The Rockefeller Foundation-Sponsored Initiative on the Role of the Private Sector in Health Systems in Developing Countries

# Technical partner paper 6

Overcoming the Challenges of Scaling Voluntary Risk Pools in Low-Income Settings Gina Lagomarsino Sapna Singh Kundra

Results for Development Institute



# **Risk Pooling: Challenges and Opportunities**

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## **1. Background and Summary**

This paper explores risk pooling as a potential mechanism to leverage the private health sector to improve the quality, affordability, and availability of care for the poor in developing countries. It primarily explores smaller scale private risk-pooling programs, with a focus on those that have been launched in South Asia and sub-Saharan Africa among poor and informally employed populations. We hypothesize that these smaller scale programs can be a stepping stone toward broader public health financing reforms that have so far remained largely elusive in most of the world's poorest countries.

We acknowledge that there is a great body of literature on risk pooling and health insurance<sup>1</sup> in the developing world. Alex Preker, Guy Carrin, David Dror, William Hsiao, Johannes Jutting, and other distinguished experts in the field have studied health insurance for the poor for decades. Organizations such as the MicroInsurance Gateway and CGAP Working Group on MicroInsurance have become hubs of knowledge related to micro-insurance. In addition, bilateral agencies, private donors, and international organizations such as GTZ, the French Development Agency, the Bill & Melinda Gates Foundation, the International Labour Organization, and many others have partnered to explore how health financing can be reformed through various demand-side insurance mechanisms to benefit the poor in the developing world. We have consulted the existing literature and conducted interviews with many researchers and program implementers that work in this area. We also made site visits to several of the programs we highlight in this paper to better understand their specific program models, the hurdles they face in launching and scaling their programs, and the context in which they operate.

The second section of the paper discusses the potential for risk-pooling programs to catalyze the improvement of health systems for the poor, especially in already "marketized" country contexts, where the poor finance a great deal of their own care through out-of-pocket spending and frequently seek care from licensed or unlicensed private health care providers. In the third section, we acknowledge six major hurdles that risk-pooling programs must overcome to launch and scale up in challenging environments. Then, for each of these hurdles, we identify a number of possible strategies that innovative risk-pooling programs are currently using in an attempt to overcome the challenge. For each scale-up challenge, we list core questions that should be answered to determine which models are likely to be most effective in given country contexts. In the fourth section, we summarize a set of design dimensions that can be used to characterize various risk-pooling programs. In the final section, we offer policy recommendations for global institutions, which would facilitate the broader implementation and scale-up of risk-pooling programs to ultimately improve the quality, affordability, and availability of health care for poor and informally employed populations.

<sup>&</sup>lt;sup>1</sup>We recognize that "risk pooling" and "health insurance" have somewhat different technical meanings, but we use the two terms interchangeably in this paper. In addition, we use the term "health insurance" broadly, to include both national insurance programs offering universal coverage, as well as private, voluntary health insurance programs.

## 2. Risk Pooling: A Potential Catalyst to Improve Health Systems for the Poor

# The evolution of complex, mixed health systems

The state of health system financing and delivery in low-income countries presents a huge challenge for the global community. In many of the poorest parts of the developing world, health systems are marked by scant availability, uneven quality, and lack of affordability of key health services. The problems of health systems are only exacerbated by poor efficiency and little accountability.

Today, many developing countries effectively have two health systems that run in parallel to each other: publicly financed government delivery systems and privately financed market systems. Though most countries have "public" systems and "market" systems running in parallel, the relative proportions of care delivered in each system varies significantly by country. In addition, the line between the two systems is frequently blurred, as many employees of public systems also "moonlight" as practitioners in the market system, or request informal payments while practicing in the public system.

Most publicly financed government delivery systems in the developing world were created in the last century and are characterized by centralized budgeting and planning, civil service staffing, and publicly owned infrastructure. In most countries, however, these public systems have never been properly resourced, and as a result, they typically underperform. They are characterized by a weak civil service, due to lack of capacity, and limited incentives for good performance, including low salaries that lead to income supplementation strategies such as informal payments and dual practice in the private sector. Public systems have also been shown to poorly allocate resources, frequently prioritizing infrastructure and other inputs over outcomes. Studies of African health expenditures have shown that public health funds disproportionately benefit wealthier populations (Preker and Carrin 2004). In addition, public delivery systems tend to have weak governance structures, which can lead to political influence on decisions, weak incentives to work for the benefit of the poor, lack of transparency in financial and procurement processes, and corruption.

In the face of such challenges in public systems, market systems of health care financing and delivery have evolved organically in many countries, running parallel to traditional public systems. These market systems may present solutions for patients to some of the perceived problems of the public delivery systems, such as lack of convenience and availability. However, they create a whole host of additional challenges that contribute to the inequities in health outcomes that developing countries experience. Underperforming market health systems are characterized by lack of incentives for quality and to serve the poor. Asymmetries of information between providers and patients, which are characteristic of health systems everywhere, lead to particularly insidious outcomes in underperforming market systems, such as price gouging and unnecessary or harmful care. Underperforming market systems also typically have weak

government capacity to regulate the quality of providers. Finally, and perhaps most importantly, patient out-of-pocket payments are a significant source of financing for care in market systems, which impedes access to care and leads to further impoverishment.

# The nature of mixed health systems

Countries facing the complex challenges of a mixed health system have a number of policy choices as they attempt to strengthen their health financing and delivery. For some, it may make sense to focus on introducing reforms to strengthen their publicly financed government delivery systems. National health service systems appear to work well in some settings, producing good health outcomes (e.g., Canada, Cuba, and the United Kingdom). And tools such as sector-wide approaches, civil service reform, and performance-based aid have the potential to improve public systems, especially in countries where there is a strong history of and inclination toward public sector financing and delivery of health care.

However, many low-income countries have already evolved toward disproportionately "marketized" systems, with large portions of health expenditures financed privately and many services delivered by private providers. For example, in India, upwards of 80 percent of the country's total expenditure on health consists of out-of-pocket payments (WHO 2008), and in Nigeria, 63 percent of expenditures are out-of-pocket (WHO 2008). In these nations, reforms targeting the relatively smaller public systems may have minimal impact on health and financial protection. Figure 1 shows that care in many poor countries is primarily funded through out-of-pocket payments.



# Figure 1: Private health spending

Source: WHO 2008.

Detailed statistical information on the percentage of services delivered by private providers is not systematically collected in most developing countries. However, the above data can be used as a proxy for private provision, because the large volume of out-of-pocket spending suggests that many private transactions are occurring. Some additional data and much anecdote and experience suggest that the poor receive a significant portion of their care from private providers. The evidence is most striking in many South Asian and Sub-Saharan African nations. For example, in Madhya Pradesh, India, a new statewide data collection and provider mapping initiative shows that private sector delivery outlets far outnumber public sector outlets. Figure 2 shows the size of the private sector relative to the public sector in one district in Madhya Pradesh.

# Figure 2: Public and private health providers in District Chhindwara, Madhya Pradesh, India



Source: De Costa and Diwan 2007; De Costa 2008.

Data from Madhya Pradesh also reveal that the vast majority of all providers are untrained or qualified non-doctors, with only 9 percent of clinicians trained as doctors. Within each provider category, more than 70 percent of providers operate in the private sector. Figure 3 shows the breakdown of providers by level of training and sector in Madhya Pradesh.



Figure 3: Composition of health providers in Madhya Pradesh, India

Source: De Costa and Diwan 2007; De Costa 2008.

In other low-income nations, the provider mix is similar, particularly in rural areas where it is difficult to attract licensed doctors to practice (De Costa and Diwan 2007; De Costa 2008). A study in Indonesia estimated that doctors would need to be paid several times their current salaries to induce them to practice in the most remote areas. When public clinics do exist in rural areas, high absentee rates often result in the diversion of patients to more accessible private providers, who are often untrained. Recent random samples of public health clinics in several developing countries found absence rates of over 40 percent, with higher rates in remote areas (De Costa and Diwan 2007; De Costa 2008).

The statistics presented above are representative of health systems in many low-income countries. The result is highly "marketized" systems of health care, with many private commercial transactions between patients and private providers in spite of existing public systems of delivery. These markets present many unique challenges. Unmonitored providers may overcharge and deliver unnecessary or inappropriate care when the patient is uninformed or unable to negotiate. Inadequate pooling of risk and lack of subsidies for the poor, combined with high prices for private sector services, lead to high (often crippling) out-of-pocket payments. Weak government regulation of the private health sector in many low-income countries only exacerbates these problems. Even when regulatory mechanisms are in place, governments may find it difficult to monitor the delivery of care and enforce regulations, especially in the most rural areas.

# The benefits of risk pooling and pre-payment in mixed systems

Demand-side financing reforms such as risk pooling<sup>2</sup> combined with subsidies for the poor may be a catalyst that can begin to remedy some of the serious problems in health care markets in countries with health systems characterized by high out-of-pocket payments, suboptimally used

<sup>&</sup>lt;sup>2</sup> The aggregation of individual financial contributions to cover the total health costs of a broader population is termed *risk pooling*. The pooling of individual health risks addresses the unpredictability of illness and its potential for high costs, mitigating financial losses due to health events.

public delivery systems, many private providers, high numbers of private commercial transactions, difficulty regulating private providers, and uneven quality (McIntyre 2007).

Programs that combine risk pooling and pre-payment are often referred to as health insurance.<sup>3</sup> (In the balance of this paper, we use the terms "risk pooling," "health insurance," and "microinsurance" interchangeably. We use the general term "insurance" for both private, voluntary programs such as community-based health insurance, as well as national-level universal coverage programs such as social health insurance.) Studies of both national social health insurance reforms and community-level risk-pooling plans show many benefits, including improvements in financial risk protection and enhancements in the quality of care delivered (Escobar and Griffin 2008). By lowering the financial hurdle to care, insurance improves access to care as well as the utilization of services for the insured population (Escobar and Griffin 2008). For example, data from Rwanda show that insurance made an important difference. Utilization rates by the insured were three to five times greater than by the noninsured (Kayonga 2007). In addition, research evaluating the impact of China's Rural Mutual Health Care program on health care utilization, health status, and financial risk protection by income level shows that households with health insurance had increased utilization of health services, improved health status, and improved financial protection from health care costs (Hsiao and Yip 2008). In addition, the results of the study found that benefits were greater for the poorest quintiles in all three categories (Hsiao and Yip 2008). Other studies reinforce the findings from China's Rural Mutual Health Care study. Notably, not only does the provision of insurance increase the probability that women and children will seek care for maternal-child health and infectious diseases (Carrin, Waelkens, and Criel 2005; Gakidou et al. 2006; Giedoin and Diaz 2007; Diop, Leighton, and Butera 2005; Liu and Chen 2004), but it also improves the treatment and control of chronic conditions (Bleich et al. 2007).<sup>4</sup>

Insurance, when well implemented, can also catalyze broader improvements in quality and availability, in addition to improved affordability and increased utilization of services. By organizing funds at a group level, health insurance programs create a platform for pooled strategic purchasing, which can mitigate some of the problems caused by information asymmetries between patients and providers. Pooled purchasing programs can offer incentives for provider quality by including providers in a preferred network that increases patient volumes or by using pay-for-performance reimbursement mechanisms. Health insurance programs can monitor the quality of their provider networks, because their status as payer gives them the tools and the influence to collect key information. They can also provide training, protocols, and quality-assured products. Meanwhile, the demand-side nature of health insurance means that funds follow the patient, which typically allows patients to choose from among a number of

<sup>&</sup>lt;sup>3</sup> The three pillars of most health insurance plans are revenue collection, risk pooling, and purchasing. Revenue collection concerns the sources of funds, their structure, and the means by which they are collected. Pooling includes the aggregation and management of premium revenues in such a way as to ensure that the risk of having to pay (loss of income) for health care is borne by all members of a pool and not by each contributor individually. Purchasing addresses the transfer of pooled resources to health service providers in such a way that appropriate and efficient services are available to the population.

