have

¹ In asking this question, the researchers ensured the respondent that their answers will be kept confidential.

been granted the entitlement), respondents were asked whether they knew any households in their village that were *better-off* than them but received HEF cards. If the answer was 'yes', respondents were asked to provide the name and address of those households, and their opinion on why the households received HEF cards if they were not poor. In order to verify this, the researchers then went to the false negative and false positive households to check whether respondents had reported correctly, using observation and informal interview.

All respondents were also asked to give their opinions and perceptions of the pre-identification carried out in their village, and to state whether they thought the process was fair and complete and whether they found the benefit package sufficient for accessing necessary care and treatment. Respondents were also asked about their experiences in using their HEF cards at health care facilities.

Interviews with HEF staff were taped, recorded and transcribed. Interviews with village chiefs were written down in field notes for later analysis. The analysis was carried out using qualitative techniques, by coding individual interviews and searching for themes and patterns related to the topic of study. Interviews with heads of households were analyzed using qualitative techniques to identify factors contributing to false negatives and false positives in the villages. Quantitative analysis was carried out using Microsoft Excel, calculating the percentage of false negatives or false positives (dividing the number of false negatives or positives reported by the villagers by the total number of families in the two villages and multiplying that number by 100).

Results

The results of this study are presented in several parts. The first part provides a detailed description of the organization of the pre-identification and the approach used in making household lists for interview, setting poverty criteria and distributing entitlements. The second part gives the number of false positive and false negative households reported by respondents in selected villages, and what respondents perceived to be the factors contributing to this. The last part presents overall local perceptions of the acceptability and fairness of pre-identification methods carried out in the villages.

GENERAL DESCRIPTION OF THE SCHEME OPERATION

Organization of pre-identification

The organizational structure of a pre-identification process may contribute to the efficiency and cost-effectiveness of the whole targeting program.

Two HEF schemes in rural areas (Banteay Meanchey and Pursat) were implemented by CFDS (Cambodian Family Development Service). This local NGO entrusted the pre-identification work mainly to eight permanent staff and two community networkers. The latter were in charge of establishing networks with village volunteers to help disseminate information about the HEF program and health-related information and to assist in finding households, especially the poor, for pre-identification. In the CFDS 'model', the community network is also important for providing information to the community and for getting feedback on the problems and concerns of the people with regard to the pre-identification process, the benefits received, and the actual use of the service with HEF entitlements.

The HEF schemes in Moug Russey and Chhlong, implemented by AFH (Action for Health), have a different organizational structure. Instead of using permanent staff, AFH recruits a temporary volunteer group (high school students) specifically to carry out pre-identification in the coverage area. The project manager and two project assistants, each selected from the districts covered, manage the whole pre-identification process and coordinate between the NGO and the local communities. Also different from CFDS, AFH has established HEF management committees in the villages, with members selected by HEF beneficiaries themselves. The committees are responsible for locating poor families that have not been identified during pre-assessment, helping to educate villagers on obtaining quality health care, assisting families supported by the HEF to access health care, and reporting any problems back to the NGO implementing the scheme.

UNICEF's HEF scheme in Svay Rieng is also located in a rural area but is quite different from the schemes of both CFDS and AFH, in several ways. As far as pre-identification is concerned, the UNICEF's scheme is in fact implemented by three different agencies (UNICEF, HealthNet and a local NGO), and each agency covers a different operational district. For pre-identification, two operational district hospital staff are hired to work as coordinators between the HEF program and 'village health volunteers'. These two staff are responsible for training the volunteers to carry out pre-

identification and also for taking photographs of qualifying families in all three operational districts.

The organizational structure of USG's HEF program in poor urban communities in Phnom Penh is as follows. At the implementing agency level, there is an HEF manager and two community outreach coordinators, similar to the community network in rural areas. The project manager oversees the whole pre-identification process, including training user group members on pre-identification methods and managing the data entry database program, and is sometimes involved in card distribution. The two community outreach coordinators serve as intermediaries between communities and the Municipal Hospital, helping to improve communication between doctors and HEF patients admitted to the hospital. They also help to protect patients from abuse by medical staff, to push for better quality and to help solve general problems that HEF beneficiaries might have. At the community level, user group members are recruited through community voting to act as community representatives and to network between the people and the NGO implementing the HEF. User group members are also involved in the pre-identification of poor families in their community. User group members have three important capacities in the functioning of USG's HEF program: i) they are able to find practical solutions to help poor people gain access to health care; ii) they can hold the system accountable, all the way up the hierarchy; and iii) they are trusted by the people in their community.

Table 1. Description of each scheme

Scheme	Organizational structure
CFDS (Banteay Meanchey)	1 program manager, 2 coordinators, 2 village networkers, 2 post-id staff, 8 permanent pre-id staff
CFDS (Pursat)	1 program manager, 2 coordinators, 2 village networkers, 2 post-id staff, 8 permanent pre-id staff
AFH (Mung Russey)	1 program manager, 2 coordinators, 3 village equity fund committee members, 2 post-id staff, 26 temporary pre-id volunteers
AFH (Chhlong)	1 program manager, 2 coordinators, 3 village equity fund committee members, 2 post-id staff, 20 temporary pre-id volunteers
USG (Phnom Penh)	1 program manager, 2 coordinators, 61 permanent user group members
UNICEF (Svay Rieng)	2 UNICEF personnel, 2 OD staff, 2 permanent village health volunteers in each village

Making the list of poor households

For making a list of poor households in the villages, four different steps can be undertaken: i) the list of poor households is taken from the local government census; ii) the list of poor households is produced by the village authorities, such as village chiefs, commune leaders and the village development committee, etc.; iii) the list of poor households is produced by the NGO through pre-identification; and iv) a list of poor households is produced by combining information from the local census and from the village authorities. All the HEF implementers did not use the four steps in developing the household list for pre-identification. Table 2 below shows the different approaches taken by the different HEF schemes under study.

Table 2. Method of making lists of poor households for pre-identification

Schemes	Step 1	Step 2	Step 3	Step 4
	List of poor HH taken from government census	List of poor HH set by village chief /volunteer	Poor HH found through pre-identification by NGO	Combined methods
CFDS (Banteay Meanchey)	No	Yes	Yes	Yes
CFDS (Pursat)	No	Yes	Yes	Yes
AFH (Mung Russey)	Yes	Yes	Yes	Yes
AFH (Chhlong)	Yes	Yes	Yes	Yes
USG (Phnom Penh)	No	No	Yes	No
UNICEF (Svay Rieng)	No	Yes	Yes	Yes

CFDS's HEF method did not take the list of poor households from the local government census, but rather used the local authorities to produce the list directly. This was done in several steps. The first step involved organizing a commune meeting with the participation of all commune leaders, village chiefs, village development committee members and community networkers to announce the HEF program and to explain the process and criteria in making the list of poor families. In the meeting, village chiefs, village development committee members and community networkers were all asked to produce a list of all the poor households that they could think of. The lists made by the village chiefs were compared with those made by the village development committees and community networks. All these lists were then combined into one list for each village. The CFDS pre-identification teams then took this list to the villages to pre-identify poor families. The UNICEF HEF method followed a similar approach: the list of poor households was developed by the village health volunteers, working in collaboration with village chiefs and the village development committees.

AFH also took a similar approach to compiling the household list for pre-identification, but also collected statistics on poor families from the local government census, including information from departments of planning, district offices and referral hospitals, then combined this with the

information taken from local authorities such as commune leaders, village chiefs and village development committees. All the lists were then put together to give the total number of poor families in each village, commune and district.

USG did not create a list of poor families in their communities as did the HEF schemes in rural areas, but simply used user group members already living in the slum communities to pre-identify households. Since user group members themselves live and work in the community, they know best which families are poor or rich.

Definition of poverty

Setting criteria to define poverty is often problematic, owing to the 'vagueness of poverty' (Qizilbash 2003). One issue is to decide on the dimensions defining poverty, another issue is whether and how to adopt weights and thresholds. Both 'poverty scientific experts' and 'experience experts' are possible sources of knowledge.

This study confirms findings by Noirhomme *et al.* 2007: eligibility criteria vary across HEFs, as different HEF implementers used quite different definitions of poverty and scoring systems.

CFDS' pre-identification method focuses on the following criteria in defining household poverty level: demographic background and socioeconomic status of the family, including monthly income; number of children; condition of the house; land; mode of daily transportation; livestock; external support; education; health condition; natural disaster impacts; money owed; and expenses. For each of the criteria a score is given and then aggregated to get the total score. The total score is then divided into two levels: non-poor and poor. A family with a total score below 17 is considered non-poor; a family scoring between 17 and 25 is considered poor. We found that the two CFDS schemes under study used a different scoring system and divided poverty status into three levels: medium poor, with a score below 18; poor, with a score between 18 and 27; and very poor, with a score between 28 and 36. The benefit package is allocated according to the level: the medium poor only receive a 50% benefit, covering only medical costs; the poor receive 75%, covering medical costs and food; and the very poor receive 100%, covering transportation, medical costs and food for patients and visitors. See the discussion section on the issue of standardization of the criteria.

AFH's HEF scheme uses more detailed criteria in defining the household poverty level. These criteria include demographic information; house condition; assets (electronic devices, transportation, electricity, productive land, farm assets, livestock); cash income; family condition; length of severe illness in the past year; and health of all family members in the past year. A score is given to each of these criteria, which is then divided into three poverty categories: medium poor, with a score between 10 and 13 points; poor, with a score between 6 and 9 points; and very poor, with a score of lower than five points. Families scoring more than 13 points are considered rich. Benefits are given based on these three categories: the medium poor receive 50%, the poor receive 75% and the very poor receive 100%.

Interestingly, UNICEF's pre-identification method uses simple and fewer criteria than that of CFDS and AFH. These include marital status of the head of the household; occupation of the head of the family; number of children under 18 years of age; structure of the home; size of farm land; and livestock. The scoring system is divided into three categories: the medium poor, with a score of eight or nine, receiving 50% of coverage benefits; the poor, with a score of 10 or 11, receiving 75% of coverage benefits; and the very poor, with a score of 12 or above, receiving 100% of coverage benefits. Coverage benefits of 100% include transportation (only when using the health center ambulance), food for visitors and patients, and treatment. Benefits of 50% cover half the medical costs.

USG's pre-identification method is the most complex method reviewed in this study. This may be due to the urban context. Furthermore, it uses a complicated computer scoring system to assess eligibility. The main groups of criteria include household composition; illness over the past month; daily income; expenditure for food and health care; assets; loans; housing condition; and so on. Also unlike other methods, USG divides poverty status into four levels, which include 'non-poor', 'medium poor', 'poor' and 'very poor', based on the score given to the main groups of criteria. Only the medium poor, poor and very poor qualify for benefits.

Enrollment and distribution of entitlements

Enrollment of poor households eligible for benefits involves two steps: taking the family photo for the card and card distribution. Different enrollment approaches are used by each HEF scheme. It was found that different methods of enrollment to some degree affect local people's perceptions of the fairness of the pre-identification process. Distributing the card in a public place used by HEF schemes is key for the accountability and transparency of the scheme, allowing other people to speak out about who qualified for the card and who did not, which makes the issue open to the public and allows for verification of the pre-identification process.

The CFDS HEF took a photo of the qualifying family after the completion of the interview. After pre-identification and cards distribution, a team goes to the village to take a photo of families in front of their house. The photo is taken in front of the house as evidence of the family's poverty. This strategy is time-consuming, especially when households live in remote and isolated villages. One of the main problems with taking pictures is that not all family members are present during the interview, thus some family members could be missing in some photos due to the fact that family members migrated to other area for work and also due to evolution in family composition. Photographs are taken with a digital camera, which makes it much easier to store them in the computer database.

CFDS in Banteay Meanchey distributes cards to individual families immediately after the interview and photo taking. Cards are not distributed in public meetings, so that nobody in the community knows who receives them. Such practice could limit the potential problems related to confidentiality and social stigma attached to being poor. Only an ID number is mentioned on the card as well as the percentage of benefits received (50%, 75% and 100%). There are no names or photos on the card. Families are fingerprinted when they receive their cards. After all qualifying families receive their cards, CFDS makes a list of recipients and sends it to the village chief. Only the village chief knows who in the village has received HEF cards. As such, this is a closed distribution strategy: nobody in the village can know who has received or not received a card unless told by the family. However, CFDS in Pursat distributes cards in public (such as at the pagoda).

In AFH's method, photos are taken after the completion of interviews and card distribution in public setting such as in the temple or school compounds. The village equity fund committee organizes a meeting in one

village in their district to obtain feedback from the villagers and to take photos. This photo process has proven very difficult and slow, as some areas still have landmines, there are long distances to remote villages, and families are often not at home during card distribution.

At the time of study, USG had not taken photos of qualifying families. This has changed as a result of people abusing the system by loaning their cards to non-HEF beneficiaries so that these people can use them for hospital care. USG distributed the cards to eligible households in the public places in the community where everyone was invited to participate and observe the activity. Community members were allowed to bring up issues or concerns they might have with the result of pre-identification.

UNICEF employs a different approach for card distribution than the other models. The photos of the eligible households were taken during the pre-identification period. Cards are not distributed in public meetings, but are sent to village chiefs, and the village chiefs give them to village health volunteers to be distributed to eligible families individually. Confidentiality of the households is thus protected in this procedure.

RESULTS ON FALSE NEGATIVES AND FALSE POSITIVES REPORTED IN THE VILLAGES

For determining the number and proportion of false negatives and false positives, the team asked all respondents if they knew of any households *just as poor* or *poorer* than them in their village and who did not have the cards (false negative), or if they knew of any family *quite a bit richer* than them and that had the HEF card (false positive). Responses depended on the system of card distribution of each HEF program, i.e. if the cards were distributed publicly, people in the village knew who had received them and who had not. If the cards were distributed directly to families, people in the village might not know who had received or missed out on the card.

In general, it was easier to ask respondents to name false negative families than to name false positive households. People tended to hesitate when asked to name false positive families, because they were afraid of being 'too noisy' and for fearing that they would create problems for those families. In other words, they were worried that false positive families would know that they had reported on them. When the researchers did not ask respondents to give names but just asked for general information on whether there were such families and how many had received cards, while ensuring

them of the confidentiality of the information given, they did not hesitate to respond. Then they alluded to this or that family.

The data from this study shows that more false negative families were reported than false positives in each HEF program. This study also shows some degrees of difference in each HEF scheme in terms of the number of false negatives reported by respondents. CFDS in Pursat shows a higher percentage of false negatives, about 9.4%, but few false positives, at 1%. The UNICEF HEF method shows a lower proportion of false negatives (2.3%) and false positives (0%) than other pre-identification methods.

Table 3. HEF beneficiaries' reports of false negatives and false positives in study villages

EF Program	Study villages	# of house-holds received card in study villages	# of False negatives reported	% of false negatives	# of false positives reported	% of false positives
CFDS-BM	Chomkar Jech Donley	270	20	7.4%	2	0.7%
CFDS-Pursat	Toultbeng Chher Tep	456	43	9.4%	5	1%
AFH-Moung	Trapeng Dontek	280	21	7.5%	5	1.7%
AFH-Chhlong	Pech Jongvar Tamou Khrom Chrouy Thma Khrom	583	26	4.4%	8	1.3%
USG	Trapeng Raing Tmai Beong Kok, poum 4	952	38	3.9%	2	0.2%
UNICEF-Svay Rieng	Toul Sakrom Mukda	503	12	2.3%	0	0%
Total		3,044	160	5.25%	22	0.72%

One can compare these results with the national HEF guideline on exclusion errors (false negatives) and inclusion errors (false positives). As suggested in the National guideline (MOH 2006b), the percentage of false positives should be at the most about 2% and false negatives around 3%. The false positives reported for all HEF pre-identification methods were below the nationally recommended limit; however, false negatives were above the national limit, with the exception of the UNICEF HEF scheme.

This study did not aim to provide a direct scientific assessment of methods to see which way of carrying out pre-identification of poor families was the most effective. Rather, it took local perceptions as a simple proxy to indicate the intensity of problems with pre-identification. However, the team also took into consideration the various constraints each HEF program encountered. As a result, it was possible to identify from each HEF study area the various perceptions expressed by local people as factors contributing to false negatives and false positives of pre-identified families in the village.

Based on interviews with respondents in all HEF areas, the team identified different factors contributing to the failure of some poor households to be pre-identified to receive benefits. These factors were common among all the HEF schemes, but differed between rural and urban areas. Table 4 below provides the list of frequency of explanations of false negatives by different schemes.

Table 4. Frequency of explanation for the false-negatives by scheme

	CFDS- BM	CFDS- Pursat	AFH- Moung	AFH- Chhlong	USG	UNICEF- Svay Rieng	Total
Families are not informed about pre-identification		2					2
Families are not interviewed by CFDS staff because they have big houses or expensive assets	6	4	3	2	2		17
Staff do not reach families because they live in isolated places and faraway villages		2	2	1		2	7
Village chiefs do not enter families on the household list for pre-identification	4	3			1		8
Political connections exist with local authorities/political parties							0
Families are not at home during pre-identification	3	9	7	14	12	3	48
Families migrate to work in other provinces or countries	1		2	3		2	8
Families have recently moved into the village/community				1	1	1	3
Several poor families live together in one house but only one family is interviewed					3		3
							96

We see that an important factor contributing to false negatives is related to families not being at home during pre-identification (48/96 answers, i.e. 50%) and temporary migration to work in other provinces or countries. This issue occurred across HEF schemes, but especially in Svay Rieng and Banteay Meanchey provinces, which are poor provinces located near the borders of Vietnam and Thailand, respectively. Since pre-identification is only carried out one time, and often during the day, this results in many families missing out on the opportunity for an interview. This is also particularly true for the poor living in urban slums in Phnom Penh, where many poor families have to go out to work or sell goods in the city during the day, returning home at night. As a result, user group members do not have the chance to interview them. In addition, some poor families who have recently moved into the area have not yet been pre-identified by user group members. Another factor is that some families happen to be living with their rich relatives temporarily during pre-identification, but later move out. In some cases, several poor families live together in a rented house, but user group members only interview one family.

As mentioned earlier, it was much easier to ask villagers to report false negatives than to ask them to report false positives. Although some respondents reported knowing of better-off families that had received HEF cards, they were not willing to give out names and addresses. Respondents tended to say, *'I know this family in another village'*. It seems that there was fear of reporting false positives. When respondents were asked to provide reasons for better-off households managing to obtain HEF cards, they stated that better-off families knew how to pretend to be poor and were clever in giving the right answers. This perception was present across all HEF schemes under study.

Another interpretation by respondents of the reason why some better-off families manage to have cards relates to the latter's social and political connections with village chiefs or local authorities involved in the implementation of HEF schemes. Village chiefs tend to inform or select those families in the same political party or with political influence in the village. This situation occurs mostly in rural areas and needs to be further explored.

In order to verify the reported cases of false positives, the researchers went to the respective houses to make observations and asked families to show their HEF cards. Informal interviews with heads of households further

confirmed the socioeconomic status and health condition. Once the researchers were able to verify the fact that the households were indeed not poor but still had cards, then such households were confirmed as false positives. The photos below are examples of false positive households found in the study.



The house of a false positive family in Tamou Khrom village, Chhlong, AFH



The house of a false positive family in Trapeng Raing, Anlong Kagan, USG

However, it was found that some false positive households reported by respondents had actually qualified as poor households during pre-identification. Since then their economic condition had improved and families had become better-off. Nevertheless, they retained their HEF cards. This fact is related to the dynamic nature of poverty. An example is one household in Svay Rieng, illustrated in the photo below. As reported by the UNICEF HEF manager, for about 58 households the HEF cards were taken back because these households were no longer poor. This situation occurred across all HEF schemes under study. Another case was reported by a respondent in Phnom Penh of a family that had received money from relatives in the US; with this money, the family had started a business in the community.



On the left is the house before pre-identification, on the right is the house after pre-identification

LOCAL PERCEPTIONS OF FAIRNESS AND UNFAIRNESS OF PRE-IDENTIFICATION

In order to let HEF beneficiaries reveal their perceptions of the fairness of the pre-identification process, respondents were asked in a face-to face interview: 'Do you think the pre-identification method implemented in your village was a fair process? If not, please give the reason why it was not fair'

Table 5 below shows the results from each HEF scheme in the study.

Table 5. Perceptions of fairness and unfairness of pre-identification

	# of responses (out of 30 per HEF)		
	Yes	No	Don't know
CFDS Banteay Meanchey	29	0	1
CFDS Pursat	23	6	1
AFH Mung Russey	16	7	1
AFH Chhlong	23	5	2
USG Phnom Penh	26	2	2
UNICEF Svay Rieng	26	1	3
Percentage	81.7%	12%	5.7%

The result shows that more than 80% of respondents perceived the pre-identification process as fair. A small proportion of respondents (12%) in the study felt that the pre-identification process and the card distribution were unfair. Factors contributing to this perception of unfairness include the following:

- Village chiefs only list people they know for pre-identification;
- Village chiefs or village health support groups tend to have political bias in making the list of poor families or in disseminating information to people in the village;
- NGO staff neglect to interview some families because they have big houses, whereas in reality they are poor. One respondent stated: *'NGO staff need to observe and ask neighbors to know whether a family is poor or rich, not just observe the house and what they see in front of the house'*;
- Information coming to the villages appears to reach better-off people first;
- NGO staff do not make efforts to reach families living in isolated places;
- Rich people are clever and know how to answer and pretend to be poor;
- *'The rich always want more.'* As one respondent stated: *'The rich people always know about NGOs coming to the village, and they always want to get more things. We, the poor, don't get the information'*.

Discussion and conclusion

In this study, we have reviewed six different HEF programs in Cambodia. While all the six schemes share a major commonality, i.e. the adoption of the pre-identification strategy to identify and entitle the beneficiary households, the study evidences some variation in terms of identities and roles of involved actors, eligibility criteria, identification process and enrollment and entitlement procedure. This result confirms findings by another comparative study of four HEFs (Noirhomme *et al.* 2007). One can attribute this variability in the design and implementation of the HEF strategy to the decentralized character of the policy. The most remarkable variation is the one of eligibility criteria for assistance.

To our knowledge, this is the first study adopting the perspective of local actors to assess the HEFs. It appears that local actors, and beneficiaries in particular, are rich sources of information about the performance of HEFs and possible ways to improve it. The six schemes got a positive assessment from the 175 interviewed households. This study confirms other findings about the high accuracy of the targeting by HEF in Cambodia (see also Meessen *et al.* in this book).

This study has methodological specificities that would deserve discussion. We propose to focus here on our main assumption: community perception can be used as a proxy for assessing accuracy of a targeting process.

The strategy to use community members for implementing a targeting process is a well-known option, it is often referred to as 'community targeting' (Conning and Kevane 2002). Several authors have already highlighted the benefits of involving community members in the identification process. The main advantage of course is in terms of knowledge, a key issue once one has to classify households from a population. Local people know what poverty is within their community and who struggles daily for making a living. The feasibility of the strategy is usually not the issue. In Cambodia for example, a study conducted by Jacobs *et al.* (2005) examined the appropriateness of using community members to identify beneficiaries of HEFs, and found that this is a feasible and effective method, which also minimizes direct costs. Furthermore, using public channels to disseminate information prior to pre-identification and in

distributing the card serves as a way of making the system more accountable in the eyes of the community (Conning and Kevane 2002), and empowers at the same time the community (Meessen and Criel 2008). The main drawback of community targeting is the possible capture by the local elite. As stated by Meessen and Criel in this book, 'Local elites (...) have good and updated information on household characteristics within the communities (...) they may use their information rent to capture the programme benefits'. Another problem, which we discuss below, is the possible inconsistency of the poverty definition across communities.

Our study goes one step further in terms of community involvement: instead of the rather technocratic and statistical approach common in the literature, we propose to use community members and program beneficiaries in particular², also to assess the accuracy of the targeting process. This bottom-up approach has the following rationale: at the end of the day, local perception of the fairness of the HEF program will be the key to long-term sustainability of the policy (Ridde 2006). If HEF schemes are fraught with major leakage and under-coverage errors, the community will question the legitimacy of the strategy, to the point that it might lose support at different levels.

This approach obviously rests on a major assumption: beneficiaries know and are ready to report the program status of their neighbors. Our study indicates that this is probably true, but one must be cautious. In some programs, the distribution of the HEF card has not been a public process. In the concerned communities, one can wonder whether beneficiaries are aware of the HEF status of everyone. This could then be a source of underestimation of exclusion error (false negatives). As reported in this study, there could also be some underestimation of the inclusion error (false

² The option of interviewing only households with HEF is debatable. It was mainly inspired by financial constraints. Picking names from a program beneficiary list is much less costly than organizing a complex sampling. The research team tried to deal with the subsequent bias by visiting households reported by informants as poor but nevertheless not enrolled in the program. The main purpose of these visits was to find out why they did not receive the card and get to know these households' perception of the fairness of the pre-identification. Again, mainly due to the time constraint, the researchers interviewed only about three to four households that did not receive the card per village, mainly because some of these households were not in the village during the time of the study. The scores in terms of fairness perception (table 5) would probably have been lower if the sample had included households who did not receive the card, but still met the eligibility criteria.

positives). People do not like to single out other members of the community to denounce them.

Most variation reported by this study in terms of design and implementation of the schemes originates in local constraints. These include limited funding; a lack of human resources; limited time to complete the project; the rationale in setting eligibility criteria; geographical and seasonal barriers; a lack of collaboration from local authorities; etc. One can see this variability as testimony to the flexibility by HEF operators. We believe that the main variation that deserves due consideration is the one pertaining to the eligibility criteria.

Setting criteria to define the poverty status of a household is a major issue. This is potentially a source of inequity across communities, as someone identified as poor by a HEF program could be identified as non-poor by another one. This was demonstrated by Chhim *et al.* (2005) in the evaluation of GTZ's HEF scheme in Takeo province. They found that the pre-identification tool used in Kirivong identified only 6% of the 508 households as poor, but when using CFDS's pre-identification tool it identified 94% of these households as poor. This indicates that the pre-identification tools of both schemes identify very different proportions of poor households in a similar population.

