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# Options for scaling up community-based health insurance for rural communities in Armenia

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# Acronyms

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AMD	Armenian Dram
ASTP	Armenian Social Transition Programme
BBP	Basic Benefits Package
CBHF	Community-based health financing
CBHI	Community-based health insurance
CMS	Cooperative Medical System
CMH	Commission on Macroeconomics and Health
EDL	Essential Drugs List
FGD(s)	Focus group discussion(s)
GB	Great Britain
GDP	Gross Domestic Product
IMCI	Integrated management of childhood illness
IMF	International Monetary Fund
KI(s)	Key informant(s)
MCH	Maternal and child health
MoH	Ministry of Health
NGO	Non-governmental organisation
PADCO	Planning and Development Cooperative International
PHC	Primary health care
RDF	Revolving drug fund
SHA	State Health Agency
SHI	Social health insurance
STC	Support to Communities
STI(s)	Sexually transmitted infection(s)
UNICEF	The United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization



# I. Executive Summary

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This paper summarises the results of a study which examined international experience with regard to community-based health financing (CBHF) schemes, scaling up CBHF schemes, and the feasibility of scaling up community-based health insurance (CBHI) in Armenia. It was based on a literature review of international experience and qualitative research in Armenia. The recommendations derived from this study have relevance both for Armenia and for the use of CBHI schemes as a tool for promoting pro-poor health system reform in low-resource settings more generally.

## The literature review of CBHI

Instituting health financing systems based on tax or social health insurance – which achieve high levels of risk pooling and are able to provide services accessible to all on the basis of need – has proved difficult in low-income countries.<sup>1</sup> In much of the developing world, governments are unable to raise sufficient revenue to finance essential health care. The widespread introduction of user fees in an attempt to bridge this gap has led to inequity of access and rising out-of-pocket expenditure, which in turn has led to less pooling of resources or sharing of risk;<sup>2</sup> the cost of an episode of care is borne entirely by the individual and their family. Formal and informal out-of-pocket expenditure is now a major cause of poverty.<sup>3</sup>

Community-based health financing (CBHF) schemes provide some protection from the impoverishing effects of unpredictable expenditure due to illness.<sup>4</sup> There is increasing international interest in scaling up CBHF, and a developing consensus on the scheme characteristics that are essential for success. However, there are constraints to scaling up CBHF related to: the political, social and cultural context within which CBHF schemes operate; generic problems with insurance; scheme design and management problems; and a lack of integration with the broader health care system. Japan, China, Korea, Taiwan and Germany provide historic examples of countries that have overcome these constraints and successfully scaled up CBHF schemes as part of a move towards universal health insurance. There are also contemporary examples of countries that have used CBHF as a mechanism for making progress towards universal access and protection, including Thailand and Indonesia. Most of these countries have followed a strategy of gradual expansion of voluntary CBHF schemes for the informal sector and compulsory health insurance for the formal sector. Over time, schemes are expanded to other groups or merged into larger health insurance funds. However, economic development and political stewardship remain prerequisites for achieving universal health insurance coverage.

The experience of countries that have scaled up CBHF schemes suggests that providing incentives to join them is vital. Service quality (relative to other treatment options) has an impact on participation in voluntary schemes, as the Thai experience shows, while experience in China, Thailand, Vietnam, Indonesia, and Korea all point to



affordability being a major constraint. High co-payments and informal user fees make schemes less attractive to join. The extent to which services are provided locally is another key factor (China, Thailand). The effectiveness of communication strategies is also important – the benefits of voluntary CBHF schemes need to be marketed. Levels of social capital also have a significant impact, and community involvement in scheme operation is essential for maintaining accountability and trust in the schemes. Increasing management capacity is essential to sustainability.

As schemes are scaled up, the development of regional umbrella groups able to provide the necessary technical and managerial support is needed to reduce reliance on external capacity. Government stewardship and action is needed as CBHI is scaled up, to broker a consensus on policy objectives, to develop a legal framework, and to implement practice guidelines and quality control mechanisms. Sustained government or donor financial and institutional support for the schemes is increasingly recognised to be necessary; the withdrawal of such support in China led to the collapse of the Cooperative Medical System. Significant subsidies ranging from 50% to 100% are required to enable access for the poorest people; even mature social insurance systems require government subsidies, as shown by Western European experience. Links to broader development and advocacy initiatives strengthen CBHF schemes via increasing local incomes, realising synergies in terms of increased technical and managerial capacity, and capitalising on already established trust relationships between NGOs and communities.

Integration between schemes and different levels of clinical service delivery can significantly strengthen schemes and facilitate an increase in the quality and scope of services they can deliver. Introducing mechanisms to control adverse selection – such as enrolment on a family basis or compulsory membership – is vital to ensure both control of costs and adequate risk pooling. As community-based health insurance schemes are expanded, managing financial instability becomes more important, including: combining small schemes and introducing compulsory membership to increase cross-subsidisation (Korea, Taiwan, Japan, Germany); government underwriting; and re-insurance.

Attempts to scale-up CBHI must find a balance between delivering care that meets communities' needs and ensuring that the cost of joining schemes remains affordable. There is also a tension between maximising health outcomes by prioritising preventative and primary health care services (which benefit the poorest groups most), and providing protection against catastrophic health expenditure via covering hospital care (which affects the poorest groups most). Schemes should continue to evolve over time and be flexible enough to respond to new economic and social realities, changes in morbidity and demographics, and reforming health systems.

## Scaling up community insurance in Armenia: qualitative study

### *Health system reform in the Armenian context*

Since independence, Armenia has experienced a severe economic contraction leading to collapse in government revenue and a 35% decline in health expenditure. The Armenian government was forced to introduce user fees, and by 1999 only 25% of total health expenditure was still government funded. Out-of-pocket expenditure due to formal user fees and informal payments increased to about 60% of total health care expenditure; the remaining 15% of health care funding was from external sources. Despite the introduction of a state-funded Basic Benefits Package (BBP) seeking to cover vulnerable groups and priority public health services, utilisation rates have declined dramatically.

Armenia has begun radical reform of its health system, including enhancing the role of primary health care and introducing family medicine. Other key reform areas have included decentralisation and the introduction of market mechanisms. There are also plans to replace the tax-based health financing with a national compulsory social health insurance, although the feasibility of doing so is constrained by economic circumstances. The Ministry of Health has retained a planning and regulatory role. The independent State Health Agency (SHA) now acts as the sole purchaser of publicly financed care in accordance with the basic benefits package, which is supposed to provide free access to essential health care for vulnerable groups. However, reimbursements are significantly lower than the real treatment costs. As a result, despite some improvements in both access and quality of care, the impact of reforms to date has been limited at the most peripheral levels of the health system; poor rural communities still face access barriers.

### *The Oxfam (GB) CBHI schemes in Armenia*

In Armenia, in response to inadequate government financing of basic PHC services, Oxfam has pioneered community-based health insurance (CBHI) schemes. These aim to address gaps in provision, while reducing the impact of unpredictable out-of-pocket expenses on households. Since 1995, Oxfam GB, in partnership with local NGO “Support to Communities”, has been running schemes in Vayots Dzor and Syunik marz. These regions were chosen because they are poor with an agricultural economy, and are relatively inaccessible due to mountainous geography and poor public transport links. By 2001, schemes were operational in 80 villages – about 10% of rural communities in Armenia – and covered around 50,000 people. Currently, if the schemes covered by World Vision in partnership with Support to Communities are included, schemes are operating in 128 villages and cover 80,000 people. Prior to the establishment of the schemes, basic health care was provided via village-based health posts that were under-resourced and staffed by poorly paid nurses with little support and minimal ongoing education. These nurses were poorly motivated and the quality of care they could offer was low. Outreach services from higher PHC levels had largely ceased.

The schemes aim to provide essential primary health care, via the village health posts, that is affordable, equitable, and accessible to all, especially the very poor. In return for a fixed quarterly contribution of 2,000 Armenian drams per family (about US\$ 4.5), the schemes cover unlimited first aid, basic PHC and drugs, and some referral to higher level facilities. However, the health post nurses are only able to deliver a limited scope of care

due to legislative restrictions on their prescribing and clinical role. To overcome this constraint, outreach visits to the villages by ambulatory-based doctors have been facilitated. The Oxfam CBHI model promotes community involvement in the financial management of schemes via accountable and transparent local management structures, and exemption procedures cover on average 10% of scheme members. They have created two Healthcare Foundations in Vayots Dzor and Syunik which have started to provide overall supervision and technical support to the schemes. Evaluations of the Oxfam CBHI schemes have demonstrated both benefits and limitations.

As well as the Oxfam-supported schemes, there are also other PHC-focused CBHI schemes in Armenia supported by World Vision, Mission East, and Future Generations Union/N(o)vib. Most of these schemes are currently planning to increase their coverage. With maturity and expansion of community-based PHC financing schemes in Armenia, questions regarding their long-term sustainability and policy implications arise. Their financial sustainability is threatened by the increasing prevalence of chronic illness and a lack of long-term government or donor subsidy. There are significant affordability barriers to joining the schemes. Non-communicable diseases often require treatment at secondary care level, imposing demands on the CBHI schemes to coordinate responses at primary and secondary levels of care. The prospects for institutional sustainability of community-driven schemes in view of national financing reforms and governance issues at the regional and national level is also unclear.

### *Primary health care reform in Armenia*

Primary health care is a stated government priority, and there have been significant recent increases in the budget allocation for PHC. While there have been significant improvements, the impact of reforms has been patchy. Some areas have benefited, but there has been little impact at the most peripheral levels of the health system where access to PHC and drugs remains problematic. Significant PHC reform issues still need to be addressed in the areas of health information systems and coordination. In terms of financing mechanisms, ensuring that funds follow patients, that remuneration is linked to performance, and increasing funding and service delivery at peripheral levels of the PHC system are key challenges. There is also a recognised need for further rationalisation, and investment in infrastructure and human resources. There is a need to further develop evidence-based clinical treatment guidelines and to incorporate them into a standard treatment manual; both are central to ongoing efforts to improve quality of care. Legislative changes to facilitate the ongoing development of CBHI in Armenia will also be required. There are a large number of ongoing initiatives at the PHC level, such as the World Bank's Primary Health Care Development Program and a variety of donor-funded initiatives, which have significant implications for CBHI in Armenia and provide the opportunity for CBHI schemes to develop strategic partnerships.

The qualitative research revealed a consensus that CBHI was compatible with the longer-term health policy objectives and national health priorities. The objectives suggested for CBHI in Armenia included: increasing access to care for isolated rural communities and improving the quality of care available at the most peripheral levels of the health system; increasing community involvement in the organisation of PHC and facilitating community input into the broader health policy debates; facilitating the introduction of compulsory social health insurance; raising additional revenue for PHC; and sharing responsibility for health between the state and communities. However, there

are important constraints to scaling up CBHI. In particular, there is opposition from entrenched interest groups including specialists – who would lose significant income from informal fees and have quality of care concerns – as well as some hospital and polyclinic administrators. There is also a need to secure long-term subsidies to ensure the financial viability of CBHI.

The CBHI-supported health posts are the usual point of first contact with the health system for both members and non-members of the schemes. The health post nurses are able to provide first aid and symptomatic relief and they fulfil an important advisory, triage and referral function; by giving people advice as to the seriousness of their health problem and the urgency with which it should be dealt with, nurses enable patients to make more informed decisions about how important it is for them to access higher levels of care. However, the health posts currently offer only a limited package of services that does not include chronic disease management, preventative services such as screening for hypertension and diabetes (immunisation is a notable exception), or curative services; this was seen as a major problem. The increasing use of scheme-supported outreach visits from specialist and ambulatory-based family medicine practitioners is helping to remedy this. The limited package of care, which does not cover hospital care, does not provide protection against catastrophic health expenditure.

Services that should be strengthened at the health post level include: maternal and child health services; family planning; chronic disease care; simple curative care; preventative care; and the diagnosis and treatment of STIs. Other services that rural communities have difficulty accessing include specialist care, dental care, and mental health services. Significant broader health system constraints continue to affect care delivery at the most peripheral levels, including degraded infrastructure (health facilities, roads, water, and sanitation infrastructure) as well as significant human resource constraints. Doctors and nurses have become de-skilled and need retraining to enable them to deliver better quality care; progress in this direction has begun via a variety of PHC reform initiatives.

There are also significant knowledge barriers to accessing care. Poor health knowledge, reluctance on the part of individuals to take responsibility for their own health, health damaging behaviour (unsafe sex, poor diets, smoking, alcohol and drug abuse) and late treatment seeking were identified by many key informants as problems that needed to be addressed. A lack of knowledge within communities about their entitlements under the Basic Benefits Package was also identified as a problem.

### ***Financing rural PHC in Armenia***

There are significant financial barriers at all levels of the health system to rural communities accessing care, as the result of widespread poverty, and formal and informal user fees. Informal payments are endemic at the hospital level and for accessing specialist care – they result in people borrowing money and selling assets to pay for care or foregoing care altogether. Financial barriers are exacerbated by geographical barriers; the cost of the transport needed to access higher level care is high.

Resource allocation mechanisms are recognised to be weak, and rural health posts are currently not receiving the funding that they are entitled to, although there have been some recent improvements. The BBP rarely functions as it is intended to, and often services that are supposed to be free under the BBP are not. This is seen to stem from unrealistic funding of the essential care package compounded by increasing demand –

the resulting deficit is met through formal and informal out-of-pocket payments from users. Funding for providers under the BBP package is based on a simple capitation formula. There are currently no mechanisms to weight payments according to demographic data, poverty, isolation, or burden of disease. The MoH accepts the need to introduce weighted capitation as part of a mixed provider payment system to create a better incentive mix directly linked to quality. However, until the inadequacies of existing health information systems are addressed, this will not be possible.

There are significant weaknesses in existing health information systems and in the management and integration of data. This is a major constraint to linking provider reimbursement to the delivery of specific services or to quality of care. In general, there are weak links between remuneration of providers and the services provided. It is not possible to link capitation payments directly to individual patients; money does not follow patients. This prevents patient choice acting as an incentive for providers to deliver better quality services. There are moves to address these issues, such as the USAID/PADCO pilot projects in Lori Marz and Yerevan which have introduced performance-related incentives.

Evidence-based treatment guidelines based on the Essential Drugs List (EDL) have been approved for approximately 20 conditions and the World Bank has developed national guidelines on quality of care, although to date these have had little impact on prescriber behaviour. There have been significant problems with drug procurement and distribution, and inadequate drug supplies have had a significant impact on service utilisation. There are only weak central procurement or competitive tendering mechanisms; scope to realise significant savings exists. While there is an EDL, there is no legislation requiring practitioners to prescribe EDL drugs, and in practice it is not widely used. Prescriber behaviour currently has relatively little impact on overall patterns of drug consumption; the majority of prescription-only drugs are in fact sold over the counter in pharmacies without a prescription – this is in breach of existing legislation but is tolerated by the government because self-treatment is the only care option for many people.

## Recommendations for scaling up CBHI and pro-poor health care financing in Armenia

### *Planning for scaling up CBHI*

- Comparisons with other countries and the results of the qualitative research suggest that there is a role for expanded community-based health insurance in Armenia.
- The objectives and priorities of community-based health insurance schemes must be defined before scaling them up because they will affect scheme design and the level of investment required.
- Key stakeholders should be identified, with a view to securing their support for the process, and involving them in future advocacy.
- Establishing a national forum for rural health and CBHI would be useful to discuss experience with CBHI as well as rural health issues more generally.

## *Financing pro-poor PHC and expanded CBHI schemes*

- Resource allocations for rural PHC should increase.
- Informal payments cannot be tolerated and should be reduced.
- Government and donor subsidies have an essential role to play in financially sustaining community financing to enable subsidies for the poor. Subsidies in the range of 50-100% of membership costs would be required to ensure that the poorest are able to join CBHI schemes.
- CBHI schemes should be a component of a broader inter-sectoral development strategy.
- Increasing the amount of revenue generated locally by CBHI schemes is severely constrained by the levels of poverty and economic development in rural communities.
- Mechanisms will need to be developed to prevent financial instability and increase risk pooling during scaling up.
- In terms of population coverage, poor and isolated rural communities should remain the primary target group for CBHI. Voluntary membership of the CBHI is the only acceptable option currently.
- Determinants of participation in CBHI schemes in Armenia must be monitored in order to promote enrolment and fine-tune social marketing strategies seeking to expand membership. The major factors affecting membership and recommendations to address them are:
  - Affordability – this is the major determinant of participation emphasised by non-members, hence the need for subsidies.
  - Geographical proximity of services – outreach specialist services and expanded service delivery at the health posts is strongly advocated.
  - Social capital issues – there are high levels of social capital within communities, but lower solidarity across communities. This, together with a mistrust of government organisations, will make it hard to introduce district or regional risk pools and thus constrains scaling up CBHI. It should be addressed via information campaigns, involvement of trusted organisations (such as Oxfam and STC) and community representation on financial and administrative management boards.
  - Quality of care – improving the quality of care will be essential for encouraging membership.
- The benefits package should continue to focus on covering gaps in existing public provision of services. The current focus of the schemes on low cost, high frequency care is appropriate. Without significant increases in subsidies to the schemes, the scope for increasing financial protection is limited. Future increases in the scope of the benefits package should focus initially on increasing the scope of PHC services covered, with partial cover of hospital-related costs being the next logical expansion.
- Increasing the scope of services delivered by CBHI schemes and enhancing quality of care will require significant investment in human resources. Training to enable the introduction of formally accredited ‘nurse practitioners’ able to deliver a wide range of services is strongly recommended; it would also require changes to existing legislation. This process could be facilitated through direct support and supervision by PHC physicians or ‘rural health teams’ consisting of ambulatory doctors and nurses, linked to specialists, family practitioners, and midwives.

- Motivating health providers working under CBHI schemes: this could be achieved through providing health post nurses with a living wage as well as financial and non-financial incentives, including mechanisms to ensure holidays and sick leave for health post nurses.
- Quality of care requirements: the government and Medical Associations should define quality standards, develop treatment and prescribing protocols, improve the regulatory environment, and develop quality assurance strategies such as the introduction of peer review. A standard treatment manual for rural practitioners (not just in CBHI) should be developed and integrated into ongoing training.
- More efficient purchasing and distribution of drugs: centralised purchasing and distribution of drugs could achieve significant cost savings. Other strategies to achieve savings and improved drug availability include: prescribing and procurement linked to essential drug lists; the use of generic drugs; procurement via competitive tendering; improved storage; and coordinated (or centralised) distribution.

### *Scaling up and integration of CBHI: towards institutional sustainability*

- It is a strongly held view of communities and key stakeholders that ownership of CBHI schemes should remain independent of the government.
- The development of regional umbrella organisations modelled on the STC foundations will be required to ensure the necessary technical support as CBHI is scaled up.
- Institutionalising adaptability of CBHI schemes to the changing context is central to sustainability and their scaling up. Adjusting the scope of benefits covered according to the economic environment will be required. Management structures and premium levels have to evolve as schemes become more complex.
- The health system itself poses constraints to successfully scaling up community-based health insurance schemes. There is a range of issues linked to quality of care, efficiency and cost-efficacy that must be dealt with if the introduction of community-based health insurance is to have an impact. An enabling environment must be created via the implementation at a national level of health policy initiatives that include investment in infrastructure and human resources.
- Scaling up CBHI cannot be done in isolation from integration of CBHI within the broader health system, and there should be stronger integration of clinical services delivered at different levels.
- An expanding CBHI needs to be marketed; ongoing information and communication strategies need to be developed to encourage membership.
- Integrated health information systems would support expansion.
- Improved communication, coordination and partnerships between NGOs, donors and government departments involved in CBHI and PHC financing is needed.

## II. Preface

This report is based on research, funded by Oxfam (GB) and carried out by the London School of Hygiene and Tropical Medicine, which examined the evidence base on community-based health financing and international experience of scaling it up. Qualitative research was also undertaken in Armenia, which is currently considering scaling up community-based health insurance (CBHI) as part of a longer term policy of introducing compulsory social health insurance (SHI). This research sought to identify the major constraints and opportunities for scaling up CBHI in Armenia. It explored the extent to which CBHI expansion is feasible and desirable given health system and funding constraints, societal values and the existing policy environment within Armenia. The acceptability of the schemes from a community perspective and the determinants of participation were also examined. Many of our findings will be relevant to other countries from Eastern Europe and the former Soviet Union as well as resource-poor environments more generally.