<sup>&</sup>lt;sup>4</sup> For a review of these issues compiled by Maria Luisa Escobar and colleagues at the Brookings Institution, see Buchmueller et al. (2005) and Levy and Meltzer (2001).

providers. This can create competition that results in additional incentives for quality, responsiveness, and innovation. In addition, health insurance provides a steady stream of revenues to providers, which offers resources for the scale-up of supply that can increase availability services. These steady streams of resources also make health care businesses more attractive to lenders and investors, allowing them to attract capital for growth and investments that yield greater quality and efficiency (e.g., information systems, facility upgrades, and medical equipment). Finally, health insurance provides a mechanism to funnel demand-side subsidies for the poor, which can further improve affordability and allow for more comprehensive benefits.

One indicator of the potential success of risk-pooling models is that most countries that are members of the Organisation for Economic Co-operation and Development (OECD), such as France, Germany, Japan, the Netherlands, Switzerland, have adopted such systems, which are certainly not without their challenges, but which generally provide physical and financial access to quality health services to nearly all segments of the population. These systems are typically characterized by public financing (through general taxation or employment taxes) of insurance programs, which reimburse private providers for the care they provide to the insured.

More recently, the introduction of similar programs in several middle- and low-income countries, such as Colombia, the Philippines, Rwanda, and Thailand, has changed the composition of total health expenditures. It has reduced reliance on the most inequitable and inefficient form of financing—out-of-pocket spending at the point of service—and replaced it with public spending or social health insurance contributions. For example, in Colombia the introduction of social health insurance changed the composition of health spending, increasing total health expenditure as a percentage of gross domestic product by 26 percent and drastically reducing private and out-of-pocket expenditures as a percentage of gross domestic product by nearly 65 percent (Escobar and Griffin 2008).

#### Implementing widespread insurance reform in low-income settings

While some middle-income countries (e.g., Chile, Colombia, the Philippines, Thailand, and some countries in Eastern Europe) and a handful of the poorest countries (e.g., Rwanda, and to a lesser extent Ghana) have implemented risk pooling at a national level with some success, most of the poorest countries have struggled. A few poor countries have attempted reforms to implement national health insurance, but most start (and stop) with government and formal sector employees. For example, Nigeria and Tanzania have attempted health financing reforms with little luck expanding beyond government employees. In these poor countries, it is very difficult to insure the poor and informally employed populations because of the inability to generate funds for insurance through payroll taxes when populations are informal, the lack of a robust tax base to generate significant funds through general taxation, as well as the fact that most existing health resources are earmarked for public providers. The transition to a national health insurance model requires either a wholesale shift in existing government health expenditures away from direct delivery and into insurance, or a significant increase in funds from another source (such as general taxation, payroll taxes, or donations). To date there have been only a handful of widespread government-led insurance reforms in developing countries. Rwanda has made progress with significant financial support from donors. Andhra Pradesh, a state in India, has

implemented insurance using new financial resources that the federal government has made available to states through the National Rural Health Mission. And middle-income country success stories like Colombia, the Philippines and Thailand have relied on high growth rates to expand total health expenditures, which have been funneled into insurance.

In the absence of national reforms, there are a number of community-level experiments that innovators (mostly in the private sector) are using to provide coverage for poor, informal populations. A key unanswered question for health system researchers and policymakers is whether these smaller scale efforts can produce health outcomes and financial protection improvements among poor and informal populations. A second core question is whether smallscale efforts can be a key point in the evolutionary progress toward comprehensive universal coverage, as was the case in some OECD countries like Germany decades ago, and is more recently the case in Rwanda and Andhra Pradesh. We hypothesize that the answer to both of these questions may be "yes," at least for some countries, but it will likely take a number of years and many experiments and evaluations before the answers to these questions become clear.

The balance of this paper discusses the challenges of introducing voluntary risk-pooling programs among poor and informal populations in low-income countries. It highlights various models that program implementers are currently experimenting with to address these hurdles and makes recommendations for fostering the scale-up of successful programs. We recognize the inherent limitations of private, voluntary health insurance, and acknowledge that universal coverage is an ideal. However, because voluntary programs could eventually become the building blocks of larger state or national-level universal coverage reforms, we believe there is a need to constructively consider how to overcome the implementation challenges.

# 3. Overcoming the Hurdles to Implementing Health Insurance

Although cases of successful large-scale, top-down universal coverage reforms for the poor and informally employed populations in the developing world are rare, there are hundreds of smaller scale efforts that are under way to build health insurance for the traditionally uninsured. In India and sub-Saharan Africa, in particular, we see many models of community-based voluntary health insurance in practice. We have identified a number of intriguing programmatic models—mostly implemented by private organizations—that are launching insurance for poor, vulnerable, and mostly informally employed populations. To achieve success, the programs we spoke with identified a number of hurdles that must be overcome for introducing, scaling, sustaining, and replicating community-based, voluntary health insurance plans. In this section, we discuss the major hurdles that were identified by these programs (and supported by literature) and then highlight programs that have constructed innovative solutions designed to overcome them. Although thorough evaluations of the impact of the highlighted programs are still scarce, our goal is to characterize various models, which could then be further assessed for their impact potential within differing political, socioeconomic, demographic, and national infrastructure contexts.

Most private, voluntary health insurance programs designed for poor, informally employed sectors in the developing world must grapple with how to overcome the following hurdles:

**1. Introducing health insurance**. In low-income settings, organizations hoping to launch health insurance must earn the trust of communities and convince them that health insurance will provide financial protection and access to good quality services.

**2.** Constructing a viable benefits package. The benefits package must be attractive to the target population, complementary to any free sources of public care, and aligned with the existing supply of services.

**3. Ensuring a quality delivery system.** Health insurance alone will not lead to utilization and health outcome benefits in the absence of a network of quality providers, so risk-pooling programs must consider how to structure the associated delivery system.

**4. Pricing and funding insurance.** Actuarially sound pricing of the benefits package is necessary for any insurance program to be sustainable in the long run. However, because the poor are unable to afford comprehensive packages of services, it is necessary to determine pricing within the constraints of affordability and any available third-party supplements.

**5. Mitigating insurance-related risks.** To combat the risks inherent in health insurance markets, insurance plans must implement proper incentives for beneficiaries and health care suppliers.

**6.** Creating institutional capacity to administer insurance. Given weak political, technical, and management infrastructures in many parts of the developing world, health insurance plans must build institutional capacity to manage the various core competencies required for successful insurance administration.

In the following pages, we characterize these challenges to launching and scaling-up insurance in traditionally uninsured populations and identify various models that may address these challenges. For a summary of each program highlighted in the following section, please refer to appendix 1.

#### Challenge 1. Introducing health insurance

The bulk of the population in most low-income countries is made up of rural, self-employed workers or the urban poor who have neither formal employers nor steady work(Dror, Preker, 2002). One fundamental challenge to introducing voluntary risk pooling is that these poor, informal populations are typically either unfamiliar with the concept of health insurance or wary of it, perhaps because past negative experiences with other types of insurance. As a result, organizations interested in introducing health insurance plans find that education, information dissemination, and trust-building activities are necessary to convince clients to buy into the plans and to retain membership thereafter. While there are a number of examples of communities that ultimately embrace risk-pooling programs presented by outsiders and of communities that conceive of and implement risk-pooling programs on their own, it frequently is a challenge to achieve community-wide comfort with the concept.

Initial wariness of health insurance is common for a number of reasons. Many people are not comfortable with paying up-front for services that they may not need. They feel cheated when they pay and then get no immediate, tangible returns. This is further complicated by the fact that they may believe that they are paying for others, but not getting any benefits themselves. Even if they understand the concepts of pre-payment and pooling, consumers may underestimate ex ante the chance of developing a high-cost illness, or they may be suspicious of whether an insurance system will actually cover the services when a need does arise (Preker and Carrin 2004). These concerns can be exacerbated in countries where the government claims to provide free health services (even if they are of poor quality or nonexistent).

A number of innovative mechanisms are being used by health insurance plans in the developing world to address the obstacles to introducing insurance to new populations and retaining clients. These include (1) working with trusted community organizations, (2) employing creative communications mechanisms, and (3) developing "entry-level" or intermediate health financing products that fall just short of insurance (e.g., savings or credit products for health care). Many programs in the developing world employ one or several of these mechanisms to introduce health insurance or health-related financial protection mechanisms to the poor. Table 1 presents a sample of these programs, and the following sections discuss select programs in more detail.

Mechanism	Model	Representative Programs
Leveraging trusted	<i>Mutuelles de santé:</i>	Rwanda
organizations		Ghana
		Mali
		Senegal
	Microfinance institutions	VimoSEWA, India
		Arogya Raksha, India
		Ujjivan, India
		Grameen's Kalyan, Bangladesh
		BRAC, Bangladesh
		UpLift Health, India
		Karuna Trust, India
		AssEF, Benin
	Informal sector	Yeshasvini, India
	interest groups	Leere Laafi Bolem, Burkina Faso
		Lalane Diassap, Senegal
		<i>Mutuelle</i> de Fatako, Senegal
		VimoSEWA, India
		Sanjeevini, India
		Hygeia Community Health Plan, Nigeria

 Table 1: Programs introducing health insurance to poor communities in the developing world

		Nidan, India
Employing creative	Utilizing local community	VimoSEWA, India
communications mechanisms	leaders	Nidan, India
		UpLift Health, India
		Sanjeevini, India
		Hygeia Community Health Plan, Nigeria
	Implementing user-	
	friendly interactive learning sessions	MicroInsurance Academy, India
		UpLift Health, India
		Sanjeevini, India
	Using local media	
		Adolescent Reproductive Health Communication Program, Bangladesh
		Hygeia Community Health Plan, Nigeria
		VimoSEWA, India
Creating "entry-level"	Savings and loan products	Traditional microfinance institutions:
health insurance products		• SEWA, India
		<ul> <li>UpLift Health, India</li> </ul>
		<ul> <li>Karuna Trust, India</li> </ul>
	Vouchers	Gujarat institutional deliveries scheme, India Andhra Pradesh institutional deliveries
		scheme, India
	Health credits	FIMRC, Uganda

#### Leveraging trusted community organizations

Disseminating messages that communicate the value of health insurance through local organizations to communities and their families has been a tactic used by many insurance plans over the years to build knowledge of and trust in new organizations and products. Further leveraging existing community organizations or building new community-based organizations to not only market, but also create, administer, and manage the health insurance program is increasingly seen as a way to develop trust that generates and maintains demand for health insurance.