The fact that different pre-identification methods differ so much in terms of the number and kind of criteria used, their range of scores at criterion level and at aggregate level, the cut-off points between different levels of poverty and even in the benefit package for different categories of poverty, raises a question at the national level. We would argue that although it is surely important to take into account the local specificity of poverty in each area, some minimal harmonization of the criteria for poverty definition would be welcome.

One way to organize this standardization would be to opt for a professionalization of the manpower in charge of the implementation of the assistance scheme (see Criel *et al.* in this book). As this study shows, in all six HEF schemes under study different groups of actors are involved in the pre-identification, including village volunteers, NGO staff, students, community members and health care staff. Trained and qualified man power could possibly bring about more consistent and accurate outcomes. In general, social welfare workers are a missing element today in welfare systems of many low-income countries.

Another variability in the HEF schemes worth exploring a bit further is the variable risk in terms of confidentiality and potential stigma of getting a card. In some cases, purposively or not, privacy was well protected, as the cards were allocated in a hidden procedure. In other areas and schemes though, cards were distributed in a very public manner; in at least one scheme this was being done to give community members the opportunity to contest the entitlement of any prospective beneficiary. One would expect the latter approach (distributing the card in a public setting) to create stigma or even social conflicts within the community. Quite surprisingly maybe, this study did not find stigma to be a major issue in Cambodia. None of the respondents raised this social stigma issue (attached to being identified as poor for receiving the benefit). The apparent lack of stigma in Cambodia runs counter to practices in developed countries and sub-Saharan Africa where access to social assistance and being labeled as “destitute” is often considered as shameful (see Criel *et al.* in this book). Distributing the cards publicly could possibly create a social stigma for the individuals in these countries, and this “constitutes one of the barriers in accessing social assistance services”.

Perhaps one of the explanations why the Cambodian HEF experience or other social assistance schemes do not have a strong stigma attached to them is this one: in Cambodia a large proportion of the rural population is perceived as poor due to the historical, social, political and economic reality of the country. Therefore being poor is not considered as a “personal failure” as is the case in other more developed countries like in Belgium (*ibid.*). Another possible explanation is that community members highly value the transparency established by the public distribution. Finally, the influx of international NGOs since the early 1990s and the fast growth of local NGOs providing social assistance to various kinds of people, not only to the poor, possibly also played a role. Thus, receiving help from NGOs became an acceptable social practice rather than a practice attached with stigma. NGOs that provide help stand for care, compassion.

It would be interesting to further investigate this phenomenon by comparing the HEF experience with other kinds of social assistance schemes in Cambodia or by comparing the Cambodia HEF experience with HEF implemented in another low-income country such as Lao PDR. Other research questions for the future could explore whether the stigma might rise over time, parallel with the evolution of the Cambodian economy towards

more prosperity. Perhaps in a country with a growing gap between rich and poor, being destitute could become more shameful than in the past? Obviously policymakers should keep this issue in mind when further adapting HEF.

Our study reports also operational challenges with the implementation of a pre-identification strategy in Cambodia. Absence from home at the time of the welfare worker visit is a major constraint. This is compounded by the fact that migration in and out of the village is becoming a very frequent strategy for rural households in Cambodia (see also Ir *et al.* in this book). Pre-identification should not be done only once. There is a need for a follow-up mechanism of pre-identified households and for pre-identifying those that missed out on their opportunity.

As highlighted by Criel *et al.* and Ir *et al.* in this book, another challenge is that poverty is a dynamic phenomenon. As Krishna (2006) points out, in rural villages in India, almost the same proportion of households escaped and fell into poverty during the same time period. Factors contributing to households falling into poverty include ill health and high health care costs; social and customary expenses; debt; and drought. Factors that enable households to escape poverty are diversification of income sources and land improvement. Thus, pre-identification has to be a continuing process, since the socioeconomic status of the people is not static; it might change over time: the rich may become poor or the poor may become rich or poorer. As Krishna suggests in conclusion, 'Setting up a "poverty monitoring station" will be helpful to track more carefully and systematically the trends and causes associated with movements in both directions within any particular region'.

Therefore, it is important to further investigate institutional arrangements (e.g. financial arrangements, managerial structure, networking, etc.) and implementation processes with regard to the National Equity Fund Implementation and Monitoring Framework that is being considered for scaling-up countrywide (MoH 2005). Among other things, it is necessary to identify what would be the best roles for the central government (ministries), the NGOs (international and local), and the local authorities in the implementation of HEFs.

For sure, long-term sustainability of the HEF policy will depend on a good and transparent collaboration between local implementers, communities and the beneficiaries. Our policy, scientific and operational

knowledge in this domain is much too limited today.

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References

Annear PL, Wilkinson D, Men RC and van Pelt M (2006). *Increasing access to health services for the poor: Health financing and equity in Cambodia*. Working Paper. Phnom Penh, Cambodia.

Bitran R, Turbat V, Meessen B and Van Damme W (2003). Preserving equity in health in Cambodia: Health equity funds and prospects for replication. *Online Journal of the World Bank Institute*. Washington, DC: World Bank.

Chhim K, Hean S and Henke R (2005). Evaluation of most vulnerable families listing process: An assessment by the Centre for Advanced Study for GTZ. Final Report, Phnom Penh, Cambodia.

Conning J and Kevane M (2002). Community-based targeting mechanism for social safety net: A critical review, *World Development*, 30, 3 : 375-94.

Criel B, Van Damme W, Meessen B and Ir P (2008). A comparative analysis of public social assistance systems in Belgium and health equity funds in Cambodia: an overview of lessons learned. In this book.

Hardeman W, Van Damme W, van Pelt M *et al.* (2004). Access to health care for all? User fees plus a health equity fund in Sotnikum, Cambodia, *Health Policy and Planning*, 19, 1 : 22-32.

Ir P and Bigdeli M (2007). Health Financing Strategies to Improve Access to Health Services for the Poor in Cambodia: From Pilot to Policy and Action. A Case of Health Equity Funds. Final Report, Phnom Penh, Cambodia.

Ir P, Decoster K, Hardeman W, Horemans D and Van Damme W (2008). Challenges in identifying the poor: An assessment of household eligibility for Health Equity Fund after four years of pre-identification in Oddar Meanchey, Cambodia. In this book.

Jacobs B and Price N (2006). Improving Access for the Poorest to Public Sector Health Services: Insights from Kirivong Operational Health District in Cambodia, *Health Policy and Planning*, **21** : 27-39.

Jacobs B and Price N (2005). Community Participation in Externally Funded Health Project: Lessons from Cambodia, *Health Policy and Planning*, **18**, 4 : 399-410.

Krishna A (2006). Pathways Out of and Into Poverty in 36 Villages of Andhra Pradesh, India, *World Development*, **34**, 2 : 271-88.

Meessen B and Criel B (2008). Public Interventions Targeting the Poor: An Analytical Framework. In this Book.

Ministry of Health (2005). National Equity Fund Implementation and Monitoring Framework. Phnom Penh, Cambodia.

Ministry of Health (2006a). Report of Health Equity Fund Forum. Phnom Penh, Cambodia.

MOH (2006b). National Equity Fund Implementation and Monitoring Framework. Phnom Penh: Ministry of Health, Department of Planning and Health Information.

Noirhomme M, Meessen B, Griffiths F, Ir P, Jacobs B, Thor R, Criel B and Van Damme W (2007). Improving Access to Hospital Care for the Poor: Comparative Analysis of Four Health Equity Funds in Cambodia, *Health Policy and Planning*, **22** : 246-62.

Qizilbash M (2003). Vague language and precise measurement: the case of poverty, *Journal of Economic Methodology*, **10**, 1 : 41-58.

Ridde V (2006). Understanding local concepts of equity to formulate public health policies in Burkina Faso, *Promotion et Education*, **13**, 4 : 252-6 [in French].

A Comparative Study of the Effectiveness of Pre-Identification and Passive Identification for Hospital Fee Waivers at a Rural Cambodian Hospital

Bart Jacobs and Neil Price

Abstract

Exempting the poor from user fee payments is an important component of any equitable user fee system. However, examples of effective fee waiver mechanisms are rare, and schemes aimed at targeting the poor with exemptions often miss the intended beneficiaries. This paper compares the effectiveness of pre-identification against passive identification for exemption eligibility in rural Cambodia. Pre-identification refers to a system whereby those who are eligible for exemptions are made aware of their eligibility before presenting at health facilities; with passive identification the poor present themselves to health facilities and are identified as eligible for fee waivers through proxy means testing. Effectiveness is assessed against the criteria of health care-seeking behaviour, out-of-pocket expenditure, ability to pay, and effect on coping strategies and debts. The study showed pre-identification to be superior to passive identification for all indicators except timely care-seeking. Although pre-identification is reportedly costly, the paper recommends that it should be used - alone or in combination with passive identification - in order to reduce the economic hardship of health care on the poor.

Introduction

User fees - sometimes termed co-payments - are formalised out-of-pocket payments (OOP) that are incurred at the moment of (public sector) health care utilisation¹ which differentially affect the poor (Gilson and McIntyre 2005), and can lead to catastrophic health expenditure (see for example Frenk *et al.* 2006 on Mexico). Catastrophic expenditure on health care leads to impoverishment when households have to reduce satisfaction of other basic needs, sell productive assets and/or incur debts (McIntyre *et al.* 2006). Additional costs associated with seeking health care include transport, time spent by the carer, opportunity costs by the patient, and unofficial fees (McIntyre *et al.* 2006; Pearson 2004). Apart from financial constraints, other barriers to accessing effective care include insufficient and lowly-skilled health personnel, poor interpersonal skills of health staff, shortages of drugs, medical equipment and other inputs, insufficient understanding of the medical benefits of formal health care, inadequate information on entitlements, doubts about quality of treatment perceived, and cultural barriers such as gender imbalances, stigma and incompatibility of services with cultural norms (James *et al.* 2006; Pearson 2004).

To mitigate the impact of user fees on the poor, fee waivers and exemptions are recommended (James *et al.* 2006). Russell and Gilson (1997) differentiate two types of exemptions: a fee schedule that subsidises services that are essential for public health and which provides free treatment of diseases with a public good (such as tuberculosis), and a policy that exempts those unable to pay. This paper deals with the latter. Successful implementation of waivers requires effective targeting of benefits to the poor. Achieving the principal objective of targeting - minimising leakage of benefits to the non-target group to maximise the available resources to the target group - requires accuracy (Willis and Leighton 1995). A distinction is made between inclusion errors, i.e. the proportion of non-target group people benefiting from the intervention (also termed leakage), and exclusion error, i.e. the proportion of the intended target group people not benefiting from the intervention (also termed coverage).

¹ We distinguish here between user fees in the public sector and payment to private health providers, who are often sought out because of actual or perceived low quality of service in the public sector.

The three main methods for identifying beneficiaries are individual assessment, group characteristics, and self selection (Devereux 2002). Individual assessment is based on valuing a household's assets and income (means testing). The applicability of total household income as an assessment indicator is limited to countries with high formal sector employment and well-documented economic transactions (Coady *et al.* 2002). In the absence of such prerequisites, proxy means testing needs to be used. Proxy means testing involves determining eligibility on the basis of criteria such as ownership of assets (Conning and Kevane 2002) and can be undertaken through community-based targeting that uses local knowledge to identify beneficiaries. Group characteristic targeting uses proxies such as age, sex, disability, or location. It is simpler and cheaper than individual targeting but the approach 'is only as good as the proxy selected' and highly susceptible to targeting errors. Targeting errors are greater in heterogeneous populations (Coady *et al.* 2002). In self-selection the poor direct themselves to public health facilities that operate waiver schemes. Upon presentation at the facility, health staff ascertain the eligibility of those requesting fee waivers. This is mostly done through proxy means-testing. We term the identification method whereby the poor present themselves to health facilities and are identified as eligible for fee waivers through proxy means testing as passive identification. The most widespread targeting method for user fee waivers is individual targeting, either through pre-identification or by use of self-selection.

Common-sense suggests that pre-identification - sometimes referred to as active identification - is the more effective method, since passive identification has a number of drawbacks, including the potential for health facility staff being overloaded with other work requirements or simply lacking administrative capacity, the difficulty in verifying information provided by the patient, and the poor may not present themselves as they may be uncertain of their eligibility for fee waivers (Conning and Kevane 2002; Barber *et al.* 2004). However, we were unable to identify any literature that evaluated the benefits of either method, be it to the provider or to the household, although some authors offer limited evidence regarding the optimal approach. McIntyre *et al.* (2005), for example, elaborate on key elements required for a well-functioning exemption system at health facilities, namely identifying the poor before reporting at the health facility through community-based targeting and providing eligibility cards to the

identified households. Others, however, suggest that passive identification at the facility may suffice (Noirhomme *et al.* 2007). The only issue on which there appears to be a consensus, although no study was referred to, is that pre-identification is costly (Mkandawire 2005; Willis and Leighton 1995).

The debate thus continues, as it does in Cambodia in the context of health equity funds, whereby third parties reimburse health providers for care provided to the eligible poor. At a national workshop on health equity funds, questions were raised *inter alia* as to whether pre- or passive identification should be used alone or in combination (Ministry of Health, World Health Organization, Belgian Technical Cooperation 2005)

In this article we contribute to the above debate by describing a study of the effectiveness of community-based pre-identification versus passive identification for fee waivers for health care services at public sector facilities in a Cambodian operational health district. We specifically assess effectiveness in terms of health seeking behaviour, ability to pay, coping mechanisms and outstanding debt due to illness.

Background

Kirivong Operational Health District (KOD) is located in southeast Cambodia, borders Vietnam and has a population of 201,870 (1998 census), spread over 290 villages located in 31 communes within four administrative districts. The population is made up of mostly subsistence rice farmers who supplement their diet through fishing and foraging. Health services are provided from 20 health centres and an 80-bed referral hospital. The operational health district (OHD) has a large number of private providers (Jacobs and Price 2004). In 2002, 75 private qualified practitioners operating small pharmacies were identified (hereinafter named private qualified practitioners). Most private providers, however, ($\approx 85\%$, 434) are unqualified and have small shops where they sell drugs (hereinafter termed drug shops).

In a health equity fund (HEF) introduced in 2003 the poor were identified by use of community-based targeting, guided by criteria formulated by the advisory board (made up by District Chief Monks and Deputy Governors in-charge for Health and Social Affairs) and shown in Box 1 (see also Jacobs and Price 2006 and Jacobs *et al.* 2007a). Identification was done by villagers under the supervision of the respective health centre management committee member, and the completed list was submitted to

the respective pagoda chief monk for endorsement. Upon endorsement the list was provided to local authorities, health facilities and the non-governmental organization (NGO) operating the HEF at the hospital. Eligible households were provided with an entitlement card. The number of poor identified during the third community-based targeting process in 2005 was 31,834 (15% of total population). These pre-identified poor enjoyed free consultation at health centres and free admission at the hospital. Their transport to and from the hospital was reimbursed according to pre-set amounts in accordance with distance from the hospital, and each hospitalised beneficiary received an allowance of US\$0.5 per day of hospitalisation. Transport to health centre services was not reimbursed.

Box 1: Criteria for eligibility to benefit from the equity funds

Comply with the following three criteria:

- Poor composition of house (roof and wall from thatch/palm/bark/aluminium sheets)
- Owning less than 0.5ha of land
- Having a daily household income of R4,100 or less¹

Plus comply with at least one these criteria:

- No “luxury goods” assets (such as TV, motorcycle)
- No farm animals
- Having at least seven economically-inactive household members

¹ R4,100 = US\$1

In April 2006 passive identification was introduced: all patients who were not pre-identified were interviewed by staff of the NGO operating the HEF at the hospital following hospital admission with a questionnaire that used the same indicators as for the pre-identification. Such patients enjoyed the same benefits as pre-identified beneficiaries, except that they did not necessarily enjoy free care at health centres. In other words, passively identified beneficiaries were not informed beforehand that they also could enjoy fee waivers at the health centres.

The study

The introduction of passive identification at Kirivong Referral Hospital provided an opportunity to compare its effectiveness with pre-identification. Effectiveness was assessed against the following five research questions, which explored the extent to which the approach:

- promotes optimal *health care seeking behaviour* in terms of directing the intended beneficiaries to public health facilities. Previous studies in Cambodia have indicated the importance of initiating care at public facilities to reduce OOP and increased value for money, since respective costs are much lower than at the private sector (Van Damme *et al.* 2004). Other studies demonstrated that those knowing the prices of user fees initiated significantly more care seeking at public facilities than those who didn't (Jacobs and Price 2004; Jacobs *et al.* 2007b). Does prior knowledge on waiver status, in tandem with free care at all health care levels, facilitate consultation by the poor at public sector facilities?
- enhances health care seeking in a *timely manner*. Information to date related to timely care seeking is ambiguous. For example, one cross-sectional survey found that (pre-identified) adult poor sought care significantly faster than non-poor (1.5 days versus 3 days respectively) (Jacobs and Price 2006) while a prospective study among hospitalised patients found no difference between (pre-identified) equity fund beneficiaries and non-poor (Jacobs *et al.* 2007b). However, care was sought significantly faster for children than adults and women were considerably disadvantaged in comparison with men (6 vs 3 days respectively). It has been hypothesised that the low number of waivers at a provincial hospital where a HEF was operational was due to lack of prior knowledge on their waiver status by the poor (Barber *et al.* 2004), which suggests that passively identified poor may delay care seeking due to lack of disposable income.
- lessens economic impact and averts catastrophic expenditure, by ensuring *low direct costs*. If the eligible waiver-status informed poor initiate care seeking more at public facilities than the passively identified eligible poor, the former's OOP should be less than the latter. Indirectly

the study also assesses whether fee waivers at primary level contribute to improved care seeking at such facilities.

- allows *patients to pay* for costs associated with the illness episode leading to hospitalisation and *reduces harmful coping mechanisms*. If prior knowledge on waiver status promotes initiating care at public facilities, OOP for health care should be reduced. This in turn should reduce harmful coping mechanisms such as borrowing with interest or repaying loans through sales of productive assets or land. Borrowing with interest is the main cause of selling land and consequent impoverishment in Cambodia (Kenjiro 2005). Van Damme *et al.* (2004) have also demonstrated the burden of health-related debt in a longitudinal study.
- reduces *outstanding debts*, in particular health-related debts, thus potentially enabling households to move out of poverty by allowing investment in productive assets instead of servicing debts. A study by van Pelt and Morineau reported in this book suggests that a HEF operating for some years reduces outstanding debts related to illness. Hence, if eligible poor initiate care seeking at public facilities, have less OOP and consequently more cash available whereby they have to borrow less money with interest, then the number of households with outstanding debt could be reduced.

Methods

The study design was a prospective cohort that took place during April 2006 - March 2007 with the aim of comparing the effectiveness of community-based pre-identification with passive identification at hospital level. Criteria for assessing effectiveness and related indicators are displayed in Table 1. Non-equity fund beneficiaries - identified by community-based targeting or proxy means testing at the study site - were included for comparison and represent the better-off.

Table 3. Criteria and respective indicators for assessing the effectiveness of pre-identification or passive identification

Criteria	Indicators (statistical measure)
Optimal health care seeking behaviour	Initiating care seeking at public sector health facilities, especially health centres (means)
Timely health care seeking	Time between onset of symptoms and care seeking (means)
Total cost for concerned illness episode	Out-of-pocket payment and transport cost combined (means and median for costs at initial provider; means for total direct costs)
Ability to pay	Having sufficient cash available to pay for all direct costs incurred (means)
Harmful coping mechanisms	Borrowing money with interest and/or selling productive assets (means)
Outstanding debts	Debts due to health care costs related to another illness episode of a household member (means)

Study participants were selected on the basis of their targeting status (passive or pre-identified) and exemption status, and only those diagnosed with a single condition were considered, to increase the likelihood of finding a sufficient number of cases from the general medicine and paediatric departments of Kirivong Referral Hospital. Passively identified beneficiaries (PIB), pre-identified beneficiaries (PRI) and paying patients (PP) with the same condition and age group (children <15years, adults ≥15years) were matched. Only patients from within the OHD were included to minimise selection bias, as patients from outside the catchment area may exhibit different behaviour. Cash availability in a Khmer rural population is subject to seasonality. To reduce this measurement bias the maximum time difference between interviews for matched subjects was set at three months.

Patients from the general medicine and paediatric departments were identified and interviewed using a pre-tested, pre-coded structured questionnaire, following informed consent (for children their parents or carers were interviewed). All interviews were conducted by the same trained interviewer. Patients from the three other wards in the hospital were not considered because deliveries are anticipated, the number of monthly surgery

cases was too low to allow for timely matching, and tuberculosis patients are admitted for free.

Questions concerned socioeconomic status, referral history, health care-seeking behaviour, OOP, ability to pay and coping mechanisms, outstanding debts and history of previous hospitalisation by interviewee or household member. Questions regarding coping mechanisms were only asked to people reporting to have insufficient cash available to pay for costs incurred with the related illness episode. Only direct costs (OOP for health care and transport) were assessed. Proxy indicators used for assessing socioeconomic status include occupation, literacy, ownership of farmland and means of transport.

To inform on findings from the structured interviews on debt incurred as a result of health care sought, unstructured in-depth interviews were conducted with seven PIB and three PRI with outstanding debts. The former were selected because they had a considerable amount of outstanding debts for health and went directly to the hospital or consulted many private providers. The PRI were selected because they had substantial outstanding debts due to health related expenses.

Data on the number of hospitalisations and exemptions were derived from the hospital's health information system; information regarding the number of PRI and PIB were provided by Buddhism for Health, the NGO that operates the HEF at the hospital.

STATISTICAL ANALYSIS

Data were entered and analysed using the statistical package Epi-Info version 6.04c. Interviewees were stratified according to targeting status and equity fund status (when PRI and PIB are combined for comparison with PP they are termed non-PP), sex, and age group. Since the paediatric ward admits children up to the age of 14 years, the age groups considered were children aged <15 years and adults aged ≥ 15 years. Proportions were compared using the χ^2 tests and significance was determined at the 5% level ($p < 0.05$). For skewed data a non-parametric test (Kruskal-Wallis) was used except for total direct costs for which means are provided.

Results

A total of 118 PRI, PIB and PP of the same age group with the same condition were matched, resulting in 354 structured interviews. Median time differences between interviews of PRI with PIB (14 days, range 0-90) and with PP (20 days, 0-95) were not statistically different. Table 2 shows the basic characteristics of the interviewees. There were no statistically significant differences between PRI and PIB for any of the variables except for distance of residence from the hospital: PRI lived on average a median of 15km (range 1-60) from the hospital, compared with 12km (1-50) for PIB. This difference was significantly different (Kruskal-Wallis, $p = 0.03$).

There were also no statistical significant differences between non-PP and PP for age and sex of respondents according to age group. Socioeconomic indicators, however, differed considerably between these two groups.

Table 4. Characteristics of pre-identified beneficiaries, passively identified beneficiaries, and paying patients

Variable	Pre-identified N = 118	Passively identified N = 118	Paying patients N = 118	p-value df = 2
Profession household head				
Farmer (%)	57 (48)	52 (44)	89 (75)	<0.001
Casual worker (%)	35 (30)	44 (37)	10 (8)	<0.001
Literate head of household (%)	26 (22)	29 (25)	46 (39)	=0.008
Has no means of transport (%)	53 (45)	69 (58)	27 (23)	<0.001
Has motorbike (%)	7 (6)	5 (4)	27 (23)	<0.001
Landless (%)	51 (43)	51 (43)	13 (11)	<0.001
Size of land**	0.3 (0.1-2)	0.2 (0.1-1)	0.5 (0.1-7)	<0.001*
Median Ha (range)				
Last harvest in kg**	600 (120-	600 (150-	1,200 (150-	<0.001*
Median weight (range)	2,800)	2,000)	12,000)	
Distance from facility in km	15 (1-60)	12 (1-50)	14 (1-45)	<0.001*
Median (range)				
Children	N = 67	N = 67	N = 67	
Median age in months (range)	17 (2-156)	16 (1-156)	14 (2-168)	NS
Boy (%)	34 (51)	37 (55)	34 (55)	NS
Adults	N = 51	N = 51	N = 51	
Median age in years	47 (15-79)	44 (16-83)	50 (17-81)	NS
Male (%)	24 (47)	22 (43)	21 (41)	NS

df=degrees of freedom; NS=not significant ($p>0.05$); * Kruskal-Wallis H test; ** only for interviewees reporting to have land.

Patients were hospitalised for a median of six days (range 1-21). There were no statistical differences according to equity fund status.

Nearly all patients were accompanied during hospitalisation by a member of their kinsfolk, who normally worked, ranging from 88% of PIB to 91% of PP.

Fourteen percent of PRI patients had been hospitalised previously or had a relative who had been hospitalised. The respective figure was 24% for PIB but this difference was not significant. Six percent of PP interviewee households had such an experience, considerably less than the non-PP (df = 2, $p < 0.001$). There was no statistical difference with regard to initial consultation with a health centre between PRI and PIB who had a hospitalisation history with those who had not (PRI: 24% and 30% respectively; PIB 11% and 14% respectively).

HEALTH CARE SEEKING

Table 3 provides an overview of the interviewees' initial place of consultation for the illness episode. Drug sellers constituted the main place of initial consultation for non-PP, whereas the majority of PP went to qualified private practitioners. Twenty nine percent of PRI initiated treatment at health centres, significantly more than PIB, 14% ($p = 0.004$). Thirty percent of PRI children's initial care-seeking was at a health centre versus 13% of PIB children ($p = 0.02$). Although double the proportion of adult PRI (27%) commenced care at health centres compared with PIB this was not significant.

Fifty two percent of PRI contacted a public health facility (hospital/health centre) initially compared with 40% of PIB. The difference was not statistically significant.

The median time waited before seeking any care was two days for PRI (range 1-30) and PIB (range 1-90) and one day (range 1-30) for PP. This was not statistically significant, even when stratified according to age group.