# III. The Literature Review of CBHI

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## Methodology and scope of the literature review

The literature review was focused on two questions:

1. What is the role of community-based health financing (CBHF) in raising revenue, risk pooling to protect against the costs of illness, and providing equitable access to health services for previously excluded populations?
2. Can CBHF act as a financial and organisational basis for widening access to services as countries move towards expanding coverage, and ultimately, universal coverage of the population?

To answer these questions electronic databases of peer-reviewed journal publications were searched including: BIDS (CAB abstracts; IBSS); Web of Science; PubMed; and Embase. Databases for non-journal / grey literature were also searched including: ELDIS / ID21; SIGLE. Additional sources were identified through tracing references and via personal communications. The Internet websites of organisations active in the area of community health financing were searched directly including:

1. World Bank (<http://www.worldbank.org/>)
2. International Labour Organisation (<http://www.ilo.org/>)
3. WHO (<http://www.who.int/en/>)
4. CMH (<http://www.cmhealth.org/>)
5. PHRplus (<http://www.phrplus.org/>)
6. ID21 Health (<http://www.id21.org/health/index.html>)
7. Institute of Development Studies (<http://www.ids.ac.uk/ids/index.html>)
8. HLSP (<http://www.hlspinstitute.org/>)

## Introduction

The literature search identified many studies published in peer-reviewed journals or reports by international agencies addressing the role of community-based health financing (CBHF) in raising revenue, risk pooling, and providing equitable access to health services. The majority of these studies are cross-sectional – they describe individual schemes at a point in time – and sought to measure scheme performance and/or investigate the determinants of performance in terms of scheme design and implementation. Some have asked broader questions regarding the role of CBHF in terms of raising revenue and providing financial protection against the costs of illness, and the design features of community-based financing schemes that contribute to success in these areas.

There are a few significant low- or middle-income countries (Indonesia, Thailand, Vietnam, and China) where CBHF has played a role in widening access to services and financial protection as countries move towards expanding insurance coverage. There are also historical examples from the developed world – Germany, Japan and Korea – where some form of community financing has played a role in national plans for the gradual extension and standardisation of national health insurance systems. A few reviews and conceptual studies touch on these issues, and some theoretical frameworks for scaling up CBHF have been developed that highlight the importance of integrating scaled up schemes with the broader health system.

A number of authors have pointed out weaknesses in the evidence base on CBHF.<sup>5,6,7,8</sup> There are no studies examining the health impact of introducing CBHF schemes through randomised control trials or other quantitative methods. This is not particularly surprising given the expense of carrying out such studies, as well as the methodological and practical challenges involved. There are no cost-benefit studies comparing the introduction of a CBHI with alternative interventions,<sup>6</sup> and no ‘before and after’ study designs (studies assessing the impact of an intervention) or studies that examine a CBHF scheme repeatedly over time (which are necessary to draw conclusions about long-term sustainability and impact). There is a need for more evidence based on quantitative analysis of household-level data to enable definitive conclusions to be drawn with respect to social protection and equity.<sup>7</sup> From a policy point of view, these are serious weaknesses. However, while there is a recognised need for further research, there is a growing consensus that CBHF schemes do have a role to play in health care financing in low-income environments. There remain, however, significant dissenting voices.

## Results from the literature review

### *General definition and major characteristics of CBHF schemes*

CBHF schemes are called by a number of different names including: community-based health insurance schemes, community-based health organisations, mutual health organisations (in Anglophone West Africa), and mutuelles de santé (in Francophone West Africa). One of the problems frequently identified by authors assessing the strengths and weaknesses of community-based health financing (CBHF) is the lack of a widely accepted definition as to what constitutes CBHF.<sup>8,9</sup>

### Box 1. Some definitions of community-based health financing

"CBHF schemes share the goal of finding ways for communities to meet their health financing needs through pooled revenue collection and resource allocation decisions made by the community. CBHF schemes are a form of insurance: they allow members to pay small premiums on a regular basis to offset the risk of needing to pay large health care fees upon falling sick. However, unlike many insurance schemes, CBHF schemes are typically based on the concepts of mutual aid and social solidarity." (PHRplus, 2004)<sup>10</sup>

"Community financing can be broadly defined as any scheme that has three features: community control, voluntary membership, and prepayment for health care by the community members. This definition would exclude financing schemes such as regional compulsory social insurance plans and community-managed user fee programs." (Hsiao, 2001)<sup>11</sup>

"The term "community-based health insurance" is used in this study to refer to any non-profit health financing scheme. It covers any not-for-profit insurance scheme that is aimed primarily at the informal sector and formed on the basis of an ethic of mutual aid and the collective pooling of health risks, and in which the members participate in its management." (Musau, 1999)<sup>12</sup>

"Community financing is an umbrella term used for several different resource mobilisation instruments. The instruments vary in the extent of their prepayment and risk sharing, in their resource allocation mechanisms, organisational and institutional characteristics. Never the less, the common features they share include the predominate role of the community in mobilising, pooling and allocating resources, solidarity mechanisms, poor beneficiary population, and voluntary participation." (Jakab and Krishnan, 2001)<sup>9</sup>

There is a bewildering array of schemes that differ in terms of their objectives, design, and implementation as well as the contexts within which they have developed. There are, however, some common characteristics (Box 1). Central to most definitions of CBHF is "the predominant role of collective action in raising, pooling, allocating or purchasing, and supervising the management of health financing arrangements".<sup>13</sup> Other authors arrive at definitions related to the nature of the beneficiary group; CBHF schemes are in general aimed at people with no other access to collective financing arrangements who therefore lack financial protection against the costs of illness.<sup>7,14</sup> Another common feature is that the schemes are mostly voluntary and membership is usually on a prepayment basis. CBHF schemes also tend to be based on traditions of self-help and community solidarity.<sup>7,8</sup>

Fund ownership and management can also be used to differentiate schemes (hospital, community, craft or workplace cooperatives, NGO, government), and the type of ownership is closely correlated with both the underlying motivation for setting up CBHF schemes and the services that they provide.<sup>8</sup>

Figure 1. Type I and Type II schemes: two ends of a risk-sharing spectrum

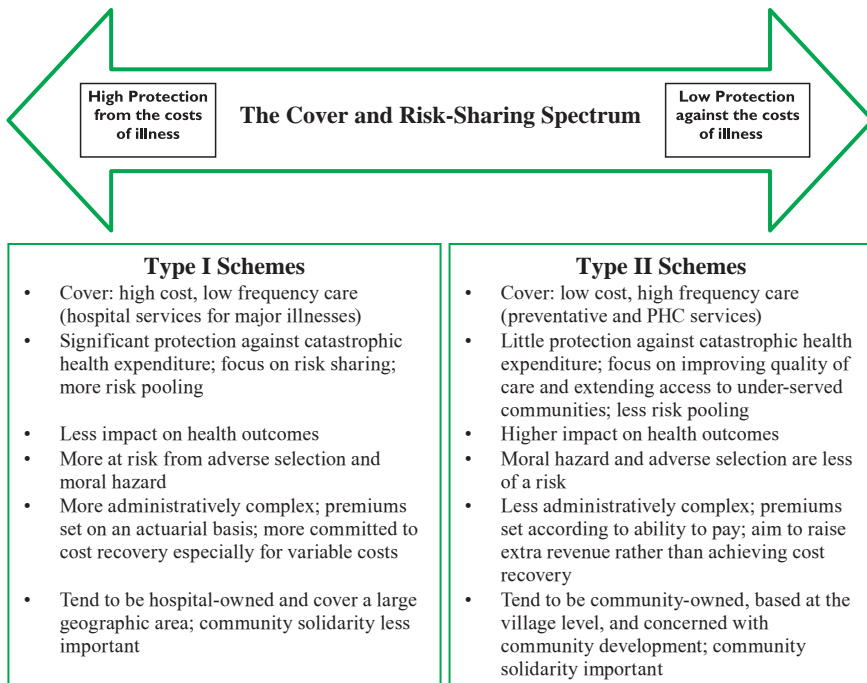


Figure 1 is adapted from: Creese A, Bennett S. 1997.<sup>15</sup>

There are many typologies seeking to classify schemes for the purposes of evaluating them. Bennett et al have developed a typology (Figure 1) that classifies schemes as either Type I or Type II schemes – depending on the services that CBHF schemes cover – which is useful for understanding the existing schemes in Armenia, and for considering future options for their scaling up.<sup>8</sup> Type I schemes are defined as those covering high cost, low frequency events (hospital admissions for major illness episodes); they provide significant protection against catastrophic health care expenditure. Type II schemes are defined as those covering low cost, high frequency events (preventative care, immunisation, family planning, maternal and child health and other primary health care services); they provide much less protection against catastrophic health care expenditure (some protection is achieved via prevention and less frequent need for hospital care), but they maximise the health impact of schemes because they concentrate resources in the areas of preventative services and primary health care. These schemes represent two ends of a risk-sharing spectrum. Figure 1 summarises key characteristics of the main types of CBHF within this typology.

## *The evolution of CBHI as a response to the health sector financing gap*

There are significant constraints on governments' abilities to raise resources via taxation in much of the developing world. In low-income countries, income from taxation is an average 14% of GNP compared to 31% in high-income countries, and per capita GNPs are lower.<sup>16</sup> As a result there are insufficient resources to spend on public services and governments are unable to finance essential health care. The estimates of the size of this health sector financing gap range from 25–50 billion US\$,<sup>17</sup> to over 100 billion US\$.

In the mid-1980s the World Bank promoted user fees as a financing mechanism to bridge the health sector financing gap.<sup>3,18</sup> Another development was the Bamako Initiative,<sup>1</sup> which in 1987 advocated cost recovery for basic drugs to sustain the resources at the primary health care level, with the process managed by the communities themselves. However, there is a growing consensus that the widespread introduction of user fees has had disappointing results. User fees have been ineffective as a revenue-raising tool for the public health system, raising an average of 5% of total recurrent health system expenditure, compared to the 15–20% that the World Bank had expected.<sup>3</sup> There is little evidence that user fees have led to hoped-for efficiency gains;<sup>19,20</sup> on the contrary, there is evidence that they can create perverse incentives that decrease efficiency.<sup>21,22</sup> User fees have also often had negative equity impacts despite attempts to introduce exemption mechanisms to cushion their effect on the poor.<sup>23,24,25,26,27</sup> Targeting public subsidies at the poor to mitigate against the effects of user fees has often benefited the rich more than the poor.<sup>13,28,29,30</sup> Furthermore, because user fees require expenditure at the point of use, they exclude those who are unable to raise resources from accessing the care they need.<sup>23,25,26,31,32,33</sup>

An increasing reliance on user fees and tolerance of informal payments has resulted in out-of-pocket expenditure becoming a significant proportion of total health expenditure in many middle- and low-income countries. For example, in Argentina, Mexico, Columbia and Thailand, between 40–45% of total health expenditure is from out-of-pocket payments. In 60% of countries with per capita incomes below \$1,000, out-of-pocket expenditure accounts for more than 40% of total health expenditure.<sup>2</sup> There is a strong correlation between the proportion of total health expenditure covered by out-of-pocket expenditure and the incidence of catastrophic health expenditure.<sup>34</sup> Catastrophic health expenditure – which occurs when a household's health care expenditure exceeds 40% of their income *after* subsistence needs have been met – can tip individuals and families into long-term poverty because it is funded via borrowing or selling productive assets.

Catastrophic expenditure is a consequence of the fact that user fees as a financing mechanism do not allow for pooling of resources or sharing of risk; the cost of an episode of care is borne entirely by the individual and their family.<sup>2</sup> Risk sharing or risk pooling can be defined as the reduction or "*elimination of the uncertain risk of loss for the individual or household by combining a larger number of similarly exposed individuals or households into a common fund that makes good the loss caused to any one member*".<sup>35</sup> Decreasing catastrophic health expenditure requires the introduction of financing mechanisms that enable risk sharing.

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<sup>1</sup> The Bamako Initiative (BI) was launched by African Ministers of Health in 1987 with support from UNICEF and WHO. The aim of the BI was to generate resources for PHC, and in particular child and maternal health, via the introduction of user fees and pharmaceutical cost-recovery schemes (utilising a revolving drug fund model). Under the BI, such income was supposed to provide resources to improve the quality of services and address equity concerns.

Tax-funded health systems, or systems funded via compulsory social health insurance achieve the high levels of risk pooling; they are able to provide services accessible to all on the basis of need and eliminate catastrophic health expenditure.<sup>1</sup> However, it has proved difficult to institute such health financing mechanisms in low-income countries. Taxation-based health financing has failed to be effective because of weak economies, large informal sectors (which are difficult to tax), as well as inadequate institutional and organisational capacity; the same constraints, with the additional burden of administrative complexity, make compulsory social health insurance difficult to implement too.<sup>36,37,38,39</sup>

Pooling mechanisms in low-income countries are generally weak, and high out-of-pocket health expenditure undermines what pooling mechanisms there are;<sup>13,40</sup> the poor in such countries are largely excluded from formal risk-sharing arrangements. As a result they have no financial protection against the costs of illness or they are unable to access health care.<sup>41</sup> This failure is now widely recognised and in light of the sizeable body of evidence relating to the adverse impacts of user fees, there is a developing international consensus that user fees should not be charged for essential services. A good illustration of this is the World Bank's revised stance on user fees:

*“The World Bank does not support user fees for primary education and basic health services for poor people. Access to these basic services is vital to improving the welfare of the poor in developing countries. ... The Bank supports the provision of free basic health services to poor people.”*<sup>42</sup>

As the result of a number of recent global initiatives – the Millennium Summit (2000) and its associated health-related Millennium Development Goals,<sup>43</sup> the Commission on Macroeconomics and Health (2001),<sup>16</sup> and the Commission for Africa (2005)<sup>44</sup> – there is increasing interest in alternative mechanisms of health financing that ensure fairness in financial contributions while improving financial protection against the cost of illness for the poor and increasing their access to essential health services.<sup>2,45,46,47</sup>

*“With growing recognition of central governments’ limited ability to finance and manage health care, new forms of finance and, perhaps more important, new forms of organisation are being introduced. In low-income countries with poor growth and large informal sectors, a major goal of health reform is to find new ways to organise accessible care of good quality, using a maximum of nongovernmental resources in a transparent manner.”*<sup>15</sup>

Community-based financing mechanisms, which “have evolved in settings with severe economic constraints, political instability, lack of good public sector governance, and impoverishing out-of-pocket user charges” are seen by many governments, donors and NGOs as one financing mechanism that could be useful in such environments to increase risk pooling and access to care.<sup>48,49,50,51</sup> They are increasingly popular because community financing schemes such as community-based health insurance (which allows for risk pooling), or pre-payment schemes (which spread out the cost of health-related expenditure over time), provide some protection from the impoverishing effects of unpredictable expenditure due to illness.<sup>4</sup>

Community health financing schemes are becoming common in countries where public expenditure on health is less than 50% of total health expenditure.<sup>52</sup> However, such schemes, while useful, are increasingly recognised as an intermediate response to expanding risk protection to the entire population.<sup>52</sup> Community health financing schemes are only the first step away from reliance on out-of-pocket financing towards achieving the ultimate goal of universal insurance coverage through some mix of tax-based financing, (compulsory) social health insurance and private health insurance.

The role the CBHI can play in realising a gradual expansion of risk protection over time as more and more people are covered by larger and larger risk pools is illustrated below in Figure 2. It also highlights the supportive donor and government policies that are needed to facilitate different stages of this evolution. At the lower levels of the “risk pooling” hierarchy you have little risk pooling (when health is financed predominately via out-of-pocket payments), while at the top you have maximum risk pooling (when health is financed via universal insurance coverage). Although it is not clear in this figure, social health insurance is not the only option for extending universal protection against the cost of illness (universal “insurance” coverage); universal “insurance” coverage can be achieved via some mixture of tax-financed health care, social health insurance, and private health insurance.

Figure 2. Stages of financial protection and supporting policies

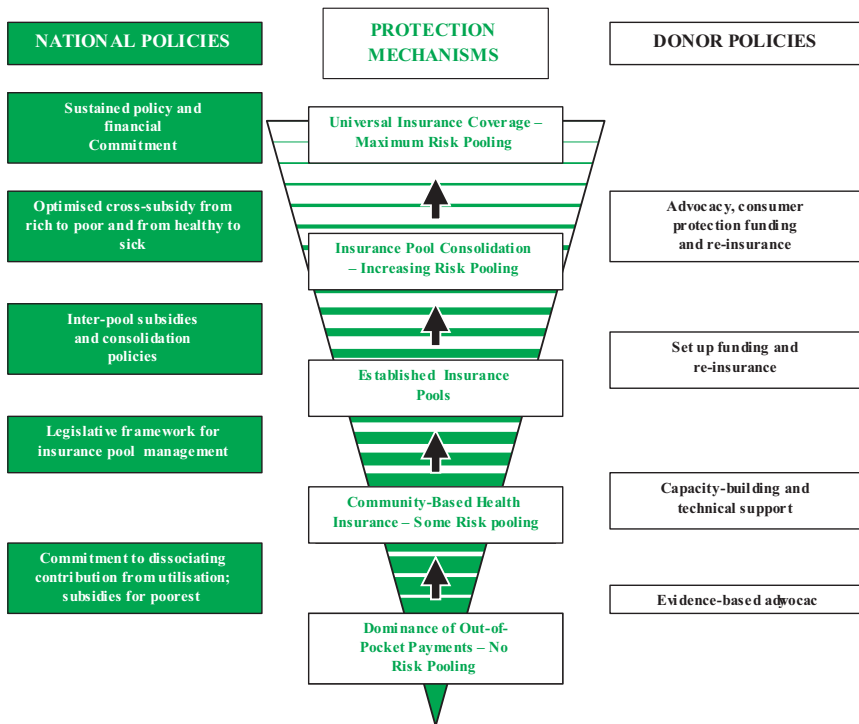


Figure 2 is adapted from: Arhin-Tenkorang D. 2001. *HNP Discussion Paper. Health Insurance for the Informal Sector in Africa. Design Features, Risk, Protection, and Resource Mobilisation.* World Bank, Washington DC.



## The strengths and weaknesses of CBHF

There is now a large literature on the strengths and weaknesses of CBHF, the key points of which are outlined below and summarised in Box 2. There is no contemporary evidence on the impact of CBHF schemes on the health status of their members, although this is not surprising given the methodological challenges of evaluating impact.<sup>5,8,53</sup> However, Hsiao suggests that the Cooperative Medical System (CMS) schemes in China, which were a form of voluntary community-based health insurance, had a significant impact on the health status of members via contributing significantly to China's "first health care revolution".<sup>11</sup> In rural areas, infant mortality was reduced from 200/1000 live births (1949) to 47/1000 (1973–75), and life expectancy almost doubled, from 35 to 65 years.<sup>54</sup> Since the collapse of the CMS, the health status of China's rural population has deteriorated.<sup>11</sup>

There is significant evidence that CBHF schemes make a positive contribution to raising revenue,<sup>9,22,50,55,56,57,58,59</sup> although the amount raised is variable and significantly constrained by low participation rates and the low incomes of the contributing populations.<sup>8,11,50,60,61</sup> With average cost-recovery of schemes at around 30%,<sup>8</sup> it is clear that community financing mechanisms can mobilise significant resources for health care in low-income settings. Furthermore, the involvement of the community – in various forms – allows tapping into more household resources than would be otherwise available for health care.<sup>9</sup> However, it is important to stress that all schemes depended on continuing external subsidies to remain viable; CBHI is not a viable option for *fully* funding primary health care in low-income countries.

Many authors have reported that the increased resources that CBHF schemes mobilise can improve access to drugs and primary health care, with some schemes increasing access to hospital-based care.<sup>11,50,56,58,62,63,64,65</sup> Furthermore, Ekman – in a systematic review of the evidence on CBHF – concluded that community-based schemes (as opposed to provider-based schemes) appear to be more successful in improving access to care.<sup>6</sup> However, while schemes increase access for their members, authors caution that CBHF schemes are not able to reduce the financial access barriers to the poorest.<sup>22,66,67</sup>

Community-based health financing schemes reduce the out-of-pocket expenditure of their members, with improved financial protection as a result.<sup>9,50,51,59,60,64,68</sup> A number of authors have concluded that schemes can achieve significant levels of risk pooling,<sup>ii</sup> and protect against catastrophic health expenditure.<sup>8,50,51</sup> However, the financial protection provided will be dependent on the scope of services covered by an individual scheme – if hospital care is not covered, financial protection will be decreased. Furthermore, because most members are poor, there is little scope for redistribution from rich to poor.<sup>8,9,11</sup> Risk pooling is also limited because schemes are small, the better off choose not to join, and most schemes face substantial adverse selection problems.<sup>iii</sup> This is particularly likely if specific measures to counter adverse selection, such as membership on a family basis, are not incorporated into a scheme's design. The impact of the schemes in terms of risk protection is further undermined because of low average coverage

<sup>ii</sup> In health insurance, **risk pooling** refers to a process where people contribute money to a common fund which can then be used to cover the health care expenses of any members. People who do not use health services effectively subsidise those who do. To be effective and ensure cross subsidy, risk pools need to include the sick and the well, the employed and the unproductive, the young and the old, the poor and the wealthy. The larger the number of members, the more effective the protection of the vulnerable is.