One model seen in many sub-Saharan African and South Asian communities is often referred to as community-based health insurance. It is difficult to give a standard definition of community-based models or list all the variations of the community-based model; the literature on the subject has almost as many definitions of the "community-based model" as there are variations of plans in existence. In practice, three most of community-based health insurance are most commonly found: First, community-based health insurance can be organized and executed by communities themselves, as is seen in the *mutuelle de santé* (or mutual health organizations) that are most common in West Africa (Tabor 2005). Second, community-based health insurance can be layered on top of an existing, trusted microfinance organization's offerings as is seen most commonly in South Asia. Third, community-based health insurance can leverage local cooperatives that organize informal sector workers.

**Mutuelles de Santé**. *Mutuelles de santé* have allowed health insurance to gain a foothold into rural communities that otherwise would be difficult to penetrate with new, complicated products. *Mutuelles de santé* are locally organized groups formed by community members in cooperation with local stakeholders, such as village chiefs and public administrations, health care providers, and their communities. These groups pool risk and resources to develop health insurance for themselves. The members of *mutuelles de santé* are the owners, managers, risk bearers, decision makers, and policyholders. Strong community participation facilitates effective collective decision making and development of products tailored to community needs and desires. Rwanda's achievement in scaling community-based health insurance nationally is perhaps the most successful example of the great potential of the *mutuelle de santé* and similar mutual health organizations. In Rwanda, to capitalize on the strong community-based solidarity and local social cohesion, instead of a top-down approach, *mutuelles* were built from the grassroots level up to the national level. In a recent trip to Washington, D.C., Rwanda's Minister of Health, Caroline Kayonga, announced that by late 2006, 75 percent of the total population had health insurance through *mutuelles de santé* (Brookings Institution 2007).

The power of *mutuelles de santé* to attract and retain larger numbers of people to insurance is rooted in their nonprofit nature, their nonexclusion policy, their relatively lower premiums, and the sense of empowerment that they provide to members. Further, the power of collective action

and control increases the likelihood that these programs provide their intended benefits.<sup>5</sup> *Mutuelles de santé* have been educating and mobilizing communities to create health insurance in West African countries for a decade now. Ghana, Mali, and Senegal are some of the nations that have implemented variations on the *mutuelle de santé* model to introduce and scale up health insurance coverage in the poor, informally employed sectors.

**Microfinance institutions.** Microfinance institutions that have gained community trust are also being used as a vehicle to introduce health insurance to uninsured communities in the developing world. Not only do microfinance institutions offer a low-cost platform for the delivery of insurance, they also offer a trusted vehicle for introducing insurance.

As discussed earlier, many rural poor are suspicious of health insurance. They may have had unsavory experiences with previous insurance products, such as life insurance or livestock insurance. However, when a local microfinance institutions has already earned the trust of a community by supplying individuals with reliable micro-credit to fund their businesses, the propensity to try a related product is higher.

UpLift Health is one of many organizations that layer health insurance onto microfinance offerings. UpLift works in the state of Maharashtra in India in the city of Pune and its surroundings. UpLift uses its existing base of nongovernmental microfinance providers to offer insurance programs for the poor, leveraging these organizations to educate their constituencies about the value of health insurance. UpLift also provides interested groups with the technical assistance, training, and administrative capacity to implement insurance at the community level. The organization encourages communities to learn about and

# <u>PROGRAM PROFILE</u> UpLift Health Maharashtra, India

UpLift Health is a community-based health insurance scheme that relies on strong community structures (e.g., self-help groups, village microfinance organizations) in urban and periurban slums to build and maintain health insurance. Insurance is introduced and marketed through local community groups, whicih also administer claims processing and reimbursement.

Members receive care from a network of 100 public and private hospitals and clinics. They also have access to a 24-hour hotline staffed by qualified doctors, which provides assistance in "navigating the jungle" of health care. The hotline also helps to lower costs. Where possible, patients are encouraged to use free public services to maximize the resources of the insurance pool. This has allowed the program to maintain a relatively broad benefits package, which includes inpatient surgical services with some outpatient services and all primary health care consultations. In addition, members are entitled to a

<sup>&</sup>lt;sup>5</sup> For example, in 2004, when asked to renew their premiums, no members of the Réseau Alliance in Borgou-Benin wanted to do so. The reason was that the midwife of the dispensary contracted by the *mutuelle de santé* decided that she would not attend to pregnant members during weekends. The official of the network Alliance Santé organized a village meeting with both members and nonmembers. The midwife apologized to the participants and committed herself to avoiding any discrimination in the future. Following this meeting, the number of insured increased from 1,000 to 1,200 in that single community. (ILO 2000.)

undertake most insurance administration themselves (e.g., enrollment, premium collection, claims processing, reimbursements), while centrally executing some of the more technical aspects of administration (e.g., information systems and provider network development).

Perhaps some of the most successful examples of microfinance institutions as a platform for health insurance and health care delivery are in Bangladesh. Bangladesh's Grameen Bank was the pioneer of microfinance. Leveraging its reputation in local Bangladeshi communities, Grameen launched Kalyan, a health insurance product to bring health services and financial protection from health costs to its bank members. Similarly, BRAC in Bangladesh worked on health and community development for years before venturing into the health insurance market.

By using existing microfinance institutions, UpLift, Grameen, BRAC, and many other microfinance institutions are able to reach the poor in a way that would not be possible without the deep existing networks created by these trusted institutions. In addition, because the microfinance institutions have worked to train and educate local women on the benefits of non-insurance financial instruments, it becomes easier to transfer much of the administrative burden of implementing insurance to the existing village infrastructure created for savings and loans. These groups of women are already knowledgeable about other financial instruments and they have a preexisting mechanism for knowledge transfer and collection of premiums.

**Local Cooperatives.** Another way to employ trusted community organizations as an entry point for health insurance is by utilizing local cooperatives that organize informal sector workers or self-interest groups. In Vizag, India, the Sanjeevini program builds risk pools through the village women's self-help groups that already exist statewide. The leader of each self-help group is trained to communicate the importance of insuring against health-related risks. In Sanjeevini, not only are the members of the self-help groups disseminating important insurance-related information, but they also manage the entire insurance administration from marketing the product, to collecting the premium, to approving and reimbursing claims.

In Burkina Faso, the Association Yekouma Dakoupa and the Association of Widows and Orphans for the Leere offer a range of services such as agricultural support, micro-credit and school fees for orphan children. A group of women organized an informal solidarity fund to help members and their families when facing a health event. Worried that this fund would not be sufficient to cover all needs and health expenses, they decided to set up a more sustainable system and contacted the STEP program<sup>6</sup> with whom they set up a mutual health organization called Leere Laafi Bolem in 2001.

Other examples of labor cooperatives offering health insurance to their members include Yeshasvini in Karnataka, India, which offers health insurance to farmers who are members of statewide farming cooperatives. Hygeia Community Health Plan<sup>7</sup> has designed programs for

<sup>&</sup>lt;sup>6</sup> The STEP global program is an undertaking of the International Labour Organization (ILO). STEP is working toward reducing poverty and social exclusion through micro-insurance.

<sup>&</sup>lt;sup>7</sup> The Hygeia Community Health Plan is a partnership between Hygeia, the Dutch Health Insurance Fund, and PharmAccess. The program is implemented by Hygeia (a Nigerian health maintenance organization with other

market women in Lagos, Nigeria, and for farmers in the state of Kwara, Nigeria, through selforganized labor cooperatives. Hygeia also aligns with the local emir, who is the spiritual and ancestral leader of these communities. Another example is SEWA in India, an organization of self-employed women that offers microfinance and other insurance products to its members and that has added a health insurance product for its members and their families.

#### Employing creative communications mechanisms

Traditional methods and channels of marketing and communication are not always effective in reaching the rural, poor, and informal sectors in the developing world. Therefore, devising and communicating effective messages that relay the benefits of health insurance through appropriate channels are essential to attract and maintain interest in health insurance.

Many well-run community-based health insurance groups invest in social marketing, often by recruiting and involving local "champions" to speak with villagers about the benefits of insurance. Some organizations circulate fliers or other materials in local dialects and use explanatory drawings instead of written text.

The MicroInsurance Academy in India works with local village leaders to organize mutual group activities for health insurance education. Group exercises, entitled CHAT (Choosing Health Plans All Together)<sup>8</sup> are conducted with the help of an educated insurance facilitator and used to demonstrate the value that health insurance would bring to the community. The CHAT exercise is also used to help the communities place a monetary value on each health service and make trade-offs on insurance benefits coverage based on needs, desires, and cost. The CHAT exercise not only serves the purpose of educating the community, but it also takes the groups through an exercise to help them determine and rationalize the ideal benefits package for their collective needs.

Innovative group games are also used by UpLift Health. The game "Smart Shrimati" (which translates loosely to smart woman) is used to help uninsured group members realize the benefits that insurance would accrue to their families. The game involves 12 self-help group members are involved in the game, six of whom have bought health insurance and six of whom have not yet bought health insurance. Each participant is given 5,000 rupees with which to confront a series of health events. The game demonstrates that after a series of health events, the uninsured member bears the full cost of health events with little access to superior providers, while the insured member is financially protected and at the same time has access to superior providers. The uninsured self-help group member is left with 37,000 rupees of debt while the insured member is left with a surplus of 4,000 rupees. At the end of the game, each participant is given a survey to assess the impact of Smart Shrimati on their perceptions of insurance and on their willingness to pay for the product.

commercial lines of business), funded by the Health Insurance Fund, and technically supported (including monitoring and evaluation) by PharmAccess (a Dutch nongovernmental organization).

<sup>&</sup>lt;sup>8</sup>CHAT was first developed by the U.S. Centers for Disease Control.

Aligning with local leaders and trusted elder members of the community also lends credibility to the message. For example, VimoSEWA in India uses its veteran, most well-respected self-help group members to disseminate information about the beneficial attributes of health insurance for younger or newer members. These women, called "sthanik bahens," educate community members about the program through door-to-door visits and through the use of pamphlets, street plays, and community radio (MicroInsurance For and By Women Workers 2006).

Some insurance plans have also collaborated with local media—radio, television, or theater—to disseminate information about the benefits of their products. Street theater, posters, and cartoons have also been powerful marketing vehicles for educating the uninsured on the concept and value of insurance. In Bangladesh, for example, the Adolescent Reproductive Health (ARH) Communication Program addresses the gap between knowledge of illness, affordability, and health-care-seeking practices through its multi-pronged communication strategy, focusing on priority adolescent issues revealed by adolescents themselves. The aim of the campaign is to encourage adolescents and their caretakers to change behavior, seek information on health issues, and seek financial protection from health care costs.<sup>9</sup>

# Creating "entry-level" health insurance products

Instead of immediately introducing health insurance products where there is no current demand for them, some programs develop entry-level products that fall just short of insurance (e.g., savings or credit products for health care) to gradually establish the utility of financial protection mechanisms. Quantifying existing household resources that are channeled into health care is a powerful mechanism for demonstrating the utility of insurance. For example, many successful health insurance offerings in the developing world begin as savings and loan programs. In Luelo district, Uganda, community organizations offer health savings and loan products whereby community members may contribute a percentage of their earnings into a health risk pool of funds. When a medical event arises, the community member or her family may dip into the health risk pool to pay for medical treatment, and if the costs of treatment are higher than her contribution to date, she may access a low-interest loan. By offering the uninsured the option of saving for health care costs and credit for high-cost events, community members become sensitized to the need for health care financing.