Table 5. First place of consultation for the illness episode by individuals of the three study groups

Variable	Pre-identified	Passively identified	Paying patients
All ages	N = 118 (%)	N = 118 (%)	N = 118 (%)
Health centre	34 (29)	16 (14)	26 (22)
Hospital	27 (23)	31 (26)	26 (24)
Drug seller	40 (34)	43 (36)	30 (25)
Qualified private practitioner	15 (13)	23 (19)	36 (31)
Other	2 (2)	5 (4)	0
Children	N = 67 (%)	N = 67 (%)	N = 67 (%)
Health centre	20 (30)	9 (13)	14 (21)
Hospital	15 (22)	16 (24)	13 (19)
Drug seller	23 (34)	27 (40)	18 (27)
Qualified private practitioner	9 (13)	11 (16)	22 (33)
Other	0	4 (6)	0
Adults	N = 51 (%)	N = 51 (%)	N = 51 (%)
Health centre	14 (27)	7 (14)	12 (24)
Hospital	12 (24)	15 (29)	13 (25)
Drug seller	17 (33)	16 (31)	12 (24)
Qualified private practitioner	6 (12)	12 (24)	14 (27)
Other	2 (4)	1 (2)	0

EXPENDITURE ON FIRST CONSULTATION

Table 4 provides an overview of OOP associated with first consultation at facilities other than the hospital. Pre-identified beneficiaries paid significantly less for the first consultation than PIB: R2,000 vs. R5,000 respectively. This difference was also observed when stratified according to age group. However, the difference in OOP for first consultation was no longer significant when considering only initial consultations at the private sector.

Table 6. Out-of-pocket payments associated with first consultations at health facilities other than the hospital by subjects of the 3 study groups

Variable	Pre-identified	Passively identified Median (range) in Riels <i>Median [range] in US\$</i>	Paying patients	p-value*
<i>All age groups</i>				
All providers	2,000 (0-100,000) 0.5 [0-24.4]	5,000 (0-300,000) 1.2 [0-73.2]	5,000 (0-163,000) 1.2 [0-39.8]	0.002
Private only	5,000 (0-100,000) 1.2 [0-24.4]	6,000 (0-300,000) 1.5 [0-73.2]	11,000 (0-163,000) 2.7 [0-39.8]	0.4
<i>Children</i>				
All providers	1,750 (0-100,000) 0.4 [0-24.4]	3,000 (0-50,000) 0.7 [0-12.2]	5,500 (0-110,000) 1.3 [0-26.8]	0.02
Private only	4,500 (0-100,000) 1.1 [0-24.4]	3,500 (0-50,000) 0.9 [0-12.2]	12,000 (500-110,000) 2.9 [0.1-26.8]	0.99
<i>Adults</i>				
All providers	2,000 (0-78,000) 0.5 [0-19.0]	7,500 (0-300,000) 1.8 [0-73.2]	5,000 (0-163,000) 1.2 [0-39.8]	0.03
Private only	5,000 (1,000-78,000) 1.2 [0.2-19.0]	10,000 (1,000-300,000) 2.4 [0.2-73.2]	10,000 (1,000-163,000) 2.4 [0.2-39.8]	0.15

*Difference for pre-identified and passively identified beneficiaries, Kruskal-Wallis H test; US\$1 = R4,100

TOTAL DIRECT COST OF HEALTH CARE SEEKING

Table 5 provides a breakdown of the direct costs per study group and per line item. The total direct cost for treating the illness episode was US\$1.8 for PRI, US\$3.1 for PIB and US\$11.4 for PP. For non-PP children there was no difference between PRI and PIB in total direct costs (both ≈US\$1.5). In contrast, adult PRI paid US\$2.3 versus US\$5.1 for adult PIB. Paying patients spent the most: US\$9.5 for children and US\$13.9 for adults.

Average costs for transport to the first health care provider outside the hospital were minimal, ranging from US\$0.04 for PIB children to US\$0.24 for adult PP. As expected, expenses for treatment outside the hospital constituted the major share of total costs for non-PP (94%, with the remainder spent on transport). Paying patients spent 29% of total direct costs on providers outside the hospital and 58% on hospital fees.

Table 7. Direct costs for the illness episode leading to hospitalisation by study group

Variable	Cost per patient in Riels (US\$)		
	Pre-identified	Passive identified	Paying patients
<i>1st health care provider</i>			
Adults and children	6,498 (1.6)	9,943 (2.4)	13,226 (3.2)
Children	5,281 (1.3)	5,743 (1.4)	13,502 (3.3)
Adults	8,098 (2.0)	15,461 (3.8)	12,843 (3.1)
<i>Transport 1st provider</i>			
Adults and children	351 (0.08)	220 (0.05)	652 (0.16)
Children	373 (0.09)	149 (0.04)	403 (0.1)
Adults	324 (0.08)	314 (0.08)	980 (0.24)
<i>2nd health care provider</i>			
Adults and children	653 (0.16)	1,886 (0.46)	449 (0.11)
Children	671 (0.16)	366 (0.09)	7 (0)
Adults	628 (0.15)	3,882 (0.95)	1,039 (0.25)
<i>Transport 2nd provider</i>			
Adults and children	81 (0.02)	466 (0.11)	59 (0.01)
Children	97 (0.02)	0	0
Adults	59 (0.01)	1,078 (0.26)	137 (0.03)
<i>Transport to hospital*</i>			
Adults and children	0	0	5,241 (1.28)
Children	0	0	4,641 (1.13)
Adults	0	0	6,029 (1.47)
<i>Hospitalisation*</i>			
Adults and children	0	0	27,127 (6.62)
Children	0	0	20,508 (5.00)
Adults	0	0	35,824 (8.74)
Total			
Adults and children	7,583 (1.8)	12,515 (3.1)	46,755 (11.4)
Children	6,422 (1.6)	6,259 (1.5)	39,061 (9.5)
Adults	9,304 (2.3)	20,745 (5.1)	56,863 (13.9)

*these costs were paid for by the HEF

COPING MECHANISMS

Nine percent of PRI claimed to have sufficient cash available to pay for all costs incurred with the illness episode which led to hospitalisation, compared to 15% for PIB and 65% for PP respectively. The coping strategies deployed by the interviewees without sufficient cash are displayed in Table 6.

Table 8. Coping mechanisms for people with insufficient cash to pay for treatment of the concerned illness episode

Coping strategy	Pre-identified N = 108 N (%)	Passively identified N = 101 N (%)	Paying patients N = 41 N (%)
Sold asset	2 ^a (2)	1 ^b (1)	0
Borrowed money	97 (90)	92 (92)	41 (100)
Depended on relatives	3 (3)	3 (3)	0
Unable to borrow	6 (5)	5 (5)	0

^a sold land; ^b sold a pig

Borrowing was common among all study groups, although 2% of PRI resorted to selling land to obtain cash, while one PIB sold a pig for that reason. Three percent of non-PP depended on relatives and 5% had no ability to borrow. All paying patients without sufficient cash, on the other hand, relied on borrowing. The sources of loans are displayed in Table 7.

Table 9. Source of loans for people borrowing due to insufficient cash for paying treatment of the concerned illness episode

Source of loan	Pre-identified N = 97 N (%)	Passively identified N = 92 N (%)	Paying patients N = 41 N (%)
Kin	37 (38)	39 (42)	21 (51)
Neighbour	33 (34)	35 (38)	8 (20)
Private lender	27 (28)	18 (20)	11 (27)
Employer	0	0	1 (2)

There was no statistical difference for source of loan between the three study groups, although PP appeared able to obtain money more easily from relatives than non-PP but were less likely to borrow from neighbours. Generally, 30% (68/230) of those who borrowed paid interest and there was no statistical difference between the study groups.

Table 8 shows how borrowers intended to repay loan. The majority of non-PP, 39%-45%, would attempt to repay the loan by selling their labour, versus 22% of PP. Thirty-four percent of the latter would rely mainly on selling rice to repay the loan, considerably more than non-PP ($\approx 10\%$). About 18% of non-PP would rely on foraging, fishing, making charcoal, and cutting wood to repay the loan, versus 10% of PP. Two percent of PIB and one PP would sell land to repay the loan, resulting in 3% of landowning non-PP and 1% of such PP having to sell land.

The total amount borrowed by PRI was R5,933,000 (US\$1,483) and total direct costs were R894,800 (US\$224), resulting in a ratio of 6.6:1 of amount borrowed to direct costs. The respective figures for PIB were R6,167,000 (US\$1,542) and R1,746,800 (US\$437) and a ratio of 3.5:1; whereas PP borrowed R3,066,000 (US\$767) and paid R5,517,100 (US\$1,379), a ratio of 0.56:1.

Table 10. Means to repay the loan for people who borrowed money because of insufficient cash to pay for the treatment of the concerned illness episode

Means to repay loan	Pre-identified	Passively identified	Paying patients
	N = 97 N (%)	N = 92 N (%)	N = 41 N (%)
Sell land	0	2 (2)	1 (2)
Relies on natural resources	17 (18)	16 (17)	4 (10)
Labour for somebody	44 (45)	36 (39)	9 (22)
Relative will repay loan	15 (16)	25 (27)	4 (10)
Do small business	8 (8)	0	6 (15)
Sell animal	3 (3)	4 (4)	3 (7)
Sell rice	10 (10)	9 (9)	14 (34)

OUTSTANDING DEBTS

All three study groups contained households with outstanding debts not related to the illness episode: 40% of PRI, 43% of PIB, and 11% of PP (df = 2, $p < 0.001$). 14% of all PIB had debts due to their own or a household member's illness, significantly higher than the 6% observed among PRI ($p = 0.03$). Three percent of PP had such debts. 13%-15% of non-PP had debts from buying food. Table 9 gives an overview of the main reasons for the debt and associated amounts. Differences in value of debts between PRI and PIB were not statistically significant.

Table 11. Main reasons for having outstanding debt not related to the concerned illness episode and respective amounts due

Reason for debt	Pre-identified N = 46	Passively identified N = 51	Paying patients N = 13
To prepare field (%)	11 (24)	8 (16)	6 (46)
Median in Riels [US\$]	240,000 [58.5] (40,000-1,000,000)	82,500 [20.1] (50,000-1,000,000)	185,000 [45.1] (50,000-
(range in Riels) [range in US\$]	[9.8-243.9]	[12.2-243.9]	2,000,000) [12.2-487.8]
Because of illness N (%)	7 (15)	17 (33)	3 (23)
Median in Riels [US\$]	50,000 [12.2] (30,000-1,000,000)	150,000 [36.6] (20,000-2,000,000)	100,000 [24.4] (100,000-
(range in Riels) [range in US\$]	[7.3-243.9]	[4.9-487.8]	400,000) [24.4-97.6]
To buy food (%)	18 (39)	14 (27)	3 (23)
Median in Riels [US\$]	45,000 [11.0] (10,000-700,000)	90,000 [21.9] (30,000-500,000)	100,000 [24.4] (20,000-200,000)
(range in Riels) [range in US\$]	[2.4-170.7]	[7.3-122.0]	[4.9-48.8]
Other (%)	10 (22)	12 (24)	1 (8)
Median in Riels [US\$]	350,000 [85.4] (20,000-1,800,000)	450,000 [109.8] (50,000-3,000,000)	200,000 [48.8] (200,000)
(range in Riels) [range in US\$]	[4.9-439.0]	[12.2-731.7]	[48.8]

IN DEPTH INTERVIEWS

Pre-identified beneficiaries had debts related to illness because they borrowed money to cover expenses for food and utilities during hospitalisation, because of costs associated with consulting private providers, or because they were still paying old debts. For example, one interviewee was still paying interest of 10% per month on a R38,000 (US\$9.3) illness-related debt incurred three years before the interview, prior to being eligible for exemption.

Reasons for health-related indebtedness among PIB included referral to national hospitals where no equity fund was operational, becoming ill while residing in other OHDs and consequently consulting private practitioners, and consulting public sector staff privately at their homes. Reasons for consulting private practitioners concerned a low perception of quality of care at public facilities or fear of being seen to abuse the HEF when consulting public providers for each illness episode by a household member.

NUMBER OF HOSPITALISATIONS

The total number of hospitalised patients during the study period was 5,181: PIB accounted for 6% (n=317) of patients and PRI for 25% (1,318).

Discussion

In a survey of low and middle income countries where user fees at public sector health facilities were the norm, Russell and Gilson (1997) found that for countries with exemption policies the decision to exempt was mostly based at the health facility. We term such an identification process as passive targeting and our study found it to be less effective than pre-identification. The study approach allowed for matching of 118 PIB, 37% of the 317 admitted during the study period, with an equal number of PRI and PP who did not statistically differ for age or gender. Socioeconomic proxy indicators did not differ between PIB and PRI but they were significantly different between the non-PP and PP, strongly suggesting that both targeting approaches correctly identified the eligible poor along the defined indicators (i.e. low inclusion error). By matching hospitalised patients of the same age group with a single diagnosed condition, our survey was able to reduce

confounding and enabled the investigation of as large a sample as possible over a one-year time period. This timeframe further allowed us to control for seasonal effects on cash availability, a common phenomenon in a rural subsistence economy (Jacobs and Price 2004; Chambers 1979).

However, the study sample was not necessarily representative of the wider population of people eligible for fee waivers, as we did not include those who were ill but did not seek treatment or those who were successfully treated elsewhere. One in four PIB had themselves, or among household members, a history of hospitalisation (versus 14% of PRI) which suggests that selection bias may have played a role; i.e. hospitalised PIB were relatively well-acquainted with the hospital, an issue that also came out of the in-depth interviews. This suggests that many of the poor households missed during pre-identification, and unfamiliar with the public health sector, are unlikely to report at the hospital. Further, because passively identified beneficiaries were not necessarily granted fee waivers at health centres we did not compare exactly the same benefit packages. Consequently, PIB may have displayed less optimal health care seeking behaviour and consequently incurred higher health care expenditure than PRI.

The pre-identification process together with granted exemptions at health centres resulted in double the number of PRI (29%) than PIB (14%) initiating care at these facilities. This was especially pronounced for PRI children of whom 30% had commenced care at such facilities versus 13% of PIB (and 21% for PP). For children especially, timely care-seeking at appropriate providers is essential for their survival as it reduces morbidity and may reduce resistance to treatment (Victora *et al.* 2003). It is unlikely that such providers are found among Cambodia's private practitioners, especially those operating in rural areas, since many are not qualified. Fewer passively identified beneficiaries may have sought care at health centres initially, due to lack of familiarity with these services, as observed elsewhere (James *et al.* 2006). Although health centres in Cambodia are considerably more likely to grant fee waivers than higher level facilities (Wilkinson *et al.* 2001) uncertainty about eligibility for waivers may have deterred PIB from care seeking at health centres, and led them instead to private providers.

There was no statistical difference for the timing of care seeking according to identification status, similar to previous studies (Jacobs and Price 2006; Jacobs *et al.* 2007b). A limitation is that we only assessed the time between onset of symptoms and care seeking at any provider, as a result

of which we cannot differentiate which identification method resulted in improved timely reporting at the hospital. However, using timely care seeking at the hospital would have been contentious since the study site included health centre services for PRI in our waiver package.

Initiating care at health centres reduced the associated costs significantly: those initially consulting health centres paid significantly less than those who first went to private providers. This was likely to be the result of the free care enjoyed at the health centres, since PRI and PIB paid statistically similar amounts at private providers. However, few subjects incurred expenditure on transport for the first (nearby) consultation, similar to findings from elsewhere in Cambodia (Yanagisawa *et al.* 2004). This might be due to limited knowledge about who constitute quality providers and where they are located, resulting in patients seeking advice from nearby providers as a perceived cost-saving measure (Asenso-Okyere *et al.* 1998).

The average direct total cost for PIB for the illness episode was US\$3.1, 42% more than the US\$1.8 incurred by PRI. This difference was especially pronounced among adults for whom total direct costs were US\$5.1 and US\$2.3 respectively. Similar amounts (\approx US\$1.5) were incurred for children. Ninety four percent of total costs were incurred at private practitioners prior to hospitalisation. Although direct costs were much lower for non-PP than for PP (US\$11.4) their expenses are still cause for concern as the poverty line stands at US\$0.45 per person per day.

Free care, reimbursement of transport costs, and provision of a stipend are insufficient to ensure hospitalisation without financial hardship, as exemplified by the finding that only 9% of PRI and 15% of PIB (vs. 65% of PP) were reportedly able to cover all expenses incurred with the illness episode. The most common coping mechanism was borrowing (91% for non-PP and 100% for PP with insufficient funds) as found previously in Cambodia (Kenjiro 2005; Van Damme *et al.* 2004, Jacobs and Price 2004, Jacobs *et al.* 2007b). Few sold assets, probably because of difficulties with their liquidity (the ability to sell them quickly for cash).

The persistence of mutual assistance resulted in only 30% of those who borrowed having to pay interest. The proportion of borrowers who paid interest is much lower than reported from a study elsewhere in Cambodia, where only one interviewee obtained an interest-free loan from relatives (Van Damme *et al.* 2004). A study at the same site as the one presented here

(Jacobs *et al.* 2007b), showed that non-paying patients were less likely to borrow from relatives than PP, often because they are poor themselves, and instead depended to a larger degree on neighbours to access cash. This indicates the importance of social networks in reducing the need for loans with interest (McIntyre *et al.* 2006). The economy-strangling effect of interest-bearing debts is exemplified by the example of an interviewee still servicing a 10% monthly interest loan of US\$9.3 after three years, and by the findings of Van Damme *et al.* (2004). However, such informal safety nets may be undermined by targeted interventions like exemptions schemes, such that they may not be restored if the intervention ceases (Devereux 2002).

Five percent of non-PP with insufficient funds were unable to access any money so it is surprising that they sought treatment at the hospital. Noponen and Pradan (2004) report from India that many such poor forego treatment. Such cases may represent a minority of desperate patients without social networks or mutual assistance relations, which warrants an investigation into determining the real number of such households and the means to assist them to access care at no or minimal cost.

The amount borrowed was considerably larger than direct costs for non-PP: 6.6:1 for PRI, 3.5:1 for PIB. This is unlikely to be due to the effect of lower expenses for initial consultations, since the observed differences of mean and median costs was in the order of 1.5. Rather, it suggests the effect of indirect costs on care-seeking and of the need for sufficient cash, as reported previously (Jacobs *et al.* 2007b). The fact that the ratio of borrowed amount to direct costs was lower for PIB than PRI may be due to 24% of PIB having themselves (or among household members) a history of hospitalisation at KOD, and thus borrowed less due to familiarity. Only 14% of PRI had been previously hospitalised. Alternatively, or additionally, 27% of PIB (vs. 16% of PRI) mentioned that their kinsfolk had agreed to repay their loans, which may have resulted in their borrowing less than if they were repaying the loans themselves. A study on the nature, burden and timing of these indirect costs is required to enable future provision of appropriate financial support for costs for which the current benefit package is insufficient. The opportunity costs of carers, especially lost earnings, should also be considered.

Means to repay loans varied widely among non-PP and PP. The latter relied mainly on selling rice (34%, vs. \approx 10% for non-PP) followed by selling their labour (22%). Rice constitutes an important barter in rural Cambodia

and non-PP appear seriously disadvantaged, as 43% are landless, while those with land reported a median harvest of 600kg. One ton of rice reportedly feeds a family of five for eight months (Kenjiro 2005), indicating that the majority of non-PP have to purchase rice for food (13%-15% of them had debts because of buying food). Labouring was the most frequently mentioned means to generate money for repaying debts by non-PP (39%-45%) followed by reliance on natural resources (fishing, making charcoal, foraging), a strategy to which 10% of PP also resort. The importance of safeguarding natural resources as an income source for the poor has been highlighted by others (Kim *et al.* 2002).

While equal proportions of both groups had outstanding debts not related to the current illness episode, 14% of PIB households had debt due to expenses for another illness episode, significantly more than the 6% of PRI households. This is in line with findings by van Pelt and Morineau (this volume) who conducted a study which compared a slum area in which a HEF had been operational for an extended period with an area of similar socioeconomic profile without a HEF. Since the population in the area covered by the HEF had significantly less health care related debt than the other population, despite only employing passive identification, the authors note that passive identification may be more efficient in the long term than repeated pre-identification exercises, especially since "nothing is known about the added value of pre-identification." Noirhomme *et al.* (2007) reach a similar conclusion, based on the differential costs of pre- and passive identification, although they note that identification costs may depend more on the identifying agent than the identification technique (community-based targeting resulted in \approx US\$0.06 per identified beneficiary versus a nearly tenfold higher cost of US\$0.58 per identified beneficiary when the exercise was done by a local NGO).

In our prospective cohort study the pre-identified poor initiated care-seeking significantly more at health centres than PIB, especially for children, and resided further from the hospital than PIB. Due to a greater tendency to initiate care-seeking at health centres, OOP for initial consultation by PRI was significantly lower than for PIB, and total direct costs for PRI was 42% less than that incurred by PIB. Hence, pre-identification may increase costs to the providers but lowers those to the households, potentially resulting in a status quo of costs to society. Our findings are the more remarkable because a quarter of the PIB in our study had a history themselves, or by a household

member, of hospitalisation at the study hospital which could have resulted in more optimal care seeking and less OOP. These findings thus suggest a preference for pre-identification over passive identification.

However, exclusion error with pre-identification appears substantial, with 317 PIB vs. 1,318 PRI reporting at the hospital during the study period. This may be partly due to the fact that many households move in and out of poverty over time (Devereux 2002). Movement in and out of poverty indicates the need for regular monitoring of the poor: an unknown proportion of the poor can be missed in identification exercises as indicated by the number of patients from the OHD reporting at the study site and qualifying for exemption. It also suggests that the pre-identification process requires further refinement to encompass all households that are considered poor along the formulated criteria. Passive identification may have to be used in tandem with pre-identification until the latter approach is sufficiently refined to achieve very low exclusion error. Costs related to individual assessments for determining eligibility can be shared among the various government sectors and associated donors that aim to alleviate poverty. Recent developments also indicate that socioeconomic status can be relatively accurately assessed by proxy means testing which is less costly than collecting household income or expenditure data (Morris *et al.* 2000; Filmer and Pritchett 2001). An economic assessment using a societal perspective (household and provider costs) is a requirement for deciding which targeting method, or combination of methods, is most appropriate.

Many scholars advocate social insurance through partial or full subsidies to overcome the negative impact of user fees and failing waiver schemes (Knaul *et al.* 2006; Van Damme *et al.* 2004; Xu *et al.* 2006; Ensor *et al.* 2002). However, it has been argued that this is a relatively challenging and time-demanding initiative that will not be realised in the near future in Cambodia (Barber *et al.* 2004). Further, as McIntyre *et al.* (2005) argue: "...there have been very little detailed considerations of whether including the poor in health insurance schemes is the most appropriate way of ensuring their access to health services." This suggests that more attention should be paid to the influence of indirect costs on access to free care. Any such intervention will likely require closer collaboration with other social sectors to ensure that such costs, and other factors hampering truly free care, are addressed. For example, Ahmed *et al.* (2006) reported from Bangladesh

that a combination of health and social protection interventions is effective in improving appropriate care-seeking by the poorest. Health interventions included financial support for free care, while non-health interventions consisted of provision of an income-generating asset grant, a subsistence allowance until the asset began to generate income, skills-development training, social awareness and confidence building, and pro-poor advocacy involving rural elites in support for the ultra poor. In relation to the issue of debt, Daru *et al.* (2005) advocate a strategy consisting of microfinance services, social empowerment, education, skills training, and health interventions.

Enabling free health care uptake by the poor thus calls for an inter-sectoral approach. Experience indicates that such an approach will be challenging, but the recent call by the World Health Organisation for a revitalization of the principles of the Alma-Ata Declaration on Primary Health Care, in which such an approach was enshrined, may offer a unique opportunity to realise this objective.

Table 12. Advantages and disadvantages of pre-identification, passive identification and their combination

	Pre-identification ¹	Passive identification	Combined pre- and passive
Health care seeking	Improved care seeking at public health facilities, especially for children	Inferior to pre-identification, especially amongst the poor who are not acquainted with public health services	Superior to passive identification alone, unless such a scheme is operational for considerable time, but uncertainty about eligibility may impair appropriate care seeking
Identification method	Possible for means testing, proxy means testing or group characteristics targeting	Proxy means testing or group characteristic targeting	Proxy means testing or group characteristics targeting because of the need to apply same criteria

	Pre-identification ¹	Passive identification	Combined pre- and passive
Costs to provider	Costly when contracting NGOs or third parties to conduct identification; low cost when using community-based approach; relatively little cost per beneficiary; less costs due to improved compliance with referral system.	High cost per beneficiary identified; high administrative costs; higher costs per patient treated because minimal compliance with referral system and perverse incentive to present with advanced disease	Increases overall costs because of need to have staff members at facility devoted to identifying the potentially eligible poor
Cost to the beneficiary	Reduced out-of-pocket payments; less health care-related debt	Higher out-of-pocket payments	Combination of aforementioned pre- and passive identification
Referral system	Improved compliance with referral system	Minimal compliance as incentive exists to consult directly hospital	Combination of aforementioned pre- and passive identification
Community involvement	Potential for considerable involvement of community	No involvement of community	Potential for considerable involvement of community
Intersectoral collaboration	Possible	Not possible	Possible
Inclusion error	Potentially low, depending on social cohesion and political neutrality	Unknown because of difficulties of verifying reported information	Combination of aforementioned pre- and passive identification
Exclusion error	In this study substantial since it did not capture the dynamics of poverty (would require repeating study annually)	Potentially high since poor may not present themselves, due to their uncertainty about eligibility	Should have the lowest exclusion error

¹ with free care at health centres as in our study

Conclusion

Although our study method was not optimal, and our sample of PIB suffered from some selection bias, this study provides important new perspectives on the debate around the merits of pre-identification versus passive identification for fee waivers to the poor. Table 12 provides an overview of the potential and known advantages and disadvantages of the two targeting methods. This table indicates that pre-identification is the preferred method for all identified criteria, with the exception of minimising exclusion error which requires a combination of pre- and passive targeting. Pre-identification or a combined approach allow for the elaboration of a polyvalent (multipurpose) social assistance package, which is a prerequisite to enabling the poor to access health care at no cost, as argued above. On the other hand, passive identification alone constitutes a monovalent (single purpose) social assistance intervention that reduces OOP only for poor people presenting themselves at the hospital (as intersectoral collaboration and community participation are not possible). Additional disadvantages of passive identification include a restricted choice of identification methods, increased costs to providers and beneficiaries, minimal compliance with referral systems and an unknown, though potentially high, degree of inclusion and exclusion errors.