<sup>iii</sup> **Adverse selection** refers to individuals who are more likely to utilise health services (the old, people with chronic diseases etc.) having a greater incentive to join schemes because they benefit from them. This increases the cost per member, which may require premiums to be increased, and escalate costs.

rates,<sup>5,54,57</sup> and the failure of most schemes to cover the least well off.<sup>8,69</sup> Despite these limitations, there is a developing consensus that community financing mechanisms have a useful role to play in increasing financial protection:

*“Community financing through prepayment and risk sharing reduces financial barriers to care, as demonstrated by higher utilisation but lower out-of-pocket expenditure of scheme members... These findings confirm that risk pooling and prepayment, no matter how small scale, improve financial protection for the populations that they serve. The policy implication of this finding is that it is critical to move away from resource-mobilisation instruments that are based on point-of-service payments. If prepayment and risk sharing can be encouraged, it is likely to have an immediate impact on poverty – directly via having an impact on impoverishment through reducing catastrophic health expenditures, or indirectly, by ensuring access to health care, thereby improving health and allowing individuals to take advantage of economic and social opportunities.”* (Jakab et al, 2004)<sup>70</sup>

In terms of equity there is considerable evidence that CBHI can reach a large number of people from low-income populations who would otherwise have no protection against the costs of illness.<sup>9,11,51,56,59,68,71,72,73</sup> As a result, CBHI can have positive equity outcomes.<sup>59</sup> However, the generally low coverage by voluntary schemes of their target populations decreases their positive equity impact, as does the fact that the cost of such schemes can still be a barrier to the poorest.<sup>8,51,59,67,69,70,74,75,76</sup> Geographical access barriers can also undermine equity; people further away from health facilities are less likely to join schemes and those that do have lower utilisation rates.<sup>11,59,64,76,77,78</sup> However, with appropriate scheme design – including strong participatory processes, targeted subsidies, facilitation of contribution payments, ensuring that services are delivered at facilities close to where people live, and effective information campaigns – the poorest can be included and geographical access barriers minimised.<sup>70</sup>

The administrative cost of well-designed schemes can be reasonable (5–10% of total expenditure).<sup>10</sup> The major factors that determine the administrative cost of running schemes relate to the complexity of the schemes and the effectiveness of management structures. As Bennett et al note:

*“All CBHF schemes require a number of supporting administrative and operational systems such as identification systems for scheme members, membership data bases, and financial management systems; the better designed these systems are, the lower administrative costs will ultimately be.”* (Bennett et al, 2004)<sup>10</sup>

However, many CBHF schemes rely on volunteer labour, which is not factored into estimates of administrative costs. Such volunteer input may be difficult to sustain as schemes are scaled up, which could increase the cost of running them. On the other hand, as CBHF is scaled up, schemes tend to become larger, and this can allow for economies of scale to be achieved.<sup>10</sup>

CBHF can result in better allocation of resources, ensuring access to services and drugs that meet communities' needs.<sup>22,54,56</sup> Hsiao cited the Cooperative Medical System (CMS) schemes in China and the Dana Sehat schemes in Indonesia as examples of this,<sup>54</sup> and the introduction of CBHI in Rwanda improved the efficient use of resources including drugs and staff.<sup>59</sup> In contrast, Ekman found no evidence that CBHI improved

efficiency,<sup>6</sup> and others suggest that technical efficiency can be undermined by a failure to define cost-effective packages of care or introduce effective purchasing mechanisms,<sup>5,8</sup> as well as unnecessary use of services due to consumer or provider moral hazard.<sup>iv</sup> Bennett et al noted that the purchasing functions of community health financing schemes tended to be weak,<sup>8</sup> and the ILO review also concluded that few conducted strategic purchasing.<sup>5</sup>

A number of authors have identified moral hazard problems as a significant issue that undermines financial sustainability.<sup>66,77,79,80</sup> Moral hazard problems were particularly marked for schemes covering hospital services and where provider remuneration was on a fee-for-service basis.<sup>66,77,79,80</sup> However, Ekman could find no evidence that the schemes he examined were subject to moral hazard problems. Barnighausen and Sauerborn concluded that the German experience suggests costs can be successfully contained in a fee-for-service system – which is useful for providing incentives for priority services – if provider moral hazard is controlled via political pressure and technical mechanisms. However, other authors suggest that in Germany both provider and consumer moral hazard remains a problem.<sup>81,82</sup>

Introducing mechanisms to control adverse selection is vital to ensure both control of costs and adequate risk pooling. This could be achieved through enrolment on a family basis and compulsory membership. As community-based health insurance schemes are expanded, managing financial instability becomes more important. Mechanisms to address this include: combining small schemes and introducing compulsory membership to increase cross-subsidisation between members (Korea, Taiwan, Japan, Germany); government underwriting; and re-insurance.

Key mechanisms for realising such efficiency gains include incorporation of high-priority cost-effective services in the benefit package, and more efficient utilisation of staff. There is evidence that improving drug procurement and distribution mechanisms can result in cost savings of 40–60% and improve drug availability.<sup>83,84,85</sup> Strategies for better procurement and prescribing include: the use of essential drug lists to guide prescribing and procurement, which requires harmonisation with government policy; procurement via competitive tendering; improved storage and distribution; and the introduction of security systems to reduce theft.<sup>86</sup> Implementation of these strategies with scaling up CBHI would be useful from an efficiency perspective, and would require integration of schemes with the broader health system in a manner that ensures transparency and fairness in the procurement process to prevent corruption.<sup>87</sup>

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<sup>iv</sup> **Moral hazard** refers to the overuse of services by patients (consumer moral hazard) or the overuse of diagnostic and treatment options by health professionals (provider moral hazard) that results because a third party is covering the cost of services (the community financing scheme in this case).

## Box 2. Strengths and weaknesses of CBHF: the international consensus

- There are no recent evaluations of the impact of CBHF on the health status of scheme members; the Cooperative Medical System in China provides a historical example of CBHF contributing significantly to lower infant mortality and increasing life expectancy.
- Well-designed CBHF schemes increase access to care and drugs that meet communities' needs, and can be effective in reaching low-income populations who would otherwise have no protection against the costs of illness. The poorest are still excluded, especially in the absence of significant subsidies.
- Administrative cost can be reasonable (5–10% of total expenditure); CBHF can result in better allocation of resources and increased efficiency.
- CBHF schemes can help to improve the quality of care.
- CBHF can contribute to raising revenue in low-income settings, but are constrained by the low incomes of their members. Schemes require external subsidies to be sustainable.
- CBHF schemes reduce the out-of-pocket expenditure of their members while increasing their utilisation of health care services, with improved financial protection as a result.
- Most schemes encounter adverse selection, which can significantly undermine schemes' abilities to pool risk and limits the scope for redistribution from the healthy to the sick.
- Schemes tend to have population coverage rates of around 30%, with small risk pools. Since most CBHI members are poor, there is little scope for redistribution from rich to poor.
- CBHI schemes can enable communities to have a voice in health policy and advocacy.
- Popular participation in scheme management makes the schemes more accountable and responsive to the needs of the communities that they serve, and counters corruption.

### *Scaling up CBHF and integrating it with the broader health system*

There is increasing international interest in scaling up CBHF mechanisms to improve access to health care and increase financial protection against the cost of illness. This section presents evidence from high- and low-income countries on the long-term contributions community financing has made to key health policy objectives, including increasing population coverage, financial protection, equity, efficiency and quality of care. The importance of good governance, government stewardship and social capital in this process is also discussed. There is a developing consensus on the scheme characteristics that are essential for success, and the constraints to scaling up. The constraints are related to: the political, social and cultural context within which CBHF schemes operate; generic problems with insurance; scheme design and management problems; and a lack of integration with the broader health care system (Table 1).

Table 1. Characteristics for success in scaling up and integration of CBHI

Scheme characteristics	Features supporting high participation rates, effective revenue collection and financial protection	Features undermining high participation, revenue collection and financial protection
<b>Technical design characteristics</b>	<ul style="list-style-type: none"> <li>• Addressing adverse selection (group membership; capitation-based payments and salaried remuneration for providers, compulsory membership).</li> <li>• Widening risk pools protects against financial instability (combining small schemes; reinsurance; government or donor underwriting).</li> <li>• Mechanisms to address provider moral hazard and fraud.</li> <li>• Designing contribution schedules to accommodate irregular income.</li> <li>• Subsidies for the poor of 50–100%.</li> <li>• Participation depends on: good scope and quality of care; geographical proximity; minimal co-payments; effective marketing; high levels of social capital.</li> </ul>	<ul style="list-style-type: none"> <li>• Non-compliance, evasion of membership payments.</li> <li>• Adverse selection.</li> <li>• Small risk pools.</li> <li>• Moral hazard and fraud.</li> <li>• Cash-poor local economies.</li> <li>• No cash income at the time contributions are due.</li> <li>• Low quality of care; geographical access barriers; high co-payments; poor marketing.</li> <li>• A lack of subsidies for the poor.</li> <li>• A failure to address key determinants of participation.</li> </ul>
<b>Management characteristics</b>	<ul style="list-style-type: none"> <li>• Community involvement in management is central to trust and accountability.</li> <li>• Capacity building at the managerial level; regional support structures.</li> <li>• Adequate health information systems to inform decision making and quality control.</li> <li>• Increasing management capacity is essential to sustainability during scaling up.</li> </ul>	<ul style="list-style-type: none"> <li>• Provider capture of scheme management leading to increased pay for providers at the expense of improvements in service quality.</li> <li>• Weak supervision structures negatively affect quality of care and increase opportunities for fraud and corruption.</li> <li>• Poor control over providers and members contributes to moral hazard, cost escalation, and undermines sustainability.</li> </ul>
<b>Organisational characteristics</b>	<ul style="list-style-type: none"> <li>• Linkages with providers enable the negotiation of preferential rates.</li> <li>• Integration within broader health system increases quality and the scope of services.</li> <li>• Links to broader development initiatives strengthens CBHF schemes.</li> </ul>	<ul style="list-style-type: none"> <li>• Weak linkages with providers.</li> <li>• Poor integration within broader health system and fragmentation between inpatient and outpatient care leads to inefficiency and waste.</li> <li>• Failure to embed CBHF in development initiatives.</li> </ul>
<b>Institutional characteristics</b>	<ul style="list-style-type: none"> <li>• Sustained government and donor subsidies and support improves the sustainability and pro-poor orientation of the schemes.</li> <li>• Effective government action in: defining policy objectives; developing a legal framework; developing guidelines and formal accreditation processes; legislating for compulsory membership.</li> <li>• Scheme evolution over time to adapt to a changing context.</li> </ul>	<ul style="list-style-type: none"> <li>• A lack of government support and financial subsidies leads to scheme failure.</li> <li>• Lack of clearly defined policy objectives; inadequate legal frameworks; and a lack of guidelines.</li> <li>• Failure to institutionalise flexibility.</li> </ul>

Table 1 is adapted from: Jakab M, Krishnan C. 2001. Community Involvement in Health Care Financing. A Survey of the Literature on the Impacts, Strengths, and Weaknesses. Commission on Macroeconomics and Health WG3 Paper 9.

### Analytical frameworks for scaling up CBHF

Conceptually, expansion of CBHF schemes needs to be considered in two dimensions. First, expansion can occur in terms of the scope of service covered. This is called vertical expansion and usually requires integration with the broader health system to allow access to more services (although in theory CBHF schemes could expand to become a parallel health system). A number of issues must be dealt with if integration is to be successful: referral mechanisms (gate keeping, shared care arrangements, specialist outpatient clinics in primary care facilities); financing issues (who pays for what elements of service delivery, and where the money is to come from); integrating health information systems; management structures; support and supervision; and monitoring and accountability. Second, there is horizontal expansion to increase population coverage. Horizontal expansion requires increasing the geographical coverage of the schemes to include more population centres or extending coverage to new population groups. One potential benefit of horizontal expansion is economies of scale (e.g. the potential to realise savings via shared procurement of generic drugs via an international contracting process, the spreading of fixed costs etc.). Another benefit is the potential to increase risk-pooling, which contributes to the financial stability of schemes, enables greater cross-subsidy and increases the extent of the financial protection that can be achieved. This is especially true if the schemes are made compulsory or can be expanded to cover costs associated with hospital care.

Analytical frameworks have been developed to guide decision making when considering the feasibility of scaling up community insurance or introducing social health insurance.<sup>88,89,90,91</sup> Van Ginnekin (2003) points out that prior to a move towards compulsory health insurance, policy makers should examine the socio-economic, political and socio-cultural situation, as well as the health sector's capacity, particularly human resource constraints. The level of political commitment to support national schemes and the relative size of the informally employed and rural populations – which are difficult to include in insurance schemes – are also important. Ranson and Bennett's framework outlines the strategies governments can adopt to improve the efficiency, impact and sustainability of schemes, such as: forging a consensus on the health policy objectives to which community financing would contribute; overcoming environmental constraints; addressing the generic problems with insurance; and critically assessing scheme design and management structures and the potential for integration with the broader health care system.<sup>89</sup>

While there is a growing literature on scheme design and implementation,<sup>8,13</sup> little attention has been paid to the process of deciding whether or not to scale up community financing models in the first place. Indeed, the desirability of an expanded insurance model as a tool to increase coverage, vis-à-vis taxation, has been taken for granted. However, a framework developed by Normand and Weber – which was originally developed for scaling up social insurance – highlights key issues that need to be addressed when the scale up of CBHI is being considered. In particular, it highlights the need to consider the appropriateness and feasibility of CBHI given the local context.<sup>90</sup> It outlines three phases: a decision making phase, a design phase, and an implementation phase (Figure 3).

Figure 3. Scaling up community insurance: key steps in decision making

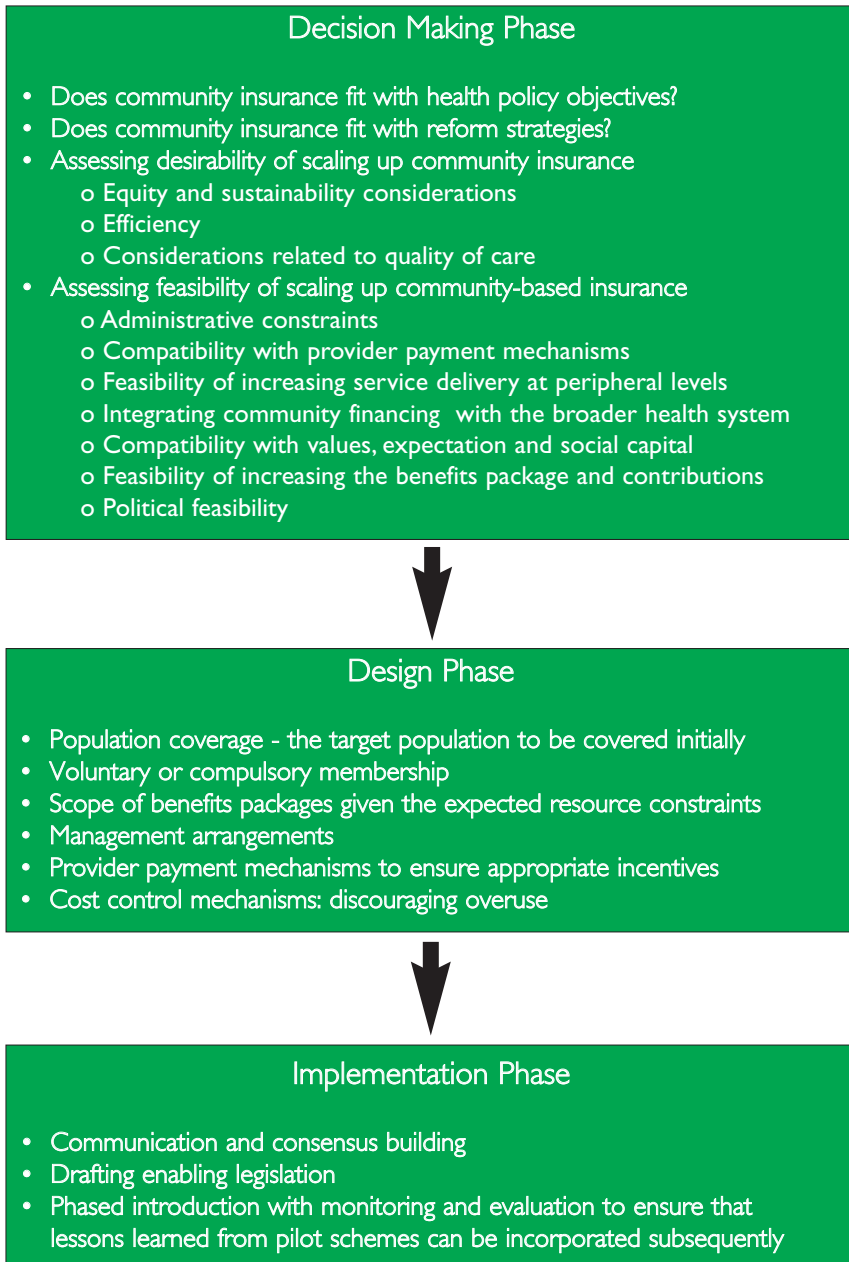


Figure 3 is adapted from Normand & Weber.<sup>90</sup>

### Expanding coverage – a gradual process facilitated by growth

There are examples of countries that have overcome these constraints. The growth and consolidation of small-scale community financing schemes made a significant contribution to the introduction of national social health insurance schemes in Germany and Japan.

The Jyorei schemes in Japan began as village-level voluntary health insurance schemes for low-income rural populations. Their scaling up was facilitated by the government via the development of a legal framework within which the schemes operated, as well as the definition of policy objectives for the national-level schemes into which they were incorporated. Between 1934 and 1935, the government piloted community-based health insurance programmes based on the Jyorei system. These became the basis for the National Citizen's Health Insurance Fund (NCHIF), which still covers 34% of the population;<sup>92</sup> in combination with other insurance schemes, it has enabled the Japanese to extend universal health insurance cover to their population. A law detailing the legal framework for the NCHIF was passed in 1938, and the NCHIF eventually incorporated the existing Medical Cooperative Societies (which the Jyorei had already been integrated with). The final step to ensuring universal coverage was the introduction of legislation for mandatory health insurance in 1961.

In Germany, small voluntary health insurance schemes – the relief funds that developed as mutual support systems in the medieval craft-based guild system – laid the foundations for the rapid expansion of insurance coverage in the 19th century.<sup>93</sup> This process led directly to the development of a national health insurance system which has proved to be successful in terms of raising revenue and in providing universal access to health care.<sup>93,94,95</sup> Again the process was driven by the government via the promulgation of a series of laws that moved progressively from defining general principles to concrete rules, gradually introduced more compulsion, and expanded their remit from a local level to regional and eventually supra-regional level. Finally, in 1883 Bismark legislated to introduce the first compulsory national insurance scheme for workers in formal employment. Over time, compulsory insurance cover expanded incrementally until universal coverage was achieved around 1960; this expansion included both increased population coverage, and increased scope of services.<sup>93,94</sup>

The Jyorei schemes facilitated the introduction of national insurance mechanisms through developing technical and management expertise, and enhancing population familiarity and demand for insurance coverage. The Jyorei provided a successful working model that subsequent insurance schemes were able to build on. A similar experience has been documented in Germany.<sup>93,94,95</sup>

The significant expansion of community financing in Germany and Japan – as part of a drive to introduce national insurance mechanisms – occurred during periods of significant economic growth. This is also true for Korea, which averaged 6.1% growth from 1975–2002.<sup>96,97</sup> As incomes increased, contributions became more affordable, and the government was able to collect sufficient tax revenue to subsidise health insurance for the informal and agricultural sectors.

While extension of insurance to the formal sector in Korea was relatively easy – a phenomenon observed in Germany and Japan too – attempts to extend compulsory coverage to the informal and agricultural sectors, and integrate such schemes nationally, were problematic.<sup>97</sup> Farmers resisted such moves and the government adopted a number of strategies to encourage their participation, including: lower contribution rates based



on income rather than assets; higher subsidies (50% compared to 33% for urban participants); and investment in infrastructure and human resources to improve the quality of services and overcome supply-side constraints. All of these strategies depended on the increased resources available as a result of economic growth.