Some areas have experimented with vouchers for health service delivery. Given high maternal mortality rates and low rates of assisted delivery, Gujarat, a state in India, introduced a voucher program for families living below the poverty line, entitling them to free maternity and delivery

<sup>&</sup>lt;sup>9</sup> The comprehensive program is based on extensive research revealing the need to create an enabling environment that supports adolescents' knowledge and service-seeking behaviors. A 39-episode TV series and 52-episode radio series follow a variety-show format with adolescent anchors and field reporters who conduct interviews with adolescents, parents, teachers, service providers, and community leaders on issues. The program also presents songs, poems, quizzes, and dramas using the same characters as the comic book. All ARH materials and media use the same logo and them songs, a method of "branding" to identify the ARH program material and all partners involved (Johns Hopkins Bloomberg School of Health Center for Communications Programs n.d.).

services from government-contracted private specialists. Although the voucher program falls short of insurance, it may serve as a stepping stone to more comprehensive insurance programs.<sup>10</sup>

The Foundation for International Medical Relief of Children (FIMRC) is experimenting in Namibia and Uganda with the concept of health credits, a form of conditional transfer, as a gateway to health insurance (Bakhru 2008). In Bumwalukani, Uganda, FIMRC has developed a number of different ways for women to earn health credits, such as by attending weekly health education sessions or bringing a newborn for vaccinations. These health credits can then be spent to receive additional care. By earning and spending health credits, FIMRC hopes that the communities will see a direct link between health care utilization and the benefit of being protected from the costs of that utilization. FIMRC asserts that by designing a system in which health credits can be earned and used, community members will take an active interest in their health, eventually leading to a program will give the, the option to "purchase" health insurance using their accumulated health credits.<sup>11</sup>

These kinds of savings, credit, and voucher programs can be entry points for eventual health insurance products. As communities become familiar with the concept of saving for health care and have some confidence in the implementing organization and service delivery network, they are more inclined to recognize the utility and financial protection offered by health insurance products, sometimes even demanding that the microfinance institution or provider of vouchers build a health insurance product into its offerings. In Luelo district, Uganda, the community began to realize how much its members needed to access savings to purchase health care, and is now engaged in discussions about how to build health insurance for its members.

#### Outstanding questions for overcoming barriers to introducing health insurance

1. What is the long-term relative effectiveness of community-level, grass-roots plans?

2. Which aspects of insurance program administration are best implemented at the community level as opposed to aggregated across a larger population to leverage economies of scale, better technology and skills, and or larger insurance pools?

<sup>&</sup>lt;sup>10</sup> Known as Chiranjeevi Yojana, the program was launched in five districts with a population of 10.5 million but later expanded to the whole state (55 million people). Private providers are accredited, contracted, and paid a fixed rate per 100 deliveries to level out case-mix differences in terms of complications. The payment method and formula aims to encourage providers to reach a certain volume of work, to avoid complicated transaction costs, and to create a disincentive for unnecessary Cesarean sections. Families living below the poverty line are identified by the state at the primary care level and issued cards entitling women to maternity services at their selected provider. About 800 providers are enrolled in the program, which from December 2006 to September 2007 covered 107,000 deliveries.

<sup>&</sup>lt;sup>11</sup> Weekly health education sessions have become a popular means by which community health issues are addressed. Each attendee receives a health credit simply for being present at the workshop. If all members of a pre-selected workgroup attend the workshop, an extra health credit is awarded, thereby encouraging neighbors to support and monitor one another. A mother can also earn health credits by bringing her newborn child to the clinic for vaccinations and documentation of the child's birth (up to 80 percent of births in some areas of sub-Saharan Africa go undocumented).

3. What types of private or grass roots insurance models are more likely to be building blocks to ultimate broader scale reforms (e.g., *mutuelles de santé*, microfinance-based plans, labor cooperatives)?

4. In which contexts might different models make sense (e.g., mainly rural settings versus urban areas)?

5. Are there any other existing structures that could foster the introduction of insurance?

# Challenge 2. Constructing a viable benefits package

Ideally, insurance provides financial access to services that are otherwise inaccessible to beneficiaries. The kind of benefits package that is feasible for a specific population will vary: a narrow benefits package (e.g., covering only cost-effective preventive services) may be affordable but may not meet a rural population's need for protection from catastrophic medical expenses. Yet a rich benefits package, though desirable to most, may not be feasible if willingness and ability to pay are limited and no third-party premium supplements (subsidies) are available (Preker and Carrin 2004). The challenge is to construct a package that will lead to improved health outcomes and improved financial protection and that is also attractive to and affordable by the population.

# Type of benefits packages

No two health insurance programs offer identical benefits packages or pricing. However, packages generally fall into three categories: (1) those that cover mainly outpatient primary and preventive care, (2) those that mainly cover inpatient care, and (3) those that offer more comprehensive benefits, which are much rarer because they are difficult to offer to poor populations at affordable prices in the absence of third-party premium supplements.

Table 2: General benefits classification of health insurance benefits packages for po	or
populations in the developing world with illustrative programs	

Primarily Inpatient	Primarily	Nearly Comprehensive
Benefits	Outpatient Benefits	Benefits
Adamjee, Pakistan Yeshasvini, India VimoSEWA, India Aarogyasri, India	Grameen Kalyan, Bangladesh BRAC Microinsurance	Hygeia Community Health Plan, Nigeria Sanjeevini, India China CBHI Karuna Trust, India UpLift Health, India

**Inpatient packages.** Examples of programs with benefits packages that primarily cover surgical interventions and hospitalizations include VimoSEWA (India), Adamjee (Pakistan), MicroCare (Uganda), and Yeshashvini (India). These programs focus on inpatient care because they believe it is most likely to result in impoverishing catastrophic expenses or be so expensive that patients will not have access to it. This type of benefits package is also associated with programs driven by certain types of organizations, such as traditional commercial insurers and hospital organizations. For example, traditional commercial insurers moving into the health market (e.g., Adamjee) are likely to focus on low-frequency, high-cost events because these are traditionally "insurable" events, whereas outpatient care is viewed as more predictable and lower in cost, and therefore less well-suited for insurance. Adamjee, the largest property and casualty insurer in Pakistan, provides insurance solely for inpatient care. Hospital organizations that move into the health insurance market (such as Yeshashvini) are also more likely, not surprisingly, to offer inpatient and surgical benefits packages due to the nature of the health services they provide.

Programs that focus on inpatient coverage usually have a proprietary delivery network or develop networks of private (and sometimes public) hospitals, and are most likely to be structured as third-party insurance, where risk is passed along to an insurer, rather than as a health coverage funds, where risk is maintained by the community. In these programs, the payout is usually capped at a pre-negotiated rate, because premiums are designed to be affordable and thus cannot cover the full cost of hospitalization and surgeries. For example, VimoSEWA in India reimburses the cost of hospitalization up to a certain amount for its members, but does not offer any prevention or primary care coverage. In Pakistan, Adamjee partners with National Rural Support Programme community organizations to provide its 500,000 members with hospitalization coverage through a network of public and private hospitals.<sup>12</sup> Mutual health insurance plans in the region of Thies in Senegal cover hospitalizations through one provider, the

<sup>&</sup>lt;sup>12</sup> Adamjee's health insurance costs 250 rupees annually per person. Coverage is offered to patients hospitalized for more than 24 hours (Hamed 2008).

St. Jean de Dieu Hospital, where the mutual organizations have negotiated a reduction of up to 50 percent on inpatient procedures and hospitalizations.<sup>13</sup>

A criticism of plans that cover only catastrophic care, such as VimoSEWA, Adamjee, and Senegal's mutual health insurance plans in Thies, is that they may create perverse incentives to delay treatment until a health condition is serious. In addition, providers of care may be inclined to hospitalize insured patients even when hospitalization is not required. The Yeshasvini program in Karnataka, India, attempts to address this problem. Its benefits package focuses on surgery, and it succeeds in offering rare but high-cost treatments like heart surgery for a reasonable premium through special contracts with high-quality hospitals. In exchange for the volumes that the program brings to network providers, Yeshasvini is able to negotiate prices for these procedures that are below the market rate. In addition, Yeshasvini offers free outpatient consultations to encourage members to seek care at an early stage.

**Outpatient packages.** Most programs that primarily cover outpatient care are based on the premise that outpatient primary and preventive health care offers the greatest, most cost-effective health impact, and that covering it promotes expanded utilization of these beneficial services. These programs cover high-frequency, low-cost events, so the benefits package and pricing must be designed to deter overutilization of outpatient care. Examples of such programs include L'Union des Mutuelles de Santé de Guinée Forestière (UMSGF) in Guinea and Grameen Kaylan in Bangladesh. To deter overutilization, UMSGF, a mutual insurance organization, offers outpatient services and drugs for a flat fee co-payment. Grameen Kalyan provides a range of services but limits coverage to a certain percentage of the actual costs for benefits accessed at external health care providers. Some outpatient packages may offer attractive discounts on more routine services and products, but fall short of providing full financial protection in the case of a major health event.

**Comprehensive packages.** We have managed to identify a handful of programs that come close to offering a comprehensive package. Most manage the higher cost of comprehensive benefits through some type of third-party supplement to patient premiums, such as reliance on some publicly financed and delivered services (presumably free at the point of service) or incorporation of a donor-financed premium subsidy.

Several community-based health insurance programs in southern Indian states are taking advantage of existing government facilities that provide health care free of cost. These programs most often incorporate public sector services into their network of providers and contract with private facilities to offer services that complement those offered by the public sector facilities. In this way, the programs lower the cost of care by routing beneficiaries to public facilities when their ailments can be managed there, but forwarding patients to private network facilities when

<sup>&</sup>lt;sup>13</sup> For a one-time membership fee of 1,000 francs CFA (for the head of the household) plus a monthly premium of between 100 and 200 francs CFA for each member of the family, members get discounts on surgical procedures and on hospitalization fees. For surgery, members pay 50 percent of the total costs of the operation. The daily cost of hospitalization, including laboratory analysis, consultations, and some radiology, is paid for by the mutual organization, which also receives a reduction of 50 percent on these services and tests (Preker and Carrin 2004).

the public facility cannot accommodate the patient's ailment free of cost. In Andhra Pradesh, Sanjeevini's benefits package covers the spectrum of health events, from primary care, to institutional deliveries, to the treatment of chronic disease, to medical inpatient treatment, to surgical hospitalizations. Sanjeevini is able to offer this range of benefits because it uses the public health facility network and also provides any service not covered by government facilities (including complex surgeries) through its network of private providers. Sanjeevini is able to

manage case flow by appointing a case manager in each type of facility (both private network hospitals and public facilities) who refers patients to the most appropriate facility for their ailment. Cases that can be treated at government facilities are directed there, while cases that require specialized care not offered at a government facility are referred to a private network provider. By leveraging the existing government infrastructure, Sanjeevini is able to provide comprehensive care at a low cost.