Further research should be conducted on several issues. First, those households who were unable to access any cash may represent a minority who have no social network or mutual assistance relations - indicating the need for investigation into determining the real number of such households and the means to assist them in accessing care at no or minimal costs. Second, despite several repetitions of community-based targeting, the exclusion error appeared substantial: its magnitude can only be assessed through a cross-sectional survey, which would also allow insights into the reasons for exclusion. Third, indirect costs were not assessed in this study but appear to play a major role in shaping health care seeking behaviour. This calls for a study on the nature, burden and timing of these indirect costs to enable future provision of appropriate financial support for costs for which the current benefit package is insufficient. This should also include the opportunity costs of carers, especially lost earnings, since nearly all patients had a carer who normally worked during their hospitalisation

period. Lastly, an economic assessment is needed to determine which identification method - or combination - is the most efficient, for providers and households.

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References

- Ahmed SM, Petzold M, Kabir ZN and Tomson G (2006). Targeted interventions for the ultra poor in rural Bangladesh: does it make any difference in their health seeking behaviour?, *Social Science and Medicine*, **63** : 2899-911.
- Asenso-Okyere WK, Anum A, Osei-Akoto I and Adukonu A (1998). Cost-recovery in Ghana: are there changes in health seeking behaviour?, *Health Policy and Planning*, **13** : 181-88.
- Barber S, Bonnet F and Bekedam H (2004). Formalizing under-the-table payment to control out-of-pocket hospital expenditure in Cambodia, *Health Policy and Planning*, **19** : 199-208.
- Chambers R (1979). *Health, agriculture and rural poverty: why seasons matter*. Institute of Development Studies, University of Sussex, Brighton (Discussion paper 148).
- Coady D, Grosh M and Hoddinott J (2002). *The targeting of transfers in developing countries: review of experience and lessons*. World Bank, Washington.
- Conning J and Kevane M (2002). Community-based targeting mechanisms for social safety nets: a critical review, *World Development*, **30** : 375-394.
- Daru P, Churchill C and Beemsterboer E (2005). The prevention of debt bondage with microfinancing-led services, *European Journal of Development Research*, **17** : 132-154.
- Devereux S (2002). *Social protection for the poor: lessons from recent international experience*. Institute of Development Studies, Sussex (IDS Working paper 142).
- Ensor T, Dave-Sen P, Ali L, Hossain, Begum SA and Moral H (2002). Do essential service packages benefit the poor? Preliminary evidence from Bangladesh, *Health Policy and Planning*, **17** : 247-256.

Filmer D and Pritchett LH (2001). Estimating wealth effects without expenditure data - or tears: an application to educational enrolments in states of India, *Demography*, **38** : 115-132.

Frenk J, González-Pier E, Gómez-Dantés O, Lezana MA and Knaul FM (2006). Comprehensive reform to improve health system performance in Mexico, *Lancet*, **368** : 1524-34.

Gilson L and McIntyre D (2005). Removing user fees for primary care in Africa: the need for careful action, *British Medical Journal*, **331** : 762-5.

Jacobs B and Price N (2004). The impact of the introduction of user fees at a district hospital in Cambodia, *Health Policy and Planning*, **19** : 310-321.

Jacobs B and Price N (2006). Improving access for the poorest to public health services: insights from Kirivong Operational Health District in Cambodia, *Health Policy and Planning*, **21** : 27-39.

Jacobs B, Price N and Sam SO (2007a). A sustainability assessment of a health equity fund initiative in Cambodia, *International Journal Health Planning and Management*, **22** : 183-203.

Jacobs B, Price N and Sam SO (2007b). Do exemptions from user fees mean free access to hospital care? A case study from rural Cambodia, *Tropical Medicine and International Health*, **12** : 1391-1401.

James CD, Hanson K, McPake B *et al* (2006). To retain or remove user fees? Reflections on the current debate in low- and middle-income countries, *Applied Health Economics Health Policy*, **5** : 137-153.

Kenjiro Y (2005). Why illness causes more serious economic damage than crop failure in rural Cambodia, *Development and Change*, **36** : 759-783.

Kim S, Chan S and Sarthi A (2002). *Land, rural livelihoods and food security in Cambodia: a perspective from field reconnaissance*. Cambodia Development Resource Institute, Phnom Penh.

Knaul FM, Arreola-Ornelas H, Méndez-Carniado O *et al.* (2006). Evidence is good for your health system: policy reform to remedy catastrophic and impoverishing health spending in Mexico, *Lancet*, **368** : 1828-41.

McIntyre D, Gilson L and Mutyambizi V (2005). *Promoting equitable health care financing in the African context: current challenges and future prospects*. EQUINET Discussion Paper (27).

McIntyre D, Thiede M, Dahlgren G and Whitehead M (2006). What are the economic consequences for households of illness and of paying for health care in low- and middle-income country contexts?, *Social Science and Medicine*, **62** : 858-865.

Ministry of Health, World Health Organization, Belgian Technical Cooperation (2005). *Report of Health Equity Fund forum*. Phnom Penh, February 1-3. Phnom Penh.

Mkandawire T (2005). *Targeting and universalism in poverty reduction*. United Nations Research Institute for Social Development. Social Policy and Development Programme Paper Number 23, Geneva.

Morris SS, Carletto C, Hoddinott J and Christiaensen LJM (2000). Validity of rapid estimates of household wealth and income for health surveys in rural Africa, *Journal Epidemiology and Community Health*, **54** : 381-387.

Noirhomme M, Meessen B, Griffith F *et al.* (2007). Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia, *Health Policy and Planning*, **22** : 246-262.

Noponen H and Pradan PK (2004). Crises, setbacks and chronic problems - the determinants of economic stress events among poor households in India, *Journal of International Development*, **16** : 529-545.

Pearson M (2004). *Issue paper: the case for abolition of user fees for primary health services*. DFID Health Systems Resource Centre, London.

Russell S and Gilson (1997). User fee policies to promote health service access for the poor: a wolf in sheep's clothing, *International Journal Health Services*, **27** : 359-379.

Van Damme W, Van Leemput L, Ir P, Hardeman W and Meessen B (2004). Out-of-pocket expenditure and debt in poor households: evidence from Cambodia, *Tropical Medicine and International Health*, **9** : 273-280.

Victora C, Wagstaff A, Shellenberg JA, Gwatkin D, Cleason M and Habicht JP (2003). Applying an equity lens to child health and morbidity: more of the same is not enough, *Lancet*, **362** : 233-241.

Willis CY and Leighton C (1995). Protecting the poor under cost-recovery: the role of means testing, *Health Policy and Planning*, **10** : 241-256.

Wilkinson D, Holloway J and Fallavier P (2001). *The impact of user fees on access, equity and health provider practices in Cambodia*. Ministry of Health and World Health Organization, Phnom Penh.

Xu K, Evans DB, Kadama P *et al.* (2006). Understanding the impact of eliminating user fees: utilization and catastrophic health expenditures in Uganda, *Social Science and Medicine*, **62** : 866-876.

Yanagisawa S, Mey V and Wakai S (2004). Comparison of health seeking behaviour between poor and better-off people after health sector reform in Cambodia, *Public Health*, **118** : 21-30.

Can public hospitals be pro-poor? The health equity fund experience in Cambodia.

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Abstract

In many low-income countries, poor households face many barriers to use hospital services. As a result, better-off households may be the main beneficiaries of government and donor subsidies to public hospitals. We aimed to assess the extent to which health equity funds could improve access by the poor to public hospitals. This study reports the results of a benefit-incidence analysis carried out in six rural hospitals in Cambodia. In each site, a bed census survey has been conducted in order to assess the socio-economic status of the inpatients. Through an asset index we compare the profile of inpatients with the profile of the general population. In the six hospitals, the socio-economic profile of inpatients is quite similar to the rural population's profile. HEF probably contributes to this outcome, but quality of care looks like another feasible pro-poor strategy. Operators of health equity funds do not leak their assistance to non-poor. Problematic however is that some poor inpatients did not get support from the scheme. This study shows that inequity in hospital utilization can be tackled through waiver schemes.

Introduction

In many low-income countries, poor households face many barriers in their utilization of health services (Ensor and Cooper 2004). These barriers are even more compounded for accessing hospital care. Once they got information on the need to go to the hospital, the poor patients face indeed several challenges. Statistically speaking, poor people live in rural areas; for many of the poor households, distance to urban centers (where most hospitals are located) and a lack of acquaintances or friends in the

neighborhood of the hospital (to stay over for the night) will therefore be the first barriers. Second, even if the hospitals are subsidized by the government, user fees or under-table-payment may be requested. The poor households' limited ability to pay can then be a major constraint, especially for inpatient care, for which costs can be substantial. Finally poor users may also be victims of stigmatization or discrimination during their hospital stay. Deciding to forego treatment and stay at home may then be the preferential option.

Benefit-incidence studies - i.e. the study of the distribution of public resources across a classifier, e.g. socio-economic status (SES) - have shown that in most low-income countries, in spite of a higher morbidity, the poor use hospital services less than other socio-economic groups (Castro-Leal *et al.* 2000; O'Donnell *et al.* 2007; World Bank 2006). This raises a major question on the appropriateness of the institutional arrangements that establish the public hospital sector. Indeed, many governments and civil servants do probably consider accessibility for all as a core objective for government-owned health facilities. If the performance on the metric of accessibility is low, solutions must be found.

A possible solution could be the health equity funds, i.e. ear-marked funds covering the hospital utilization costs incurred by poor households. In this paper, we assess the performance of six public hospitals in rural Cambodia in terms of accessibility for the poor. The benefit-incidence analysis shows that the six hospitals are used by the whole range of socio-economic groups, including by the very poor. It is argued that the health equity funds contribute to this positive outcome through their accurate targeting, but other factors - such as the quality of care delivered by the hospital - matter as well.

Context

Cambodia is one of the poorest countries in South-East Asia. Economic growth has been impressive over the last fifteen years, yet, not everybody benefited equally. Around 35% of the population still live below the national poverty line and as in most transitional countries; inequality has increased, most notably within the rural population (World Bank 2006). As far as the health sector is concerned, the country has been engaged in an extensive reconstruction and development of its public health system since

the early nineties (Hill 2004). According to the national policy, rural hospitals are a cornerstone of the health system. Yet, progress in the performance of rural hospitals has been quite slow. In 1997, in order to loosen the constraint of scarce resources, the government introduced user fees in its health facilities. According to the last national guideline, up to 60% of revenue collected among the users may be used for salary supplements for the staff.

In well-managed hospitals, user fees have allowed ensuring a decent income for staff, who, in exchange, accepted to abandon coping mechanisms such as under-table-payment (Barber *et al* 2004; Van Damme *et al.* 2001). This has helped several hospitals to significantly consolidate their development. Yet, the strategy had its drawback: it formalized a major financial barrier for the poorest. The National Charter on Health Financing had pre-empted this problem by decreeing that poor patients should receive hospital care for free. Yet, as in many other countries (Willis and Leighton 1995; Stierle *et al.* 1999), this policy by fiat brought poor results. This is easily understandable given the staff's strong conflict of interest: any patient accepted for free meant for them a loss of income. To avoid this pitfall, the Ministry of Health and its partners have explored another track: the health equity fund (HEF).

The HEF model is straightforward: the main idea is to request no payment from poor patients (as in any waiver), but to ensure nevertheless that the hospital is compensated for each poor patient it admits (Hardeman *et al.* 2004). To realize these principles, a compensation fund financed by donor money is established. The standard approach in Cambodia is to entrust at least two key functions to the local agency in charge of the HEF: the payment of the lump sum user fees to the hospital and the identification of patients eligible for assistance (in the community and/or at the time of hospital admission). For the vast majority of schemes however, the local agency takes up other roles such as the specification of eligibility criteria or the tailoring of the assistance to the specific needs of the poor. The model is indeed flexible. It is for example possible to extend the benefit package to other items such as transport or food or even social services such as patient information and empowerment.

The HEF strategy is progressively becoming a national policy. More than one third of district hospitals are today equipped with a HEF. Ninety percent of them have been entrusted to local non-governmental

organizations (through a bidding process); others rely on grassroots organisations (Jacobs and Price 2006) or committees gathering different stakeholders (Noirhomme *et al.* 2007).

Over the last few years, the HEF experience has aroused considerable interest among scientists and policy makers beyond Cambodia. The theoretical advantages and disadvantages of the strategy have been highlighted (Meessen *et al.* 2006). Different institutional arrangements and implementation approaches have been described (Noirhomme *et al.* 2007). While there is some evidence that organisations in charge of the HEF are accurate in their identification of the poor (Jacobs and Price 2006) and that HEF have increased the proportion of poor using the hospitals (Hardeman *et al.* 2004; Noirhomme *et al.* 2007), a proper and independent benefit-incidence analysis is still lacking (Gwatkin *et al.* 2005). More evidence on the performance of the strategy in terms of targeting would obviously consolidate the credentials of the strategy among key stakeholders.

Methods

SITES AND DATA COLLECTION

This study was part of a wider effort to document hospital performance and its determinants in rural Cambodia and China. The key postulate of the “Hospitals in Change” project was that performance - defined in a multidimensional way - is to a large extent the result of institutional arrangements that set the hospital as an organisation.

In Cambodia, six rural hospitals were selected for thorough case studies. Three of the hospitals (CPA 2) provide a complementary package of activities quite similar to the package usually delivered by health district hospitals in low-income countries: internal medicine, pediatrics, maternity and surgery (e.g., caesarean section, hernia) services, with the necessary equipment and support services (laboratory, X-Ray, ultrasound, blood transfusion). The other three hospitals (CPA 3) used to be provincial hospitals; they have a greater amount of beds, have some specialists among their staff and provide a larger package of services.

The selection of the six cases was purposive: as the main goal was to identify, understand and assess best practices, hospitals considered as ‘good performers’ were favored. Variation in terms of institutional arrangements

was secured to gain maximal insight from the comparison (Vigour 2005). For example, at the stage of selection (early 2003), only three hospitals had a full-fledged HEF at hospital level: Sotnikum, Pearang and Pursat. Yet, reality is sometimes much more dynamic than research. By the time of data collection, Kirivong had evolved from a HEF funded through private donations collected by local pagodas (Jacobs and Price 2006) to a HEF funded by donor aid; Mongkul Borei hospital had a well-financed HEF (which started mid-2003); and Takeo HEF, which had struggled since its inception with underfunding, had at last secured more resources for the year 2005.

Table 1. Key indicators for the six hospitals (2004)

	Kirivong	Mongkul Borei	Pearang	Pursat	Sotnikum	Takeo
Number of beds	64	195	41	162	95	154
Number of staff	37	143	28	116	51	168
Package of activities	CPA ^a 2	CPA 3	CPA 2	CPA 3	CPA 2	CPA 3
Number of admissions	4,978	4,156	2,034	3,729	3,402	8,691
Admission rate (denominator: health district population)	2.4%	1.8%	1.1%	1.4%	1.4%	4.6%
Bed Occupancy Rate	123%	61%	77%	45%	95%	100%
Inpatient days/staff	776	328	463	291	513	452
Proportion of total revenue from government & donor	76%	73%	66%	73%	70%	58%

^a CPA, complementary package of activities

Table 1 provides a summary of some key variables for 2004. The number of beds and staff gives a good indication of the variable size of the hospitals. The bed occupancy rate and number of inpatient days/staff can be seen as productivity indicators. Two CPA 3 hospitals, Mongkul Borei and Pursat, are performing worse on this metric. Across indicators, Kirivong and

Takeo hospitals perform particularly well. Located close to each other, they attract different kinds of patients. Takeo hospital is renowned in Cambodia for its surgical capacity. For such services, its catchment area goes far beyond the district (see Table 2). This orientation towards surgery explains the high percentage of income raised from user fees by this hospital (42%).

In Cambodia, a key research question for the Hospitals in Change project was the extent to which the six public hospitals were really accessible by all. Given the significant contribution of the government in the funding of public hospitals (see Table 1), this issue of access was also an issue of fairness in terms of benefiting from public resources. The main hypothesis under test was whether the institutional configuration 'public hospitals with user fees + exemption decree + HEF' was sufficient to overcome the main barriers faced by the rural poor.

In each hospital, a socio-economic bed census was carried out. The bed census technique consists in "a cross-sectional snap-shot of the utilization of hospital beds on one particular day" (Buvé and Foster 1995). A key advantage of the technique is that it allows to have some basic and rapid information on the profile of inpatients in a hospital at a very low cost (Pannarunothai 1995). The main limit of the technique is its bias in favour of pathologies or conditions requiring longer lengths of stay. Other limits are reviewed in our discussion section.

Data were collected both on the patient (age, gender, principal diagnosis...) and the household level (composition, literacy, occupation, asset ownership, health seeking behaviours for the episode of illness and HEF status). The surveyor was also requested to produce a subjective judgement whether the inpatient was very poor, poor or better-off. In the smallest hospitals (Krivong and Pearang), the bed census was conducted twice in order to increase the sample size (see Table 2); a time lag of at least three months was respected to avoid recruiting the same inpatient twice. Data were collected by the same surveyors in the six hospitals.

Table 2. Key bed census data for the six hospitals

	Kirivong	Mongkul Borei	Pearang	Pursat	Sotnikum	Takeo
Dates of the bed census	02/02/'05 02/06/'05	24/03/'05	08/12/'04 01/06/'05	17/03/'05	17/05/'05	31/01/'05
Sample size	124	122	69	67	72	135
Living in the health district	89.4%	40.5%	75.3%	80.3%	63.4%	32.3%
Patients who benefited from a partial or total fee waiver	36%	53%	29%	51%	31%	1%

DATA ANALYSIS

For each hospital, our main research questions were the three following ones: (1) what is the SES of hospital inpatients and more particularly, do the poor and very poor manage to get access to the hospital; (2) what is the SES of the HEF beneficiaries, and more particularly, are there some false positives (non-poor inpatients receiving assistance); (3) which proportion of the very poor users receive some support from the HEF, and conversely are there some false negatives (very poor inpatients receiving no assistance)?

Benefit-incidence analysis mainly consists in a comparison of the SES of the intervention beneficiaries and the SES of the reference population. As the bed census was providing us information on the beneficiaries only, we had to find a second database incorporating information on the SES of the rural population in Cambodia. After removal of the urban households, the Cambodia Socio-Economic Survey 2003-2004 (CSES) met this criterion (Ministry of Planning 2006). Interestingly enough, situating beneficiaries of an intervention relatively to a reference population does not require an absolute measure of the individual SES (e.g. monthly income); the sole requirement is to have the score of each beneficiary on an index that ranks individuals (or households) of the general population from the poorest till the richest.

Running a principal component analysis on a selection of asset variables is today the recommended approach to build such an index (Filmer and Pritchett 1998; Vyas and Kumaranayake 2006; Zeller *et al.* 2006). A key

advantage of asset variables is that they are easy to collect. One skips the tedious collection of income, consumption or expenditure data; yet, asset ownership still leads to a quite good indication of the long-run household living standard. Contrary to the current approach in asset index research, but in line with standard methodology in sciences as diverse as health care research (Munro 2005), psychology and social sciences (see for example Kim and Mueller 1978a, Kim and Mueller 1978b) we opted for using PCA the way it was intended originally, i.e. as an exploratory (factor analysis) technique. So we did not assume from the start that all the assets would measure one and only one dimension or concept (presumably SES); we let the structure of the data instead unfold from the data. If in the asset data more than one component was hidden - which, we argue, very often is the case in this type of data -, we would select only the items that measured unequivocally the subscale that interested us here: SES. Other items would be dropped. For the exact way of handling this selection- and dropping process, through factor analysis and internal coherence testing of the scale (the latter with Cronbach's alpha as the main measure), we refer to the literature mentioned above.

First of all, we assessed the informative content of the asset variables present in the CSES. More than 30 variables were available. We ran a principal component analysis on this extensive set of variables for the rural households (n=11,831). As expected, the first principal component (or factor) was capturing a socio-economic dimension; yet, the percentage of variance explained was low (less than 12%) and many of the asset variables had quite low loadings (sometimes below the minimal 0.18 recommended in the principal component analysis literature) (Burt-Banks criterion, see Child, 1990). We removed variables with low loadings to end up eventually with a principal component explaining 33% of the variance, a relatively high percentage in comparison with other studies (McKenzie 2005; Vyas *et al.* 2006). All the remaining 13 items loaded high on the component (above 0.4). Then we compared this list of 13 items with the variables collected in the bed census. Whereas initially, both surveys had ten variables in common, after the removal of variables in the CSES with a low loading, only five similar variables remained: phone (dichotomic), TV (dichotomic), motorbike (dichotomic), the quality of roof and the quality of floor (ordinal). The five items common to both datasets that did not load well on this component were: 'having a bicycle', 'having an oxcart' - these clearly do not differentiate

very well in the Cambodia countryside - and, rather surprising, also the amounts of animals owned by a household (cattle, draft animals, pigs). We could hypothesize that this phenomenon is due to the fact that two categories have few animals in the countryside, i.e. the very poor and some of the well-off (with non-farming related jobs). Such a nonlinear relationship between the SES status and animal ownership cannot be well captured by a principal component analysis (a technique for linear relationships). The fact that the quality of the dwelling differentiates very well between rural households was not a surprise: any journey in the countryside can confirm that investing in housing is one of the first investments that Cambodian households make today when their daily lot improves (World Bank 2006). The rapid spread of mobile phones and motorbikes in the rural 'middle-class' is providing other well-discriminating variables (at least for the time being).

The next step was to assess the acceptability of an index based on only these five common assets. We ran the principal component analysis on the CSES and it appeared that the first component was a clear SES factor (explained variance: 40%; loadings over 0.50 for each item). A bit uncomfortable with an index based on such a short list of assets (other studies usually use around 15-20 variables; yet, without checking for the loadings), we tested on the subsample of 11,831 households of the CSES whether the 5-item and 13-item SES indexes corresponded. For that purpose, the individual SES scores were constructed for each index by summing the products of each component score coefficient with the standardized values of the related asset. Correlation between the two indexes proved to be very high (0.814), which confirmed that the 5-item index might be a good proxy for the 13-item one. An additional test was performed in which both indices (each divided into two categories, the lowest 40% and the top 60% in terms of SES status) were matched with each other in a 2 x 2 table. The 'hits' (= on the diagonal) amounted to 88.3% (= 33.4% + 54.9%), the 'misses' (not on the diagonal) amounted to 11.7% (= 5.3% + 6.4%), which was deemed an acceptable figure.

The third step was to calculate the SES scores of the 548 inpatients of the bed census for whom there were no missing data. We multiplied their standardized self-reported assets by the same component coefficient scores obtained from the principal component analysis on the CSES and aggregated the results to obtain their individual score on the five-asset index.

Results

The bed census provides us with two indicators for the SES of the inpatient: the score on the five-asset index and the subjective assessment by the surveyor. The two indicators are available for 548 inpatients. For 36 more inpatients, we have the surveyor's assessment only.

As far as the asset index is concerned, the SES in Tables 3-5 is given by the comparison of the individual score relatively to the distribution of scores across the whole reference population. According to the research question, this reference population has been divided in quintiles or terciles. An example might clarify this procedure: if the cutoff points for quintiles in the total rural population were, for instance $-.80$, $-.40$; $.30$ and $.90$, then we compared the individual score of the inpatient (calculated with the same weights) with *the same* cutoff points to appreciate to which quintile he belongs. For terciles obviously we only need two cutoff points.

While the use of the 11,831 rural households of the CSES to calculate the index ensures consistency of our study, it may be unfair to hospitals with relatively richer populations in their surroundings. As a robustness test, we have explored (1) whether the cutoff points were very different if the principal component analysis was carried out on provincial data instead of national ones; (2) whether the classification of the bed census inpatients into quintiles or terciles was very different with these 'provincial' indexes. Results were remarkably different only for the two hospitals in Takeo Province (Kirivong and Takeo hospitals), and for their scores in Table 3 only. This is consistent with the fact that the population in Takeo Province has a higher SES than the population in the four other provinces of our study (World Bank 2006).

Table 3 gives the distribution of the inpatients by SES.

Table 3. SES of inpatients in the six hospitals

Inpatients belonging to the	Hospitals						Total
	Kirivong	Mongkul Borei	Pearang	Pursat	Sotnikum	Takeo	
40% poorest (asset index)	56 45.9%	55 54.5%	24 36.9%	22 33.8%	25 37.9%	29 22.5%	211 38.5%
60% least poor (asset index)	66 54.1%	46 45.5%	41 63.1%	43 66.2%	41 62.1%	100 77.5%	337 61.5%
Total	122	101	65	65	66	129	548
Very Poor group (surveyors' assessment)	20 16.1%	56 46.7%	17 24.6%	14 21.2%	11 15.5%	14 10.4%	132 22.6%
Poor group (surveyors' assessment)	72 58.1%	43 35.8%	39 56.5%	40 60.6%	36 50.7%	86 64.2%	316 54.1%
Better-off group (surveyors' assessment)	32 25.8%	21 17.5%	13 18.8%	12 18.2%	24 33.8%	34 25.4%	136 23.3%
Total	124	120	69	66	71	134	584

We see that the six hospitals are quite balanced in terms of SES of their inpatients. Mongkul Borei hospital looks particularly pro-poor. Takeo hospital is the hospital with the lowest proportion of very poor inpatients. Yet, if one uses the 'provincial index', Takeo fares as well as others (39,4% patients belonging to the 40% poorest) while Kirivong's figure goes up to 61,4%.

Out of the whole sample of 589 inpatients, 187 reported assistance of some kind from a HEF. All of them benefited from a partial or full fee waiver. Other kinds of assistance were rarer: 45 reported assistance for their transport and 32 some assistance for food. Table 4 gives the socio-economic distribution of the more or less 30% of inpatients assisted by a HEF. We see that most of the assistance went to very poor or poor patients. If we look at the highest asset index tercile, we cannot exclude some leakage (6.5% in total). However, the surveyors, whose judgment rested on a broader set of indicators (including things not reported in the survey, like the respondent's clothing, attitude and oral expression), estimated that leakage was non-existent (1%).