The Cooperative Medical System (CMS) in China is another example where scaling up CBHI was significant in expanding coverage.<sup>98</sup> The system consisted of rural insurance schemes providing primary care that were well integrated with higher levels of care. At its peak, it achieved a coverage of over 90% of China's estimated 800 million rural population.<sup>8,54,99,100,101</sup>

Thailand has achieved progress towards universal financial protection via incorporating a number of different financing mechanisms into the national health financing policy framework.<sup>102</sup> The mechanisms include the Thai health card, a form of CBHI that is heavily subsidised by the government and targeted at the poor. It now covers around 3 million people reliant on farming and informal income.<sup>54</sup> Other mechanisms include insurance schemes for government workers as well as earmarked tax-based funding to cover the cost of care for the elderly and children. Scaling up of the health card scheme (in terms of participation, geographical coverage and the scope of benefits) has been accompanied by increasing integration with the wider health system. Taken together, the different health financing measures have led to coverage against the cost of illness for an increasing proportion of the population. However, a significant proportion of the population remains without insurance cover or access to publicly funded care (28% of the population in 1995).<sup>103</sup>

Vietnam provides another example of CBHI as one component of a pluralistic health financing system. It has experienced limited success with using voluntary community-based health insurance schemes, targeted at the 90% of the population that is not covered by the compulsory insurance arrangements for large enterprises and civil servants. Again this has occurred as part of a drive to achieve national insurance coverage. However, the coverage achieved to date has been disappointing; by the end of 1997, the percentage of the population insured under the schemes was 5.5%, although this represented 4 million out of a potential 38 million eligible to join.<sup>73</sup>

Countries have followed a strategy of gradual expansion of voluntary CBHF schemes for the informal sector and compulsory health insurance for the formal sector. Over time, schemes are expanded to other groups or merged into larger health insurance funds. However, economic development and political stewardship remain a prerequisite for the extension of health insurance to the entire population.

### **Equity and protection for the poor – the need for subsidies and larger risk pools**

From an equity perspective, securing subsidies aimed at lowering the cost of membership for the poorest people is crucial. Hsiao concluded that the subsidies need to be of the order of 50–100% of the cost of membership.<sup>54</sup> Even with heavily subsidised premiums, other barriers will remain that should be addressed to ensure positive equity outcomes. In particular, the cost of transport, hotel expenses (food and other expenses incurred during a hospital stay), opportunity costs and geographical access barriers may prevent the poorest from accessing care, even if it is free at point of use.<sup>104,105,106,107</sup> Additional targeting to address these barriers is needed. However, the literature on user fees suggests that targeting mechanisms often fail to benefit the poor, which suggests that targeting mechanisms for CBHI need to be carefully designed.<sup>20,108</sup>

More recently, new approaches have been pioneered for targeting subsidies – such as proxy means testing, conditional cash transfers, and health equity funds – that are demonstrably pro-poor.<sup>107,109,110</sup> Some of these approaches could be usefully incorporated into CBHI schemes. For example, health equity funds have proven useful in overcoming the financial barriers to care that remain even if access is free at point of use, as experience in Cambodia demonstrates.<sup>107</sup> However, to date the evidence base on effective mechanisms for ensuring pro-poor health outcomes is weak. For this reason, ongoing monitoring and evaluation of the equity impacts of CBHI linked to flexible programmatic adaptation will be essential if equity issues are to be addressed as CBHI is scaled up.<sup>109,110</sup>

In Vietnam, in response to recommendations from a collaboration between the WHO and the Vietnamese Health Insurance Agency, inter-provincial risk-sharing is now possible following approval for the redistribution of funds between provinces. This provides schemes in poorer provinces with a cross-subsidy and is a way of increasing the degree of risk pooling.<sup>73</sup> This policy is explicitly designed to increase equity between regions.

In Thailand, the government provides a matching subsidy – which effectively integrates the health card scheme with public health financing mechanisms – so that individuals purchasing cards only pay 50% of the cost. Additional unintended cross-subsidy occurs in Thailand due to the fact that budgetary allocations from the Health Card Funds are insufficient to cover the cost of the services provided at public health facilities. The result of this is that the public providers effectively subsidise the provision of services for cardholders; however, as a result practitioners have a disincentive to treat health card holders and provide them with inferior quality care. None of these subsidies would have been possible if Thailand had not experienced sustained economic growth, averaging 5.1% from 1975–2003.<sup>111</sup>

The German experience illustrates the importance of merging individual funds as insurance mechanisms are scaled up to expand the size of risk pools. This can be beneficial from an equity perspective because it increases the potential for cross-subsidy. However, if there is competition between insurance funds, they have an incentive to exclude high-risk/high-cost patients (which conflicts with health system equity goals). Mechanisms such as risk-equalisation schemes mandated by the government need to be introduced to ensure the health insurance is socially inclusive.

According to Bennett, the equity impact of community financing schemes should be assessed not only at the scheme level but also at a system-wide level.<sup>112</sup> Even if community health financing schemes are equitable per se, they may not contribute to increased overall equity within health systems; if they capture subsidies that had previously been targeted at the most disadvantaged – who often cannot afford to join the schemes – the poorest people may become worse off, with decreased access and increased risk of catastrophic expenditure.

New problems can be created by the way the schemes are linked to the broader health system. In Vietnam for example, CBHI schemes purchase outpatient care from public hospitals, but not from commune health facilities (which are close to where people live) or from the private sector (where care is perceived to be of better quality). This probably has a negative equity impact on poor rural people and contributes to low participation rates; it makes the schemes less attractive to join because the care covered is perceived to be of inferior quality, and it increases travel and opportunity costs.<sup>73</sup> A similar problem has been identified in Thailand, where again the Thai health card entitles people to care only in designated public facilities.

### Increasing the scope and quality of service

Integration between different levels of clinical service delivery can significantly strengthen schemes and facilitate an increase in the quality and scope of services covered. This is achieved via avoiding unnecessary duplication of services, which increases efficiency. Improving the scope and quality of care motivates people to join the schemes and use services. Schemes can also contribute to increasing the quality of care via purchasing mechanisms such as contracts that stipulate performance-related requirements, although many schemes fail to use such mechanisms effectively.<sup>8,54</sup> Ekman, however, concluded that there is weak evidence that CBHI schemes have an effect on quality of care.<sup>6</sup>

The Jyorei schemes in Japan provide an example where scaling up and integration increased the scope of services that members of community health financing schemes were able to access.<sup>92</sup> Hsiao cites the Cooperative Medical System (CMS) schemes in China and the Dana Sehat schemes in Indonesia as examples of community health financing schemes that have produced measurable gains in service quality. The integration of different levels of care in the cooperative medical system of China prior to the 1980s enabled members to access a broad range of services, from PHC at the village level to five basic specialty services at the county hospitals.<sup>54</sup> The collapse of the CMS had a significant negative impact on the scope of care accessible in rural areas, due to the loss of supervision and training previously provided by higher levels of care and the weakening of the government's monitoring and regulation of the rural health system.<sup>54,113,114</sup>

According to Barnighausen and Sauerborn, Germany's experience demonstrates that a trade off has to be made between the scope of services that CBHI offers and affordability. They suggest that the benefit package should be adapted incrementally in light of both the population's health needs and their economic circumstances. This is important to ensure that schemes are financially sustainable.<sup>93</sup>

Failure to include the private sector can undermine quality of care. In Thailand, under the health card scheme care is provided on a capitation basis only at public health facilities. However, the poor quality of care in the public health system has been identified as one disincentive to buying health cards, and some scheme members elect to seek care in the private sector even though they are entitled to free access at public facilities. In Vietnam, membership of the voluntary CBHI schemes also only entitles members to access services via the state system, where the quality of services is low. Jowett et al found that the insured received poorer quality of care in terms of longer waiting times and poor customer service, when compared to users who paid out-of-pocket.<sup>73</sup> Many people prefer to pay for care in the private sector, including people who are enrolled in the insurance schemes. The schemes also only allow access to hospital-based inpatient and outpatient treatment, and this makes the schemes less attractive since easily accessible PHC services at commune health centres have to be paid for. In Rwanda, the government-initiated community-based schemes have failed to build stable partnership and referral systems with mission hospitals, reducing access to providers that are widely perceived to be delivering good quality care.

Service quality (relative to other treatment options) has an impact on participation in voluntary schemes, as the Thai experience shows, while experience in China, Thailand, Vietnam, Indonesia and Korea all point to affordability being a major constraint. The extent to which services are provided locally is another key factor

(China, Thailand). High co-payments and informal user fees make schemes less attractive to join. The effectiveness of communication strategies is also important as the benefits of voluntary CBHI schemes need to be marketed.

### The importance of social capital

Social capital – a measure of how much people within a society are willing and able to help each other – is regarded as an important determinant of individuals' willingness to pay for CBHI (along with expected economic and quality gains);<sup>54</sup> willingness to pay in turn is a key determinant of whether or not a CBHI scheme is feasible and sustainable. A recent World Bank study in China demonstrated that there is a significant relationship between social capital, willingness to pay for CBHI, and actual enrolment in such schemes.<sup>115</sup> Findings from five household surveys carried out for the Commission for Macroeconomics and Health also provide evidence to support the importance of social capital.<sup>7</sup> In addition, Hsiao has concluded that social factors influence people's decision to join CBHI schemes.<sup>11,54</sup>

Social capital can be operationalised in four dimensions: links within communities; links between communities; links between different institutions; and links between governments and their citizens. High levels of social capital within communities have assisted in the setting up of CBHI schemes. However, low levels of social capital in the other dimensions (weak links between different communities, weak institutional links and weak links between governments and their citizens) may make it difficult to scale up CBHI schemes and increase the size of risk pools via merging schemes. Put simply, people may be happy to subsidise their neighbour, but not happy to subsidise people in another village; people may trust local community representatives to carry out the governance role of a CBHI scheme, but not trust regional or national "community" representatives to do so; people may not trust the government and feel uncomfortable at giving government representatives any role in CBHI schemes at all. In this sense, social capital issues can be seen as one of the constraints on scaling up CBHI schemes.

### The importance of government stewardship

Political stewardship is also important in expanding the coverage of community schemes. In the examples of Japan and Germany described above, government action was needed to expand and consolidate community financing schemes and integrate them with the broader health financing system. This role included enacting supportive legislative and regulatory frameworks which defined policy objectives, the scope of services to be covered, and quality standards. They also provided significant financial support. Finally, when the schemes became more significant in their scope, legislation for mandatory membership and cross-subsidisation was passed.

The Cooperative Medical System (CMS) in China provides another example of the importance of government support.<sup>98</sup> In the 1980s, political and financial support for the CMS was withdrawn by the central government, and local financial resources diminished due to the collapse of the collective system. As a result, by the mid-1990s, only 8% of the rural population were still covered,<sup>114,116</sup> compared to a coverage of over 90% at the scheme's peak.<sup>8,54,99,100,101</sup> The loss of political commitment and state financial support were key factors contributing to the collapse.

In Thailand, there has been longstanding central government involvement in community financing.<sup>102</sup> There has been increasing integration between schemes and

the public health system at the policy level, at the service delivery level, and in terms of public health financing and management. Management of the health card scheme has been integrated with the management structure of the public health system, first at the district level, then regionally and provincially. This was intended to increase the size of risk pools, and to overcome the problems related to the variable quality of fund management. It has been useful for ensuring that schemes have access to the necessary technical and managerial expertise to develop more complex risk-management mechanisms such as inter-regional risk pooling and re-insurance, although there remains a recognised need for further capacity building in key areas such as actuarial accounting and risk management.

However, as some authors have observed, the failure to integrate multiple government-supported risk pools (health card scheme, publicly funded care for the elderly and children, government-supported insurance schemes for civil servants and state enterprise employees) is problematic from the point of view of both efficiency and equity. It increases administrative costs, can lead to cream skimming, and makes it very difficult to assess the impact of subsidies and ensure that they are equitably channelled through the different schemes.

In Rwanda, community health financing has been incorporated into national health policy and health sector reform strategies. One example of this process is the introduction of user fees – without which there would be no incentive to join the schemes – concurrently with the establishment of Community Health Funds, a form of prepayment scheme for primary care services targeted at the rural population and the informal sector. “The Community Health Fund Act” in 2001 established Community Health Funds as part of the official health financing plan at the local/community level. The objective from the outset has been that the Community Health Fund mechanisms should be scaled up nationally, and the schemes have been integrated into the management structure of the public health system. Tapping into existing managerial expertise has enabled the rapid scaling up of the schemes. However, this approach has not been without trouble; problems identified include a need to strengthen the capacity of the District Health Management Team to provide supervision and technical support, and a need for capacity building in key technical areas, including financial management and health information systems. The top-down approach to integration has also undermined community participation; there is a recognised need to develop mechanisms to encourage community participation in managing the Community Health Funds as scaling up continues.

The Ghanaian government has also recently introduced the National Health Insurance Act (2003), mandating that all districts establish CBHI schemes. However, early indications are that there have been problems with the rapid scaling up of CBHI, particularly related to health system capacities in key areas.

The integration between community financing schemes and the government-supported system at a managerial level can create problems; the issue is essentially one of trust, accountability and legitimacy. For example, in Vietnam community management structures, and their close links to government in terms of management, supervision and planning, have led to negative perceptions of the schemes (as ‘government schemes’). This undermines the schemes; suspicion of state involvement has been identified as a constraint to increasing participation.

### Scaling up community financing: determinants of success

Development and scaling up community financing is dependent on socio-economic and political context in a country – a successful model in one context may not be replicable in other settings.<sup>117</sup> Nevertheless, certain factors appear to be associated with sustainable schemes that contribute usefully to increased coverage and financial protection. Carrin and James have identified a number of factors that facilitate the transition to universal coverage via social health insurance, and their work has informed the discussion that follows.<sup>118</sup>

The first factor is rising income levels due to economic growth. Increasing levels of income are important for two reasons. First, as people become richer, they are more likely to be able to afford contributions to voluntary financing schemes. Second, increasing incomes increase government tax revenues, allowing them to support scaling up financially; subsidies for the poorest are essential if they are to be included. Korea, Germany and Japan illustrate the importance of relative affordability and subsidies for achieving good coverage with health insurance schemes. However, China, Thailand, Vietnam and the Dana Sehat schemes in Indonesia (which had an estimated total membership of 21 million in 2000)<sup>54</sup> suggest that even at lower income levels, community financing mechanisms can make a significant contribution to increasing coverage provided schemes are well designed and there is sustained government commitment and subsidies.

Addressing the risk of scheme bankruptcy as a consequence of unpredictable fluctuations in demand is also important if scaled up schemes are to be financially sustainable. Reinsurance, whereby individual schemes insure against such risk, has been recently promoted as one solution to this issue,<sup>119</sup> although this strategy may be difficult to implement in countries with under-developed capital markets and financial institutions. Government underwriting of such risk is another solution. Both mechanisms would need to deal with potential negative impacts on efficiency; if a third party will make good the deficits of scheme budgets, there is less incentive to control costs.

Another important factor relates to the characteristics of the population to be covered, including its age structure, socio-economic differentials and the relative sizes of the urban and rural populations. A number of authors have highlighted the importance of the relative sizes of the formal and informal sectors as a determinant of the feasibility of introducing voluntary and social health insurance (Bennett, Carrin, James, etc.). The urbanisation that accompanies growth increases the size of the formal sector and increases population densities; both make collection of contributions easier, and higher population densities make service delivery more cost-effective. Informally employed and rural populations in sparsely populated areas are more difficult to include in insurance schemes and to provide services for; including them in national insurance mechanisms requires significant subsidies and appropriate scheme design. The age structure is important not only because the dependency ratio affects per capita resource availability, but also because it affects patterns of morbidity; in many settings, chronic disease – which is typically more prevalent in older age groups – poses significant challenges to community-based schemes because it increases demand and therefore costs.

Scaling up community financing also faces constraints related to health system deficiencies.<sup>120</sup> In many settings the care that can be provided under community financing schemes is limited by deficits in health system capacity, including shortages of

human resources, poor infrastructure, and inadequate supplies of drugs and medical consumables. Legislative constraints on the clinical roles of health practitioners – such as nurses not being allowed to prescribe drugs and specialist monopolies on certain types of service provision – limit the feasibility of increasing benefits packages. Sufficient managerial and technical capacity is also central to scheme development, and a lack of capacity in these areas constrains scaling up. In many cases, donor commitment is essential to support scheme development; a lack of donor commitment to long-term funding constrains scaling up.

Many of the shortcomings of CBHI relate to problems with scheme design, weak management and a lack of institutional development.<sup>8,54,76,102,121</sup> For small schemes, initiating NGOs provide the necessary technical support; developing local capacity in key areas is seen as essential to ensuring institutional sustainability once NGO technical support is withdrawn.<sup>10,47,62,102</sup> Hsiao reports that in China a lack of organisational capacity and a lack of policy support from higher level government were cited by 40% of community leaders as a reason for the failure to restart the Cooperative Medical System.<sup>54</sup> Poor organisation and managerial failure has also been cited as one of the explanations for the weak performance of the voluntary CBHI in Vietnam,<sup>73</sup> and for problems with the introduction of inter-regional risk pooling and scaling up the health card scheme in Thailand.<sup>54,102</sup> As risk pools expand and the packages of services covered by schemes increase, demand for managerial and technical expertise increases; scaling up must be accompanied by a scaling up of technical and managerial support mechanisms, and building indigenous management and technical capacity is central to this process. Setting up umbrella organisations to provide the necessary technical and managerial support as community financing schemes are scaled is one suggested solution to this problem.<sup>8,62</sup> Such organisations have been established in both Senegal and Ghana, for example.<sup>10</sup>

High levels of social capital are necessary at the scheme level; expansion and a move to social insurance similarly require high levels of social capital. High levels of social capital are central to maintaining transparent and accountable local management structures, which mean that members are more likely to trust the scheme and believe they will receive their entitlements; this encourages people to join voluntary schemes. Social capital underpins an acceptance of cross-subsidisation. Community ownership also gives legitimacy to the schemes as representatives of communities are able to facilitate their input into the evolution of the health policy agenda. Low levels of social capital, due to migration, heterogeneous populations, and a distrust of government institutions can hinder scheme development. For example, Jowett et al identified suspicion of state-implemented schemes in Vietnam as one of the constraints to increasing membership.

Linking insurance schemes to livelihoods programmes such as micro credit schemes has been successful in overcoming affordability as a barrier to scheme membership, as shown by the example of the BRAC scheme in Bangladesh.

The importance of political stewardship and good governance in expanding access to care and financial protection has been increasingly recognised in recent years.<sup>2</sup> Harmonising the objectives of community financing with the national health policy objectives seems to be important as CBHI is scaled up. Political commitment by governments that translated into the development of appropriate legislative frameworks and sustained financial support was central to the move towards universal coverage in

Japan, Korea, and Germany. It has also been important in contemporary low-income settings such as Thailand and Rwanda for making progress towards this goal through the implementation of community financing mechanisms. Generally, as membership of schemes increases and a transition to universal coverage becomes feasible, compulsory membership is mandated in order to maximise risk-sharing and cross-subsidy.

Some authors point out that even if technical capacity is adequate, poor governance or prescriptive government-led “top-down” approaches may undermine scheme transparency, accountability, local ownership and responsiveness to needs.<sup>89,112</sup> Scaling up community schemes in these circumstances and linking them to the wider system may not produce the desired benefits, such as expanded coverage and community ownership.<sup>112</sup>

Integration of community financing with existing health systems and policies appears to be a prerequisite for successful scaling up of CBHI and increasing the scope of services. However, although integration of financing flows and service provision can help to avoid duplication and achieve economies of scale, donor-supported schemes often operate in parallel to the government services. As the examples of the Thai health card and the CMS in China illustrate, integration is central to expanding coverage, increasing the scope of services, increasing efficiency and sustainability. In Thailand, inter-regional risk pooling, the setting up of a re-insurance mechanism, and developing capitation-based payment systems for providers were possible only as a result of the significant technical capacity within the public health system. Voluntary schemes can bring innovation and skills to the broader health system, as the historical development of Germany’s SHI schemes illustrates.