Karuna Trust in India also collaborates with an existing network of public health facilities to offer benefits that complement existing services. The public providers offer free treatment to people living near the poverty line, so Karuna Trust encourages its members to use the free public system, but in the event of hospitalization, Karuna clients are entitled to receive drugs that are unavailable in the public sector, are compensated for wage loss, and are provided with free ambulatory transportation to and from the network hospital (Churchill 2006). These additional benefits have made the Karuna Trust offering a very attractive product for poor, informally employed workers who indicate wage losses due to illness as a barrier to seeking care.

The Hygeia Community Health Plan program in Nigeria is able to offer a more comprehensive package because it supplements patient premiums with donor support (from the Dutch Health Insurance Fund, which funds a similar program in Namibia). A very comprehensive set of benefits<sup>14</sup> is

#### PROGRAM PROFILE Hygeia Community Health Plan Nigeria

Hygeia Community Health Plan is a partnership between Hygeia, a Nigerian health maintenance organization with origins serving a higher-end urban market, the Dutch Health Insurance Fund, and PharmAccess (a Dutch nongovernmental organization). The partnership offers health insurance to groups of market women and ICT workers in Lagos and poor farmers in Kwara State. The program is implemented by Hygeia, funded by the Health Insurance Fund, and technically supported (including monitoring and evaluation) by PharmAccess.

The Hygeia Community Health Plan targets poor informal sector workers by marketing insurance through labor cooperatives. The benefits package is comprehensive with primary, inpatient, and outpatient benefits. The premium is currently heavily subsidized by the Dutch Health Insurance Fund's subsidy and will eventually to be reduced (with premiums rising). The Kwara

<sup>&</sup>lt;sup>14</sup> The Hygeia Community Health Plan in Kwara State Nigeria offers the following comprehensive benefits with few exclusions: primary and outpatient care (including consultation with a general practitioner); lab investigations; prescribed drugs, pharmaceutical care, and diagnostic tests; preventive care including immunization; consultations with specialists; hospital care in standard wards; minor surgeries, x-rays; eye exams; pre- and post-natal care and delivery for up to four live births; and testing, counseling, and treatment for HIV.14

provided, with limitations only on the number of hospitalization days as well as the number of child births. This very generous package is affordable because of the donor money that supplements patient premiums. In its program for 75,000 low-income farmers in Kwara, Nigeria, health insurance is provided with significant subsidies (88 percent of the premium is paid for by the Dutch Health Insurance Fund). Within five years, Hygeia and the Health Insurance Fund plan to taper off the subsidy to 67 percent and transfer the cost of the subsidy to the federal, state, and local governments, in addition to other donors. Moving in this direction, the governor has signed a memorandum of understanding outlining the state's plan to cover a large portion of the subsidy currently funded by the Health Insurance Fund.

Most health experts agree that an ideal benefits package would be comprehensive, covering both outpatient and inpatient care, but realize that this is challenging given resource limitations. However, there are arguments for and against each of the other two approaches. Many argue that outpatient primary and preventive health care offers the greatest, most cost-effective health impact, and that covering it promotes expanded utilization. Others argue that while outpatient care is relatively affordable and predictable, inpatient events are most likely to result in impoverishing catastrophic expenses or be so expensive as to prevent access altogether. Debate about the "right" set of benefits continues. However, some of the models we reviewed are beginning to shed some light on this debate. For example, Bill Hsiao's study in China found that contrary to the generally accepted belief that most catastrophic financial losses are due to inpatient care, the households studied most often suffered financial losses from outpatient/ambulatory care and pharmaceutical consumption. A study in Andhra Pradesh, India found similar results (Churchill 2006). In Andhra Pradesh, a health insurance plan was designed to take these factors into consideration and to cover outpatient and ambulatory care, as well as to subsidize pharmaceutical purchases (Durga 2008). These studies (and potentially others like them) may begin to shift thinking toward the need for packages that focus on outpatient services. Hsiao's China study has already influenced the Chinese government to include outpatient benefits in many of the plans it is developing at the national and provincial levels.

# Designing a benefits package

Deciding what kind of benefits package to offer is complex and requires analysis and many trade-offs. Key questions include what services should be covered to provide the greatest health and financial protection benefits to the target community; what are the needs and the resource constraints of the target population; and what supply-side constraints exist in the market for care? These three issues are challenging to balance. The wrong balance can lead to low perceived benefit for the insured, which can dampen demand. The wrong balance can also lead to overly comprehensive benefits that result in a premium that the target population is unable to afford, or a bankrupt plan.

Most organizations design benefits packages in one of two ways. Some organizations employ a needs- or demand-driven method that evaluates the target population's specific health needs that are unmet by the existing delivery system, as well as health-related financial needs. Other organizations use a more supply-driven philosophy, determining their benefits packages based on

the services that can be delivered most competently by the existing delivery system. Ideally, both demand and supply considerations are weighed in the design of a benefits package.

Table 3 highlights some demand- and supply-driven models in the developing world:

 Table 3: General benefits classification and illustrative programs offering health insurance to poor populations in the developing world

Demand-driven Packages	Supply-driven Packages
Karuna Trust, India	Yeshasvini, India
VimoSEWA, India	SERP-sponsored programs, India
Hygeia Community Health Plan,	Kadic Hospital, Uganda
Nigeria	St. Jean de Dieu Hospital, Senegal
MicroInsurance Academy, India	

**Demand-driven packages.** Building a demand-driven benefits package requires an understanding of the demand within the target communities. We have identified several organizations that invest resources in baseline surveys of target communities before developing health insurance benefits packages. Karuna Trust in India works with a research institute to conduct a baseline study that collects information on health behavior, health spending patterns, knowledge about health insurance, and willingness to pay for insurance. Aggregate results of the survey are taken into account when designing a benefits package for that community. For example, one set of surveys found that the high cost of medicine proved to be one of the main burdens for households when illness occurred. The survey also found other indirect costs of illness to be high. Taking results into consideration, Karuna included a wage loss benefit within its benefits package that would compensate for the loss of wages when insured clients are hospitalized.

Other institutions use field staff to conduct similar kinds of household- and community-level research before introducing insurance products. BRAC in Bangladesh consults groups and individual members about their preferences to improve existing benefits. VimoSEWA in India has a research department dedicated to collecting feedback from its field staff on benefit preferences. UpLift Health in India conducts community-level studies to understand demand for services as well as willingness to pay. Hygeia Community Health Plan in Nigeria also conducts community-level demand and willingness-to-pay studies.

The MicroInsurance Academy's CHAT mechanism (as discussed earlier) allows for complete tailoring of benefits packages to community-specific needs. To help poor communities manage the trade-offs when considering health care benefits, the academy uses a game-like tool called CHAT (Choosing Health Plans All Together). This tool allows members to jointly define the benefits package that covers their most relevant needs. In CHAT, even illiterate and innumerate persons can participate and decide on the composition and price of their health insurance. Given the low incomes of the target population, premiums have to be low. While low premiums offer greater affordability for the poor, they also restrict the range of benefits. Given limited resources,

the careful rationing of benefits is essential and communities must rationalize what kind of care they would most want insurance for. The MicroInsurance Academy believes that members of the community are best placed to determine how resources should be rationed.

**Supply-driven packages.** In contrast to the demanddriven benefits packages discussed above, supplydriven benefits packages are determined by considering what services can be delivered effectively by the existing delivery system. Ideally, programs would balance the demand for services with the availability of services when determining the benefits package; however, in many developing countries (and particularly in rural areas) this is not possible due to the uneven supply of health care.

In India, Yeshasvini Trust designed its health insurance product around a network of hospitals that offer highquality surgical procedures that are otherwise either unavailable or of very poor quality in the existing (public and private) delivery markets. Without health insurance, the procedures offered through these hospitals are financially inaccessible to the poor. By leveraging the reputation of these hospitals, Yeshasvini offered access to superior surgical procedures to farmers across the state of Karnataka.

In Karimnagar, a district in the state of Andhra Pradesh. India, the Society for the Elimination of Rural Poverty (SERP) has constructed a community-based health insurance program around a district private medical teaching hospital. The private medical college in Karimnagar had very low bed occupancy rates and thus low student enrollment. At the same time, communities in villages surrounding Karimnagar's private medical college were identifying a need for financial protection from medical expenses, especially those incurred by hospitalizations. SERP brought together the private medical college and the communities to design a mutually beneficial package to be offered solely through the facilities operated by the medical college. The benefits package includes mostly surgical procedures (inpatient) offered at the medical college as

### PROGRAM PROFILE Society for the Elimination of Rural Poverty Andhra Pradesh, India

Under the umbrella of the Society for the Elimination of Rural Poverty (SERP), there are a number of community-based poverty reduction programs "run by the poor for the poor." All SERP programs are introduced and marketed through women's village organizations, with members of the organization implementing and managing all programs with training,, technical assistance, administrative support, and oversight from SERP.

For the health program, each community begins by implementing a Health Risk Fund, eventually introducing health insurance. SERP works with each cluster of villages to tailor appropriate benefits, determine pricing, and identify a delivery network. Benefits are determined based on community needs and desires, taking into consideration the existing supply of care, but generally include inpatient benefits, some outpatient benefits, and all primary health care consultations. The price of benefits packages is determined by the communities' ability and willingness to pay for desired services.

The network of providers includes both public and private hospitals and clinical with acce workers placed in well as pharmaceuticals that are sold in the college hospital's dispensary. By building the insurance around the latent supply of the medical college, the poor beneficiaries gained access to higher quality services than they would otherwise be able to afford, and the medical school was able to increase patient volumes and bed occupancy rates, and thus boost student enrollment and, ultimately, revenues.

There are also many provider-based health insurance programs in Africa, as well. For example, Kadic Hospital in Uganda is a 32-bed private hospital and medical outreach facility serving mostly middle- and low-income patients in Kampala. Kadic established an in-house insurance program to help patients finance health care at a time when most patients had no external source of insurance. Currently, about 6,000 members are enrolled in the hospital-based insurance, contributing to 10 percent of the hospital's revenues through membership premiums. In addition, the St. Jean de Dieu Hospital in Senegal offers up to 50 percent discounts on inpatient procedures and hospitalizations for members of local mutual health insurance programs (Preker and Carrin 2004).

# Outstanding questions for building a viable benefits package

1. What are the relative trade-offs of packages focused on outpatient primary and preventive care versus catastrophic hospital and surgical episodes versus specific episodes (e.g., delivery) versus comprehensive benefits?

2. What types of services are most likely to lead to household financial burden?

3. In which context does each type of benefits package make sense?

4. What are the benefits and risks of designing benefits packages around supply of services, rather than demand-driven factors?

# Challenge 3. Ensuring a quality delivery system

The development of health systems for the poor can be characterized as a "chicken and egg" problem. Improved demand-side financing mechanisms like health insurance can theoretically increase the quantity and quality of the supply of services. However, health insurance is unlikely to generate short-term gains in utilization and quality of care if there is no high-quality delivery system present at the outset of the insurance program.

Health insurance can offer steady revenue streams, which provide funds that allow providers to expand services and increase quality. Moreover, where payments follow the patient, providers will have to compete for patients and thus differentiate themselves based on the perceived quality of services delivered. This creates an incentive for increased quality. But it may be quite difficult to generate demand for insurance if the target customers do not believe that the program covers any high-quality providers at the outset, before these incentives take effect.