Table 4. SES of HEF beneficiaries

HEF beneficiaries belonging to the	Hospitals						Total
	Mongkul		Pearang	Pursat	Sotnikum	Takeo	
	Kirivong	Borei					
66% poorest (asset index)	43 97.7%	51 100%	17 89.5%	26 78.8%	18 94.7%	2 100%	157 93.5%
33 % better-off (asset index)	1 2.3%	0 0%	2 10.5%	7 21.2%	1 5.3%	0 0%	11 6.5%
Total	44	51	19	33	19	2	168
Very poor group (surveyors' assessment)	15 33.3%	43 67.2%	10 50%	11 32.4%	9 40.9%	1 50%	89 47.6%
Poor group (surveyors' assessment)	30 66.7%	19 29.7%	10 50%	23 67.6%	13 59.1%	1 50%	96 51.3%
better off group (surveyors' assessment)	0 0%	2 3.1%	0 0%	0 0%	0 0%	0 0%	2 1.1%
Total	45	64	20	34	22	2	187

Table 5 focuses on the poorest inpatients. It gives the proportion of inpatients assisted by the HEF in these sub-groups. We see that there is a pattern of under-coverage across the six hospitals. Remarkable is the huge under-coverage in Takeo. In fact, January 2005 was the month of a new start for the HEF in Takeo. The new contract with the funding international NGO really took effect the month following the bed census.

Table 5. HEF status of poor patients

Number and proportion of assisted patients among the	Hospitals						Total
	Kirivong	Mongkul Borei	Pearang	Pursat	Sotnikum	Takeo	
40% poorest (asset index)	29	36	11	14	13	1	104
	51.8%	65.5%	45.8%	63.6%	52%	3.4%	49.3%
Very poor group (surveyors' assessment)	15	43	10	11	9	1	89
	75%	76.7%	58.8%	78.5%	81.8%	7.1%	65.1%
Poor group (surveyors' assessment)	30	19	10	23	13	1	96
	41.6%	44.1%	25.6%	57.5%	36.1%	1.1%	30.3%

Discussion

Our study evidences that the six rural hospitals under scrutiny are used by the poor. HEF is probably key to this positive result, yet the Takeo example shows that a HEF is not a necessary condition for such an outcome. The benefit-incidence analysis on the sub-group of patients having received assistance from the HEFs confirms that the HEF operators are successful in concentrating their assistance on very poor and poor households. This very limited leakage could in fact be the result of a too restrictive selection of beneficiaries by HEF operators. Our study shows indeed that among hospitals patients, many 'non-assisted' users have an asset index score equal to those who received assistance. If the sole objective of the HEF is to enhance access to hospital care, this under-coverage is not an issue (the real under-coverage lies in poor sick persons never arriving at the hospital). It is a problem though if fairness and protection of households against catastrophic healthcare expenditure are other objectives pursued by the HEF.

Our study has some limits, notably (1) the rather narrow nature of the research question; (2) the data collection method and (3) the data analysis.

As far as the first problem is concerned, one can only stress the danger to draw too hasty conclusions on the basis of the analysis of one single dimension of performance. In a health system with freedom of choice for the users (as is the case in Cambodia), one could imagine an extreme case of a hospital with a very good benefit-incidence result: the hospital that performs

so poorly that it would be used only by those who have no other option, i.e. the very poor. What matters in terms of equity is of course utilization of *effective* services. This bed census does not provide any information to assess the 'effectiveness of care' dimension; henceforth other parallel research was conducted, under the Hospitals in Change Project which documented other dimensions of hospital performance (not reported here).

Some indicators of Tables 1 and 2 allow us to put the benefit-incidence score into perspective. Let us do this for four hospitals: Kirivong, Takeo on one side and Mongkul Borei and Pursat on the other side. If one takes the admission rate as an indication of the performance of a hospital in attracting its target population, Takeo appears to perform much better than the five other hospitals. The high quality of care delivered in Takeo, especially for surgical cases, is a well-known fact in Cambodia. This performance is due to some institutional factors, but not exclusively (Barber *et al.* 2004). Qualitative data collected by the Hospital in Change project has revealed that leadership is crucial as well. Whatever the exact reason might be, the case of Takeo hospital shows that discussing accessibility without connecting it to quality of care could be misleading. Takeo hospital brings indeed an important lesson: if the quality of care is high, poor and very poor people may decide to use the hospital, despite the low odds to get a user fee waiver. This shows that more attention to quality of care in rural health facilities can be a pro-poor strategy.

Kirivong is a small rural hospital. It has not the national prestige of the neighboring Takeo hospital and recruits patients among the neighboring population only. Yet, the hospital is very much appreciated by the local population. The case mix of inpatients is obviously less complicated than in Takeo hospital (hence, the much higher inpatient days/staff), but this is exactly what is expected from a CPA 2 hospital. Established in a remote area, this well-functioning hospital equipped with a HEF brings a lot of benefits to very poor and poor people.

The situation of Mongkul Borei and Pursat hospitals is different. Partly thanks to the support provided, respectively, by the International Committee of the Red Cross and *Médecins Sans Frontières*, these two hospitals were among the best performing rural hospitals in the early nineties. After the departure of both agencies, the situation degraded. Furthermore, in the late nineties, Mongkul Borei hospital suffered from bad management and poor leadership. For the new director, it took several years to rebuild the

reputation of the hospital. Our benefit-incidence study shows that both hospitals are massively used by very poor (Mongkul Borei) or poor (Pursat) households and that a majority of these very poor or poor users got assistance from the HEF. In fact, for both hospitals, the HEF patients constitute more than 50% of the practice (see Table 2). Other insights gathered from routine data (see the low bed occupancy rates in Table 1) and qualitative information, make us wonder whether Mongkul Borei and Pursat hospitals do not partly suffer from the syndrome of 'poor hospital for the poor'. Obviously, only a few better-off people use the hospital (despite idle capacity). Others probably prefer to opt for local private clinics. The HEF may have contributed to boosting the utilization of Mongkul Borei and Pursat hospitals. This is of course welcome, but a more balanced socio-economic mix of utilization is probably what the hospital management teams should aim at. This would better meet the mission assigned by the Ministry of Health, and also constitute a step towards gaining stronger support among the local elites and the community. Since Hirschman's seminal book on *voice* and *exit*, one knows that it is never good for the future of an organization when the better-off prefer the exit route to voicing their frustration (Hirschman 1970).

There are also some limits typical of the data collection method. As a snapshot, a single bed census does not allow for identifying seasonal effects. It is well-known that seasons can create supplementary barriers in rural areas (Chambers 1979; Sauerborn *et al.* 1996). While we do not believe that this weakness impedes the inter-hospital comparison or invalidates our main message, we cannot exclude that the socio-economic profile of hospital users varies across seasons in Cambodia, especially in periods of floods. The answer to this parallel question could come from the utilization of the bed census technique as a routine monitoring instrument in Cambodia (e.g., to control the performance of non-governmental organizations subcontracted to operate HEFs). Another problem is the reliance on declarations by the interviewees. Even if the surveyors informed respondents clearly that they were external both to the hospital and the HEF, one can never exclude that some respondents lie or misreport their situation. Data collection carried out at home (see for example Ir *et al.* in this book) is for sure a better option. Finally, the samples in the small hospitals were quite small.

Lastly, there are also the limits stemming from the data analysis. Our asset index is quite basic. Five assets are not as many as we would have liked

to have in our index. It is maybe more appropriate to talk of an indicator of socio-economic status rather than of a measurement *stricto sensu*. While we believe that this index is robust enough to provide a general idea on the benefit-incidence of subsidies to public hospitals and of HEF assistance (as it is confirmed by the subjective assessment by the surveyors), we would certainly not pretend that this is a golden standard allowing to invalidate other measurements, including the assessment made by the HEF social welfare workers. Their assessment is in fact much more informed than ours. First, households may have been interviewed by the NGO welfare worker or a surveyor at home (this is true at least for all the households pre-identified in the community). This home visit has allowed the surveyor to directly observe some variables reported by the interviewee (e.g., type of dwelling). Second, while all HEF operators collect information on assets (partly the same ones as the ones used in our index), they extend their assessment to other variables too such as the household structure, its income and food security (for more details on criteria, see Jacobs and Price 2006; Noirhomme *et al.* 2007 and Men in this book). Third, the face-to-face interview conducted by the HEF welfare worker usually also aims at identifying the specific needs of the eligible patients. The conduct of such an interview is more open than the administration of a structured questionnaire, and allows for including a 'gut feeling'. Eventually, while some HEF operators use an explicit scoring of the various variables, we would not pretend that their experience-based approach is inferior to our very rough statistical technique. The conclusion that they fail to identify many poor among the inpatients must therefore be taken cautiously.

As far as policy is concerned, our findings reinforce some key orientations taken by the Ministry of Health of Cambodia, old orientations such as the coverage of the countryside with rural hospitals, and more recent ones, such as the HEFs.

The five HEFs reviewed in this study are highly effective in reaching the poor. This fits the emphasis put recently by the Ministry of Health and its international partners on developing a pro-poor health system. More generally, the strategy nicely tallies with the national poverty reduction agenda. Another key argument in favor of the HEF approach is the quality of its implementation across the country. Our study shows that HEF operators cannot be accused of leakage to non-poor; this fact can only reinforce

political support among stakeholders, including the community and the hospital staff.

This study has also some operational meaning for the government and agencies active in the implementation of the HEFs. For example, the study validates the bed census as a way to monitor the performance of the HEF operators in their targeting. Asset indexes seem also an interesting route for crude comparison across scheme operators. However, one must not ignore that this study has taken place at a very specific point in time: economic development is so rapid in Cambodia that our five indicators may not discriminate so well anymore in a few years from now. Our study raises also the question of how one should address the variation in terms of economic development across regions. Should one use 'provincial indexes' or a single index for the whole country? We favour the use of the all-country index. Indeed, HEF makes up just one component of a more global targeting strategy. It is in fact the whole strategy, which combines geographical targeting (rural hospitals), categorical targeting (inpatients), self-selection (users of public hospitals) and proxy-means test (HEF), which must be assessed. Using a single index will for example give more support to the government strategy of developing hospitals in poor rural areas.¹

It is still unclear to what extent the strategy developed in Cambodia is relevant for other countries (Noirhomme and Thomé 2006). More experiments are needed. An important message is that waivers relying on individual assessment should not be too hastily discarded as a route to ensure accessibility by the poor. There are obviously design issues that must be solved. Regulation only is not sufficient. An external earmarked budget to compensate the health care provider is a prerequisite. Entrusting the identification of the beneficiaries to an organization whose main commitment is to help the poor seems also vital.

¹ We do not deny however that a critical size in terms of beds, technical capacity and skilled workforce probably applies. As highlighted by the Takeo case, quality of care is a key determinant of hospital utilization. Multiplying or even maintaining very small rural hospitals is probably not the way forward for Cambodia. Economic development, urbanization and the road network will indeed reshape the actual coverage map.

Conclusions

Limited accessibility by the poor to hospital care in low-income countries is not inevitable. Yet, solutions must probably be more comprehensive than what they have been so far in many settings. Identifying the poor, purchasing health care on their behalf, assisting them to overcome the various barriers are functions that deserve an agency whose prime mandate lies in addressing these issues. This would allow hospital managers to focus on their core mission: to deliver high quality of care to the patients. Clarifying societal missions of public hospitals is one of the paths to their better overall performance.

The Cambodian experience shows that nice partnerships between the public health care providers and civil society groups can be developed at this level. In rural areas, non-governmental and grassroots organizations could be particularly helpful to the poor. Through their support for such multi-actor models, donors could simultaneously achieve several goals dear to them: improve the health of the poor, obtain accountability from public health care providers, develop the private non-for-profit sector, empower the civil society and consolidate the development of a better connected web of actors in the social sector. We believe that this is a real cornucopia of benefits.

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References

Barber S, Bonnet F and Bekedam H (2004). Formalizing under-the-table payments to control out-of-pocket hospital expenditures in Cambodia, *Health Policy and Planning*, **19**, 4 : 199-208.

Buvé A and Foster S (1995). Carrying out a bed census at a district hospital in Zambia, *Health Policy and Planning*, **10**, 4 : 441-445.

Castro-Leal F, Dayton J, Demery L and Mehra K (2000). Public spending on health care in Africa: do the poor benefit?, *Bulletin of the WHO*, **78**, 1 : 66-74.

Chambers R (1979). Health, agriculture and rural poverty: Why seasons matter. Brighton, Institute of Development Studies, University of Sussex. Discussion Paper 148.

Child D (1990). The essentials of factor analysis. Second edition. London: Cassell Educational Limited.

Ensor T and Cooper S (2004) Overcoming barriers to health service access: influencing the demand side, *Health Policy and Planning*, **19**, 2 : 69-79.

Filmer D and Pritchett L (1998). Estimating wealth effects without expenditure data - or tears. With an application to educational enrollments in states of India. 1-38. The World Bank Development Research Group Poverty and Human Resources.

Gwatkin DR, Wagstaff A and Yazbeck AS (2005). Reaching the poor with Health, Nutrition, and Population Services; What Works, What Doesn't, and Why. Washington DC: The World Bank.

Hardeman W, Van Damme W, van Pelt M, Ir P, Heng K and Meessen B (2004). Access to health care for all? User fees plus a health equity fund in Sotnikum, Cambodia, *Health Policy and Planning*, **19**, 1 : 22-32.

Hill PS (2004). *International health policy: A study of words and power*. Vrije Universiteit Brussel.

Hirschman AO (1970). *Exit, Voice, and Loyalty*. Cambridge, Massachusetts: Harvard University Press.

Jacobs B and Price N (2006). Improving access for the poorest to public sector health services: insights from Kirivong Operational Health District in Cambodia, *Health Policy and Planning*, **21**, 1 : 27-39.

Kim JO and Mueller C (1978a). *Factor analysis: Statistical methods and practical issues. Quantitative Applications in the Social Sciences*. London, Sage.

Kim JO and Mueller C (1978b). *Introduction to factor analysis: What it is and how to do it. Quantitative Applications in the Social Sciences*. London, Sage.

McKenzie DJ (2005). Measuring inequality with asset indicators, *Journal of Population Economics*, **18** : 229-60.

Meessen B, Van Damme W, Tashobya CK and Tibouti A (2006). Poverty and user fees for public health care in low-income countries: lessons from Uganda and Cambodia, *Lancet*, **368** : 2253-2257.

Ministry of Planning (2006). Kingdom of Cambodia.

Munro B (2005). *Statistical methods for health care research*. Springhouse, Lippincott, Williams & Wilkins.

Noirhomme M and Thomé JM (2006). Les fonds d'équité, une stratégie pour améliorer l'accès aux soins des plus pauvres en Afrique? In: Dussault G, Letourmy A, Fournier P, editors. *L'Assurance maladie en Afrique francophone*. Washington: World Bank, 432-451.

Noirhomme M, Meessen B., Griffiths F, Ir P, Jacobs B, Thor R *et al.* (2007). Improving access to hospital care for the poor: Comparative analysis of four Health Equity Funds in Cambodia, *Health Policy and Planning*, **22**, 4 : 246-262.

O'Donnell O, Van Doorslaer E, Rannan-Eliya RP, Somanathan A, Adhikari SR, Harbianto D *et al.* (2007). The incidence of public spending on healthcare: comparative evidence from Asia, *The World Bank Economic Review*, **21**, 1 : 93-123.

Pannarunothai S (1995). The bed census survey: a tool for studying hospital inpatient services, *Health Policy and Planning*, **10**, 4 : 438-440.

Sauerborn R, Nougara A, Hien M and Diesfeld HJ (1996). Seasonal variations of household costs of illness in Burkina Faso, *Social Science and Medicine*, **43**, 3 : 281-290.

Stierle F, Kaddar M, Tchicaya A and Schmidt-Ehry B (1999). Indigence and access to health care in sub-saharian Africa, *International Journal of Health Planning and Management*, **14** : 81-105.

Van Damme W, Meessen B, von Schreeb J, Heng TL, Thomé JM, Overtom R *et al.* (2001). Sotnikum new deal, the first year - Better income for health staff; better service to the population. 1-64. Phnom Penh, MSF.

Vigour C (2005). La comparaison dans les sciences sociales: Pratiques et méthodes. Paris: La Découverte.

Vyas S and Kumaranayake L (2006). Constructing socio-economic status indices: how to use principal components analysis, *Health Policy and Planning*, **21**, 6 : 459-468.

Willis CY and Leighton C (1995). Protecting the poor under cost recovery: the role of means testing, *Health Policy and Planning*, **10**, 3 : 214-256.

World Bank (2006). Cambodia - Halving Poverty by 2015? Poverty Assessment 2006. Washington DC.

Zeller M, Sharma M, Henry C and Lapenu C (2006). An operational method for assessing the poverty outreach performance of development policies and projects: results of case studies in Africa, Asia and Latin America, *World Development*, 34, 3 : 446-464.

When slum dwellers seek health care: Exploring a community-based Health Equity Fund's impact on indebtedness for health care and on utilization of health services.

Maurits van Pelt and Guy Morineau

Abstract

Surveys have shown that the Cambodian health system is not working well for the poor, who besides showing little progress in health outcomes also often borrow money against interest to pay for health services. This article compares household demographics, economic situation and utilization of health services in two slum areas in Phnom Penh, one of which had a community based health equity-fund (HEF) for over four years. Community members collected data on all households identified as poor by their community representatives. In logistic regression, after adjusting for demographics, economic situation and reported health status, poor households in the slum area with a community-based HEF were 2.4 times more likely to have used medical services in the past 30 days, 3.4 times less likely to have contracted a debt for health care in the past 30 days, and 1.7 times less likely to have purchased medicines in the past 30 days without seeing a health worker than poor households in the slum without the HEF. These findings strongly suggest that a community-based HEF reduces the incidence of health related debt among the poor while it improves their access to health care and it is thus likely contributing to the reduction of health related poverty among the households it is protecting.

Background

The relationship between poverty and health in developing countries is often described as a vicious cycle with causality in both directions (Wagstaff 2002). Although health services are generally more available in urban than in rural areas, poor people living in slums are often worse off in terms of health, not

just when compared with their fellow urban citizens but also with their rural compatriots (World Bank 2002). In transition countries, where health services provision is increasingly left to the market, the forces driving the rising inequities pose formidable challenges for health policy makers to find appropriate remedies.

The Health Equity Fund (HEF) is a recent instrument introduced to improve poor people's access to health care. HEFs function by reimbursing the service provider for the loss of income resulting from giving a "user-fee exemption" to the poor patient. The HEF beneficiaries are therefore not only the poor, but also hospital staff sharing in the hospital revenue. The HEFs that have emerged show considerable variation in set up and implementation (Noirhomme 2007). The degree to which communities are seen to be involved in the various aspects of HEF, such as pre-identification, transporting and accompanying patients, and poor patient representation, may be explained in part by the area or facility where HEFs are rooted: HEFs can be more "health facility based" or more "community-based". When the HEF is rooted inside the hospital facility its main function is to assist the poor patients who arrive there to meet the costs of hospitalization. However, when a HEF is rooted in a particular community its priority is to help its community members, including the poor, to access appropriate health services - not necessarily hospitalization - while trying to protect them against impoverishment related to their health problem. Most HEFs in Cambodia belong to the first category, while only few belong to the second category, one of which is under study in this article.

The distinction may also help to put into perspective the large variety in benefits that HEFs have been seen to provide, ranging from topping up the hospital's budget for the hospital's kitchen to buy food for all patients, to purchasing food for the poor patient's caretaker, paying for the deceased patient's funeral, to the transportation cost of a community network volunteer that accompanies the poor patient and extra benefits such as daily allowances to help cover costs related to loss of income during hospitalization. The distinction is further useful when evaluating an HEF's effectiveness and efficiency. If the HEF is rooted in the community, it will tend to use opportunities to avoid hospitalizations in favor of less costly alternatives and protect its budget and its beneficiaries from unnecessary health care related costs. It can do so by helping beneficiaries to overcome barriers to first level care instead of paying for the ultimate recourse to the

hospital level. Depending on its roots, mandate and priorities the HEF may be functioning differently when avoiding the hospital may be in the interest of the poor patient but not in that of the hospital.

The last decade's investment into Cambodia's public health service has more benefited the non-poor than the poor¹ as evidenced by child mortality figures² (National Institute of Public Health 2005). Poor people in need of health care encounter many types of barriers that prevent them from using the health services, including informational barriers, lack of respect and financial barriers (Ensor 2004; Hardeman 2004; Soeters 2003). Poor and near poor households often borrow money to pay for health services (Van Damme 2004). Some borrowers pay high levels of interest on their debt for health care. The accumulating debt leads to a loss of precious assets, plunging a household deeper into poverty (Kenjiro 2005). Although HEFs are widely expected to reduce the financial barriers to health care for the poor, their effectiveness should not simply be assumed but demonstrated and monitored.

Survey data (Jacobs 2008) as well as monitoring of HEFs in Cambodia during 2007 reveal respectively that a third and sometimes almost half of hospitalized HEF beneficiaries had borrowed money against interest to pay for their hospitalization (Ministry of Health 2008), suggesting that HEF benefits often came too late to prevent the interest carrying health care debt or that the benefits were insufficient to cover all health care related expenses, in particular the associated costs such as food, transport, and the daily revenue that is foregone as a result of hospitalization of the income earner. These findings indicate that hospitalization of the poor, despite HEF assistance and despite pre-identification, still comes at a dire cost to many of the poor households that the HEF is promising to protect.

This article presents an impact assessment of one the few HEFs rooted in a community rather than being hospital facility based. It was involved in identification of the poor but only when they presented themselves at a primary health facility and had to be referred. During the period under study this HEF did not yet do a community wide identification of poor households

¹ The poor people's uptake of priority public health services compared with non-poor people's service uptake is not sufficiently monitored and surveyed;

² Because of limited sample sizes, surveys can not produce evidence that Cambodian poor women have proportionately a higher maternal mortality ratio than non-poor women but it would not be a surprising finding.

before they were sick. This would have formalized poor people's eligibility to HEF benefits before they present at the health services. Instead, eligibility to HEF was decided following a proxy means test applied at the first level of care by the community representatives if referral to the hospital was necessary. Community-based targeting therefore took place at the moment of referral, informing and simultaneously assuring the referral patient about their eligibility to HEF benefits in case of travelling to the referral hospital for hospitalization. This type of community based targeting is therefore neither "Pre-Identification", as it identifies people after they get sick, nor "Post-Identification", as identification happens when they are still in their community and have not arrived at the referral health facility.

The community representatives, known as "user group members" served as problem solvers and intermediaries with the public health services consisting of a first level of care, the so-called Minimum Package of Activities (MPA), and a second level of care (referral services) called the Complementary Package of Activities (CPA) available in Phnom Penh at the Municipal Hospital. During 2004 and 2005, the period under study, the HEF network facilitated the referral of about 120 patients per month. Besides facilitating transport and accompanying patients until after admission, the community-based NGO, managing the HEF, paid the health service fees on behalf of poor people and represented them as far as originating from their slum communities during monthly meetings with health service providers at the Municipal Health Department, with health authorities in a mediating role when necessary. In this system, all slum residing patients could rely on someone from their own slum community to help them overcome the barriers that often complicate poor people's access to public health services. Via the purchaser's network the poor patients had voice at different levels of the health system, including at a level higher than the actual health service provider. The community based network managing the HEF created an empowered representation of the clients which in turn enhanced the accountability of the service providers (van Pelt 2004).

We shall call the slum area where the NGO with its HEF budget and network of user group members had already been active for more than four consecutive years "EFA" and the slum area without the NGO "NEFA".

At first sight people, living in the NEFA could access public health services at the Chamkarmorn Health Center, a prestigious two-storey building complex located at about a hundred meters from the border of the

slum area. In addition to the MPA services, the Chamkarmorn Health Center provided some of the CPA services usually part of the referral hospital health package. In comparison, such enhanced services were not locally available to the EFA residents, whose basic health room offered nothing more than the MPA. When seeking health care, any citizen would have considered the Chamkarmorn Health Center (NEFA) a more attractive health facility than the one room shack with the basic care in the EFA. If, for whatever reason, people decided not to use public services, there was a whole range of alternatives available in a city such as Phnom Penh including: private providers, national hospitals, NGO's offering free services, pharmacies and traditional practitioners.

Both EFA and NEFA slums were located in downtown Phnom Penh. Both communities looked poor when compared with the rest of the city, with low quality huts built close together. People in both areas lived in very unsanitary conditions and did not have access to tap water or public electricity. There was no garbage collection, unlike in the rest of the city, which turned both areas from garbage belts into open sewers during the rainy season. Both slums had security problems caused by armed gangs of drug using adolescents. There was considerable in- and out migration in both slums, with a "seasonality" aspect as some rural residents kept an urban "pied à terre" in the slum where they spent several months a year when there was no agricultural work to do in the countryside. Both areas had "residents" who actually did not live in their hut, because they had divided it into several small rented-out rooms where unregistered tenants lived. Both slums had similar administrative structures including representatives and authorities. The exact administrative borders of villages inside the slums were not always clear, which created substantial uncertainty with regards to the actual numbers of inhabitants residing in these slum areas.

Methods

SURVEY DESIGN

The data presented here were collected by slum community representatives supported by a Cambodian non-governmental organization (NGO) managing their HEF. Data collection took place in order to pre-identify the poor in two slum areas located in Phnom Penh: one slum where a

community-based HEF was already being implemented and another slum where there was no HEF yet. Data collection aimed at identifying those eligible for HEF benefits by estimating household poverty through a scoring system, measuring and weighing various signs of poverty and vulnerability typical of households living in the slums. Those data would serve as baseline to implement HEF in the NEFA and to introduce a pre-identification scheme in the EFA as there had not been one before the survey.

The study design was cross-sectional. All households recognized as poor or near-poor by community representatives were systematically included in the pre-identification survey. The results of the pre-identification were presented in public meetings in the slum areas and publicly posted at the local health room, allowing for excluded households to apply within a month after the public distribution or to appeal against exclusion or inclusion of other households in the HEF system. Those who claimed eligibility but had not yet been interviewed were subsequently included in the pre-identification survey. This methodology aimed at generating an exhaustive sample of the poor living in each selected slum area. The list of the poor households was established during the same time period in both areas by the same NGO following the same methodology.