Integration is also needed because new technologies, longer treatment regimens for HIV/AIDS and TB, and the challenge of increasing chronic disease burdens in developing countries create increased demand for health services that involve different types of health professionals at different levels of care. More efficient purchasing and distribution of drugs also requires the development of integrated systems at some level. Similarly, rational prescribing – which could significantly reduce costs and make drugs more accessible – is predicated on the development and implementation of an essential drug list at a national level.<sup>83,86,122</sup> A failure to develop mechanisms to integrate schemes with the wider systems and ensure that scheme-level objectives complement national objectives may hamper institutional and financial sustainability of the schemes.<sup>123</sup>

However, the process of integration of community financing with the mainstream system can create complex technical demands. For example, the Thai experience shows that integration is administratively complex, and dependent on large investments in health information systems and building the management capacity of fund managers. As coverage increases and smaller schemes are merged into larger risk pools, there may be significant demand to develop new financing mechanisms (e.g. capitation-based subsidies, re-insurance, inter-regional risk pooling). New remuneration mechanisms may also be needed to link provider payment to the quantity and quality of services delivered. These developments would require building integrated health information systems, defining basic care packages, implementing quality control measures and establishing independent regulators, as well as institutionalising the separation of purchaser and provider functions.

Attempts to scale up CBHI must find a balance between delivering effective services that meet communities’ needs and ensuring that the cost of joining schemes remains



affordable. There is also a tension between maximising health outcomes, which necessitates that priority be given to preventative and primary health care services (which benefit the poorest groups most), and providing protection against catastrophic health expenditure via covering hospital care (which affects the poorest groups most). Schemes should continue to evolve over time and be flexible enough to respond to new economic and social realities, changing morbidity and population trends, medical technologies and reforming health systems.

## IV. The Armenian Context

### *Country background and health system reform in Armenia*

Armenia, with a land area of 29,400 km<sup>2</sup>, is the smallest of the three South Caucasus states in size. It has a population of 3.2 million, of whom 1.2 million live in the capital Yerevan;<sup>124</sup> 97% of the population are ethnic Armenians.<sup>125</sup> There is a large Armenian diaspora living mainly in the US, the Middle East and France. In terms of geography, Armenia is a landlocked, mountainous country, subject to earthquakes, which borders Georgia, Azerbaijan, Turkey and Iran. Previously a part of the USSR, with the break up of the Soviet Union, Armenia seceded in September 1991. Armenia is now a republic with a parliamentary democracy, although there are concerns about how free and fair elections have been, and there are problems with endemic corruption.

Armenia suffered from a severe economic contraction in the early 1990s due to the economic blockade imposed by Turkey and Azerbaijan in response to the hostilities over Nagorny Karabakh and the economic consequences of the break up of the former Soviet Union. The World Bank estimated that the real GDP of Armenia contracted by 50% in 1992, with a further 14.8% contraction in 1993.<sup>126</sup> However, it has been growing strongly since 1995 in response to an ambitious IMF-sponsored economic reform programme; annual average real GDP growth is expected to remain at about 7.5%.<sup>127</sup> GDP per capita is estimated to be \$5,100 (2005), although income is very inequitably distributed – the poorest 10% of households account for 2.3% of total household income compared to the 46.2% accounted for by the wealthiest 10% (1999).<sup>127</sup> Poverty remains widespread, especially in rural areas; unemployment is estimated to be around 30% (2003), and 43% of the population are below the poverty line (2003).

Life expectancy, which in the early 1980s was the highest of all the Soviet republics, fell in the early years after independence, but since the mid-1990s it has been climbing steadily, well above the CIS levels (Appendix: Figure 1). Falling life expectancy in the first half of the 1990s was a reflection of worsening adult health due to increases in cardiovascular diseases, cancer, diabetes, tuberculosis, and other diseases, and a failure to achieve a sustained improvement in all-cause mortality, with the exception of infant mortality where progress has been made (Appendix: Figure 2 & 3). The incidence of major communicable diseases such as tuberculosis and HIV/AIDS has increased, and there have been outbreaks of malaria, which had previously been controlled. Maternal and child health have suffered because of diminished access to and poor quality of health care. Outbreaks of waterborne diseases were caused by the degradation of poorly maintained water supply, and sanitation networks have also been a problem. Tobacco consumption is rising rapidly, and drug abuse by adolescents is starting to be a cause for concern.

The economic contraction led to a collapse in government revenue and low total health expenditure as a percentage of GDP, despite some temporary increases due to external assistance (Appendix: Figure 4). As a result, there was a 35% decline in health expenditure, and the Armenian government was forced to introduce user fees in 1996.

By 1999 only 25% of total health expenditure was still government funded and – due to formal user fees and informal payments – out-of-pocket expenditure had increased to about 60% of total health care expenditure; the remaining 15% of health care funding was from external sources. Out-of-pocket expenditure is extremely high compared to the average levels for the CIS region (Appendix: Figure 5). A study found informal payment in Armenia to be the second highest among eight former Soviet Union countries (Appendix: Figure 6 & 7).<sup>128</sup> Despite the introduction of a state-funded Basic Benefits Package (BBP) seeking to cover vulnerable groups and high priority public health services (Box 3), utilisation rates have declined dramatically. The earlier mentioned study has shown that in Armenia people commonly report not accessing care for serious conditions in the previous year, or do not plan to use it if the need arises in the future (Appendix: Figure 7 & 9). Due to the deteriorating infrastructure and unavailable BBP service at the primary care level, in Armenia the use of hospitals and other secondary care facilities is more frequent than elsewhere in the region (Appendix: Figure 8). At the same time, the longer travel distance to facilities and the high prevalence of informal payments at hospitals are likely to deter utilisation of services, among poorer and disadvantaged groups.

### Box 3. Services funded publicly under the Basic Benefits Package 2000

- Hygiene and the control of epidemic diseases
- Primary health care
- Medical care for children
- Obstetric and gynaecological services
- Medical care for vulnerable groups
- Communicable disease control
- Non-communicable disease control
- Emergency health care

Armenia is continuing to implement further reforms of its health system, including efforts to enhance the role of primary health care. Ambulatory-based doctors have been retrained as family medicine practitioners,<sup>v</sup> and significant investments have been made in infrastructure. However, despite improvements in both access and quality of care, the impact of reforms to date has been limited at the most peripheral levels of the health system; poor rural communities still face significant access barriers. Furthermore, the benefits of government financing are also inequitably distributed – consumption of government-financed health services in 1999 by the richest 20% of the population was three times higher than that of the poorest 20%.<sup>129</sup>

Other key reform areas have included decentralisation and the introduction of market mechanisms. The Ministry of Health has retained a planning and regulatory role; the independent State Health Agency (SHA), set up in 1997, now acts as the sole purchaser of care. The price and volume of services delivered under the BBP are determined by the MoH, but reimbursements are significantly lower than the real

<sup>v</sup> Ambulatories in Armenia are the most peripheral level of primary health care service delivery to be staffed by doctors.

treatment costs. There are also plans to replace the tax-based health financing with a national compulsory social health insurance, although the feasibility of doing so is constrained by current economic circumstances. Legislation for SHI has been passed, but its introduction has been postponed until economic circumstances are more favourable.

### *The Oxfam (GB) CBHI schemes in Armenia*

Since 1995, in response to inadequate government financing of basic PHC services and the inequity of access outlined above, Oxfam GB, in partnership with a local NGO “Support to Communities”, has been pioneering community-based health insurance (CBHI) schemes to provide essential primary health care that is affordable, equitable, and accessible to all, especially the very poor. These aim to increase access to basic PHC for rural communities – via addressing gaps in provision – while reducing the impact of unpredictable out-of-pocket expenses on households. By 2001, schemes were operational in 80 villages in Vayots Dzor and Syunik marz, which represented approximately 10% of rural communities in Armenia, and covered around 50,000 people. Currently, if the villages covered by World Vision in partnership with Support to Communities are included, schemes are operating in 128 villages and cover 80,000 people.

The regions chosen are poor, with an agricultural economy, and are relatively inaccessible due to mountainous geography and poor public transport links. Prior to the establishment of the schemes, basic health care was provided via village-based health posts that were under-resourced and staffed by poorly paid nurses with little support and minimal ongoing education. These nurses were poorly motivated and the quality of care they could offer was low. Outreach services from higher PHC levels had largely ceased.

The schemes aim to provide essential primary health care via the village health posts, which is accessible to all, especially the very poor. In return for a fixed quarterly contribution of 2,000 Armenian drams per family (about US\$ 4.5), the schemes cover unlimited first aid, basic PHC and drugs, and some referral to higher level facilities. However, the health post nurses are only able to deliver a limited scope of care due to legislative restrictions on their prescribing. To overcome this constraint, outreach visits to the villages by ambulatory-based doctors have been facilitated. The Oxfam CBHI model promotes community involvement in the financial management of schemes via accountable and transparent local management structures, and exemption procedures cover on average 5% of families.

Recently, two Healthcare Foundations have been created in Vayots Dzor and Syunik, which have a managerial and supervisory responsibility towards the individual schemes. These foundations have a board of trustees with representatives from local authorities, Oxfam, Support to Communities, and local communities; they each have four staff employed to carry out financial audits and provide budget oversight of the individual schemes within the regions.

## Evaluations of the Oxfam CBHI schemes

The Armenia scheme was evaluated externally in 1999,<sup>130</sup> and again in 2001.<sup>131</sup> The first evaluation used quantitative and qualitative methods: a structured interview of 135 randomly selected participants in the scheme and 132 randomly selected non-participants, as well as focus group discussions, and open-ended interviews with health care providers in villages where schemes were operating (February – March 1999). A review of drug procurement and dispensing records was also carried out to enable cost recovery rates to be calculated. Some of the most relevant findings and positive benefits include:

- **Families joining the schemes made considerably greater use of the health post facilities; the schemes increased access to basic health care for participants.** Participants used the health post more frequently – 92% had used the rural health facilities, compared to 59% of non-participants – although this may have been due to slightly higher morbidity in participants. Participants were also more likely to receive medication – 94% of participants received medication compared to 36% of non-participants. However, it is reasonable to suggest that a significant proportion of the increased utilisation was due to improved access – among non-participants who had used alternatives to the health post, 43% stated that it was because they could not afford to pay for care.
- **The schemes were valued by members.** 90% of participants believed that the schemes had had an important positive influence on the health of their communities and families. Interestingly, 74% of non-participants also thought that the schemes had benefited their communities and families, presumably because of the infrastructure improvements, improved quality of services and increased availability of drugs (even if they had to pay for them).
- **Perceived quality of care may have had an impact on the participation.** Participants had a higher opinion of both the health care providers and the quality of services on offer: 75% rated the health care provider as good or excellent, and 71% rated the services as good or excellent. In comparison, 60% of non-participants rated the health care provider as good or excellent, and 51% rated the services as good or excellent.
- **Participation in the scheme increased access to free drugs; there was significant unmet need for medication for chronic conditions (not covered by the scheme).** Among participants, 90% received free medication when it was prescribed for an acute presentation, compared to 18% of non-participants. 47% of participants claimed to need medication that they could not access through their scheme, largely medication for symptomatic relief (analgesics and antihistamines) or for chronic conditions (particularly antihypertensive and diabetic medications). Average out-of-pocket expenditure on drugs was higher among participants than non-participants (21,310 dram compared to 8,835 dram), again perhaps suggesting that their burden of disease was higher.
- **The major reason given for non-participation in the schemes was financial constraints.** This was cited by 79% of non-participants as their major reason for not joining. A lack of information on the schemes was cited by 14% of non-participants; a lack of trust was cited by only 6%.

- **There was significant community involvement in the running of the schemes.** 33% of participants had been involved in organising or administering the schemes. Broader community involvement existed via the democratic election of treasurers.
- **The average cost-recovery rate for drugs dispensed was 86%.**
- **The percentage of contributions collected was 76%.** However, 87% of debts were eventually recovered; debts were paid back when seasonal income allowed. This means that the eventual percentage of contributions collected is of the order of 97%.
- **The accounting and book keeping system was good.** It was suggested that improvements in supervision and auditing were needed; this was seen as vital to improve the management and sustainability of the schemes.
- **There was significant unmet need because of the narrow scope of the schemes.** Many participants had to buy drugs not available through the schemes, and 60% were willing to pay more for a more generous benefit package.

The second evaluation, conducted in 2001,<sup>131</sup> collected data through a randomised survey of 12 villages in Armenia to assess the economic benefits of the schemes; key informant interviews were also carried out. A detailed financial analysis was carried out to enable a calculation of the schemes' costs and the degree to which total costs and drug-related recurrent costs were covered by contributions. However, it should be understood that, as the report stressed, the schemes were never intended to be financially sustainable based on generated income. Capital costs were converted into equivalent annual cost using a standard accounting discounting procedure. The financial analysis suggests that the subsidy needed to sustain the system is likely to remain over 90%. Given that evidence from other countries suggests that people place great importance on the availability of drugs, and are willing to pay for them at reasonable prices, and given the results of the financial analysis, it should be possible to achieve full cost recovery for drug costs. The major conclusions from the survey were:

- **Membership of the schemes greatly increased utilisation.** This increased use was not because of adverse selection. Families joining the schemes had a similar composition and similar levels of chronic disease to non-member families.
- **Non-members delayed treatment seeking due to the cost implications** of seeking care; they opt for either no treatment or self-treatment instead.
- **Members receive most of their primary care consultations and medication free of charge.**
- **Participation rates remain low in certain areas.**
- **Higher proportions of ex-members and non-members purchase drugs from private pharmacies, incurring significant out-of-pocket expenses** for consultations and medications. This out-of-pocket expenditure is highest for groups from villages without a community-based health insurance scheme.
- **Out-of-pocket expenditure on medication not covered by the community-based health insurance scheme, which includes medication for chronic diseases, is similar for all groups** (insured, ex-members, non-members in RDF-villages, and people in non-RDF villages).
- **Economic barriers to accessing care remain;** families identified as poor who are required to pay for medication are less likely to do so, and are more likely to resort to borrowing to cover drug costs.

- **The average monthly cost of accessing primary health care for non-member families was AMD 300 compared to AMD 500 for member families.** However, the lower average primary care costs for non-members are due to lower rates of consultation and self-treatment via purchasing of drugs from private pharmacies; this suggests that non-members pay less money but access care that is of lower quality.
- **The reasons for non-participation in the scheme related mainly to a lack of a steady monthly cash income,** although other factors may also play a role. It was not possible from the study alone to measure the relative importance of absolute poverty, perceived quality of care, and perceptions relating to value for money.
- **Families from villages without a community-based health insurance scheme have higher average primary care costs,** and would benefit most from the introduction of such a scheme.
- **The schemes are cost effective.** The financial evaluation clearly demonstrates that the schemes, which cost an average of \$4,651 (US) per year for each nurse-run village health post (including the supply of essential drugs), have proven to be a very cost-effective way of delivering primary health care to isolated rural communities in Armenia (Table 2). In terms of cost recovery rates (Table 3), the scheme recovers 5.3% of total costs (capital costs, central office costs, recurrent costs, and drug costs), 11.1% of recurrent costs, but the cost recovery rates increased up to 80.4% when only drug costs were considered. Central office costs made up 26% of the total cost of the scheme, partly due to the cost of expatriate staff; a purely locally run scheme would have a better potential for cost recovery. Capital costs for refurbishing buildings, purchasing equipment and vehicles at 24% of total cost, and incentive payments at 15% of total cost (a component of recurrent costs), while significant, are justifiable because they are so central to the schemes' overall success.

Table 2. Average costs per health post

Type of cost	US\$	% of total annual cost
Capital costs	0	24
Central office costs	1,219	26
Recurrent costs	1,952	42
Drug costs	367	8
Total cost per health post	4,651	100

Table 3. Average cost recovery rates per health post

Cost recovery rates	% of costs
% of all costs	5.3
% of costs, excluding central staff and office costs	7.0
% of recurrent costs only	11.1
% of drug costs only	80.4

As well as the Oxfam-supported schemes, there are also other PHC-focused CBHI schemes in Armenia supported by World Vision, Mission East, and Future Generations Union/N(o)vib. Most of these schemes are currently planning to increase their coverage. With maturity and expansion of community-based PHC financing schemes in Armenia, questions regarding their long-term sustainability and policy implications arise. Their financial sustainability is threatened by the increasing prevalence of chronic illness, affordability barriers to joining the schemes, and a lack of long-term government or donor subsidy. Furthermore, non-communicable diseases often require treatment at secondary care level, imposing demands on the CBHI schemes to coordinate responses at primary and secondary level of care. The prospects for institutional sustainability of community-driven schemes in view of national financing reforms and governance issues at the regional and national level is also unclear. As with any donor-supported programme, withdrawal of donor support appears to be a serious threat for the future of community-managed health schemes.

Table 4. Benefits and limitations of the current Oxfam schemes

BENEFITS	LIMITATIONS
<ul style="list-style-type: none"> <li>• Cost-effective access to basic primary health care, with no payment at time of use.</li> <li>• Exemption mechanisms to facilitate access for the poorest.</li> <li>• Additional revenue generation, covering 80.4% of the cost of drugs, with potential for higher cost recovery; this is important given the existing financial constraints within the health system.</li> <li>• Locally accountable and transparent management structures, in a setting where there are significant governance issues.</li> <li>• Removal of geographical access barriers.</li> <li>• Catalysing PHC reform at the peripheral level of the health system via infrastructure improvements, training and motivating staff.</li> <li>• Educating communities about insurance.</li> <li>• Empowerment of rural communities giving them a voice in the political debate on health sector reform and pro-poor financing.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited scope of services covered. There is limited chronic diseases care, and no hospital care due to financial and human resource constraints (limited prescribing by nurses and constraints in the services that they are allowed to provide).</li> <li>• Average participation rates of 40% (although this compares well to international norms).</li> <li>• Exclusion of some of the poorest who cannot afford to join the schemes and therefore cannot benefit from the subsidy invested in supporting the schemes.</li> <li>• Limited integration with the broader health system.</li> <li>• Lack of differential levels of contributions; there are not currently different packages of care for different premiums.</li> </ul>





# V. Scaling Up CBHI in Armenia: A Qualitative Study

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## *Objectives and methods*

The study sought to identify the major constraints and opportunities for scaling up community-based health insurance in Armenia. It explored the extent to which CBHI expansion is feasible and desirable given capacity and funding constraints, societal values and the existing policy environment. The acceptability of the schemes from a community perspective and the determinants of participation were also examined.

Data were collected using a mixture of methods. Key informant interviews were used to examine the desirability and feasibility of scaling up community insurance in terms of: equity, efficiency and impact on quality of care; the scope of the care package; provider payment mechanisms; and financial sustainability. Using semi-structured questionnaires (one for the national and another for the sub-national level), 18 key informants were interviewed in the capital Yerevan, and 12 in the two regions with CBHI schemes. Respondents were identified through an iterative procedure – an initial list was developed specifying the institutional affiliations and areas of expertise required, respondents were approached, and further individuals were identified via snowballing. The respondents included: high-level government officials; heads of hospitals and polyclinics; family physicians; major donors; academics and consultants advising on health sector reform; and NGOs involved in developing community financing models. At the local level, the staff of Oxfam’s local NGO partner, health post nurses, and heads of village councils were interviewed. Following the grounded theory approach, topics were covered in the interviews until saturation was reached;<sup>132,133</sup> subsequent interviews were focused on filling in gaps in the data. The interviews were fully transcribed, data reduced to essential points and analysed thematically. Triangulation was used to check the validity of conclusions.

In each clinic, the medically trained lead researcher assessed quality of care through proxies such as appropriateness of infrastructure and equipment, drug availability, record keeping, reference material, and clinical procedures. Results were recorded on a quality of care checklist.

Community perspectives were explored through focus group discussions (FGDs). These were conducted in accordance with the recommendations of Barbour and Kitzinger (1999)<sup>134</sup> in three villages with Oxfam-supported community-based health insurance schemes. The villages had low, intermediate and high participation rates – around 10%, 40% and 90%, respectively. There were two FGDs per village, one for members and one for non-members. Each consisted of up to 8–10 respondents recruited according to pre-defined selection criteria to ensure that the groups were broadly representative of the population in terms of gender, age, and health status. A discussion

guide outlining the main topics to be covered was developed and piloted. An experienced Armenian moderator conducted the discussions, which were monitored by the British team through simultaneous translation. The moderator sought to stimulate debate and ensure inclusiveness so that the breadth of opinions could be assessed and the dominant views ascertained. The factors influencing families' decisions to join and stay in schemes that were studied included: village size and location; perceptions of quality and value for money; levels of social capital (via questions adapted from the World Bank's Social Capital Assessment Toolkit);<sup>135</sup> attitudes towards risk and risk pooling; and patterns of service utilisation.