This raises a key question: What comes first? Is it necessary to have a robust delivery system upon which to build health insurance? Or will demand-side financing (health insurance) infuse the existing system with funds and incentives that eventually lead to improvements in service quality and availability?

The answer is unclear; however, one thing is obvious: to build viable health insurance products, beneficiaries must perceive the benefit of the services provided through the health insurance coverage to be superior to those they receive through the public (or other, uninsured) system. In the benefits section above, we discussed a number of programs that structure insurance programs around existing high-quality delivery systems that were previously inaccessible to the poor (e.g., Yeshasvini). But what if there is no existing high-quality delivery system? Some insurers attempt to immediately improve the existing, less-than-ideal delivery network through mechanisms such as on-site case managers or 24-hour hotlines. Other programs opt to build their own proprietary delivery systems that offer incentives to ensure quality, which combined with quality monitoring, are designed to improve the quality of delivery networks over time. Table 4 categorizes some programs by the type of delivery system they employ.

Table 4. Derivery systems used by selected insurance programs		
Improve Existing Delivery Systems	Create New Delivery Systems	
Hygeia Community Health Plan, Nigeria <i>Mutuelles</i> in Thies, Senegal UpLift Health, India Aarogyasri, India Arogya Raksha Yojana, India Sanjeevini, India	BRAC, Bangladesh Grameen Kalyan, Bangladesh Arogya Raksha, India	

# Table 4: Delivery systems used by selected insurance programs

#### Improving existing delivery networks

Most of the programs studied leverage existing providers as part of a newly created delivery network. However, many of these programs realize that they cannot wait for demand-side financing incentives to bring about quality improvements. Instead, they have implemented innovations aimed at more immediate quality improvements, such as navigators and hotlines.

A number of programs have introduced on-site insurance representatives or "navigators" to help their beneficiaries receive better care from existing delivery systems. This is seen most often in models that leverage the public system, such as Karuna Trust and Sanjeevini in India. The case managers improve an insured patient's capacity to navigate the public system, while complementing the existing public system's services with private sector services where necessary, thereby building faith in the proposition that insurance can provide higher quality services. Case managers monitor the quality of services delivered to beneficiaries to ensure that patients receive appropriate care. They also serve as risk managers on behalf of the insurance organization and patients, helping avoid unnecessary services or inappropriate diagnoses. In some programs, such as Andhra Pradesh's community-employed case managers, the staff members are able to manage demand and supply by having patients call in beforehand to explain their condition. Then the case manager can route the patient to the most appropriate provider.

Some insurance programs supplement the case manager with a 24-hour medical hotline. UpLift Health in India operates a 24-hour hotline, staffed by a qualified medical doctor whom beneficiaries can call at any time with questions regarding their health. Hotline doctors are able to diagnose and prescribe medications over the telephone and are also able to route cases to the most appropriate facility. In addition to the 24-hour hotline, UpLift employs case managers at each network facility (both public and private providers). The case managers are equipped with cell phones so that members may call them with questions about their facility or advice about where to seek care. Cell phones are also used to share information between the case manager and the central office.

#### Building a proprietary delivery network

Some innovative models of insurance address the lack of high-quality providers by building their own delivery system. Two examples of organizations that have built new delivery systems for their health insurance products can be seen in Bangladesh. Both the Bangladeshi Rural Advancement Committee (BRAC) and Grameen developed proprietary delivery systems for their communities because there was an absolute void in the area of quality service delivery.

BRAC's Health Programme offers beneficiaries access to three tiers of care through its proprietary delivery system. The first tier is a cadre of part-time community health workers, called Shashtho Shebikas, who are mostly female front-line workers of BRAC's Health Programme. The Shashtho Shebikas go door-to-door to educate community members on critical health matters, provide treatment for basic ailments and essential health commodities, and help to create "health-empowered" communities. The second tier is a cadre of health paramedics, all women, called Shashtho Kormis. These paramedics oversee the work of the Shashtho Shebikas, provide pregnancy-related care, and hold health education forums where the community's health concerns are addressed. The third tier is a network of health clinics, called BRAC Shushasthos, which provide technical backup to the Shashtho Shebikas and the Shashtho Kormis, who refer patients they cannot treat to these centers. The Shushasthos provide treatment and diagnostic services. They maintain comprehensive laboratories, outpatient facilities, and refer patients to the appropriate inpatient facilities if required. The Shushasthos are supported by qualified nurses and physicians (Churchill 2006).

The Grameen Bank's health program, Grameen Kalyan, was established in 1996 as an extension of services provided by the Grameen family of companies, which originally evolved from microfinance. The objective of Grameen Kalyan is to deliver quality primary health care services to the unreached rural poor in an affordable manner. Grameen Kalyan built 33 independent, private health centers at the village level to serve its bank clients. The health centers are usually attached to a village-level Grameen Bank branch. The private health centers employ at least one doctor and one nurse. Unfortunately, providing incentives for doctors and nurses to practice in rural areas is difficult in Bangladesh (as in most developing nations). To counter this problem and to encourage more qualified doctors to practice in rural areas, Grameen allows doctors and

nurses to moonlight in private practice after Kalyan clinic operating hours. In addition, Grameen has conducted studies that show that clinics run by doctors whose quality of care is perceived to be higher attract more insurance enrollment, and thus more revenue, than clinics that are operated by doctors whose perceived quality of care is not as high. Grameen has translated this information into an incentive plan for doctors, building a two-prong incentive mechanism for doctors that practice in rural areas: First, doctors who agree to open a Grameen Kalyan clinic receive a start-up bonus as incentive; and second, a system of incentive payouts is implemented for doctors who attract more clients to the insurance plan (Rahman 2007).

#### Relying on strategic purchasing

Regardless of whether health insurance programs leverage existing providers or create their own proprietary delivery systems, quality can be further improved by offering incentives to providers. Innovative provider purchasing and contracting arrangements can be implemented between institutional purchasers and health care providers to create payment mechanisms that align incentives with desired outcomes and develop mechanisms for establishing and monitoring quality targets.

Hygeia Community Health Plan in Nigeria provides care through a network of contracted private and public sector clinics and hospitals. With the support of the Health Insurance Fund and PharmAccess, Hygeia uses a number of strategies typical of social franchising organizations to improve the quality of its network providers. The Health Insurance Fund directly funds the physical infrastructure of many facilities, including renovations, medical equipment purchases, and information systems. PharmAccess provides clinical protocols, training, and quality monitoring. Upgrading quality in service delivery outlets has encouraged Hygeia to allow the network providers to use the Hygeia brand, which increases community trust. As further incentives deliver quality services, Hygeia is experimenting with innovative provider payment models, including supplemental payments based on quality metrics. Hygeia has a strong incentive to ensure the quality of its provider network because subsidy payments from the Dutch Health Insurance Fund are tied to targets and disbursed as incentive payments. PharmAccess conducts monitoring and evaluation for the entire program. In addition, the fact that Hygeia is at risk for the costs of a relatively comprehensive benefits package for a sizable population give it financial incentives to conduct preventive activities and improve the efficiency of the network.

Although the Hygeia Community Health Plan model of ensuring delivery system quality is more advanced than most small-scale health insurance programs in the developing world, most thriving programs have some quality standard for inclusion in the provider network. Many also monitor the quality of care delivered in the network. Some programs, such as Sanjeevini in India and MicroCare in Uganda, have implemented simple patient exit surveys to assess quality. MircoCare uses patient opinions to formally assess provider quality. Check-in nurses at each network facility monitor and report on provider quality as reported by patients. Each facility has a computerized check-in desk, staffed by a MicroCare nurse and networked to the central office database. When insured patients present themselves, they must check in with the nurse to verify identity and begin the visit record. After being examined, the patient returns to the check-in desk to report on the visit. All details are recorded, including the clinician's name, the diagnosis, any tests done, and all drugs prescribed. The nurse also asks a series of questions to assess the patient's experience with the facility and with the clinician. This information can be used to conduct clinical audits, which make it possible to ascertain the performance of individual facilities and clinicians can be assessed and the quality of service.

Insurance programs also improve quality by introducing guidelines for inclusion in the insurance network, standards that must be met before a provider may enter in the system. Aarogyasri, a state-funded health insurance for citizens living below the poverty line in the state of Andhra Pradesh, India, contracts with 160 private and 20 public hospitals. Aarogyasri has negotiated special rates for these eligible providers for roughly 300 specified inpatient surgical procedures. Network eligibility requirements are somewhat stringent; however, the benefits of being a network provider are many. Additional patient volumes (and thus revenues) alone are an attractive enough proposition for both public and private hospitals to improve their operating procedures to align with Aarogyasri's eligibility requirements for. By ensuring that all network providers adhere to the guidelines established by the Aarogyasri Trust, the beneficiaries gain access to facilities operating with higher standards for the delivery of care.

# Outstanding questions for ensuring a quality delivery system

1. Can insurance, and its associated purchasing incentives, be used as a mechanism to drive the improved quality of existing fragmented, low-skill private providers?

2. To what extent and in which contexts must risk-pooling programs be accompanied by direct investments in supply?

3. What are the most effective mechanisms for quickly improving provider quality?

4. What is the optimal mix of standards, direct investments, and incentives to achieve the greatest quality impact?

5. To what extent can social franchising models be used in conjunction with insurance to further improve quality?

6. To what extent can insurance models be used to improve quality in public delivery systems or are they most useful in contexts where most of the existing delivery and financing are private?
## Challenge 4. Pricing and funding insurance

Building a benefits package and a delivery network cannot be done without considering two important issues: First, how much can and should the target population pay for insurance? Second, to what extent should external funding (from government, donor, or cross-subsidization) help bridge the gap between how much people can pay and the actual cost of the desired benefits? In this section, we explore several methods for pricing insurance and then discuss the debate over whether and how to subsidize insurance programs.

## Methods for pricing insurance

When pricing insurance premiums, organizations ideally should take into consideration both the target population's willingness to pay for insurance, as well as the actual cost to deliver benefits. In the models we have outlined in this paper, we find two different methods of pricing: (1) pricing that takes into account the estimated cost of the benefit package; and (2) pricing based solely on the target population's willingness to pay. Figure 4 is an illustrative diagram of the continuum of pricing for insurance premiums in the many programs we examined in India. Several programs have been highlighted along the continuum to show the range of practices used for determining premium prices in poor nations.

## Figure 4: Illustrative continuum of pricing methods for health insurance in India



Insurance premium pricing should ideally be grounded in sound actuarial practices. The cost of insurance benefits can be estimated using expected utilization and unit costs for different types of care and then adding expected administrative cost and contingency reserves. Premiums are typically tailored to specific age groups or sex groups. Not surprisingly, we see true actuarial methods, which require specialized skills, employed mainly in situations where a traditional insurance company is offering the package or partnering with the offering organization. Examples include Adamjee in Pakistan, Hygeia in Nigeria, and MicroCare in Uganda.