Data quality was ascertained through in-depth interviews of a randomly selected sub-sample of 43 respondents (including 19 respondents from EFA and 24 respondents from NEFA), stratified by amount of debt contracted in order to capture every level of poverty. This validity check was performed at an early stage with help of the community network. Debriefing with interviewers and community representative made them realize that over-reporting poverty could be discovered and was weakening the trust between organizers and community, and could ultimately threaten the entire system for the benefit of few.

Data were collected from a household representative, usually the head of household, using a structured questionnaire that was administered by community volunteers through face-to-face interview in a private setting. The interviewers received training on how to conduct the interviews and were given a monetary incentive to collect these data. The information collected included: age, education, literacy, income, sickness and use of health care services in the past 30 days among each household member, as well as information on household assets, the amount and the reason for the debts contracted in the past 30 days and before that period, and household

expenditures in the past 30 days. No incentive was provided to survey respondents for answering the questionnaire apart from the potential benefits of being identified as eligible for HEFs. The same NGO staff supervised the interviewers at both sites.

Names of respondents were recorded because this survey was conducted primarily to pre-identify HEF beneficiaries. However, identifiers were deleted from the database for the present analysis. No adverse events were reported during the conduct of the survey.

DATA ANALYSIS

The data were coded and entered using Microsoft Visual FoxPro 9.0 and analysis was performed using STATA 9.0 (Stata Corporation, Texas, USA). Reported debt and expenditure figures are presented based on the exchange rate of 4,035 Cambodian Riels for USD 1.

Observations are represented by households, which are considered as economic units. We first compared the two observation areas for demographics, economics, as well as reporting of illnesses and use of medical services in the past 30 days. We used descriptive statistics to compare variables in terms of frequency and mean. Observed differences were considered as exact differences because the sampling scheme was assumed to provide an exhaustive sample of the poor in each slum.

Simple logistic regression was used to evaluate risk factors associated with three different outcomes including: having contracted a debt for health care in the past 30 days; having consulted a health worker in the past 30 days; having bought medicine without consulting a health worker in the past 30 days. The significance of the resulting odds ratios was assessed using a Wald test. These three outcomes were used to build three independent logistic regression models. The impact of HEF on these outcomes was assessed through their difference in magnitude between EFA and NEFA after adjusting for confounders. All factors that could plausibly be associated with selected outcomes, occurred before the outcome and were not on the causal pathway, were tested in univariate analysis and were subsequently fitted in a logistic regression model regardless of the significance of their association with the outcome. Variables on the causal pathway between HEF and outcome were those which were both a consequence of the HEF and modified the outcome as a result of the HEF effect.

Results

Data were collected from October 2004 through June 2005. No household refused to answer the questionnaire as they perceived the direct benefits of having their eligibility to HEF services assessed. Data were collected from 1,690 households (representing 6,523 individuals) in the EFA and 1,499 households (representing 7,681 individuals) in the NEFA.

The results of the qualitative research assessing data quality through in depth interview of 43 households in both slums showed that the quantitative data on debts and debts for health care were overall correct: There was a single case of under-reporting of household wealth and over-reporting of health care debts, admittedly to qualify for the HEF benefits. Overall, the amounts of debt recorded through the survey were slightly lower than the actual levels of debt found later through the probing during the in-depth interviews. This suggests that the quantitative profile of the debt situation in the slums obtained from the questionnaires is, if anything, not exaggerated.

The following analysis is based on the 1,690 and 1,499 household records from EFA and NEFA, respectively.

A comparison of the households characteristics in EFA and NEFA is presented in table 1. Households in EFA had more old people (aged >64) than those in NEFA (9.4% versus 6.7%), and less children (aged <5) than those in NEFA (34.9% versus 39.4%).

In EFA, there were more households with a large proportion of dependents (>80%) than in NEFA (15.7% versus 10.7%). The mean of the proportion of household members without income was larger in EFA than in NEFA (a mean of 38.5% versus a mean of 34.5%). The mean monthly expenditure per capita was lower in EFA than in NEFA (USD 14.1 versus USD 17.1). In the past 30 days, households in the EFA were more likely than those in the NEFA to have spent more than 70% of the household expenditure on food (34.5% versus 17.6%) and to have gone hungry (81.1% versus 73.5%).

A substantial proportion of the households reported having members suffering from chronic diseases (33.9% in NEFA and 32.1% in EFA). Compared to households located in NEFA, households from EFA were more likely to report an episode of illness in the past 30 days (54.1% versus 45.2%), and to report multiple episodes of illness in the past 30 days (27.9%

versus 20.2%). More households in EFA had consulted a health worker in the past 30 days than those in NEFA (44.4% versus 26.4%). This finding is consistent both in households reporting sick members in the past 30 days (76.2% in EFA versus 57.1% in NEFA had consulted a health worker past month) and in households who did not report any sick members in the past 30 days (0.8% in EFA versus 0.3% in NEFA had consulted a health worker in the past 30 days). However, the latter figures show that health services in both slums were barely used for preventive health. Among households who had consulted a health worker in the past 30 days those located in EFA had consulted a health worker more frequently than those in NEFA (mean 2.6 consultations versus 1.0). In addition to the fact that households in EFA were less likely to have purchased medicines in the past 30 days than those in NEFA (47.5% versus 60.0%), the households which bought medicine in the past 30 days had spent less on medicine in EFA than in NEFA (median USD 1.2 versus USD 2.2; mean USD 3.2 versus USD 3.8). Self-medication was more widespread in the NEFA, where 58.8% of the households compared with 44.5% of those in the EFA had purchased medicines without consulting a health worker. In the EFA, households that had spent money on medicine in the past 30 days had a lower mean amount of drug expenditures when attending a health worker than when purchasing medicine in the absence of health worker consultation (USD 2.6 versus USD 3.2). In NEFA it was the opposite as households that had spent money on medicine in the past 30 days had a higher mean amount of drug expenditures when attending a health worker than when purchasing medicine in the absence of consultation (USD 2.8 versus USD 2.0).

Households located in NEFA were more likely to be in debt than households in EFA (87.1% versus 73.3%), whether this debt was contracted before the past 30 days (58.6% versus 34.9%) or in the past 30 days (79.9% versus 66.6%). In addition, the households located in NEFA were more likely to be in debt for health care than those in EFA (47% versus 17.5%), whether they had borrowed the money in the past 30 days (33.8% versus 11.6%) or in the period before 30 days (20.8% versus 8.1%). Among those who had borrowed for health care during the past month the amount of the debt was higher in EFA than in NEFA (mean health care debt USD 100.90 versus USD 49.50). The households in NEFA were also more likely than those in EFA to be in debt having borrowed prior to the past 30 days for non-health related reasons (37.9% versus 26.8) but less likely to have

borrowed money in the past 30 days for non-health related reasons (46.0% versus 55.0%). Those who had borrowed money for non-health care related reasons in the past 30 days had borrowed a larger amount in the EFA than in the NEFA (USD 49.5 versus USD 24.8).

Table 1. Comparison of households in non-HEF and in HEF area

	NEFA n=1,499	%	EFA n=1,690	%
Predominant gender in household				
Equal number of men and women	365	24.3	385	22.8
Men	458	30.6	534	31.6
Women	676	45.1	771	45.6
Have children (aged < 5) in household				
No	909	60.6	1,100	65.1
Yes	590	39.4	590	34.9
Have very old (aged > 64) in household				
No	1,398	93.3	1,532	90.7
Yes	101	6.7	158	9.3
Family size				
1-2	246	16.4	340	20.1
3-5	878	58.6	831	49.2
6+	375	25.0	519	30.7
Highest level of education in the household				
≤primary school	725	48.4	701	41.5
>primary school	774	51.6	989	58.5

	NEFA n=1,499	%	EFA n=1,690	%
Number of episodes of illness in the past 30 days				
No illness	811	54.1	764	45.2
One episode	386	25.8	455	26.9
Multiple episodes	302	20.2	471	27.9
Have chronic diseases in the household				
No	991	66.1	1,148	67.9
Yes	508	33.9	542	32.1
Purchased medicine in the past 30 days				
Yes	899	60.0	803	47.5
No	600	40.0	887	52.5
Number of consultations at a health worker in the past 30 days				
No health worker consultation	1,104	73.7	978	57.9
1 to 3	263	17.5	332	19.6
4 to 9	102	6.8	240	14.2
≥10	30	2.0	140	8.3
Households suffering from hunger in the past 30 days				
Never	398	26.6	319	18.9
Sometimes	699	46.6	881	52.1
Most of the time	402	26.8	490	29.0
Proportion of the household members without income				
0-40%	245	16.3	317	18.7
>40% & ≥65%	418	27.9	388	23.0
>65%	836	55.8	985	58.3

	NEFA n=1,499	%	EFA n=1,690	%
Household monthly expenditure per capita				
≤10 USD	216	14.4	563	33.3
>10 & ≤17 USD	632	42.2	636	37.6
> 17 USD	651	43.4	491	29.1
Percent of household expenditure spent on food in the past 30 days				
≤50%	583	39.7	415	26.9
>50 & ≤60%	306	20.8	290	18.8
>60 & ≤70%	322	21.9	307	19.9
>70%	258	17.6	532	34.4
Households currently indebted				
No	193	12.9	451	26.7
Yes	1,306	87.1	1,239	73.3
Households currently indebted for health care				
No health care debt	794	53.0	1,394	82.5
Health care debt	705	47.0	296	17.5
Reason why household had contracted debt prior to the past 30 days				
No debt	620	41.4	1,101	65.2
Health care debt	311	20.7	137	8.1
Other debt	568	37.9	452	26.7

	NEFA		EFA	
	n=1,499	%	n=1,690	%
Reason why household had contracted debt in the past 30 days				
No debt	302	20.2	564	33.4
Health care debt	507	33.8	196	11.6
Other debt	690	46.0	930	55.0
Amount of the health care debt contracted in the past 30 days				
No debt	992	66.2	1,494	88.4
≤12 USD	36	2.4	11	0.7
>12 USD & ≤25 USD	298	19.9	60	3.5
>25 USD	173	11.5	125	7.4

Table 2 presents the univariate and multivariate logistic regression of households that contracted a debt for health care in the past 30 days compared to those that did not. In univariate analysis, risk factors associated with the existence of a debt for health care contracted in the past 30 days were: to be located in the NEFA (OR=3.90, $p<0.001$), to have household members suffering from chronic disease (OR=1.59, $p<0.001$), and to have purchased medicine in the past 30 days without consulting a health worker (OR=2.44, $p<0.001$). In addition, compared to households that did not suffer from hunger in the past 30 days, those that had sometimes gone hungry (OR=1.93, $p<0.001$) and those that had often gone hungry (OR=2.34, $p<0.001$) were more likely to have a recent debt for health care. Other factors associated with the existence of a debt for health care contracted in the past 30 days were household expenditure per capita >10 USD and households having household debts exceeding 25 USD.

In logistic regression, households located in NEFA were 3.36 times more likely (95% CI 2.74-4.10) to have contracted a debt for health care in the past 30 days than those located in EFA, after adjusting for: their number of children (aged<5), their number of elderly (aged>64), the highest level of education in the household, whether the household suffered from hunger in the past 30 days, the existence of chronic diseases in the household, the

amount of household expenditure per capita in the past 30 days, and the amount of unpaid debt contracted before the past 30 days.

Table 2. Logistic regression for the risk of having contracted debt for health care in the past 30 days

		UNIVARIATE			MODEL		
		OR	95% CI	p-value	OR	95% CI	p-value
Location							
	NEFA	3.90	3.24 - 4.68	<0.001	3.36	2.74 - 4.10	<0.001
	EFA	1			1		
Have children (aged<5) in household							
	No	1			1		
	Yes	1.06	0.89 - 1.26	0.700	0.98	0.81 - 1.18	0.805
Have very old (aged>64) in household							
	No	1			1		
	Yes	0.90	0.66 - 1.24	0.522	0.87	0.62 - 1.23	0.435
Highest number of years of schooling in the household							
	≤primary school	1			1		
	>primary school	0.92	0.78 - 1.09	0.317	0.96	0.79 - 1.15	0.630
Have been hungry in the past month							
	Never	1			1		
	Sometimes	1.93	1.52 - 2.47	<0.001	2.25	1.74 - 2.93	<0.001
	Often	2.34	1.80 - 3.03	<0.001	2.45	1.85 - 3.23	<0.001
Have chronic diseases in household							
	No	1			1		
	Yes	1.59	1.34 - 1.90	<0.001	1.88	1.55 - 2.28	<0.001
Household expenditure per capita in past 30 years							
	≤10 USD	1			1		
	>10 & ≤17 USD	1.45	1.16 - 1.83	0.001	1.10	0.86 - 1.41	0.454
	>17 USD	1.56	1.24 - 1.97	<0.001	1.10	0.85 - 1.43	0.450

	UNIVARIATE			MODEL		
	OR	95% CI	p-value	OR	95% CI	p-value
Amount of the household unpaid debt contracted before the past 30 days						
No debt	1			1		
>0 & ≤ 25 USD	3.85	3.16 - 4.69	<0.001	2.56	2.07 - 3.18	<0.001
> 25 USD	1.37	1.10 - 1.71	0.006	1.09	0.85 - 1.38	0.502
Consulted a health worker in the past 30 days						
No	1					
Yes	1.05	0.88 - 1.25	0.592			
Purchased drugs in the past 30 days without consulting a health worker						
No	1					
Yes	2.44	2.05 - 2.92	<0.001			

Table 3 presents the univariate and multivariate logistic regression of households which had consulted a health worker in the past 30 days compared with those who had not done so. In univariate analysis, households more likely to have consulted a health worker in the past 30 days were: those located in the EFA (OR=2.03, p<0.001), those with children (aged <5) (OR=1.18, p=0.035), those with people aged more than 64 (OR=1.70, p<0.001), those with a household member who attended at least secondary school (OR=1.63, p<0.001), and those with household members suffering from chronic diseases (OR=2.04, p<0.001). Other factors associated with consultation with a health worker in the past 30 days were: family size >2 members, having been at least sometimes hungry in the past 30 days, having contracted a debt for health care contracted in previous months, and having non-health related debt contracted in previous months.

Households located in the EFA were 2.42 times more likely (95% CI 2.05-2.87) than those in NEFA to have consulted a health worker in the past 30 days, independently of: their number of children (aged <5), their number of very old members (aged>64), the highest level of education in the household, the family size, whether the household suffered from hunger in the past 30 days, the existence of chronic diseases in the household, and whether they had debt contracted before the past 30 days and the reason for it. The association between the existence of old non-health related debt and

the uptake of medical services in the past month is related to the fact that those with an old non health care related debt were more likely to have been sick during the past month than those without debt (58.1% versus 43.7%).

Table 3. Logistic regression for the risk of having consulted a health worker in the past 30 days

	UNIVARIATE			MODEL		
	OR	95% CI	p-value	OR	95% CI	p-value
Location						
NEFA	1			1		
EFA	2.03	1.75 - 2.36	<0.001	2.42	2.05 - 2.87	<0.001
Have children (aged<5) in household						
No	1			1		
Yes	1.18	1.01 - 1.37	0.035	1.04	0.88 - 1.24	0.599
Have very old (aged>64) in household						
No	1			1		
Yes	1.70	1.32 - 2.20	<0.001	1.35	1.03 - 1.78	0.032
Highest number of years of schooling in the household						
≤primary school	1			1		
>primary school	1.63	1.40 - 1.89	<0.001	1.35	1.15 - 1.59	<0.001
Number of individuals in household						
1 to 2	1			1		
3 to 5	2.00	1.60 - 2.49	<0.001	1.99	1.56 - 2.55	<0.001
≥6	2.75	2.17 - 3.49	<0.001	2.21	1.69 - 2.90	<0.001
Have been hungry in the past month						
Never	1			1		
Sometimes	1.36	1.12 - 1.64	0.002	1.21	0.98 - 1.49	0.081
Often	1.74	1.41 - 2.14	<0.001	1.47	1.18 - 1.85	0.001
Have chronic diseases in household						
No	1			1		
Yes	2.04	1.75 - 2.38	<0.001	2.27	1.92 - 2.68	<0.001

	UNIVARIATE			MODEL		
	OR	95% CI	p-value	OR	95% CI	p-value
Reason of the debt contracted before the past 30 days						
No debt	1			1		
Health debt	1.36	1.10 - 1.69	0.005	1.47	1.15 - 1.87	0.002
Other debt	1.63	1.39 - 1.92	<0.001	1.80	1.51 - 2.15	<0.001

Table 4 presents the univariate and multivariate logistic regression of households that have purchased medicine in the past 30 days without consulting a health worker in the past 30 days compared to those that did not buy medicine independently. In univariate analysis, households more likely to have purchased medicine in the past 30 days without consulting a health worker were: those located in the NEFA (OR=1.78, p<0.001), those with a family member who attended at least secondary school (OR=1.64, p<0.001), those with household members suffering from chronic diseases (OR=1.54, p<0.001), and those with household members who were sick in the past 30 days (OR=2.40, p<0.001). Households more likely to have purchased medicine in the past 30 days without consulting a health worker were also those with family size >2 members, households that had often gone hungry, and households that had a remaining debt for health care contacted in the previous months as well as households with a non-health related debt contracted before the past 30 days.

Compared to households located in the EFA, households from the NEFA were 1.66 times more likely (95% CI 1.15-1.59) to have purchased medicine without consulting a health worker in the past 30 days, independently of: their number of children (aged <5), their number of elderly (aged>64), the highest level of education in the household, the family size, whether the household suffered from hunger in the past 30 days, the existence of chronic diseases in the household, and whether they had debt contracted before the past 30 days and the reason for contracting it.

Table 4. Logistic regression for the risk of having purchased medicine in the absence of having consulted a health worker in the past 30 days

	UNIVARIATE			MODEL		
	OR	95% CI	p-value	OR	95% CI	p-value
Location						
NEFA	1.78	1.55 - 2.05	<0.001	1.66	1.42 - 1.95	<0.001
EFA	1			1		
Have children (aged<5) in household						
No	1			1		
Yes	1.11	0.96 - 1.28	0.155	0.86	0.73 - 1.02	0.076
Number of very old (aged>64) in household						
No	1			1		
Yes	1.23	0.95 - 1.59	0.11	1.10	0.90 - 1.58	0.222
Highest number of years of schooling in the household						
≤primary school	1			1		
>primary school	1.64	1.42 - 1.88	<0.001	1.54	1.32 - 1.80	<0.001
Number of individuals in household						
1 to 2	1			1		
3 to 5	2.29	1.88 - 2.78	<0.001	1.69	1.34 - 2.12	<0.001
≥6	2.10	1.70 - 2.61	<0.001	1.41	1.10 - 2.82	<0.001
Have been hungry in the past month						
Never	1			1		
Sometimes	2.41	2.00 - 2.90	<0.001	2.33	1.89 - 2.86	<0.001
Often	3.55	2.88 - 4.37	<0.001	3.34	1.66 - 4.20	<0.001
Have chronic diseases in household						
No	1			1		
Yes	1.54	1.33 - 1.79	<0.001	1.79	1.51 - 2.12	<0.001
Have contracted debt in the past 30 days						
No	1			1		
Yes	0.41	0.35 - 0.47	<0.001	0.53	0.44 - 0.64	<0.001
Reason of the debt contracted before the past 30 days						
No debt	1			1		
Health debt	3.36	2.69 - 4.20	<0.001	2.10	1.65 - 2.67	<0.001
Other debt	2.16	1.84 - 2.53	<0.001	1.65	1.39 - 1.96	<0.001

	UNIVARIATE			MODEL		
	OR	95% CI	p-value	OR	95% CI	p-value
Had sick household member in the past 30 days						
No	1					
Yes	2.40	2.09 - 2.77	<0.001			

Discussion

First we review the poverty profiles of the two populations, as they emerge from the survey data and compare these with an established poverty profile (Ministry of Planning 2006), then we discuss the impact of the HEF, after which we put the relevant results into perspective.

The two study populations displayed several characteristics that are typical of poor urban slum residents, including a high prevalence of hunger and a low mean of monthly expenditures per capita with a high percentage of those expenditures spent on food. Food insecurity is the most important characteristic of people living in poverty as defined by Cambodia's poor themselves (Asian Development Bank 2001). Studies have shown that food insecurity, besides being a strong barrier to access to health care, is also associated with stunting and increases population morbidity (Hong 2006; Nelson *et al.* 1998; Kersey *et al.* 1999; Cook *et al.* 2004). Therefore, the households more affected by hunger and with a higher mean proportion of monthly expenditures spent on food (i.e. the EFA households) should theoretically have lower health status and face increased barriers in using health services when compared with those from the NEFA who exhibit a better economic profile. Yet, as will be discussed below, the data suggest that the poor in EFA had in fact better access resulting in higher utilization of health care services.

Average monthly household expenditures (USD 14 in EFA versus USD 17 in NEFA estimated in both surveys) was much lower than the average consumption by Phnom Penh residents estimated at USD 2.04 per capita per day (Ministry of Planning 2006). The official poverty line for Phnom Penh in 2004 was set at USD 0.58 per person per day. This means that on average our samples, reporting daily expenditure per capita of USD 0.47 and USD 0.57 in EFA and NEFA respectively, appear to be both under

the poverty line. Our approximations of the monthly household expenditures are likely to be too low because they were based on the recalled expenditure of only 14 items, which method likely yielded underreporting (Falkingham 2002). Therefore, both populations may have been somewhat less poor than reported. However, we may assume that these reporting problems affected the two populations similarly because information was collected in a similar fashion at both sites. While both our populations met the poverty criteria from the NGO's pre-identification instrument, the NEFA sample had more households living above the urban poverty line. However, at this point one may ask the question whether inclusion of households living above the poverty threshold indicates inefficient targeting or, in the absence of other mechanisms that protect them, a rather desirable phenomenon. After all, these misclassifications may have prevented households hovering not far above the poverty line from becoming indebted for health care reasons, and their increased utilization of health services may have improved their health status and productivity.

Households at each study site presented substantial differences. The higher dependency ratio, the larger family size, the lower income per capita, and the higher proportion of the household expenditure spent for food in EFA compared to NEFA suggest that households in EFA were poorer than those in NEFA.

A larger proportion of the households located in the EFA reported having been sick in the past 30 days. However, we have to be careful in drawing conclusions with regards to health status as the frequency of reporting illnesses may partly reflect accessibility of the local health system (Leonard 2004). It can be argued that the population from the EFA should have had poorer health as a consequence of the deeper poverty and consequently needed more medical services. However, the higher mean expenditure on medicine and the higher frequency of drug purchasing in households from the NEFA suggest that consulting a health worker is perceived as costly and unaffordable in NEFA, where sick people prefer either to buy medicine directly from the pharmacy or to "bite the bullet" and wait until their health gets worse before seeking health care. It has been suggested that the poor are particularly likely to modify their perception of illness in order to avoid the economic costs associated with illness, including the cost of seeking care (Sauerborn *et al.* 1996). Cambodian surveys, and most notably the Baseline Demand Survey conducted among the urban poor

in 1998 convincingly showed that this was the case in the urban slums. It found that sick poor people, unless it was an emergency, often did not consult a trained health worker, but resorted to one of the traditional practices³ or went directly to a pharmacy outlet to buy medicine without consultation (National Health Survey 1998; Urban Health Project Task Force 1998; Rose *et al.* 2002). Therefore, it is unlikely that a comparative ineffectiveness of health services in EFA explains these multiple visits to the health workers. Utilization patterns of the MPA services available in the proximities of both EFA and NEFA between January 2003 and December 2004 show that both facilities continue to be well utilized throughout this period, but the official utilization figures that are made available do not tell us to what extent poor patients from the slums accessed these facilities.

The logistic regression model shows that the households more prone to have bought medicines without consulting a health worker were the households with old people, the households with chronic diseases, and the households under stronger economic pressure. As there was no public provision of medicines for many chronic diseases, these patients often had to buy these medicines themselves at pharmacies either adhering to an earlier prescribed treatment or relying on advice from the medicine seller. In EFA, the community based HEF probably increased the utilization of consultation services among those poor with recurrent health problems by lowering the access barriers to health service utilization in general. The fact that households from EFA were more likely to have used medical services, independently of their demographic characteristics, their economic situation and their number of reported episodes of illness in the past 30 days, strongly suggests an increased utilization of health services in the EFA.

Another survey, conducted a year after our survey was completed and based on 100 exit-interviews of patients discharged from the public referral hospital found that hospitalized patients from all slum areas where this community based HEF was active had been less pressed to pay for a variety of costs related to their hospitalization including medicines, food, and unofficial payments, than patients who were not under its protection. The protected patients reported greater satisfaction with the services and were

³ “koh chal” (rubbing a coin), “jup chal” (by pinching or by cupping), moxibustion (burning) and various types of massage are commonly practiced in public places by traditional medicine practitioners and other types of healers for varying fees.

more willing than non-protected patients to use the service again would they need hospitalization in the future (Center for Advanced Studies 2005). The two patient categories were found hospitalized in separate rooms (van Pelt 2004). The hospital management had set up this arrangement to avoid that the non-protected patients would witness the preferential treatment of the poor among whom many knew better how to claim their entitlements and in order to manage in the same ward different regimes for patients protected by the community based HEF and for those who were not. It is useful to note here that, despite its stronger accountability requirements, the hospital staff also appreciated the HEF's activity because it generated a regular monthly source of income whereas their government salaries are paid irregularly. It suggests that public health staff were not "net losers" in the new dynamics. It remains of course possible that some staff resorted to putting more pressure on unprotected patients to recover from them what they could no longer extract from protected patients. That would have blurred the overall societal gains in health related poverty reduction achieved by the community based HEF.

Fewer of the households located in EFA reported being indebted, being currently indebted for health care, and having contracted a debt for health care in the past 30 days than households located in NEFA. These observations could possibly be related to the deeper poverty of households in EFA who were therefore less able to obtain credit or less able to repay their debt. However, the households located in NEFA were 3.9 times more likely to have contracted a debt for health care in the past 30 days than those in EFA, despite the fact that households in EFA appeared to be poorer and went more frequently to consult a health worker than households located in NEFA. This also suggests that, in the EFA, the population could use the affordable MPA health services and CPA health services without having to borrow money. The community based HEF likely facilitated access to affordable health care and generated the use of those services. This is corroborated by the findings in Table 4 which show that households in NEFA were more likely to buy medicine without consulting a health worker than those in EFA.