## *Perspectives from the qualitative research on the Armenian health system*

### **Organisation of the PHC system**

In urban areas PHC is delivered mainly via polyclinics, which offer a full range of services. In contrast, the most accessible PHC facilities in rural areas – provided via health posts (staffed by nurses) or feldshers (doctor-run PHC clinics) – offer only a limited package of services. Despite this, health posts are the usual point of first contact with the health system for both members and non-members of the schemes. This was a reflection of the proximity of the health post to where people live, the availability of the health post nurse 24 hours a day, and the respect that communities have for the nurses. The health post nurses provide first aid and symptomatic relief and they fulfil an important advisory, triage and referral function; by giving people advice as to the seriousness of their health problem and the urgency with which it should be dealt, nurses enable patients to make more informed decisions about how important it is for them to access higher levels of care.

To access care for chronic diseases and curative PHC, people from rural villages must reach population centres with more than 2000 people. These centres are served by ambulatories and polyclinics staffed by physicians, nurses and midwives. There are attempts to increase access to care for rural villages via outreach services; however, such services are infrequent (one visit per month), and many villages do not receive them.

### **The impact of health system reform to date – service deficits and quality of care**

Primary health care is a stated government priority, and there have been significant recent increases in the budget allocation for it. Some key informants (KIs) at regional and central levels felt that with recent increases in funding, there had been some improvements:

*“There has been 2-3 years of significant investment aimed at improving services and providing free access to PHC for vulnerable groups and free access to some inpatient services. Improvements have resulted; drugs are available, there are enough to meet demand.”* (KI, regional level)

*“In villages where the ambulatory has been renovated, and staff have been retrained in family medicine, surveys have shown that patient and provider satisfaction are much higher, utilisation has increased, and out-of-pocket expenditure has decreased.”* (KI, central level)

However, many village-level and NGO key informants, some central level key informants and the FGD participants felt that there had been few improvements in access to PHC and drugs for isolated rural communities as a result of the PHC reform efforts:

*“Maybe there are some in the upper levels of the system, but certainly at the lower levels we have not felt anything, we have not felt any improvements.”* (KI, NGO, regional level)

Despite the state-funded Basic Benefits Package (BBP) – which is supposed to provide free access to basic PHC for vulnerable groups – people in rural communities are not able to access the PHC services that they need due to geographical and financial access barriers:

*“PHC services are needed by the rural population. Many villages do not have access to state provided care due to a lack of communications and because of isolation and a lack of transport. It is often easier to reach the regional centre via bus than it is to reach ambulatories.”* (KI, regional level)

Many key informants reported that preventative care generally is lacking, especially at peripheral PHC levels; immunisation is a notable exception. There are no pap smears, and insufficient screening for hypertension or diabetes. The quality of care was also frequently mentioned as a problem, particularly for health care providers that have yet to benefit from reform programmes:

*“The major problem currently is access to good quality care; there is access currently but the care is far from good quality.”* (KI, central level)

*“A number of challenges remain, particularly in the ambulatories that have yet to benefit from the Primary Health Care Development Programme.”<sup>4</sup> ...In these ambulatories there are still significant problems: the infrastructure is poor, staff skills are limited, staff are poorly paid and utilisation rates are low. There are human resource problems in rural PHC in Armenia too. It is unattractive to providers to work in rural areas; smaller communities mean that providers get paid less because they attract less capitation-based funding.”* (KI, central level)

*“In rural areas there are problems in all areas of service delivery. The quality of care provided is a major issue. There is a need for rehabilitation, provision of equipment and training of staff...”* (senior government KI)

The NGO key informants and a number of central- and regional-level key informants noted that maternal and child health services at the health post level are very poor due to a combination of lack of skills and knowledge, as well as infrastructure deficits. The focus group discussions confirmed that there was a need for better access to obstetric and gynaecological services:

*“The women in the village get sick a lot. There are not gynaecological services for them; they can’t afford to get access to specialists.”* (FGD, non-members, Rind)

<sup>4</sup>The World Bank’s Primary Health Care Development Programme.

A number of key informants felt that there are inadequate services for the diagnosis and treatment of sexually transmitted infections. They further noted that the prevalence of STIs is increasing, and that the true incidence is probably underestimated in official statistics; if people are not screened or routinely tested, reported cases will underestimate the prevalence. Other services that the FGDs and village-level key informants identified as being difficult to access included dental care and specialist care. Several key informants also stated that access to psychiatric services was limited.

Some of the problems identified by key informants related to patients themselves; poor health knowledge, reluctance on the part of individuals to take responsibility for their own health, and health-damaging behaviour (unsafe sex, poor diets, smoking, alcohol and drug abuse) were frequently cited. Late treatment seeking was also identified by many key informants as a problem that needed to be addressed:

*“People do not seek medical attention until it is too late... because of the late presentation, it may be beyond the capability of the hospital to do anything. People present too late to be treated effectively or cured. This is why we have a local saying: ‘in hospital you are not cured, you are disabled’.”* (KI, NGO, regional level)

A lack of knowledge within communities about their entitlements under the BBP was also identified as a problem by a number of key informants:

*“There is also a poor knowledge of entitlements. This needs to be addressed, but there are limited communication channels; there is poor radio coverage, and newspapers are not available in many villages.”* (KI, regional level)

It was also suggested that even where people are aware of their entitlements, there is a fear of challenging authority and engaging with government structures, which makes it hard for people to demand their entitlements and to confront corruption such as informal payments.

### **Financing rural PHC in Armenia – rhetoric versus reality**

There are significant financial barriers to rural communities accessing care at all levels of the health system (*“It all depends on money. If you have money, you can always get treatment; if you are poor, it is hard.”* [elderly man, FGD, non-members, Shgharshik]). These barriers are the result of widespread poverty, and a dramatic increase in both formal and informal out-of-pocket payments, which account for an estimated 60% of total health expenditure.<sup>126</sup> Informal payments are endemic at the hospital level and for accessing specialist care, although as many key informants pointed out, they need to be understood as a response to inadequate staff remuneration. For example, World Vision has estimated that it costs about \$200 to support a family, but a doctor’s salary is only around \$30 per month; doctors are forced to make up the difference by demanding informal payments.

Informal payments result in people borrowing money and selling assets to pay for care. Some are forced to forego care altogether:

*“Some people don’t seek care or delay treatment because of the costs, especially for hospital treatment. People raise the money with difficulty. They sell animals, they sell produce or they have to borrow money. People recover from this, but it makes their lives harder.”* (KI, NGO)

*“We have forgotten about the hospital: we go there, we can’t afford to pay for any treatment, we come back... what is the point.”* (FGD, non-members, Shgharshik)

The financial barriers to accessing hospital care are particularly severe:

*“Some people are unable to afford surgery such as gynaecological surgery for fibroids, others can’t afford to stay in hospital or they can’t afford to pay for the follow up at the hospital. That is why the surgery department at Vyot Dzor is empty.”* (KI, Rind)

*“It costs 20,000 drams (about 45 US\$) to be admitted to hospital, and then there are other charges depending on what needs to be done.”* (KI, NGO, regional level)

*“Surgery can be very expensive, for example it will cost a minimum of 200 US dollars to have a caesarean section.”* (KI, NGO, regional level)

*“Women are having home deliveries because they cannot afford to pay the payments that are required if you deliver in the hospital.”* (KI, village level)

Geographical barriers are also a problem, and the cost of the transport needed to access higher level care is high:

*“Transport is a problem. Our village is isolated and the road is not good. In winter it is very difficult to even get to Vayk.”* (FGD, non-members, Khndzorut)

*“...there is often no bus so we have to walk. If the patient is too sick, we call the ambulance, but then we have to pay.”* (FGD, members, Shgharshik)

As a number of key informants pointed out, because of the financial and geographical access barriers, access to care is much worse for rural communities compared to urban communities.

Many key informants, while accepting that there is still a long way to go to remedy the situation, felt that there have been real improvements in financial accessibility. With increased funding for PHC services, the situation is slowly improving. As one central-level key informant put it: *“There is a higher probability that people can get access to PHC for free”*. Others suggested that while this was true for urban areas, the reforms have to date had only a minor impact on the financial accessibility of services for isolated rural communities.

Resource allocation mechanisms are recognised to be weak, and rural health posts are currently not receiving the funding that they are entitled to, although there have been some recent improvements:

*“There is a difference between the theory and the practice when it comes to health financing in Armenia. This is especially true for rural communities. In theory, health posts were supposed to be financed via existing per capita funding arrangements; in reality they received little or no funding, and many health post nurses were not even receiving their salaries. The situation is improving, and in 2004 the salaries of HP nurses became protected. There is a lack of knowledge and understanding at higher policy levels about the reality with respect PHC services and living conditions in rural areas.”* (KI, central level)

The BBP rarely functions as it is intended to, and often services that are supposed to be free under the BBP are not. This is seen to stem from unrealistic funding of the essential care package compounded by increasing demand – the resulting deficit is met through formal and informal out-of-pocket payments from users:

*“There is also a basic benefits package that entitles vulnerable people to free care. The list of vulnerable people includes orphans, the poor and the disabled. In reality people do not get access to free care. Sometimes they have to pay anyway; sometimes they have to pay for drugs. Also many are not aware of their entitlements.”* (KI, NGO)

*“The polyclinic or hospital provide what ever they can, however patients often have to buy drugs. In reality, the BBP cannot always be provided for free. Any increase in demand for services under the BBP does not result in increased funding.”* (KI, regional level)

NGO and village-level key informants identified the related problem of the allocated and disbursed funding not reaching some peripheral PHC facilities, particularly rural health posts:

*“Money is given by the state to the SHA and then disbursed to the polyclinics who are supposed to give it to the ambulatories and health posts. But, money is lost on the way. Money that is supposed to reach the health posts is used at higher levels to pay their electricity bills, for example. The result is that there are no resources for health posts.”* (KI, NGO)

Funding for providers under the BBP package is based on a simple capitation formula, and established capitation rates currently bear little relationship to the actual cost of delivering services; this is probably one of the factors driving the high levels of informal payments. The per capita funding mechanism makes no allowance for the increased cost of delivering an equivalent level of service to rural communities compared to urban areas. In fact, the urban capitation rate is higher than that for rural areas:

*“The capitation payment is higher in urban areas to cover the increased cost of provision of specialist care.”* (KI, central level)

There are currently no mechanisms to weight payments according to demographic data related to poverty, isolation, or burden of disease, although there is a recognition on the part of some central-level key informants that there is a need to introduce weighted capitation to better match resources to need:

*“The capitation-based funding for the financing of PHC services under the basic benefits package should be weighted to ensure increased per capita funding for rural communities, although there is resistance to this idea from the Ministry of Finance.”* (KI, central level)

The MoH accepts the need to introduce weighted capitation as part of a mixed provider payment system to create a better incentive mix directly linked to quality. However, there is significant resistance to this idea from some quarters. Furthermore, until the inadequacies of existing health information systems are addressed, it would not be possible to introduce weighted capitation.

There are significant weaknesses in existing health information systems and in the management and integration of data. This is a major constraint to linking provider reimbursement to the delivery of specific services or to quality of care. In general, there are weak links between remuneration of providers and the services provided. It is not possible to link capitation payments directly to individual patients; money does not follow patients. This prevents patient choice acting as an incentive for providers to deliver better quality services. There are moves to address these issues, such as the USAID/PADCO pilot projects in Lori Marz and Yerevan which have introduced performance-related incentives.

Evidence-based treatment guidelines based on the Essential Drugs List (EDL) have been approved for approximately 20 conditions and the World Bank has developed national guidelines on quality of care, although to date these have had little impact on prescriber behaviour. There have been significant problems with drug procurement and distribution, and inadequate drug supplies have had a significant impact on service utilisation. There are only weak central procurement or competitive tendering mechanisms; scope to realise significant savings exists. While there is an EDL, there is no legislation requiring practitioners to prescribe EDL drugs, and in practice it is not widely used. Prescriber behaviour currently has relatively little impact on overall patterns of drug consumption; the majority of prescription-only drugs are in fact sold over the counter in pharmacies without a prescription – this is in breach of existing legislation but is tolerated by the government because self-treatment is the only care option for many people.

In summary, the impact of reforms has been patchy; some areas have benefited but PHC reforms have had little impact at the most peripheral levels of the health system. Rural communities still face significant financial access barriers (due to poverty and formal and informal user fees) as well as geographical access barriers. Key challenges that need to be met include the introduction of financing mechanisms ensuring that funds follow patients and that remuneration is linked to performance, as well as increasing funding and service delivery at peripheral levels of the PHC system. There is also a recognised need for further rationalisation, and investment in infrastructure and human resources. Significant reform issues still need to be addressed in the areas of health information systems and coordination. There is a need to further develop evidence-based clinical treatment guidelines and incorporate them into a standard treatment



manual; both are central to ongoing efforts to improve quality of care. Legislative changes to facilitate the ongoing development of CBHI in Armenia will also be required. There are a large number of ongoing initiatives at the PHC level, such as the World Bank's Primary Health Care Development Program and a variety of donor-funded initiatives, which have significant implications for CBHI in Armenia and provide the opportunity for CBHI schemes to develop strategic partnerships.

### ***Does CBHI fit with health policy objectives and reform strategies?***

The qualitative research revealed a consensus that CBHI was compatible with the longer-term health policy objectives and national health priorities. There is a particularly good fit with the increasing priority given to primary health care.<sup>129</sup> It was also considered closely aligned with the objectives of key donor-funded health reform initiatives such as the World Bank's Primary Health Care Development Program which is facilitating the introduction of family medicine into Armenia, and USAID-supported initiatives seeking to increase access to high quality primary care especially for rural populations. This good fit with health policy objectives is important because it should ensure that there is political support for scaling up CBHI, and it will help to ensure that CBHI is synergistic with overall health sector reform.

As a number of key informants mentioned, the policy of promoting primary health care has been supported by significant increases in the budget allocation for PHC – in 2004, for example, the PHC budget increased by approximately 25%. There are opportunities for community insurance created by this and by the recognition at higher policy levels that there are serious disparities between urban and rural areas in the quality and accessibility of primary care:

*“The government is aware that there are inequalities with respect to access to health care in Armenia. One response to the problem has been Health Care Optimisation, which involves decreasing excess capacity to make more effective use of resources. Another strategy has been to prioritise PHC.”* (KI, non-governmental institution, central level)

However, the current focus of reforms is on the physician-staffed primary care clinics. Basic service delivery at the nurse-run health post level in the villages where community insurance operates is not high on the current policy agenda despite the fact that – as the focus groups revealed – these facilities are the most accessible for rural communities and were seen to provide a vital service.

### ***Potential objectives for scaling up CBHI***

There was no consensus amongst the key informants and the focus group discussions as to the specific health policy objectives that an expanded CBHI should serve. Typically, central-level key informants suggested that community insurance schemes should aim to raise additional funds for primary care as a way of sharing responsibility for health between the state and communities. However, it was widely recognised that the ability of an expanded community insurance to raise significant extra revenue would be limited by prevailing socio-economic conditions. They also saw a role for CBHI in facilitating the introduction of compulsory social health insurance.

However, there were differing views on whether community financing could facilitate the introduction of social health insurance (SHI). The government has enacted legislation for the introduction of SHI and a number of key informants felt that CBHI could facilitate this. However, some key informants at higher policy levels thought that this was not a feasible strategy currently as the socio-economic conditions constrain both types of insurance. Several central-level key informants, while recognising the benefits of larger risk pools, felt that the current limited scope of the schemes is such that increased risk pooling – such as combining schemes into regional funds – would bring few benefits. If hospital cover was to be provided under the schemes in the future, strategies to ensure greater risk pooling and manage financial risk – such as reinsurance or government underwriting – would be required.

Many key informants saw a role for the schemes in providing a safety net to the poorest to ameliorate the failure of the existing public system to guarantee access to basic care. This is in line with the objectives of the CBHI schemes themselves, which are focused on increasing access for vulnerable groups. Others thought that the aim should be increasing access to care for isolated rural communities and improving the quality of care available at the most peripheral levels of the health system.

The majority of NGO and village-level key informants felt that community insurance schemes should seek to promote community involvement in primary care and facilitate their input into policy debates. Other objectives included ensuring that the state and communities share responsibility for health care, and improving the quality and accessibility of care at the peripheral levels of the health system.

## *The desirability of scaling up community insurance*

### **Equity, efficiency and sustainability considerations**

There is considerable evidence in the literature that community financing can increase access to care,<sup>51, 71</sup> and protect low-income populations against the costs of illness.<sup>9,11,68,72</sup> However, many community-run voluntary schemes fail to cover more than 25% of their target populations, which limits their positive equity impacts. Furthermore, the cost of joining schemes can still be a barrier to the poorest.<sup>8,67,70,74,75,76</sup> The affordability of contributions and availability of subsidies for the poor are key determinants of scheme equity.<sup>54</sup>

In Armenia, the average participation rate in the Oxfam insurance schemes is 40%. A study from 2002 found that the CBHI is mainly reaching the middle-income quintiles; the richest elect not to join and the poorest cannot afford to participate consistently (except for the 10% of members who qualify for exemption).<sup>131</sup> In Armenia, rural communities are fairly homogeneous in terms of socio-economic status, and people move in and out of poverty, as a result it is difficult to target exemptions to those most in need. However, Oxfam's existing targeting mechanism, whereby communities themselves decide who should qualify for exemption (with the exemption list being revised on a regular basis to allow for the dynamic nature of poverty), is accepted by the communities as being equitable.

The scaling up of CBHI schemes nationally also has to be assessed in terms of sustainability. The revenue that can be generated through the schemes is constrained by the ability of the population to contribute. Research has shown that affordability, despite

a modest premium of 2000 AMD (about US\$ 4.5) per family per quarter, is currently a major factor in the low take-up rate.<sup>130,131</sup> A balance between raising revenue from premiums and maintaining equity has to be achieved. Financing, both in terms of available subsidies and the amounts that contributions could be expected to raise, was the major constraint identified by many key informants to increasing the scope and coverage of the schemes:

*“There are problems with affordability of the schemes. Contributions are high, and not everyone understands the need for them to become more responsible for their own health.”*  
(KI, central level)

A significant majority of key informants thought it unlikely that the government would provide subsidies to community insurance:

*“The government will not provide subsidies for community-based health insurance. Available funds are already being channelled into priority areas that are inadequately funded currently anyway.”* (KI, central level)

While there is significant support for CBHI at higher policy levels as a way of increasing service availability for rural communities, this support was contingent on the schemes being self-funding.

The family medicine schemes supported by the World Bank are financed via contracting with the State Health Agency (SHA) – the main purchaser of PHC – which ensures that government funding reaches the ambulatory level. Several key informants suggested that if the government could be persuaded to recognise CBHI schemes as provider organisations, the schemes could contract directly with the SHA:

*“...the possibility of STC regional foundations with their associated ambulatories and health posts to be recognised as a health care provider and allowed to contract directly with the SHA is attractive. STC would be able to provide the managerial and financial accounting functions that independent ambulatories currently find difficult to carry out. It would also be a useful way of ensuring that per capita funding to cover the basic benefits package at the PHC level actually reaches the intended beneficiaries....it would help achieve the government’s and the World Bank’s stated objective of increasing access to the poor, by ensuring that funding reaches the most peripheral PHC providers.”*  
(KI, high level, central)

Contracting with the SHA would contribute to the financial sustainability of the schemes. However, a number of high-level central key informants were unsure as to the feasibility of the suggestion.

Several regional-level and a number of NGO key informants suggested that local or Marz-level government may be able to contribute some funds to help meet the health needs of the poorest. However, the majority of key informants and FGD participants felt the most likely source of subsidies for community insurance were NGOs and donors currently engaged in Armenia, although they recognised that this would mean the longer term survival of the schemes would be dependent on ongoing external subsidy.

There was also a strong consensus amongst both members and non-members in the focus group discussions that affordability was a problem, particularly due to the seasonality of cash incomes:

*“The only reason for not joining is money. If we had money we would join, but our village is the poorest of the poor.” (FGD, non-members, high participation)*

*“Funds are the major reason for leaving the scheme. If you have a pensioner in your family, and they die, you lose that income and you can no longer afford to join the scheme.” (FGD, non-members, high participation)*

If subsidies are insufficient and targeting is ineffective, the poor will be unable to join the schemes and benefit from the significant external subsidies that the schemes will require. This would result in the benefits of an expanded programme being captured by the better off.<sup>136</sup>

Ensuring sustainability also requires that costs are controlled as schemes are scaled up.<sup>8,9</sup> Key informants pointed out that significant cost savings could be realised via improving drug procurement and distribution procedures, a view that is supported by the literature.<sup>83,84,85,86,87,122</sup> Drug procurement and distribution is fragmented and inefficient, with facilities buying their own drugs; there is scope to realise savings through bulk purchase of commonly used drugs via international tenders. Improving prescribing practice was also seen to be important. Armenia has an Essential Drugs List which could be used as the basis for developing more cost-effective prescribing practices. However, in practice it is not widely used and there is resistance to regulation of prescribing autonomy. A number of key informants reported that newly developed family medicine treatment protocols have had little impact because of a failure to encourage the purchasing of generic drugs or to change provider behaviour.