However, in the developing world, it remains difficult to price insurance products based on true actuarial calculations for many reasons. As a result, willingness to pay often plays a dominant role in determining pricing. For example, in 2001 Karuna Trust completed a baseline study that showed that the average willingness to pay per household per year was between 111 rupees and 290 rupees (Centre for Population Dynamics n.d.). Based on this survey, Karuna Trust set the premium at 150 rupees per year for a household of five. Another plan, UpLift Health, conducted focus group discussions in 2002, which led it to establish a premium of 50 rupees per year per person, applied uniformly to all ages and both sexes (Kelly and Shailabh 2008). Often, technical actuarial capacity is lacking in small, community-based health insurance programs. Many community-based programs in India, such as Sanjeevini and other micro-insurance programs operating under the umbrella of SERP in Andhra Pradesh, openly admit that they currently do not have the capacity to optimally price premiums on actuarial grounds. Many such programs focus initially on introducing insurance based on ability to pay, though most believe they should eventually evolve to an actuarially sound pricing model.

Even where the technical expertise may exist, actuarially determined prices may not be viable considering the target population's ability and willingness to pay for insurance. For this reason, many programs start by charging what they believe people are willing to pay, even if they know it may not cover the full cost. In the absence of actuarially sound pricing, programs sometimes cover shortfalls with the funds of parent nongovernmental organizations. This strategy may be workable for programs that primarily cover outpatient, high-frequency, low-cost, predictable events, especially if they rely on their own delivery system. For example, BRAC started its "risk-pooling" plan mainly as a way to supplement the funds of its existing nongovernmental organization providers, which already received some direct grant support. Other programs (e.g., UpLift Health) create relationships with neighboring micro-insurance groups and borrow from them if they experience shortfalls in funds. Other programs cut off reimbursements once the fund has been depleted (e.g., Sanjeevini).

However, pricing based purely on willingness to pay can lead to negative consequences. If a fund runs out of money and is unable to pay a claim, it can lead to distrust among the beneficiaries and the network providers. If a program must increase its premiums significantly due to insufficient funds, it can lead to significant declines in enrollment. For example, Yeshasvini did not initially use reliable data for premium pricing (Churchill 2006). The frequency of utilization turned out to be much higher than initially expected, with pricing of procedures differing widely by facility. As a result, the program was forced to double its

premium after the first year of operation, and a third of its clients did not renew their policies. Ultimately, Yeshasvini was able to fix the problem by negotiating a flat rate and/or payable range for each kind of procedure (much like the diagnosis-related groups established in the United States) payable to all network hospitals (Churchill 2006).

Another risk is that programs might underestimate willingness to pay for insurance. A recent survey of willingness to pay undertaken by David Dror of the MicroInsurance Academy in Delhi reported that the actual amounts that the poor are willing to pay for insurance in India are higher than previous reports and higher than premiums charged by many plans today. For example, median nominal willingness-to-pay levels determined by Dror and colleagues are more than three times higher than premium levels applied by Karuna Trust and UpLift Health (Dror, Radermacher, and Koren 2006). In addition a study by Afsaw, Gustafasson-Wright, and van der Gaag found that even the poorest Namibians were willing to pay up to five percent of their annual income for health insurance, which was almost exactly equal to their expected out-of-pocket expenditures (Asfaw, Gustafsson-Wright, and van der Gaag 2007). Further, their study findings suggest that almost 87 percent of the uninsured respondents were willing to join a proposed health insurance plan and on average were willing to insure 3.5 individuals (around 66 percent of the average family size). The results of these studies indicate that there may be a considerable and largely untapped willingness to pay for quality health insurance (Dror, Radermacher, and Koren 2006).

#### The question of subsidization

Of course, many of the programs that rely on actuarial methods for determining their projected costs find that target populations are not willing or able to pay those full costs, especially when a comprehensive benefits package is desired. When programs find a gap between what the population can afford and the cost of the desired benefits package, they must consider whether and how to try to fill that gap. One obvious solution is to limit the benefits package. Another possibility is to attempt to find an external party (the government or a donor) to provide a premium supplement. Yet another option is to implement differential pricing for different income groups, with the more affluent group's higher premiums subsidizing those of the less affluent. However, the concept of premium subsidization is surprisingly controversial in health insurance for the poor.

The main concern about insurance premium subsidies is that insurance is a long-term, recurrent cost, while most donor funds are shortterm in nature. For this reason, most program managers we spoke to were uncomfortable with the notion of premium subsidies. We also found that many of these implementers, especially those from the microfinance or "bottom of the pyramid" marketing communities, strongly favor "sustainable" models, which they define as those that are not reliant on long-term donor funds. For example, at a Virtual Conference on Microinsurance sponsored by the U.S. Agency for International Development in 2000 (MicroEnterprise Best Practices 2000), two different types of subsidy were identified by participants: (1) funds provided by an external entity to support a program, and (2) crosssubsidization or redistribution among relatively wealthier and relatively poorer clients. For health insurance, the second definition of subsidy was viewed as more generally acceptable among participants of the conference.

Others argue that short-term subsidies are necessary as insurance is introduced to a population for the first time. While willingness to pay is initially low, the argument goes, subsidized premiums can encourage enrollment. Then, once enrollees begin to understand the value of the insurance, their willingness to pay will increase, and the supplement can be reduced. This argument makes sense in theory. However, in practice, there are a number of examples of significant drop-offs in enrollment when premiums were increased several years after the launch of a program. For example, Karuna Trust in India had to engage in a massive trust-building exercise after it halted its premium subsidies. Half the clients dropped out initially, and only after an intense effort by Karuna's field staff was it possible to increase numbers.

In our program scan, we found very few smaller voluntary programs that rely on explicit ongoing

## PROGRAM PROFILE Aarogyasri Andhra Pradesh, India

The Aarogyasri community health insurance scheme has been introduced by the government of Andhra Pradesh to bring quality medical care within the reach of the 48 million state residents who are below the poverty level. Through Aarogyasri, the state provides coverage for the treatment of serious ailments that require hospitalization and surgery such as cancer, kidney failure, heart, and neurosurgical diseases, through a network of 180 hospitals (140 private and 20 public). The cost of insurance is fully subsidized by the state using federal funds from the National Rural Health Mission.

The Aarogyasri program is an example of a state-led initiative that has its origins in small-scale community-based insurance programs across the state (e.g., SERP). The program has evolved into a largescale, statewide, government-led initiative that involves a diversity of actors in the administration of the program, while continuing to leverage the women's rural self-help groups for information dissemination and awareness building. Partners include:

1. *Aarogyasri Trust*: Comprised of representatives from various government agencies, the trust serves as the governing body for the program and also oversees the insurance company's management of network

premium supplements (or subsidies), whether from government or donors. Hygeia Community Health Plan and other programs funded by the Health Insurance Fund are the major exception. However, there are a handful of cases of low- and middle-income countries or states implementing demand-side subsidies on a broad scale. Colombia and Thailand have been successful at achieving nearly national scale reforms. Other countries or states are also moving toward demand-side subsidies for the poor through health insurance. Aarogyasri is a health coverage program that has been recently launched by the Indian state of Andhra Pradesh, home to over 76 million people with 30 percent of the population registered below the poverty level. The government finances 100 percent of the premiums for state residents who live below the poverty line. Care is provided primarily by private providers (the network does include some public facilities, but 160 out of the 180 network providers are private facilities), and administrative services are provided by a private third-party administrator. Aarogyasri beneficiaries have access to facilities they would never otherwise be able to use due to the financial barriers to access. For example, Apollo Hospitals are one of the leading high-end hospital chains in India. The Apollo Hospital in Hyderabad is a member of the Aarogyasri network and provides care to hundreds of Aarogyasri members each month. In fact, Aarogyasri members living below the poverty line account for one-third of the hospital's volumes.

Kwara, a state of 2 million people in Nigeria, may soon commence a similar program. As discussed in earlier sections of this paper, Kwara state has partnered with the Health Insurance Fund (a Dutch nongovernmental organization) and Hygeia Community Health Plan (a Nigerian health maintenance organization) to implement comprehensive health benefits for low-income populations in several districts. The premiums are currently subsidized by 88 percent, with initial funds provided by the Dutch Health Insurance Fund. However, the governor of Kwara has signed a memorandum of understanding to gradually take on the cost (with the support of federal funds) of the program over the course of several years.

Beyond a few examples such as those above, we have found that most health insurance programs do not include a third-party premium supplement. This is partially because of the lack of availability of donor and government dollars for this purpose. With a few notable exceptions, bilateral donors tend to provide their health assistance in the form of budget support to governments with a focus on provision of direct services. Other donors that provide off-budget support (such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the U.S. Agency for International Development) also typically focus on supply side subsidies, primarily in vertical disease areas. Meanwhile, ministries of health in developing countries focus the bulk of their funding on salaries, capital expenditures, and supplies for their public providers.

A major question for implementers of private health insurance programs in developing countries is whether some of the supply-side donor and Ministry of Health funds might be converted over time to demand-side premium supplements for health insurance programs. These supplements might initially support private health insurance models, eventually paving the way for governments to convert their health systems to publicly funded, privately delivered models that are prevalent in OECD countries and, recently, in more middle-income countries like Colombia and Thailand.

## Outstanding questions for pricing and funding insurance

1. What is true willingness to pay for insurance? How much is this driven by existing levels of out-of-pocket payments, user fees (formal and informal), or both? What other contextual factors drive willingness to pay?

2. To what extent and in what contexts are risk-pooling models viable without subsidies for the poor?

3. How much subsidy is optimal to achieve broad enrollment and comprehensive coverage?

4. Do initial subsidies dampen ultimate willingness to pay? Is it better to start with a low subsidy or no subsidy or start with a very large subsidy?

5. To what extent can you reduce the level of a subsidy over time, once enrollees begin to see value in purchasing insurance?

6. If a subsidy is required over the long term, what are viable sources of long-term subsidy? (e.g., local/state/national government funds, donor sector-wide approaches, vertical donor dollars including, for example, the President's Emergency Plan for AIDS Relief and the Global Fund)?

## Challenge 5. Mitigating insurance-related risks

Health insurance programs must grapple with how to manage several risks that are endemic to all types of insurance. These include some risks typically related to behaviors of insured individuals including adverse selection, free riding, and over-utilization (sometimes called "moral hazard"), as well as some risks related to the behavior of providers of health services, including provision of inappropriate or unnecessary services, cream-skimming and cherry picking, balance billing, and fraud. A different kind of risk that micro health insurance plans face is associated with the size of risk pools. There are many implications of the inherent small size of risk pools in micro-insurance programs (Dror and Preker 2002). Table 5 outlines the multiple risks inherent in micro-insurance programs and provides some strategies that are being experimented with in the developing world to mitigate these risks.