The multiple-regression model shows that the households located in NEFA were 3.4 times more likely to have contracted a debt for health care in the past 30 days than those in EFA, independently of household demographics, economics and reported number of illnesses. This finding

strongly supports the likelihood that the community based HEF reduces the incidence of debt for health care at the household level. It makes sense to hypothesize that households in the EFA had both a higher frequency and a higher amount of non health-related debt in the past 30 days partly because those households were less indebted for health care reasons. Therefore households in EFA may have borrowed more often to finance an investment into an income generating activity, while more households in the NEFA had exhausted their credit possibilities as debtors for health care, preventing them from taking out additional loans to finance the same kind of income generating activity that they would have undertaken if they had not been indebted for health care.

The fact that the mean recent debt for health care among households who contracted such debt in EFA was twice as high as in NEFA does not necessarily contradict this because the small proportion of households that borrowed money for health care in EFA more likely needed more expensive referral services, as EFA households could receive basic health services including medicine at very low fee. In the NEFA on the other hand, any medical service - even basic service - may have led to borrowing money. This suggests that the mean amount of the health care debt is not a suitable indicator to monitor access to health care. In comparison, the incidence of debt for health care appears a better indicator to estimate an HEF's effectiveness in protecting poor people against further impoverishment related to their utilization of health services. Also, it appears to be practical and suitable for regular monitoring. Pursuing appropriateness of poor people's utilization of both first and second level health services, rather than simply addressing the problem of their under-utilization of hospital services may come more naturally to community based HEF organizations than to facility-based ones as the latter, when they overshoot their objective, will not meet much resistance as they improve the health facility's financial balance sheet contributing to the welfare of stakeholders with more voice than the poor. This inherent tension between dynamics of health service financing and social health protection must be kept in mind; the right balance has to be found.

This study presents several limitations due to its design as well as the method through which data were collected. The sampling methodology is unlikely to have produced an exhaustive sample of the poor due to frequent arrival of new migrants. Although pre-identification aimed to include all

poor households in the study area, this community identification method does not ensure exhaustive inclusion of the poor living in each study area, particularly in the NEFA where the secondary benefit of being identified as poor may have been less obvious to the head of households than in the area where the program was already in place. Moreover many poor tenants, some of whom were living in the anonymity of groups in rented spaces, were likely to be excluded, but the likelihood of this happening was probably the same at both sites. Our findings are based on self-reported household economics and health situation which may have been biased towards over-reporting poverty in order to gain access to HEF benefits. In the EFA we did not collect retrospective information on who had actually used and benefited from the HEF, assuming that all the poor would use the service. The survey design itself has several major limitations with regards to the generalization of the results. First, the respondents were not randomly selected. Second, the cross-sectional study design limits our ability to draw causal conclusions since the benefits observed in the EFA may have pre-existed to the implementation of the program. Finally, because of its ecological design and the incurrent ecological fallacy, this survey suggests but cannot guarantee that the differences observed between study areas in terms of the health care debt and the use of health care services are related to the long term implementation of the community-based HEF instead of to unidentified confounders.

Conclusion

The comparison of these two slums supports the hypothesis that several years of uninterrupted implementation of a community-based HEF reduced the incidence of debt for health care among poor households living in urban slums. As many of these debts are interest carrying and contracted in economic stress situations using productive assets as collateral, a reduced incidence of health related debt suggests reduced health related poverty. By increasing access and utilization of health services the HEF, despite operating in an unregulated health market, has reduced out-of-pocket health expenditures among the poor. In addition to helping poor patients to overcome financial barriers created by user fees, these networks empower wider communities, of which the poor are a subgroup, with voice and representation at both first level health services and at referral level, where health workers are aware that these networks can hold them accountable.

These findings may hold lessons for HEF design, operations and evaluations as they contribute to the evidence of the effectiveness of HEF schemes that use active networks among vulnerable populations. Besides introducing more generous benefit packages, many of Cambodia's current facility-based HEFs may also become more effective in protecting vulnerable groups against health related poverty if they connect institutionally with community-based networks; not just to carry out an exhaustive pre-identification, but also afterwards, allowing them to participate in the HEF management and its daily functioning, raising the patient's perspective and holding the service providers to account. The incidence of debt for health care among poor households is a practical indicator that can help monitor effectiveness of HEFs for those who should be their first intended beneficiaries. More experimenting and study is needed to ascertain which other characteristics of the community based network, besides the targeting, constitute an HEF's protective effect and how the role of the many facility-based HEFs in Cambodia can be further enhanced.

References

- Asian Development Bank (2001). Participatory poverty assessment in Cambodia, Asian Development Bank.
- Center for Advanced Studies (2005). Report on patient exit interviews municipal referral hospital Phnom Penh, Center for Advanced Studies.
- Cook J, Frank D and Berkowitz C (2004). Food insecurity is associated with adverse health outcomes among human infants and toddlers, *Journal of Nutrition*, **134** : 1432-8.
- Ensor T and Cooper S (2004). Overcoming barriers to health service access: influencing the demand side, *Health Policy and Planning*, **19**, 2 : 69-79.
- Falkingham J (2002). Measuring health and poverty, a review of approaches to identifying the poor, HSRC.
- Hardeman W, Van Damme W, van Pelt M *et al.* (2004). Access to health care for all? User fees plus an equity fund in Sotnikom, Cambodia, *Health Policy and Planning*, **19**, 1 : 22-32.
- Hong R (2006). Effect of Wealth inequality on chronic under-nutrition in Cambodian children, *Journal of Health Population and Nutrition*, **24**, 1 : 89-99.
- Jacobs B and Price N (2008). A comparative study of the effectiveness of pre-identification and passive identification for hospital fee waivers at a rural Cambodian hospital, (in this issue).
- Kenjiro Y (2005). Why illness causes more serious economic damage than crop failure in rural Cambodia, *Development and Change*, **36** : 759-783.
- Kersey M, Beran M, McGovern P *et al.* (1996). The prevalence and effects of hunger in an emergency department patient population, *Academic Emergency Medicine*, **6** : 1109-14.

Leonard L (2003). Possible illnesses: assessing the health impacts of the Chad Pipeline Project, *Bulletin of the World Health Organization*, **81**, 6.

Ministry of Health (2008). Monitoring group's report on monitoring of HEF in Cambodia during 2007, forthcoming Ministry of Health Monitoring Group.

Ministry of Health (2005). National equity fund implementation and monitoring framework.

Ministry of Planning (2006). A Poverty profile of Cambodia 2004, Royal Government of Cambodia.

National Health Survey (1998).

National Institute of Public Health, National Institute of Statistics [Cambodia] and ORC Macro (2005). Cambodia Demographic and Health Survey. Phnom Penh, Cambodia and Calverton, Maryland, USA: National Institute of Public Health, National Institute of Statistics, and ORC Macro.

Nelson K, Brown M and Lurie N (1998). Hunger in an adult patient population, *Journal of the American Medical Association*, **279** : 1211-4.

Noirhomme M, Meessen B, Griffiths F *et al.* (2007). Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia, *Health Policy and Planning*, **22**, 4 : 246-262.

Rose G, Dixon S, Kiry L *et al.* (2002). Private practitioners in Phnom Penh : A mystery client study May 2002 Options WHO.

Sauerborn R, Berman P and Nougbara A (1996). Age bias, but no gender bias, in the intra-household resource allocation for health care in Burkina-Faso, *Health Transition Review*, **6** : 131-45.

Soeters R and Griffith F (2003). Improving government health services through contract management: a case from Cambodia, *Health Policy and Planning*, **18**, 1 : 84-83.

Urban Health Project Task Force (1998) Report on the baseline demand survey for the health services for the urban poor project, by the Urban Health Project Task Force.

Van Damme W, Van Leemput L, Ir P *et al.* (2004). Out-of-pocket health expenditure and debt in poor households, *Tropical Medicine and International Health*, **9**, 2 : 273-280.

van Pelt M and Bun Mao (2004). A contextual evaluation of the equity fund managed by the Urban Sector Group University Research Co., LLC.

Wagstaff A (2002). Poverty and health sector inequalities, *Bulletin of the World Health Organization*, **80** : 97-105.

World Bank (2002). Preliminary desk review of urban poverty in the East Asia region: with a particular focus on Indonesia, The Philippines and Vietnam, *East Asia Urban Development Division*, 31421 Volume 1: Main Report, Final Draft.

Availability of essential drugs and sustainability of village revolving drug funds in remote areas of Lao PDR

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Abstract

We used a cross-sectional design to assess the availability of essential drugs (EDs) in remote areas in two provinces in Laos, and to explore the views on the performance and sustainability of village revolving drug funds (VRDFs) among the VRDF committees and community members. Four remote districts of Khammouane and Champasak provinces were purposely selected and five villages were randomly selected within each district. Four data collection methods were used: a) Survey of revolving drug funds and private pharmacies, b) Structured interviews with village health volunteers (VHVs), and with 400 randomly selected household heads (20 in each village), c) Checklist to assess the performance of VRDFs, and d) Group discussions with community members and VRDF committees to explore their needs, and the services and management of VRDF. We found that the average availability of 10 selected essential drugs at VRDFs was 37%. For three out of four villages the availability of EDs was higher in the village where a private pharmacy existed than in the village with only VRDF. The management system of VRDFs was weak and characterised by a lack of necessary guidelines and equipment for VHVs, no report and feedback system, no regular monitoring, and not functioning supervision. The VHVs did not have enough knowledge and experience to manage the VRDF in a better way. When a family member was sick, care was sought in the VRDFs in 29% of cases, at private providers (pharmacies, clinics) in 34% and at public health facilities in 30%.

We conclude that the low availability of good quality ED in the VRDFs seems to be due to poor management. A comprehensive

management mechanism system should be established to ensure availability of good quality drugs accessible for people in the remote areas.

Introduction

Access to essential drugs (EDs) is fundamental to the good performance of the health care delivery system. The provision of safe, effective and affordable EDs of good quality in the right quantity to the whole population in particular the poor is therefore a priority in health and drug policy (Quick 2003). The concept of Revolving Drug Funds (RDFs) was launched through the Bamako initiative to be one way of solving the problem of securing availability of medicines in resource poor settings (Umenai and Narula 1999). Although criticised for putting the burden of costs of drugs too heavily on the poor and to be difficult to manage in the long term (Uzochukwu *et al.* 2002), it has continuously been used in many low-income countries, both in Asia and Africa (Mendis *et al.* 2007). The RDF is a system whereby the revenue generated by the sale of drugs to patients is used to purchase new drugs. The aim is to provide safe quality drugs at affordable prices and is usually part of wider user-charge schemes (MoH 2001).

Laos is a low-income country with poor health indicators. Particular challenges for health care provision, including drugs, are the mountainous character of the country with many remote villages lacking good infrastructures in terms of roads and health care facilities. In Laos, 80% of pharmaceuticals are provided by the private sector (Stenson *et al.* 1997), but access to essential drugs to combat common diseases in remote areas remained low (Ministry of Health 2001).

To solve the problem of the lack of ED in public health facilities in Laos, revolving drug funds (RDFs) were established as regional pilot projects as part of a community health programme supported by non-governmental, bilateral and multilateral development assistance in the 1990s. A national drug policy (NDP) was approved in March 1993 to improve access to essential drugs and to promote more rational use of these drugs (Paphassarang *et al.* 1995). Already in the same year, the Lao government officially approved the RDF system with exemptions for civil servants and poor people. Drugs provided by the government were added into the drug stock and were targeted to be given free to those exempted from paying the user charge (Ministerial Decree no. 52 1995).

The Ministry of Health established a central RDF committee in 1994. Its major function has been to provide guidelines for the establishment and operation of RDFs in the country. In the provinces, there are four levels of RDF: provincial, district, health centre and village. At each level, there is a committee for supervising and monitoring the implementation of RDF and many health staff are responsible for running the RDF, with the exception for the village level, where a health volunteer (VHV) is the only responsible person under the supervision of the village RDF committee, which includes the village leader and representatives from different mass organizations at the village level.

In a study conducted in 1997-98 it was shown that cost-recovery was high at that time (more than 100%) in RDFs located at district hospitals and health centres in urban or semi-urban areas in Vientiane Municipality (Murakami *et al.* 2001). However, the long-term sustainability was not assessed. In the year 2000, the number of RDFs of different levels of health facilities was 1,760, of these 1,245 (11% of all 11,640 villages) were located at village level especially in remote areas with no or few private pharmacies (Ministry of Health 2001). Since 1998-99, RDFs at village level (VRDFs) have been strongly promoted by the MoH as an important component of the primary health care system. VRDFs were considered to be the main supply sources of EDs in remote areas, which are defined as villages with difficult road access, in particular during the rainy season, without electricity and without water pipe.

However, at the time of this study (March-May 2002), there was a lack of accurate information on the availability of EDs in remote areas, and the functioning and sustainability of VRDFs. The pricing principles recommend a selling price that is 25 percent higher than the buying price to accommodate for transport and administrative costs. It should also include losses due to exemptions for the poorest, and for some incentives for the VHV. It was not well known how this system functioned a few years after implementation, although there were several indications that the exemption scheme suffered from many constraints, making it imperfect as a mechanism to support the poorest.

The aim of this study was therefore to assess the availability of EDs of the population in remote areas in two provinces and to explore the performance and sustainability of VRDFs in order to provide information to the MoH for further planning and intervention. The study was undertaken

within the health systems research training (Jönsson *et al.* 2007) during the third phase of the National Drug Policy implementation project (Food and Drug Department 2003), which had been supporting the National Drug Policy since its start in 1993 (Paphassarang *et al.* 1995). Operational research was one of the elements of the revised Drug Policy.

Material and methods

STUDY POPULATION AND SAMPLING

The Khammouane and Champasak provinces were purposively selected, located in the middle and the south of Laos, respectively. Khammouane was chosen as it was assumed to have well performing VRDFs due to special support in terms of financing and training that had been provided within a special donor-funded project. Champasak was chosen to represent a province with similar general conditions, but where the VRDFs had only received the general Government support. At the time of the study, there were nine districts with 803 villages in Khammouane and fourteen districts with 914 villages in Champasak (FDD 2000). The estimated proportion of poor villages were 35% in Khammouane and 30% in Champasak (National Statistics Centre 2002/2003)

In both provinces there was one provincial hospital and in addition there were eight district hospitals in Khammouane and 14 district hospitals in Champasak. At the peripheral level there were in total 207 village RDFs in Khammouane, and 67 village RDFs in Champasak. All 274 VRDFs in both provinces constituted the study population.

In each province, two districts, representing remote areas according to the provincial authority, were purposely selected. In each district, five villages among those that had a VRDF, were randomly selected from the list of villages with VRDF. Thus, in total 20 remote villages were included from 106 villages with RDFs in the four districts of both provinces. The VRDF and any private pharmacy available in each village were visited.

In each village, twenty household heads were randomly selected from the list of all households in the village with assistance from the village leader (supplying the list and assisting the team to find the selected households), resulting in 400 households selected in the 20 villages to be included in the study sample.

In addition six group discussions were conducted, three in each province, one group for men, one group for women and one group for the RDF committee, each in a separate village. Each group included 5-10 persons.

METHODS

The study was cross-sectional, using three methods: a) survey of VRDFs and licensed private pharmacies to assess the availability of EDs, b) a checklist to assess the performance of RDF, c) structured interviews with VHVs, and household heads, and d) group discussions with community members, and with members of VRDF committees.

The survey of the VRDFs and private pharmacies was conducted to assess availability of EDs at village level using a questionnaire, which included the name of EDs, its availability, registered drug based on the list made by the Food and Drug Department, expiry date, original packaging, and unit price of each drug. To measure the ED availability, the ten most important EDs were selected from the 28 EDs allocated for VRDFs based on the list developed by UNICEF in cooperation with MoH. The selected EDs were: 1. Salbutamol, 2. Ferrous sulfate, 3. Ampicillin, 4. Chloroquine, 5. Cotrimoxazol, 6. Mebendazol, 7. Paracetamol, 8. Penicillin V, 9. Potassium Iodide, and 10. ORS (oral rehydration salt). Availability was defined as the presence on the shelves of the selected EDs at the VRDF, during the visit of the data collectors.

A checklist was developed and used to assess the management and performance of the VRDF. The checklist included: (i) the organization of the RDF, (ii) the composition of the RDF committee, (iii) number of meetings during last year, (iv) inspections and supervisions carried out, (v) drug list, (vi) necessary equipment, (vii) drug procurement system, (viii) monitoring system for income and expenditures, (ix) reporting system, and (x) distribution of benefits.

The structured interviews with the VHVs were carried out to get information on their background characteristics, and the management and problems at the VRDF. The structured interviews with the household heads were to obtain information on drug expenditure, and utilisation of VRDF, including reasons for not using the VRDF.

The group discussions with VRDF committee members, and villagers, respectively, aimed at exploring their perceptions about availability of

essential drugs, price of drugs and the performance and sustainability of the VRDF, including the performance of the VHV.

A pretest of the questionnaires, checklist, and the guide for group discussions was conducted in Phonethong district in Champasak, followed by revisions and adjustments. The data collection was conducted in March 2002 in Champasak, and April-May 2002 in Khammouane, by five trained enumerators under supervision of the first author (LS).

ANALYSIS

Epi Info Program version 6 was used for data entering and data analysis. Frequency and cross tabulation tables were performed to obtain information on availability of drugs, drug price and management of VRDFs, as well as to obtain information on the use of the VRDFs by the households.

The six group discussions were tape-recorded, transcribed and then translated into English. The transcripts were read several times by the authors and discussed under the supervision of the fourth author (SF). The texts were summarized into matrices and tables and thereafter categorized into different sub-themes and themes.

Results

The results are presented in three sections related to the different data collection methods - (I) survey of VRDFs and private pharmacies; (II) structured interviews with a) village health volunteers, and b) household heads; and (III) group discussions with a) villagers, and b) VRDF committee members. Some topics will therefore be presented more than once. However, a synthesized discussion related to these topics will follow after the presentation of the findings.

SURVEY OF VRDFs AND PRIVATE PHARMACIES

Availability, sales and cost of ED

The availability of the ten selected EDs in Khammouane and Champasak was on average 3.5 ED and 3.8 ED, respectively (Table 1). Of these available drugs, 42% and 38% respectively were expired and unlabelled drugs, and 44% and 25% respectively did not have a correct label. The drugs that were missing or only found in a few villages in both Khammouane and Champasak were salbutamol, and penicillin V. Oral rehydration salt (ORS)

was not available at VRDFs in Khammouane, in contrast with Champasak where it was available at seven VRDFs.

Table 1. Availability of 10ED (essential drugs) in each of the ten villages (VRDFs or private pharmacies) in Khammouane and Champasak

No	ED name VRDF+Priv.Pharm	Khammouane	Champasak	Total	
		(n=10)	(n=10)		
		Freq	Freq		
1	Salbutamol	1*	0	1	
2	Ferrous sulfate	8	4	12	
3	Ampicillin	3	4	7	
4	Chloroquine	7	7	14	
5	Co-trimoxazol	6	7	13	
6	Mebendazol	3	1**	4	
7	Paracetamol	6	7	13	
8	Penicillin V	0	1**	1	
9	Potassium Iodide	0	0	0	
10	ORS	1**	7	8	
Average		3.5	3.8	7.3 (/20)	

Note: * only available at VRDF
 ** only available at private pharmacy

In the four villages with a private pharmacy, there was a serious lack of ED at the VRDFs, except for a village in Khammouane. There was, e.g., only one ED (cotrimoxazol) available in the VRDF in one village in Champasak, and only paracetamol tablets were available in one VRDF in Khammouane (Table 2).

Table 2. Number of 10ED (essential drugs) in each village in Khammouane and Champasak

No	Khammouane			Champasak		
	Name of village	Number of ED (10)		Name of village	Number of ED (10)	
		VRDF	PP**		VRDF	PP**
1	Village A	3		Village A	2	
2	Village B	3		Village B	4	
3	Village C*	7	5	Village C	5	
4	Village D	3		Village D	4	
5	Village E	2		Village E	2	
6	Village F	2		Village F	3	
7	Village G	3		Village G	4	
8	Village H*	1	4	Village H	1	
9	Village J	4		Village J*	1	8
10	Village K	4		Village K*	1	5
	Average	3.2	4.5		2.7	6.5

Note: * There are both VRDF and private pharmacy in the village

** PP= Private Pharmacy

The most sold drugs in Khammouane and Champasak were classified according to their priority mentioned by the VHVs and drug sellers. These drugs are all included in the Lao ED list. Paracetamol appears as the most sold drug in both provinces, and antimalarial drugs and drugs for diarrhoea were reported as the second most sold drugs.

The prices of the EDs varied from place to place between Khammouane and Champasak provinces. In general, the average price of drugs was higher in Khammouane than in Champasak, e.g., ampicillin was 38% more expensive in Khammouane than in Champasak, co-trimoxazol was 44% more expensive and mebendazol was five times more expensive. There were also differences in price between drugs in VRDFs and in private pharmacies. The price of co-trimoxazol and ORS in a private pharmacy was found to be 50-100 percent higher than that in the VRDF in the same village in Champasak.

STRUCTURED INTERVIEWS

Village Health Volunteers (VHVs)

A total of 20 VHVs were interviewed, one in each village. Their mean age was 37 years (range 20-57 years), and eight were women. Only one had high school education. Six were low level nurses. Their experiences in VRDF varied from one to eight years. Most of them had received VRDF training, one to four times, with each session lasting five days.

Management of VRDF

The surveyed VRDFs in both provinces were established at different years between 1994 to 2001. The initial budget amount varied from 50,000 Kips (about 70USD in 1994) to 2,239,000 kips (about 250USD in 2000), donated by international donors. The current total fund at the VRDFs had decreased considerably down to 50,000 - 1,400,000 Kips (about 6 - 155USD in 2002), compared to the initial amounts.

VRDF committees were organised in 17 of the 20 VRDFs. Generally the committee was composed of the chief of the village, a Lao Woman Union representative, a Youth representative, a Lao Front for National Construction representative, the VHV, and a security guard. It was reported that the management of the VRDFs was poor. In almost all VRDFs in both provinces, many systems were not in place, e.g., auditing, monitoring and reporting systems. Only 10 VRDFs had been inspected once by district health staff. There was no record or book-keeping for income and expenditure, no record neither for the debt, neither for the list of exempted poor patients (Table 3).

Table 3. Management of the village revolving drug funds (VRDFs)

No	Descriptions	Khammouane VRDF (n=10)	Champasack VRDF (n=10)
1	Existing Revolving Drug Fund Management Committee	8	9
2	Number of meetings during last year:		
	- Every month	2	3
	- Every three months	0	0
	- In a special case	5	7
3	Number of inspection and supervision carried out	4	6
4	List of drugs used in VRDF	10	10
5	Necessary equipment:		
	- Bicycle	3	0
	- Motorcycle	0	0
	- Refrigerator	0	0
	- Shelves for keeping drugs	10	10
	- Shelves for keeping files	0	0
6	Drug procurement		
	- by DHO	6	10
	- by HC	4	0
	- Not regular	10	10
7	Monitoring system for income and expenditures	Poor	Poor
8	Functioning reporting system	Not available	Not available
9	Distribution of benefits		
	- VRDF Committee	0	0
	- VHV	10	10

The benefits from the drug sales were distributed differently in the two provinces (Table 4). In Champasak some money was used for administration, transport, etc., but also for both the district and provincial health offices.

The procurement of drugs to the VRDF by the district health office (DHO) was not regular. The VHV had to travel to the DHO to get the drugs, but none was equipped with a motorised vehicle, and bicycles were

only available at three VRDFs in Khammouane. There was no salary or incentive for the committee, except for the VHV who would get some small money from drug sale benefits.

Table 4. Distribution of benefits from drug sale

Descriptions	Khammouane	Champasak
Incentive for VHV	80%	60%
For chief of the village	20%	0
For RDF administration	0	20%
For indigenous (transport, etc.)	0	10%
For DHO	0	5%
For PHO	0	5%

DHO = District Health Office

PHO = Provincial Health Office

Problems addressed by the VHVs

Many problems encountered at VRDFs were reported by the responsible VHVs, in particular the low availability of drugs. They also reported that the resources were not sufficient, one reason being that people did not pay for the drugs. Private pharmacies existed and were competing with the VHVs and could often offer more drugs than the VRDFs. The VHVs expressed that they did not have enough knowledge, e.g., most of the VHVs did not know how to read the expiry date of drugs.

Household heads

Interviews were carried out with 400 household heads, of whom 48% were female. In both provinces, almost all of them were farmers (92-95%), and 33% were illiterate.

There were in total 304 and 369 family members who were reported being sick in the last three months, in Khammouane and Champasak, respectively, with different health seeking behaviour. Sixty three percent of the cases in Khammouane reported using public health facilities including VRDFs, whereas only 53% did so in Champasak. However, significantly more people in Champasak (34%) said that they went to the VRDF than in Khammouane (23%), ($p=0.004$). The utilisation of private services including private pharmacy, private clinic and unlicensed practitioners was reported to be higher in Champasak (43%) than in Khammouane (24%) (Table 5).

Among a total of 673 sick family members, 203 (30%) reported reasons for not utilising the VRDF (Table 5). In Champasak the most common reason was non-availability of drugs (46%), whereas the reasons in Khammouane were divided between 'no needed drugs available' or 'no effect of drugs from the VRDF' (39%) and use of private providers (19%). When asked about the affordability of drug prices, only 14% of respondents in Khammouane and 10% in Champasak found it too expensive (data not shown in table). In contrast, only four percent did not visit the VRDF due too expensive prices, and only one respondent mentioned financial constraints as a reason (Table 6).