Discouraging overuse of services covered by a national insurance scheme (addressing moral hazard) was also seen to be central to cost control, especially if the package of benefits is to be expanded to include hospital care. Suggested options included the use of co-payments as well as waiting times between joining a scheme and becoming eligible for specified benefits.

### Considerations related to quality of care

Many key informants recognised that the community insurance schemes in Armenia have increased the availability and quality of primary care in isolated rural communities, and there was a consensus that villages not covered by insurance schemes could benefit significantly from a national scaling up. However, there was a widely recognised need to increase the scope of services on offer at the health post level and improve the quality of care (*“The major problem currently is access to good quality care; there is access currently but the care is far from good quality”* [KI, central level]), although with increased funding for PHC health care services, the situation is slowly improving (*“There is a higher probability that people can get access to PHC for free”* [KI, central level]).

As mentioned previously, maternal and child health services at the health post level are reportedly very poor. This is due to a combination of lack of skills and knowledge, as well as infrastructure deficits. Reproductive health care is not available from nurses due to legislative limitations on the clinical role of nurses and resistance from obstetricians

and gynaecologists to delivering such services via the PHC system. Increased integration with higher levels of care – through outreach visits by specialists and general practitioners – was seen as one way to increase the scope of services at health posts.

The quality of care, as assessed using a standardised ‘quality of care’ check list, found no significant differences between the health posts that could explain the differing participation levels. The health post buildings were well maintained and clean and the clinics were equipped appropriately. Opening times and after-hours emergency care arrangements were clearly advertised. They all stocked appropriate reference and education materials. Medical supply and drug storage facilities as well as stock keeping mechanisms were appropriate and up to date, as were service registers and patient records. Budget records were similarly well maintained.

The clinical competence of the nurses, or the quality of care they deliver relative to other providers, was not assessed directly and it is difficult to draw firm conclusions on the importance of quality of care measured via proxies. The focus groups and the key informants suggested that the perceived poor quality of care and the narrow scope of services covered under the insurance schemes act as important deterrents to membership for some people:

*“You pay a lot and get lower quality care than you would in the hospital.”*  
(FGD, non-members, low participation)

However, as several regional-level key informants suggested, if the nurse is highly regarded there are positive incentives for participation in the schemes. A good example is the nurse in the village with high participation rates who was a trained midwife and was greatly valued by her community – unusually for Armenia, many local women request home deliveries because they trust her and because of the excessively high cost of delivering in hospital:

*“Our nurse is our midwife, our nurse, our doctor. She provides us assistance when we need it.”* (FGD, members, high participation)

The reliable supply of free essential drugs also contributed to a perception that the quality of care was good quality. However, FGD participants were not universally satisfied with the range of drugs on offer: *“The reason that I don’t join the scheme is that they don’t have all the medication that I need”* (FGD, non-members, low participation village). Other participants rejected the demands for more drugs as unrealistic and unaffordable given the scheme intentions.

## ***The feasibility of scaling up CBHI***

### **Feasibility of increasing service delivery at peripheral levels**

As mentioned previously, the health posts currently offer only a limited package of services that does not include chronic disease management, preventative services such as screening for hypertension and diabetes (immunisation is a notable exception), or curative services. This was seen as a major problem, although the increasing use of scheme-supported outreach visits from specialist and ambulatory-based family medicine

practitioners is helping to remedy this. Furthermore, the limited package of care does not provide protection against catastrophic health expenditure. Clearly, increasing service delivery at peripheral levels as part of scaling up CBHI is desirable both to increase the health impact of schemes and to increase social protection.

Services that should be strengthened at the health post level include: maternal and child health services; family planning; chronic disease care; simple curative care; preventative care; and the diagnosis and treatment of STIs. Other services that rural communities have difficulty accessing include specialist care, dental care and mental health services. However, to increase service delivery at the peripheral level, significant broader health system constraints would need to be overcome including degraded infrastructure (health facilities, roads, water, and sanitation infrastructure) as well as significant human resource constraints. For this reason, investment in rehabilitating infrastructure and re-training staff to enable them to deliver a broader scope of services and increase the quality of care were seen to be important. Existing health sector reform initiatives, such as the World Bank and USAID-funded programmes, are seeking to address these issues.

Another major constraint to increasing the scope and quality of care at the health posts relates to the resistance of specialists. For example, gynaecologists have a monopoly on reproductive health services despite an order from the MoH allowing family medicine trained doctors based in rural ambulatories to do so. Several district-level key informants pointed out that the gynaecologists are effectively able to veto the provision of family planning services at peripheral levels. Another constraint was the knowledge and skills of the nurses themselves:

*“There is a need to empower nurses to deliver increased access to PHC services.... There is a need for family medicine trained nurses at peripheral levels to help correct the human resource deficits.”* (senior KI, donor agency)

While many NGO and central- and regional-level key informants agreed that there is a scope to increase the role of health post nurses, and introduce “nurse practitioners”, there is significant resistance to this idea:

*“...there is a powerful community of doctors who would resist the implementation of this based on concerns about losing patient contact, quality of care issues, and also the loss of income that such change would lead to.”* (KI, central level)

A few key informants at the central level pointed out that there are currently legal constraints that restrict the type of services nurses can deliver and the drugs they can dispense. A shared-care model was suggested as a possible solution:

*“...it is legally possible for health post nurses to provide medication to patients in accordance with a prescription from a doctor. Treatment of acute cases could occur via instructions from doctors received via telephone consultations.”* (KI, central level)

Several key informants pointed out that the major obstacles to introducing nurse practitioners are technical. To address them would require addressing multiple issues:

*“There are a number of issues that would need to be overcome if this was to become possible, including infrastructure problems (equipment, transport, communications etc.), the skills deficits of nurses, the legislative environment, and their relationship with doctors, and financing mechanisms.”* (KI, central level)

Increasing the scope of services would require large-scale retraining of currently practicing nurses and ambulatory doctors. Suggested solutions included incorporating core PHC clinical skills into the curriculum for new nurses as well as utilising the re-training programmes developed by the family medicine faculty as part of the World Bank’s PHC reform project. There is already some movement in this direction; nurses completing the Family Medicine Programme training will have an increased clinical role.

Addressing the broader human resource problems such as urban/rural imbalances and ensuring that there are no legislative barriers to the introduction of family medicine were also seen to be important:

*“There have been recent discussions within the World Bank on what further legislative changes will be required to facilitate the widespread introduction of family medicine. Legal recognition of the family medicine curriculum is currently dependent on a MoH decree... To ensure universal recognition of family medicine qualifications, including regional-level recognition, there is need for either a governmental decree or specific legislation.”* (KI, central level)

### **Compatibility with values, expectations and social capital**

The extent to which a scaled-up community financing scheme matches the preferences of different stakeholders and the levels of social capital within communities will influence participation in a national-level scheme and therefore the feasibility of expansion and scaling up. Insurance is a relatively novel mechanism for financing health care in Armenia – the dominant model is tax-based – which may be problematic from an acceptability perspective if community financing is rolled out nationally. Some central-level key informants felt that a poor understanding of insurance would hamper scaling up CBHI:

*“The population lacks a clear understanding of insurance and the need to pay in advance to ensure that they can get health care when they need it.”* (KI, central level)

However, the experience of the NGOs running existing CBHI schemes suggests that this is not an insurmountable constraint – existing schemes have expanded organically often at the request of communities themselves. However, willingness to pay is clearly limited by economic uncertainty, poverty, the limited scope of services within the package and a perception that self-treatment or informal payment may offer better value for money.<sup>131</sup>

There is also a persisting belief that health care should be provided by the state, which would appear to undermine the acceptability of community financing schemes in

Armenia. However, as a number of key informants pointed out, this attitude is changing. It is increasingly accepted that for the foreseeable future people will have to take some responsibility for meeting their own health care needs because there are insufficient funds allocated to health care. Prepayment schemes were seen as being helpful in this respect.

The FGDs revealed high levels of social capital; communities in isolated rural villages in Armenia are close knit and supportive environments. While the FGD participants had limited trust in the government, they relied on their communities and neighbours, despite the widespread poverty: “Everyone tries to support each other”; “People are able to borrow money”; “People support each other in times of need”. The poor and socially disadvantaged were seen as deserving of assistance, and there was support for exemptions or subsidies for these groups. Others groups that were seen as especially deserving of subsidy were people suffering from chronic diseases, and families with many children.

The majority of NGO key informants and FGD participants, as well as many central key informants, felt that CBHI schemes should remain independent of the government:

*“It should be feasible to roll-out CBHI schemes nationally, but technical and managerial oversight would be needed. There is no role for the government in this; it should be provided by NGOs.”* (KI, NGO)

However, several key informants envisaged a regulatory role for the government, such as a need for government-mandated guidelines for expanded community insurance in order to ensure that they are compatible with overall health sector objectives and reforms. The need to build linkages and cooperate with government institutions as a critical part of scaling up local community effort was less commonly mentioned.

### Political feasibility

This study demonstrated that there are many stakeholders in the Armenian health system who are broadly supportive of community-financing initiatives. However, there was a consensus that the government was unlikely to commit to funding the schemes in the medium term. Regional-level governments were seen as an essential stakeholder in scaling up. Strengthening links with them was seen as important as they have significant power to influence the health service delivery at the regional level and help overcome the resistance of specialists, and they have some resources that could be used to support the schemes. There is also a need to secure long-term subsidies to ensure the financial viability of CBHI.

However, there is opposition to CBHI from entrenched interest groups, including specialists – who would lose significant income from informal fees and have quality of care concerns – as well as some hospital and polyclinic administrators:

*“Gynaecologists at the polyclinic were waiting for patients who didn’t come because...the [an NGO] mobile medical team was providing gynaecological services. The gynaecologists lost money as a consequence – about 2,000 AMD per patient. Active resistance resulted in the form of complaints to the Chief Medical Officer of [the rural] Marz. However, after providing an explanation of the services provided by the CBHI schemes and the mission of [an NGO], the Marz level government took no action on the complaints.”* (KI, NGO)



Donors and NGOs were supportive of CBHI as a vehicle for mobilising extra resources, increasing efficiency and consolidating advocacy around pro-poor primary health care. Their willingness to support CBHI has already been demonstrated through their financial support of existing schemes.<sup>131</sup> However, there is uncertainty as to whether support for locally run schemes will translate into financial support for scaling up community financing, as this requires a longer-term engagement with health system reform. Health professionals at a rural primary care level were very supportive, but those at higher levels were less so.

The communities themselves had an extremely favourable opinion of CBHI schemes, a finding consistent with previous studies.<sup>130,131</sup> The schemes are regarded to be working well, especially in areas where there had previously been no effective state-supported services:

*“Membership of the CBHI scheme gives people access to a doctor once a month via outreach visits. The diagnostic services are improved too; people can get ultrasounds now. The scheme has also improved the facilities at the health post and the availability of drugs. The scheme also gives people a sense of security; they know that care is accessible if they need it.”*  
(KI, village level)

Key informants also identified some stakeholders as being hostile to scaling up CBHI because they derive benefits from existing arrangements. For example, specialists derive significant income from informal payments and existing service monopolies. As a result, they are resistant to: increasing the clinical role of nurses; increasing the delivery of care at peripheral levels of the PHC system; and to channelling budgetary resources directly to this level and devolving financing control over budgets. Newly trained family medicine physicians reported encountering resistance from gynaecologists when seeking to provide family planning and antenatal care. Attempts have been made to ease this tension through changes to the legal and regulatory framework, but according to central-level key informants, more needs to be done. Resistance also exists among the managers of urban PHC facilities, owners of private pharmacies, as well as regional-level SHA and MoH representatives.

There is a widespread view that engaging with and mobilising local communities in support of CBHI is central to any plans to introduce such schemes nationally:

*“Building trust in communities is central to the success of CBHI schemes... Strategies should include regular community meetings, more general information campaigns, advertisements, and building on the reputation of existing schemes.”* (KI, NGO)

Several NGO key informants also pointed out that poverty reduction strategies, for instance implementing livelihoods projects such as micro-credit schemes, education initiatives, and infrastructure projects (irrigation, water and sanitation), could facilitate community support of expanded insurance.

### Integrating community financing with the broader health system

Better integration between the community financing schemes and the broader health system was also seen to be important if the quality and scope of services offered is to be increased. For example, regional- and village-level key informants frequently cited the need to improve referral mechanisms and to develop a clearly defined gate-keeping role for general practitioners.

The use of a shared-care model for conditions like non-insulin dependant diabetes, under which doctors would provide overall management with local nurses providing monitoring and dispensing drugs, was frequently cited as a desirable linkage. Again there were concerns that there would be problems due to lack of skills and resistance by providers who would have reservations relating to quality of care and the potential loss of income:

*“The nurses at the health posts lack the necessary skills. If the skills could be improved the model could work. It would require more equipment too.”* (KI, regional level)

Many key informants supported the idea of outreach visits as a way of increasing access for rural populations to specialists and general practitioners. As a number of key informants noted, there are functioning vertical programmes (immunisation programmes, UNICEF’s forthcoming IMCI and MCH programmes, pilot reproductive health programmes etc.) which by their very nature provide a link between health posts and the rest of the health system. These will have a role in ensuring that scaled up schemes can offer good quality services to their members.

It was suggested that the supportive supervision model initiated by the PADCO/ASTP pilot projects could facilitate the integration of the schemes. Under this model, doctors from ambulatories and polyclinics provide supportive supervision for health post nurses. In a similar vein, it was suggested that supervision and on-the-job training could also be provided via family medicine trained doctors:

*“Family physicians could help to provide training for health post nurses. Involving health post nurses in ongoing education programmes at the ambulatory level would be useful. It would contribute to building a local PHC team, and could be based on the curriculum developed by the Family Medicine Faculty.”* (KI, central level)

Several key informants emphasised the need to develop treatment guidelines. Ongoing education links between CBHI and other health system levels already exist, and it was suggested that these could be institutionalised and expanded to support scaling up CBHI.

Key informants also felt that linkages should be developed in the areas of health information systems and data reporting, since community financing schemes will still be subject to mandatory reporting requirements. This would require that their health information systems be made compatible with nationally agreed standards.

## Scheme design issues

### The target population, membership basis, contribution levels and benefits package

There was an almost universal consensus that any expansion of the schemes should aim to cover isolated rural communities that are more likely to be poor and have restricted access to primary care. Several key informants also suggested that there could be a place for CBHI in urban areas with significant concentrations of poverty. The focus group discussions revealed a strong consensus that compulsory membership was neither acceptable nor feasible, despite an acknowledgement that it may increase the resources of the schemes and the scope of services that could be offered. The fundamental problem is low cash income and vulnerability; people constantly moving in and out of poverty cannot commit to long-term membership:

*“If we don’t have money, how can you make us pay?”*  
(FGD, non-members, high participation)

*“2,000 drams is a lot of money, and in our village there are many poor people who don’t have money”* (FGD, members, high participation)

There was widespread recognition that financial constraints limit the benefits that could be offered and the degree of protection:

*“Everything depends on the financial capacity of the schemes. First aid is the starting point. If schemes can be expanded and developed, the package of benefits could be increased, and it could even include hospital services.”* (KI, regional level)

The existing community financing schemes provide mainly basic primary care and first aid. The community perception is that these are core components of any benefit package.

There was significant unmet demand for reproductive health care, which is provided at district level and involves prohibitive costs. A common suggestion by key informants was that it should be feasible to cover antenatal and reproductive care as a component of a health post primary care package. However, this was a matter of some contention, mainly due to cost considerations. Some key informants did not think that the schemes should offer family planning or reproductive health services:

*“These are not appropriate services for a nurse to deliver. Gynaecologists should deliver these services since ambulatory doctors and nurses don’t have the necessary skills. Also the population would not find it acceptable to have such services delivered by PHC doctors and nurses.”* (KI, regional level)

Most respondents recognise the current limited coverage of chronic diseases as a major weakness of the schemes. This is due to affordability constraints as well as the fact that chronic disease management requires integration of services between different levels of the system and appropriate professional skills.<sup>2</sup> In Armenia, the scope of the services provided at the health post level is restricted by existing centralised patterns of service delivery:

*“People with chronic diseases receive care from the doctor at the ambulatory; they get their drugs from the pharmacy where they often have to pay for the drugs. They can be a burden on their families; it is difficult to afford the drugs for many people. CBHI should cover these costs if possible.”* (KI, village level)

In the FGDs some thought that the schemes should subsidise the cost of an expanded benefits package by charging everyone a higher premium, but others felt that increases would further discourage people from joining: *“If people can’t afford to pay now, how will they afford to pay if you increase the premiums?”* (FGD, non-members, intermediate participation). The idea that people with chronic diseases should be charged more to join the scheme was felt to be a reasonable strategy: *“...people could get access to the medicine they need... currently they pay anyway”* (FGD, non-members, low participation).

Participants in the FGDs were not averse to the idea that CBHI schemes should offer different packages of care at different prices. However, in terms of hospital cover, FGD participants recognised that it was beyond the financial capacity of the CBHI schemes. Some suggested that partial cover of the hospital care costs via a defined cash benefit, or paying a higher premium for assistance with the cost of emergency transportation to town, might be feasible, although affordability is still likely to be a constraint:

*“Transport is expensive. It costs 15,000 to 20,000 drams [35–45 US\$] to get to the hospital. We cannot expect the Oxfam scheme to cover such a cost.”*  
(FGD, members, low participation)

A number of key informants at higher policy levels identified a need to tailor the package of services to local conditions, in particular human resource constraints; the scope of services that could be offered will be limited by the skills of the health professionals working at peripheral levels. Others noted that the benefits package should be tailored to address gaps in government provision, such as shortage of drugs in remote areas and services not covered by the basic benefits package.

### **Administrative constraints and management arrangements**

The literature highlights the importance of technical support to develop management capacity and expertise in scheme design if community financing is to be scaled up successfully. A decade of investment in CBHI in Armenia has developed considerable expertise in the management of community insurance schemes. However, there are institutional capacity deficits and strategies need to be developed to remedy them:

*“Decentralisation is currently being reversed partly because ambulatories lack managerial capacity... similar problems are confronted by community insurance schemes.”*  
(KI, high level, central)

The literature suggests that this could be achieved through the setting up of umbrella organisations providing technical and managerial support to community financing initiatives.<sup>8,62</sup> STC, Oxfam’s partner NGO, has established foundations in two regions to fulfil this role. It has credibility as an organisation with strong internal accountability and management systems and could potentially play a role in providing technical and managerial support to individual CBHI schemes if CBHI is scaled up in Armenia.

Implementing a nationwide insurance system would require development of standardised exemption mechanisms. While community-led exemption mechanisms have achieved some success in Armenia,<sup>137</sup> a uniform exemption mechanism based exclusively on income would be problematic in rural Armenia – widespread poverty and a largely non-cash economy combined with socio-economic homogeneity make targeting difficult.

Key informants recognised the critical importance of health information systems. They are central to effective financial management and for monitoring and evaluation of schemes' impacts on population health, utilisation and expenditure. Without adequate health information systems it is difficult to learn lessons from existing schemes and incorporate them into a national scaling up of community financing. This situation is starting to change with the Armenian Social Transition Program – supported by USAID – establishing pilot health information systems at primary care level to enable the introduction of performance-related financial incentives and quality assurance mechanisms.

The majority of NGO key informants and many central key informants felt that CBHI schemes should remain independent of the government; a clear majority of the FGD participants also supported this position:

*“It should be feasible to roll-out CBHI schemes nationally, but technical and managerial oversight would be needed. There is no role for the government in this; it should be provided by NGOs.”* (KI, NGO)

The issue of whether the government should have a regulatory role was also raised by several key informants who identified a need for government-mandated guidelines for CBHI in Armenia. This was seen as necessary to ensure that such schemes are compatible with overall health sector objectives and reforms.

### **Provider payment mechanisms to ensure appropriate incentives**

As mentioned previously, most respondents reported that informal payments – defined as a cash or monetary transaction for a service that users are entitled to<sup>138</sup> – are endemic, especially for hospital care. While formal user fees motivate people to join community pre-payment schemes since membership protects against having to pay them, informal payments discourage people from joining since membership provides no protection against them. A failure to address informal payments when scaling up community financing would reduce scheme sustainability, decrease the protection provided by insurance, and undermine coverage. Effectively addressing informal payments was recognised to be a challenge by key informants:

*“Addressing the issue will require improved salaries for doctors and formalising such payments in the fee-for-service structure. There will be significant resistance to changes that threaten doctors' income from informal payments.”* (KI, central level)

However, a model for addressing them already exists – World Vision have addressed informal payments by introducing a no-tolerance policy linked to the payment of bonuses which are dependent on the elimination of informal payments.

Current provider payment mechanisms are not linked to the quality and quantity of services provided, which undermines efficiency and creates perverse incentives. However, community financing programmes have piloted performance-related financial incentives (Armenia Social Transition Program) which could be incorporated if CBHI is scaled up. Free riding is also a problem – a representative study from 2002 found that non-members often access services and obtain drugs that they are not formally entitled to.<sup>131</sup> This issue is complicated by the fact that the communities themselves consider the practice consistent with solidarity and kinship obligations. Furthermore, everyone is legally entitled to access health post services which are heavily subsidised by the schemes (although they are not to obtain drugs or access outreach services provided by the schemes).



# VI. Recommendations for Scaling Up CBHI and Pro-Poor Health Care Financing in Armenia

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## *Planning for scaling up CBHI*

- **Desirability of CBHI.** Comparisons with other countries and the results of the qualitative research suggest that there is a role for expanded community-based health insurance in Armenia. It could contribute to increased funding for PHC, increasing access to PHC (and eventually hospital care), and increasing financial protection against the cost of illness, provided that the limitations to the existing schemes are addressed.
- **Setting objectives and agreeing a strategy.** It is important to define the objectives and priorities of community-based health insurance schemes before scaling them up, as this will affect their design and the level of investment required. There is a need to achieve a consensus between different stakeholders in the health sector on what trade-offs must be made to enable the schemes to meet their objectives and remain affordable. Four further steps are necessary: a comprehensive CBHI scale-up strategy should be developed; government (and donors) must commit to this action plan, and provide the necessary support and funding; government (and donors) must incorporate the expanded CBHI within the national health sector reform strategies; and the government should develop an appropriate legislative and policy framework.
- **Involving key stakeholders.** Key stakeholders should be identified, with a view to securing their support for the process, and involving them in future advocacy.
- **Establishing a national forum for rural health and CBHI.** This would be useful to discuss experience with CBHI as well as rural health issues more generally.

## *Financing pro-poor PHC and expanded CBHI schemes*

- **Resource allocations for rural PHC should increase.** It is strongly argued that current resource allocations based on simple capitation should be replaced by a weighted capitation mechanism designed to benefit isolated, poor and vulnerable



groups. Mechanisms are required to ensure that existing public funding already allocated for PHC reaches peripheral levels of the PHC system.

- **Informal payments cannot be tolerated and should be reduced.** The endemic informal payments for services nominally covered by insurance arrangements will significantly diminish the incentives to join voluntary CBHI schemes, and constrain the scaling up of CBHI in Armenia.
- **Subsidising the poor; government and donor subsidies have an essential role to play in financially sustaining community financing.** Subsidies in the range of 50–100% of membership costs would be required to ensure that the poorest are able to join CBHI schemes.
- **CBHI schemes should be a component of a broader inter-sectoral development strategy.** CBHI should be linked to income-generation activities to address poverty in rural communities; addressing poverty would enable more people to join the schemes.
- **Increasing the amount of revenue generated locally by CBHI schemes is severely constrained by the levels of poverty and economic development in rural communities.**
- **Preventing financial instability and increasing risk pooling during scaling up.** Establishing district- and regional-level risk pooling via aggregating a number of smaller schemes could be well suited to managing such risk pools. Possible inter-regional risk pooling should be further explored during an expansion. Setting up a simple reserve fund would be another feasible and effective solution. Government underwriting and reinsurance could be options in the future.
- **Expanding population coverage.** Poor and isolated rural communities mostly in informal employment should remain the primary target group for CBHI. Voluntary membership of the CBHI is the only acceptable option currently.
- **Determinants of participation in CBHI schemes in Armenia must be monitored in order to promote enrolment and fine-tune social marketing strategies seeking to expand membership.** The major factors affecting membership are:
  - **Affordability.** This is the major determinant of participation emphasised by non-members who were unable to join without sacrificing other essential expenditure.
  - **Geographical proximity of services.** Outreach specialist services and expanded service delivery at the health posts is strongly advocated.
  - **Social capital issues.** There are high levels of social capital within communities, but lower solidarity across communities. This, together with a mistrust of government organisations will make it hard to introduce district or regional risk pools and thus constrains scaling up CBHI. It should be addressed via information campaigns, involvement of trusted organisations (such as Oxfam and STC), and community representatives on financial and administrative management boards.
  - **Quality of care.** Improving quality of care is essential for encouraging membership.

- **Expanding the CBHI benefits package.** The benefits package should continue to focus on covering gaps in existing public provision of services. The current focus of the schemes on low cost, high frequency care is appropriate. Without significant increases in subsidies to the schemes, the scope for increasing financial protection is limited. Future increases in the scope of the benefits package should focus initially on increasing the scope of PHC services covered, with partial cover of hospital-related costs being the next logical expansion provided that informal payments are addressed.
- **Increasing the scope of services delivered by CBHI schemes and enhancing quality of care will require significant investment in human resources.** Training to enable the introduction of formally accredited ‘nurse practitioners’ able to deliver a wide range of services is strongly recommended; it would also require changes to existing legislation. This process could be facilitated through direct support and supervision by PHC physicians or ‘rural health teams’ consisting of ambulatory doctors and nurses, linked to urban-based specialists, family practitioners, and midwives.
- **Motivating health providers working under CBHI schemes.** This could be achieved through providing health post nurses with a living wage as well as financial and non-financial incentives including mechanisms to ensure holidays and sick leave.
- **Quality of care requirements.** The government and Medical Associations should define quality standards, develop treatment and prescribing protocols, improve the regulatory environment, and develop quality assurance strategies such as the introduction of peer review. A standard treatment manual for rural practitioners (not just in CBHI) should be developed and integrated into ongoing training.
- **More efficient purchasing and distribution of drugs.** Centralised purchasing and distribution of drugs could achieve significant cost savings. Strategies associated with both substantial savings and improved drug availability include: prescribing and procurement closely linked to essential drug lists; procurement focused on the use of generic drugs; procurement via competitive tendering; improved storage; and coordinated (or centralised) distribution.

### *Scaling up and integration of CBHI: towards institutional sustainability*

- It is a strongly held view of communities and key stakeholders that ownership of CBHI schemes should remain independent of the government.
- The development of regional umbrella organisations will be required to ensure the necessary technical support as CBHI is scaled up. The STC foundations in Vayots Dzor and Syunik already provide technical and managerial support for CBHI schemes, and this example could be adapted to other regions or schemes.
- Institutionalising adaptability of CBHF schemes to the changing context is central to sustainability and their scaling up. Adjusting the scope of benefits covered according to the economic environment will be required. Management structures and premium levels have to evolve as schemes become more complex.

- **The health system itself poses constraints to successfully scaling up community-based health insurance on a national basis.** There are a range of issues linked to quality of care, efficiency and cost-efficacy that must be dealt with as part of an overall reform package if the introduction of community-based health insurance is to have an impact. An enabling environment must be created via the implementation at national level of health policy initiatives that include investment in infrastructure and human resources.
- **Scaling up CBHI cannot be done in isolation from integration of CBHI within the broader health system, and there should be stronger integration of clinical services delivered at different levels.** Integration of clinical service delivery can significantly strengthen schemes, facilitate an increase in the scope of care that can be delivered, increase the overall efficiency, and facilitate access for rural communities to publicly funded secondary care. Integration could promote continuity of care between the primary and secondary health care levels through mechanisms such as shared care, coordinated training and supervision systems, and vertical programmes.
- **An expanding CBHI needs to be marketed: ongoing information and communication strategies need to be developed to encourage membership.** They should clarify the benefits of joining CBHI schemes, and define the rights and responsibilities of providers, members, and government.
- **Improved and integrated health information systems would support expansion.** They are central to quality control, the introduction of performance-related incentives, and enabling evidence-based decision making.
- **Improved communication, coordination and partnerships between NGOs, donors and government departments involved in CBHI and PHC financing is needed.** It is important that a consensus on advocacy objectives is sought. Furthermore, there are opportunities for partnerships and horizontal and vertical integration between CBHI schemes themselves and other initiatives.

# Conclusion

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In developing countries, the health financing gap remains a significant challenge to the provision of essential health services. User fees have been ineffective as a tool for bridging this gap and are now recognised to have had significant negative impacts in terms of inequity of access and catastrophic health expenditure, especially for poor people. However, tax-funded health financing and social health insurance, which are more equitable and ensure access to health care for the wider population, have proved difficult to institute in resource-poor environments. CBHI in such contexts is seen increasingly as a reasonable alternative financing mechanism that provides for some risk pooling and protection against the financial costs of illness.

Community financing is increasingly recognised as an intermediate step towards expanding risk protection to the entire population. It is no panacea, but it is able to increase access to care and can reach low-income populations, although the poorest can still be excluded. Administrative costs are reasonable, and CBHI can help to improve the quality of care. CBHI reduces out-of-pocket expenditure while increasing utilisation and improving financial protection. Schemes tend to have participation rates of around 30% and pool risks within low-income populations, which limits the scope for redistribution from the rich to the poor. They are able to mobilise additional resources, but their ability to do so is constrained by the low incomes of their members; to be sustainable and inclusive of the poor, CBHI schemes require external subsidies. They are more than just a financing mechanism; they can give communities an effective voice in health policy debates, and popular participation in management makes the schemes more accountable and responsive to the communities they serve. Most importantly, they are a step towards health financing systems such as social health insurance that are able to provide universal access and financial protection.

Some of the effects described above are indeed seen in Armenia, where scaling up community financing may offer opportunities for improving access for poor rural populations to good quality primary care.<sup>13</sup> The health care reform environment is favourable given that the two major components of the reform (the introduction of family medicine and the plans for compulsory social health insurance) have such obvious synergies with CBHI. Currently, the CBHI schemes that exist in Armenia are rural and village-based, covering a limited set of PHC services. An increased scope of services should be delivered at the health post level by the health post nurses or by ambulatory-based, family medicine trained physicians who are geographically proximate to the villages where the schemes operate. Ambulatory-based doctors are well positioned to supervise and support the health post nurses who deliver most of the care under the CBHI schemes. However, the focus should not be on improving the scheme operation per se, but on using it as an advocacy platform for communities and their representatives seeking to promote equitable and pro-poor health system financing.

The proposed social insurance model in Armenia aims to ensure universal access to health care on the basis of need, to mobilise financial resources for health care, ensure cross-subsidisation and risk pooling, and promote efficient use of resources. It should be implemented via a step-by-step approach. The process of rolling out rural community-based health insurance schemes nationally has obvious synergies with such a strategy, in terms of its objectives and approach. Given the constraints to the introduction of social health insurance in the current economic situation, scaling up community financing in Armenia (with initial donor support) could be an intermediate alternative and a step towards increasing the accessibility, availability and responsiveness to local needs of primary health care, gradually extending coverage among the poor and vulnerable groups, as shown by the international experience.

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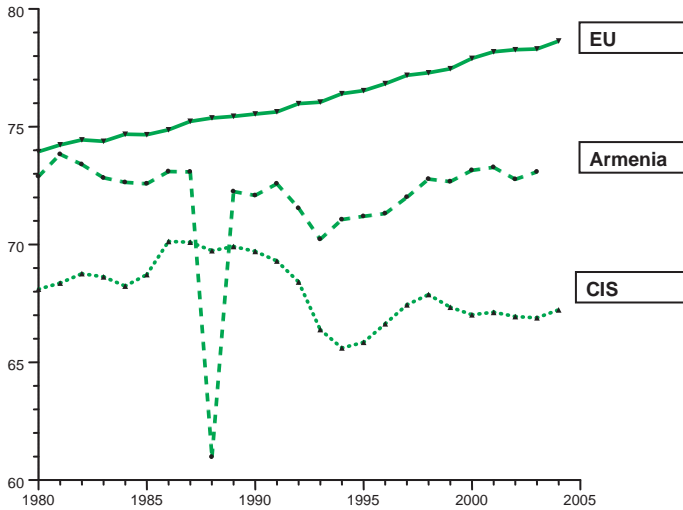
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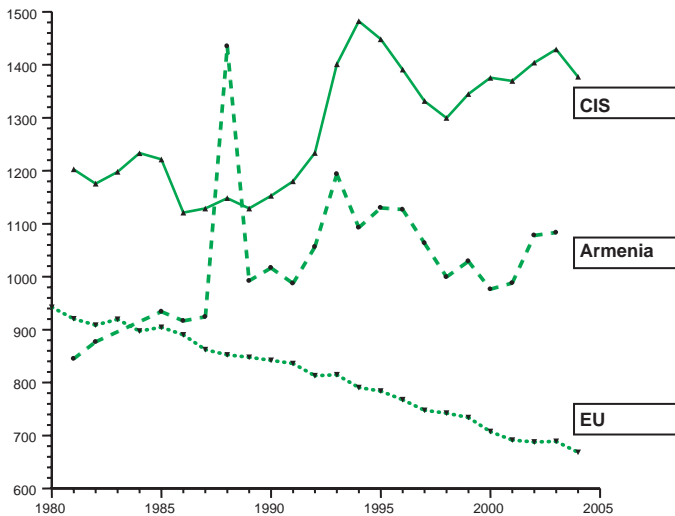
# Appendices

Figure 1. Life expectancy at birth in Armenia, in years



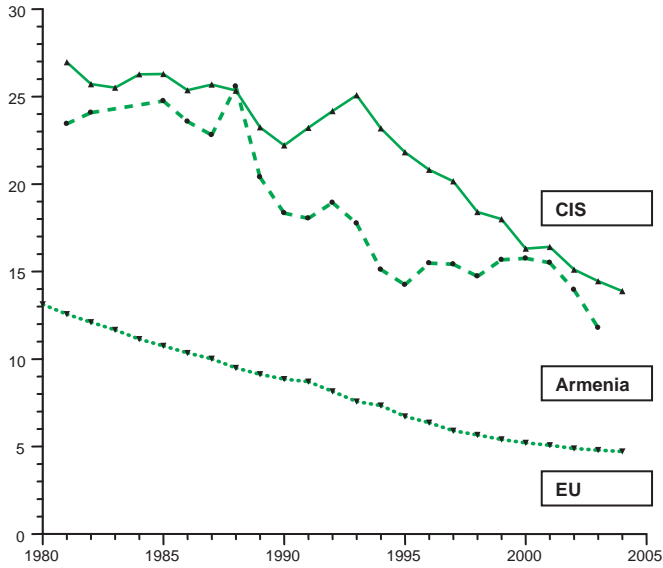
Source: WHO HFA Database, 2006

Figure 2. Standardised Death Rates from all causes per 100,000, all ages



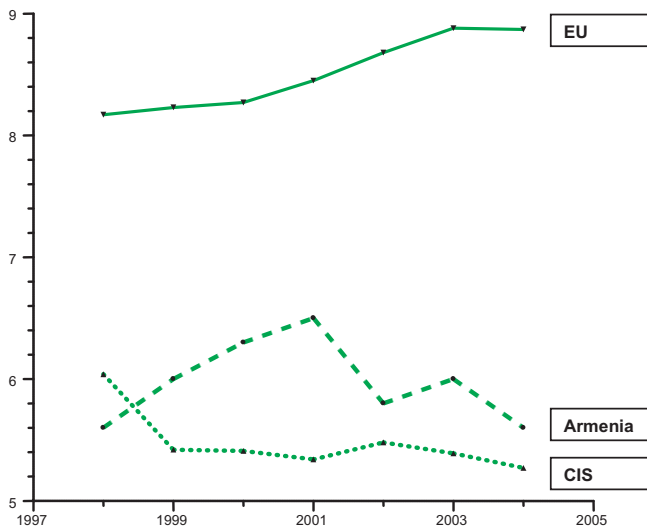
Source: WHO HFA Database, 2006

Figure 3. Infant deaths per 1000 live births



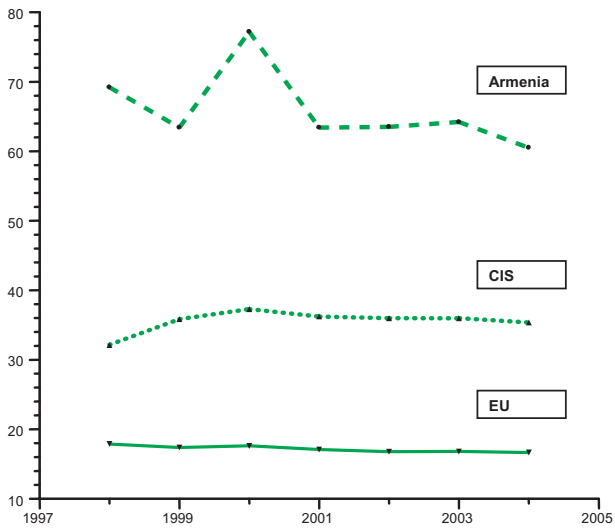
Source: WHO HFA Database, 2006

Figure 4. Total health expenditure as % of gross domestic product (GDP), WHO estimates



Source: WHO HFA Database, 2006

Figure 5. Private households' out-of-pocket payment on health as % of total health expenditure



Source: WHO HFA Database, 2006



Figures 6–9 below are from: Balabanova D, McKee M, Pomerleau J, Rose R, Haerper C. Health service utilisation in the Former Soviet Union: evidence from eight countries. *Health Serv Res* 2004; 39:6, Part II: 1927-1949

Figure 6. Percentage paying informally or making a gift during most recent consultation, by country



Figure 7. Consultation with a health care professional (physician or feldsher) in the preceding 12 months, by country (of those reporting an illness they felt justified attendance)

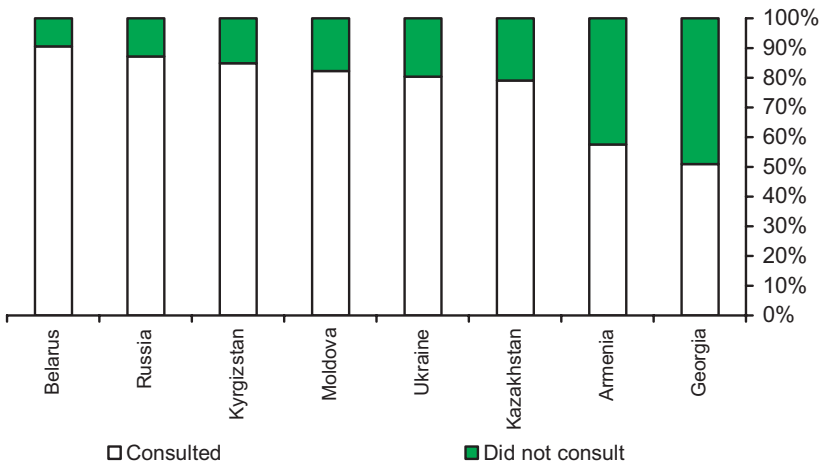


Figure 8. Location of most recent encounter with a health professional

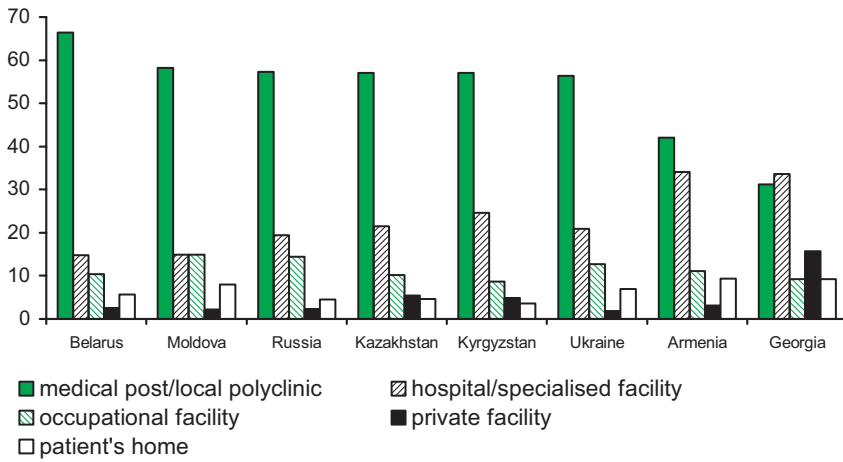


Figure 9. Would you consult a health professional in the case of ... ?