Table 5. Background characteristics of household heads and health seeking behaviour

Descriptions	Khammouane n=200		Champasak n=200	
	Freq	%	Freq	%
Sex				
- Women	96	48	96	48
- Men	104	52	104	52
Mean of age(range)	44 (18-70)		44 (17-75)	
Education				
- Illiterate	72	36	60	30
- Primary school	86	43	108	54
- College	35	17	25	12.5
- High school	7	3.5	7	3.5
Occupation				
- Farmers	190	95	184	92
- Workers	0	0	1	0.5
- Peddlers	3	1.5	7	3.5
- Government officer	5	2.5	0	0
- Others	2	1	8	4
Size of family				
- 1-5 members	98	49	90	45
- More than 6	102	51	110	55

Descriptions	Khammouane n=200		Champasak n=200	
	Freq	%	Freq	%
Number of sick members				
- 1-2 persons	170	88	187	94
- 3-5 persons	22	12	12	6
Health seeking behaviour	n=304	%	n=369	%
- Provincial hospital	34	11.2	43	11.6
- District hospital	33	10.9	24	6.5
- Health Centre	53	17.4	3	0.8
- Village VRDF	71	23.4	127	34.4
- TM	4	1.3	4	1.1
- Private pharmacy	36	11.8	86	23.3
- Private clinic	31	10.2	5	1.4
- Unlicensed practitioners	10	3.3	67	18.2
- Others	32	10.5	10	2.7
Types of drugs used	n=266	%	n=309	%
- Antibiotics	31	11.6	77	24.9
- Injections	95	35.7	52	16.8
- Tablets	135	50.7	189	61.2
- Traditional Medicines (TM)	23	8.6	16	5.2
- Do not know	11	4.2	35	11.3

Table 6. Reasons for not going to the VRDF

No	Reasons	Khammouane		Champasak	
		Freq n=233	% ¹	Freq n=242	% ²
1	Drugs are not available at VRDF	5	5.5	63	46.0
2	No needed drugs available	23	25.5	2	1.5
3	Using private providers	17	18.9	19	13.9
4	Not cured (drugs at VRDF were not effective)	12	13.3	5	3.6
5	VHV not available at VRDF	3	3.3	11	8.0
6	Serious illness	7	7.8	6	4.4
7	Don't know that VRDF exists	5	5.6	5	3.7
8	VHV has low experience	0	0.0	5	3.7
9	No injection at VRDF	5	5.6	6	4.4
10	Poor service at VRDF	4	4.4	4	2.9
11	Drugs at VRDF are expensive	4	4.4	5	3.7
12	Use TM	2	2.2	2	1.5
13	Financial constraint	0	0.0	1	0.7
14	No bed at VRDF	1	1.1	0	0
15	VHVs advised to go to other hospitals	2	2.2	1	0.7
16	Can self-medicate	0	0.0	1	0.7
	(More than one answer)	12	13.3	28	20.4
	Missing information	143		119	
	Total answer	90		123	

¹ Percentage of those who answered (n=90)

² Percentage of those who answered (n=123)

GROUP DISCUSSIONS

In total six group discussions were conducted, three in each province.

With community members

The first questions regarding health problems and diseases of villagers were asked to begin the session, followed by questions on health seeking behaviour, utilisation and services of the VRDF, price of drugs and opinions regarding sustainability of VRDFs.

Health seeking behaviour

Many participants discussed that the reasons for visiting other health facilities were due to many causes, for example the fact that drugs were not available at VRDF, that the health worker did not know how to diagnose and was not always available at the VRDF when needed or that no injections were available at the VRDF. A man in village B in Champasack said *“when we get sick, it’s better to go to the bigger hospital to ensure security rather than going to the VRDF where the health worker is not permanently present. He works in the rice field or in the forest, and it takes time to look for him. So the location of the VRDF seems to be very far from us although it is close.”* In addition, some participants mentioned that the health worker at the VRDF did not have enough experience and knowledge in medicine, only tablets were dispensed and only treatment for headache was given. No information on drug use was provided. *“Our health worker does not have enough experience. She is new. If she cannot cure the disease, we bring the patient to other persons in the village (unlicensed practitioners and traditional healers)”* said a woman in village A in Champasak.

However, in general the participants expressed their feeling that they were happy to have a VRDF in their village, but there were suggestions that the staff should be supplemented. *“We need two to three more health workers to be able to share responsibility and take duty turns so that different drugs are available to the same extent as at district or provincial hospitals”* said a woman in village D in Khammouane.

The villagers could come and buy drugs at VRDF at any time during day and night. The VRDF allowed debts for the poor people who could only pay for drugs later when they had money. *“This is our RDF. We can always use it although we don’t have money to pay now, we can pay later because it’s our RDF. We’ve just only signed our name. So it’s good to have it here to serve our villagers. It’s better than buying drugs in another village where we cannot sign”* said a man in village E in Khammouane.

Many villagers said that during the cultivation and harvest season, the VHV was not available at the VRDF as he/she was working at the rice field. Consequently, the villagers could not buy the drugs, and some drugs were left on the shelves and became expired. The participants from Champasak reported that mobile health practitioners and unlicensed drugsellers existed in every village, but they claimed they did not rely on their services. However, some said that medicines from private provider services were more effective

than the drugs from the VRDF.

Sustainability of VRDF

The villagers said that the sustainability of the VRDF would be possible since they already possessed the fund. If they needed some additional funding, it was also possible that the villagers themselves could contribute. To make the VRDF sustainable the villagers suggested that the existing RDF committee should be improved and the number of health workers should be increased to be able to share responsibilities. They also commented on the need for adequate training of the health worker and clear information about the VRDF services. It was important for the villagers that only necessary drugs should be bought and that the financial situation was reported openly on a regular basis.

With VRDF committee members

Two group meetings with members of the VRDF committees were conducted and several issues were discussed.

Utilisation and service

Most people who came to make use of the VRDF live in the village. They just came to buy drugs and did not usually tell their health problem. The most popular drugs were paracetamol, quinine and ampicillin. It was reported that the majority of patients were children and elder people.

The VRDF committee members both in village C in Champasak and F in Khammouane, said that there was high demand for health care treatment from villagers, but the utilisation of the RDF was low due to the low capacity of VHV. Patients tended to use private clinics at the district level, so the drugs at RDF were often not sold. The committee members noticed that most patients liked using injections and brand name drugs, which were not officially available at the VRDF according to the given list for drug use at village level.

It often seems difficult for the VHV to sell drugs from the VRDF. A VHV in Champasak who visited patients at home acting as a mobile practitioner, even said that he used injections (not on the list of drugs for village level) to satisfy patients: *“In order to make the RDF survive and make it sustainable, I have to use a strategy of providing injections to patients and at the same time I also provide them tablets from the RDF, otherwise I will not be able to*

sell these drugs”.

Most of the committee members in both villages in Champasak reported that the villagers' participation was very good. They always came to use the VRDF because everybody understood that this was their VRDF, they had to use it to make it a good resource for their village. *“The main problem is that we don't have drugs that they need, they don't use the drugs that are available at the RDF. They are used to using drugs from the private providers”*, said a member of the VRDF in Champasak.

Drug price and availability

The VRDF committee members in Champasak said that providing drugs with a cheaper price could be one incentive for the villagers to utilize the VRDF. The villagers were happy because they could buy cheap drugs and because the money from drug sale did not belong to individuals but to the village. The only problem was that the VHV could not provide medicines according to the villagers' needs. In striking contrast with this view, the committee in Khammouane expressed the opinion that some drugs at VRDF were actually more expensive than at private pharmacies. Hence people did not come to buy drugs at VRDF which led to expired drugs later on.

The committee members in both provinces said that the VHV did not have enough medical skills and experience. In addition, there was a delay in drug procurement to the RDF. In order to get the new drugs, the VHV had to write a report to be sent together with a request for the needed drugs to the committee at the district hospital. The VHV waited until all drugs were finished and then wrote the report. There was no satisfactory comprehensive management system from districts to villages. In many cases the VRDF management committee seemed not aware of the performance of the VRDF.

Sustainability of VRDF

In order to provide a better service to the villagers, the committee members suggested that the VHVs get more training to upgrade their knowledge, that government should provide more drugs to the VRDF, e.g. injections, brand name drugs and some medical equipment. Drugs should be ordered and provided regularly and procurement of drugs should not be delayed until all drugs are finished. In this way the VRDF would not run out of drugs.

Discussion

There was generally a low availability of key essential drugs at village level in remote areas in both Khammouane and Champasak provinces, in particular in villages with a private pharmacy. Furthermore, the observed quality of the available drugs was sub-standard. A comprehensive VRDF management system was lacking, including delay in drug procurement, no routine reporting system and low competence of VHVs. The VRDF service was said to be of poor quality. The utilization rate was rather low but nevertheless higher than the use of other health facilities. Sustainability is questionable because of decreasing funds and the continuing problems with low ED availability.

ED availability and VRDF services

In general the availability of ED was low not only for the ten selected drugs but also for the total list of 27 items. Furthermore, the quality of the drugs could not be assessed since few drugs were registered, many of them did not have correct labels and many had already expired or were unknown drugs. The situation was more serious in Khammouane than in Champasak, which was in contrast to our assumption, i.e. Khammouane was selected due to presumably well performing VRDFs there compared to Champasak. After the end of the donor support, a new scheme was set up in Khammouane. VRDFs were from then on under the supervision of provincial and district health department, which allowed the VHVs to buy medicines through the Health Centre (HC) or District Health Office (DHO). However, the DHO or HC did not receive any incentive as in Champasak. The incentive system could be one factor explaining why the situation in Khammouane became worse than in Champasak. However, this study cannot fully answer the question why this difference existed. The low availability of EDs is in contrast to what was found in Vientiane Municipality in an earlier phase (1997-1998) of VRDF introduction in the country (Murakami *et al.* 2001). In the same study the cost recovery rate was satisfactory (slightly more than 100 percent), a figure that is far removed from the situation in the VRDFs investigated in the remote areas in Khammouane and Champasak provinces. This kind of initial positive impact has been seen also in rural areas (Bigdeli *et al.* 2004), but is usually not sustainable.

The main reasons for low utilization of VRDF were the lack of ED, the fact that needed drugs were not available at VRDF, that people used private health providers, or that the VHV was not available at VRDF, and that for the more serious cases people always used other health facilities since they were afraid that they might not be cured by using drugs from the VRDF.

The reasons that many available drugs were expired in both provinces are the following: some of them were expensive, they were not the drugs needed by people or did not deal appropriately with the diseases of the season. Some VHVs had just left drugs in the VRDF waiting for the DHO staff to bring them back. The figure of drugs without correct labels was much higher than in a previous study in private pharmacies in Savannakhet (Stenson *et al.* 2001a; Stenson *et al.* 2001b). The management in charge of the drugs in the VRDFs was much poorer than in private pharmacies where regular inspections were carried out (Stenson *et al.* 2001b).

This study has not focused on the execution of the exemption policy, but on other factors contributing to inadequate functioning of the VRDFs. Our findings are in line with previous observations in urban areas (Paphassarang *et al.* 2002), notably that the exemption policy has several weak points and does not function very well in practice. However, very few people seem to abstain from using the services of VRDF due to financial constraints. Instead it seems quite common that villagers are allowed to get medicines for free on condition that they pay later. With a lack of mechanisms to enforce payment, this practice is in reality a kind of exemption mechanism.

This study has neither focused on the delivery of other components of primary health care, although these are without any doubt necessary for overall efficient functioning of the VRDFs (Bigdeli *et al.* 2004). However, one main problem related to developing specific solutions to health demands in remote areas is that the location itself is a problem. The remote villages are often too small to build a comprehensive PHC system, and therefore other less efficient solutions need to be considered. What our findings contribute is that even if this is the case, more can be done to improve the situation regarding drug availability in specific remote villages in addition to general system reforms.

VRDF management

The main problem seems to be the poor management system within the VRDFs. This includes the management of the VRDF committee, the lack of tools and guidelines for VHVs, the delay in drug procurement, low knowledge and experience of VHVs, inadequate monitoring, auditing and supervision of VRDFs from the DHO, a lack of regular reporting and feedback mechanisms, and an inappropriate incentive system at VRDFs. The recurrent budget and drugs in many VRDFs decreased compared with the initial amount, hence it was not possible for them to purchase as many drugs as before. The DHO staff should have monitored, audited and supervised the VRDFs regularly so that they could have assisted the VHVs in time when something went wrong. The limitation of the allocated government budget appeared to be contributing to the inadequate performance of the DHO. In general, the VHVs did not get paid any salary by the Government, they just received some small income from the drug sale benefits.

The delay in drug procurement seemed to contribute much to the low availability of ED at VRDFs. In the Philippines, collaboration with a local NGO facilitated implementation and management of the program and a contact with a commercial wholesaler secured the stable and prompt procurement of drugs to the VRDFs (Tanaka *et al.* 1997), while in Laos such a collaboration and contact did not exist. Thus, only the DHO was responsible for the drug procurement to the VRDFs. It seemed that neither the VHVs nor the DHO staff were aware about the absence of EDs at VRDFs. The VHVs waited until all ED were finished before they requested a new replenishment of drugs and the DHO staff would not supply any drugs to VHVs without receiving the whole report on drug consumption at VRDFs and the new request. A new, suitable and quick system of drug procurement from DHO to VRDF should be put in place.

Limited knowledge and experience of the VHVs was mentioned as another reason for poor management at VRDFs. The majority of them had only had primary school education and had been trained on VRDF twice, on average. The experience from other countries shows that although the knowledge of community health workers had improved after training, it was still not at a sufficient level (Tanaka *et al.* 1997). The basic knowledge on medicine and health among VHVs needs to be upgraded, as well as the public awareness of how to use medicines in a rational way (Keohavong *et al.* 2006).

Methodological considerations

The checklist used to assess the performance of VRDFs was developed for the purpose of the study based on the contents of the RDF guideline at the village level and the real situation and organisation in the village. Although most of the information from the checklist was not available, this negative result calls for a more careful planning and management to improve the VRDFs. As the main aim of our study did not include an assessment of the drug utilisation, we could not use the WHO indicators (WHO 1993; Hogerzeil *et al.* 1993). However, studies on drug utilisation should also be performed since it is an important aspect of the availability and accessibility of ED for the people in remote areas.

The use of different methods - triangulation - for data collection, i.e., interviews with household heads and VHVs, a checklist and group discussions with VRDF committee members and villagers, can be seen as a way of ensuring full comprehension with respect to the availability of drugs, and the performance and sustainability of the VRDFs (Mays and Pope 2000), from all kinds of angles and perspectives.

The selection of ten EDs from the total of 28 was made in order to focus on the most important drugs. However, one of the selected drugs, Potassium Iodide, was not found at any VRDF, although this medicine is very important for the treatment of goitre. This could be due to lacking provision (of this type of drug) to VRDF or because people did not require it.

Conclusions

The availability of EDs at the VRDFs was rather low, showing that the system has failed in achieving its main goal to guarantee availability also in remote areas. In addition, many of the available EDs were expired and had no label. The drug procurement and management system from district to VRDFs did not function well. There were no regular meetings with the VRDF committee and there was no regular monitoring, auditing or supervision of VRDFs. There was also a lack of necessary guidelines for VHVs, and inadequate record keeping. Seeking for health treatment at VRDF by the villagers was low due to many reasons mainly the lack of ED, poor service, limited experience of VHVs and the existence of other health providers, like private pharmacies, private clinics, unlicensed drug sellers and

illegal providers.

Improvement of VRDF performance to ensure sustainability has become a great challenge for the MoH in implementing the government strategy to reduce poverty for people in remote areas. If VRDFs are still to be targeted in the policy, steps to promote sustainability and improvement of the quality of VRDF services at village level should be taken together with more sustainable Government financial support. Those steps should include establishment of a comprehensive management mechanism system for the VRDFs with appropriate supervision from district and provincial levels, improving knowledge and skills of VHVs, developing a system for drug procurement, educational activities for the public and a functioning monitoring system in order to ensure availability of good quality drugs accessible for all those living in remote areas. These improvements are necessary regardless of the overall need for safety security mechanisms to protect the poorest from unaffordable costs.

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References

Bigdeli M, Shuey D, Ketsouvannasane B and Douangdeuane B (2004). Operational research on village revolving drug funds in Lao PDR. Vientiane: World Health Organization & Food and Drug Department, Ministry of Health, Lao PDR.

Food and Drug Department (2003). National drug policy programme 1993-2003. Vientiane: Ministry of Health.

Hogerzeil HV, Bimo, Ross-Degnan D, Laing RO, Ofori-Adjei D, Santoso B, Azad Chowdhury AK, Das AM, Kafle KK, Mabadeje AFB and Massele AY (1993). Field test for rational drug use in twelve developing countries, *Lancet*, **342** : 1408-10.

Jönsson K, Tomson G, Jönsson C, Kounnavong S and Wahlström R (2007). Health systems research in Lao PDR: capacity development for getting research into policy and practice, *Health Research Policy and Systems*, **5** : 11.

Keohavong B, Syhakhang L, Sengaloundeth S, Nishimura A and Ito K (2006). Rational use of drugs: prescribing and dispensing practices at public health facilities in Lao PDR, *Pharmacoepid Drug Safety*, **15**, **5** : 344-7.

Mendis S, Fukino K, Cameron A, Laing R, Filipe Jr A, Khatib O, Leowski J and Ewen M (2007). The availability and affordability of selected essential medicines for chronic diseases in six low- and middle-income countries, *Bulletin of the WHO*, **85**, **4** : 279-88.

Ministerial Decree no. 52/PM on medical services and guide of the public health minister no. 2635 on the same (1995). Vientiane: Ministry of Health.

Ministry of Health, LaoPDR (2001). The Vth national drug conference, February 2001, Report of the Food and Drug Department.

Mays N and Pope C (2000). Qualitative research in health care. Assessing quality in qualitative research, *British Medical Journal*, **320** : 50-2.

Murakami H, Phommasack B, Oula R and Sinxomphou S (2001). Revolving drug funds at front line health facilities in Vientiane, Lao PDR, *Health Policy and Planning*, **16**, 1 : 98-106.

Nabarro D and Cassels A (1994). Strengthening health management capacity in developing countries. London: Overseas Development Administration.

National Statistics Centre (2003). Yearbook. Vientiane.

Paphassarang C, Tomson G, Choprapawon C and Weerasurya K (1995). The Lao national drug policy: lesson along the journey, *Lancet*, **345** : 433-5.

Paphassarang C, Philavong K, Boupha B and Blas E (2002). Equity, privatization and cost recovery in urban health care: the case of Lao PDR, *Health Policy and Planning*, **17**, (Suppl 1): 72-84.

Quick JD (2003). Ensuring access to essential medicines in the developing countries: A framework for action, *Clinical Pharmacology and Therapeutics*, **73** : 279-83.

Stenson B, Tomson G and Syhakhang L (1997). Pharmaceutical regulation in context: the case of Lao People's Democratic Republic, *Health Policy and Planning*, **12**, 4 : 329-40.

Stenson B, Syhakhang L, Eriksson B and tomson G (2001a). Real world pharmacy: assessing the quality of private pharmacy practice in the Lao People's Democratic Republic, *Social Science and Medicine*, **52**, 3 : 393-404.

Stenson B, Syhakhang L, Stalsby Lundborg C, Eriksson B and tomson G (2001b). Private pharmacy practice and regulation - A randomised trial in Lao PDR, *International Journal of Technology Assessment in Health Care*, **17**, 4 : 579-589.

Tanaka M, Kobayashi Y, Hanada K, Suganami S and Nakahara T (1997). A drug revolving fund program for rural villages in the Philippines, *Nippon Koshu Eisei Zasshi*, **44**, 9 : 713-23.

Umenai T and Narula IS (1999). Revolving drug funds: a step towards health security, *Bulletin of the WHO*, 77, 2 : 167-71.

Uzochukwu BSC, Onwujekwe OE and Akpala CO (2002). Effect of the Bamako-Initiative drug revolving fund on availability and rational use of essential drugs in primary health care facilities in south-east Nigeria, *Health Policy and Planning*, 17, 4 : 378-83.

WHO (1993). How to investigate drug use in health facilities. Selected drug use indicators. Geneva: World Health Organization, WHO/DAP/93.1.

Some final thoughts

Gerald Bloom and Xiaomei Pei

On turning over the last page of this volume, the reader has completed a rapid journey to a part of the world that is full of vitality and expectation. In the three Asian countries visited, we see serious social interventions to make the health system an effective weapon in fighting against diseases and their social impact. We find policy makers becoming increasingly aware of the importance of health to the sustainable development of their societies. To the extent that this volume provides fresh and rich information, it also satisfies the reader's intellectual curiosity about health care policies and practices in three countries, characterised by rapid social transition.

Many governments face growing demands for adequate and affordable health care in a context of rising costs associated with the commercialisation of health services. Their policy responses vary between countries and over time. For example, many high income countries are concentrating on improving the management of their large health systems to control costs and meet rising needs. On the other hand, policy-makers in the three countries in this volume are giving increasing priority to the design of interventions to protect households against the threat of impoverishment when a family member falls seriously ill. China's New Cooperative Medical Scheme and Medical Financial Assistance and Cambodia's health equity funds are examples of this kind of response as is the decision by the Government of Lao PDR to experiment with alternative financing systems.

The essays in this volume emphasise the importance of social forces to the formulation of health care policies. Many of them situate their analyses in the context of transitions in demography, epidemiology, economic system, and political structure. The experience of these countries in constructing and reforming their health care systems demonstrates how closely they are embedded in a social context. As Donald Light once pointed out, medical care and health services are acts of political philosophy; therefore, social and political values underlie the choices made, the institutions formed, and the levels of funding provided. A nation's approach to health care is based on its

historical experience, culture, economy, political ideology, social organization, level of education, standard of living, and attitudes toward welfare and the role of the state.

The importance of health and effective health systems to successful development creates special responsibilities for researchers to provide policy makers with systematic evidence on health-related problems and the performance of interventions aimed at addressing them. The aim of the papers in this volume is to contribute to this kind of understanding of the recent experiences of China and transitional countries of Southeast Asia.

Further efforts are needed to theorize the findings from the analyses in this volume and other related studies. Innovative approaches are needed to study the relationship between various types of illness and household livelihoods and examine how social interventions affect household coping strategies. This requires a combination of research methods and effective inter-disciplinary collaboration.

Governments face special challenges in creating appropriate institutional arrangements for the emerging market economies. For the purpose of policy making, it is critical to accumulate systematic knowledge about the factors that affect the performance of the health service providers and about the relations between these factors and government initiatives.

Policy studies are applied by nature and the findings should meet the demands of policy making as well as contribute to scientific knowledge. This means that experts in the fields of transition management and health care organization need to work with policy makers and health system administrators to ensure that lessons from new experiences and unexpected outcomes are recognized and studied in a systematic manner. The experiences of the three countries in this volume demonstrate the importance of the collaboration between researchers and policy makers in the formulation and implementation of strategies for managing health system change.

The stories of the three countries enable the reader to examine health policies and practices from a comparative perspective. It is important to recognise that all health systems have problems and that a solution in one context may work differently elsewhere. The authors have tried to address this problem by making the similarities and differences between the three countries clear. Taking these limitations into account, it can be very useful for health system analysts and policy makers to become familiar with other

experiences. This is particularly helpful for countries that are experiencing unexpectedly rapid economic and social changes. Policy makers in these countries are becoming increasingly interested in learning from the good and bad experiences of other societies. We need to develop more effective ways to exchange practical lessons and research findings.

The world is changing rapidly. The transitional countries of East and Southeast Asia demonstrate how dramatic these changes can be and they are becoming an international centre for social experiment and innovation. Their experiences should be valued as important assets for human development. There is no doubt that the institutional arrangements they establish for addressing major health-related challenges will strongly influence future international understandings of development. Researchers from these countries have made, and will continue to make substantial contributions to these understandings.

References

Light Donald W (1986). Comparing health care systems: Lessons from East and West Germany, in P. Conrad and R. Kern (eds.) *The Sociology of Health and Illness*, (2nd ed.) pp.429-443. New York: St. Martin's Press.

POVILL - Protecting the rural poor against the economic consequences of major illness:

A Challenge for Asian transitional economies

POVILL is a four year research project supported by the Sixth Framework Programme of the European Commission. Its main objective is to contribute to national and international learning on how to help households cope with major illness. The research is taking place in China, Cambodia and Lao PDR. All three countries are in transition to a market economy. In China, incomes have risen substantially for most households and the number living in poverty has greatly decreased. However, households are exposed to higher levels of financial risk. When things go wrong they can no longer depend on state-owned enterprises or agricultural collectives to provide support. The circumstances of Cambodia and Laos have been complicated by the need to recover from the effects of prolonged conflict and there are very high levels of household poverty and vulnerability.

The governments of the three countries are looking for new approaches to help people cope with the risks associated with illness. China is implementing national policies for rural health insurance and health safety nets for the poor. Cambodia has experimented with demand-side approaches in which local NGOs purchase hospital care for the poor and it is scaling up these "health equity funds". Lao PDR has depended on less formal mechanisms for exempting the poor from user charges experimenting with a variety of interventions.

POVILL research has been designed in close consultation with policy makers and local government and NGO managers to ensure that it contributes to the refinement of policy and to effective implementation. The research falls into the following areas:

- What is the impact of different types of illness on different kinds of households? How do different types of households adapt to cope with health-related shocks and to what extent are they supported by formal or informal support networks?
- How effective are the various coping strategies that these households adopt and what are the consequences for household members?

▪ How well have health care providers performed in terms of; different types of health problem, the course of illness (acute or chronic), the type of provider used (hospital or ambulatory care) and the type of person affected (age, sex and other relevant characteristics).

▪ Has inappropriate provider performance regarding drug use and hospital in-patient care increased the cost of care for the poor and what measures can government take to reduce unnecessary costs?

▪ Have innovative schemes reduced the impoverishing impact of major illness and what factors have influenced their performance?

▪ What considerations influenced government to meet health-related needs of the poor and how have local institutional arrangements affected implementation of health safety nets and drug regulation? How efficient have government schemes been in; targeting, ensuring accessibility for the poor, protecting against catastrophic healthcare expenditure and efficiently using public resources?

The project brings together institutions with complementary skills in public health, health systems research, household economics, policy analysis, sociology and political science. They include

- Institute of Development Studies, UK
- China Health Economics Institute, China
- Zhongnan University of Economics and Law, China
- West China Center of Medical Sciences, Sichuan University, China
- Institute of Social Development, Beijing Normal University, China
- Prince Leopold Institute of Tropical Medicine, Belgium
- National Institute of Public Health, Cambodia
- Center for Advanced Study, Cambodia
- Karolinska Institute, Sweden
- National Institute of Public Health, Lao PDR

We also include researchers from Tsinghua University, China and Lund University, Sweden.

Further information on POVILL can be found on our website at www.povill.com.

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