Adverse selection	Limitations on coverage	All micro health
	Limited enrollment periods	insurance programs
	Individualized underwriting	must employ some
	Community solidarity	risk mitigation
	Compulsory group enrollment	strategies to be
	Premium subsidization	sustainable in the
	Family enrollment	long run. Some
Free riding	Community solidarity	programs discussed
-	Membership cards with photos or	in this section
	retinal scans	include:
Over-utilization	Deductibles and co-payments	
(patient-driven moral	Set claims limits	MicroCare, Uganda
hazard)	Gatekeepers or case managers	Hygeia Community
Inappropriate provision	Payment structures (e.g., capitation or	Health Plan, Nigeria
(provider-driven moral	case rates)	Sanjeevini, India
hazard)	Preauthorization	Approximited in the Approximation of the Approximat
	Integrated financing/delivery model	Aarogyasri, muta Mutuelles de santé
	(health maintenance organization)	Muluelles de sanie,
Small risk pools	Compulsory group enrollment	Vashasvini
	Reinsurance	I CSHdSVIII
	Community claim ceilings	
Regulatory risks	Risk-based capital requirements	
	Regulating micro-insurance	

### Table 5: Strategies to mitigate insurance-related risks in the developing world

Health insurance programs in the developed world have designed numerous strategies to mitigate these risks, though it is nearly impossible to eliminate them altogether. Developing world programs designed to serve the poor and informally employed sectors face similar insurance risks, but may need to adapt their strategies to a developing world context. This context can actually provide some mitigation opportunities that are not feasible in most OECD countries, such as greater solidarity and relying on tight-knit communities to discourage free riding and adverse selection. But it can also raise additional complications related to managing these risks. For example, many developing world insurance programs are guided by a social mission to reduce barriers to coverage, and some risk-mitigation strategies may seem counter to that social mission. All such contextual nuances must be taken into consideration in designing proper incentives for beneficiaries and health care suppliers in the developing world.

## Adverse selection

A typical failure of voluntary health insurance programs is that people who are most likely to require health services (the sick and the old) are the most likely to enroll. This is known as

"adverse selection." It is logical that people who are most likely to use their health insurance are most willing to pay a premium. However, to keep premiums affordable and protect individuals against catastrophic expenditures, insurance programs must spread or pool risk over a group that includes the healthy and the sick, such that average costs per member are significantly lower than the individual costs of the sickest members. Programs that do not control adverse selection can enter a "risk spiral," in which the average per-person premium must be increased to cover total costs as a pool of enrollees becomes sicker. This causes even more of the healthier people to drop their coverage or decide against purchasing coverage because the cost is higher than their perceived risk (they decide they would rather take the risk of having high out-of-pocket costs), thus pushing average costs and premiums even higher.

Adverse selection risk is typically managed in several ways. The easiest way to mitigate this risk is to mandate coverage for an entire population through social insurance programs or regulatory mandates to purchase insurance, which is what many industrialized countries do. In the absence of mandates, a number of insurance markets (e.g., the United States) have evolved to rely on group coverage, where many people purchase their insurance coverage through a group, most often an employer that pays for 100 percent of the premium or offers a significant subsidy that encourages healthy people to enroll.<sup>15</sup> In addition, insurers further mitigate adverse selection through rules that create incentives for individuals to purchase insurance before they become sick, such as limitations on coverage for preexisting conditions, outright rejection of people with certain conditions, as well as limited annual enrollment periods. All of these rules make it difficult for individuals to purchase relevant coverage immediately after becoming sick, thus creating an incentive to seek coverage while healthy. For example, many micro health insurance plans covering institutional deliveries and obstetric care find that pregnant women purchase membership only when they need to use delivery services, dropping out or not renewing membership after their deliveries. South Asian plans, such as Sanjeevini in India suffer from the problem of high claims costs due to utilization of delivery care. Implementing waiting periods before enrollment or excluding preexisting pregnancies from coverage helps limit this kind of adverse selection. In addition, when allowable by law, insurers use individualized underwriting and pricing to eliminate adverse selection. This allows them to offer low premium rates to generally healthy people, while charging much higher rates for older or sicker people.

<sup>&</sup>lt;sup>15</sup> In the United States, the federal government offers tax incentives to employers who provide health insurance to their employees, which makes it an attractive alternative to additional direct cash compensation.

However, in the context of the developing world, some of these mitigation strategies are somewhat problematic. Typically, there are inadequate government resources and tax-base limitations that preclude mandatory insurance coverage. And because most developing world insurance programs are pursuing a social mission to help the poor, sick, and vulnerable, hard-nosed insurance industry practices such as preexisting condition limitations, rejection of sick people, and individual underwriting (charging more to older, sicker people) are not palatable.<sup>16</sup>

Many developing world contexts provide opportunities for managing adverse selection that may not be available in OECD contexts. For example, insurance plans can appeal to the sense of solidarity among people in tight-knit rural communities, who frequently feel a duty to the entire community, especially its older or sicker members. Solidarity can be enhanced by creating a rule that a plan will not launch unless a community can guarantee the enrollment of all (en bloc enrollment) or a certain percentage of their members. This creates additional peer-pressure among members of the group. Solidarity can most easily be leveraged when there are existing organized community structures, such as the cooperatives discussed in the section on introducing insurance. For example, UpLift Health in India requires en bloc enrollment of members of microfinance organizations or self-help groups; if each member of the group does not enroll, then the group not eligible for insurance coverage.

Another way to reduce the risk of adverse selection is through third-party supplemental premium payments. When premium costs are partially subsidized, healthier people are more likely to be willing to pay because they will perceive that the benefits outweigh the costs. The insurance benefits provided by Hygeia Community Health Plan are heavily subsidized by donor support (that will eventually be transferred to the government), making the premium payments more financially

#### PROGRAM PROFILE MicroCare Uganda

MicroCare is a for-profit insurer that seeks to leverage its proprietary IT system, delivery network, and technical expertise to bring health insurance products to the poor. Currently, MicroCare's insured base is 70 percent formal sector and 30 percent informal sector, but it hopes to shift its customer base in the next five years to 30 percent formal and 70 percent informal. Currently, the informal sector premiums are subsidized (25 percent),but MicroCare plans to transfer the full premium cost to consumers after gaining credibility.

MicroCare focuses on retail insurance sales, but leverages existing community organizations for marketing and information dissemination. Benefits packages for poor include primarily inpatient benefits with some outpatient services and all primary health care consultations. MicroCare uses its network of private providers to deliver care.

MicroCare has implemented multiple mechanisms to mitigate risk. It uses a sophisticated IT platform that helps prevent fraud and monitor quality. The platform is able to cross-check a patient's records with a provider's history of completed procedures and history of denial of claims before it

<sup>&</sup>lt;sup>16</sup> Because the practices of individual underwriting, limiting coverage of preexisting conditions, and rejection of sick individuals for coverage are harmful to those who most benefit from insurance, many regulatory regimes outlaw them or place some limits on them (e.g., through community-rating, rate-band, or guaranteed issue laws).

#### accessible.

A back-door mechanism for cross-subsidy is to create "family premiums" where there is a cap on the total amount that a family must pay, regardless of family size. Another, similar strategy frequently employed by risk-pooling programs in the developing world is to require an entire family to enroll, rather than selectively enrolling some family members—who are usually the oldest or the sickest. Both of these mechanisms create incentives to bring lower-cost members of a group (usually young adults and children) into the pool. Sanjeevini in India sets a base premium price for a five-member family. Each family must pay the set premium, regardless of how many members of their family are actually enrolled.

#### Free riding

The flip side of the adverse selection risk is free riding. Free riding occurs when members of a group do not enroll in insurance and pay their premiums, but then attempt to claim a benefit from insurance when they need it. In the absence of some of the protections described above, free riders will attempt to join the pool only after they need the insurance. In another form of free riding, which begins to resemble fraud, an individual will attempt to pass themselves as a friend or family member who has purchased insurance, for example by presenting the membership card of a paid member. Tight-knit rural communities of the developing world can guard against this type of free riding, especially when community members administer the insurance pool (as in the case of the West African *mutuelles*, or some of the programs started by cooperatives such as Yeshasvini). In these situations, it is difficult for people to free ride without getting caught. In addition, several developing world organizations have implemented sophisticated mechanisms for validating the identity of members. For example, MicroCare in Uganda issues family enrollment cards that are outfitted with a computer chip and a photo of each family member on the back of the card. Other programs use fingerprints (e.g., Sanjeevini) or even retinal laser scans (e.g., Aarogyasri) to verify user identify.

#### **Over-utilization**

When individuals are insured, and therefore do not have to pay the full cost of health services, they may be inclined to overuse those services. Doctors, hospitals and other providers of health services are often happy to let them demand unnecessary care, because they stand to gain through increased payments. To limit excessive or inappropriate patient demand, key strategies include deductibles, co-payments micro-insurance, and setting limits for claims requiring the insured to bear some of the cost of care, as well as gate-keeping methods that require primary care referrals prior to going to a specialist or that offer nurse hotlines to try to manage minor complaints. Some programs, such as UpLift and Sanjeevini, have implemented a 24-hour hotline staffed by a doctor to encourage beneficiaries to call before seeking care so that the doctor on call can verify the patient's condition and need to seek care.

In the developing world, problems of patient over-utilization may be less of a concern; the small scale and community focus of programs often provide informal safeguards against overutilization and other fraud (Davies and Carrin 2001). Moreover, many informal sector insurance programs are designed to increase access to and use of key health services. Most of the programs we have identified employ significant patient cost-sharing, which likely limits flagrant overutilization.

#### Inappropriate provision of services

In the developing world, the supply side of over-utilization—the inappropriate provision of services by providers—is likely more of a problem than demand-driven over-utilization. In many instances, service providers opportunistically drive over-utilization, sometimes to the detriment of their patients' health, in addition to their finances. Because of perceived or real information asymmetries between providers and patients (patients tend to believe their providers know more than they do about how to treat an ailment), health care is particularly susceptible to supply-driven demand. In the developed world, a number of mechanisms have evolved to manage over-utilization. Provider over-utilization is typically managed through payment structures, such as capitation payments and case rates, which limit the incentives to provide additional care (but which can also create incentives for under-provision) or preauthorization requirements, where doctor decisions are reviewed prior to expensive procedures or treatments.

Unfortunately, provider-generated over-utilization may be of even greater concern in the developing world, especially given the typical lack of enforced regulation of market entry and low educational levels of patients. This creates a very large, unregulated "supply" of health services, because in many developing countries, nearly anyone, regardless of training, can set up shop as a "doctor." Symptomatic patients may have little education about the cause of their symptoms, which can make them easy prey for unscrupulous drug sellers or service providers. Possible solutions include implementing payment structures and preauthorization mechanisms, or using an integrated health insurance and health care delivery model that minimizes the incentive for over-provision (Hygeia Community Health Plan in Nigeria is a relatively integrated model in which the insurer controls a fairly tight delivery network).

Some insurance plans in the developing world are building programs to address the issue of provider-driven over-utilization. MicroCare's sophisticated IT platform is able to cross-check a patient's records with the provider's history of completed procedures and history of denial of claims before it preauthorizes a claim. Yeshasvini tries to verify the necessity of expensive treatments (and prevent fraud) by having a local representative of the plan visit the health facilities involved in the plan. These district coordinators are supported by a doctor working in the MicroCare's head office. MicroCare also employs insurance administrators or check-in nurses at the point of service to create checks and balances and avoid provider-driven moral hazard.

#### Risk of pools that are too small

Micro health insurance plans are inherently limited in size. They target people within a defined group or local area, reducing their ability to diversify an already small targeted risk pool. This inherent characteristic of micro-insurance plans introduces potential for adverse selection, reduces the ability to balance risk pools, and potentially results in problems with long-term

sustainability due to excessive claims payouts. Specifically, higher risks associated with smaller pools (e.g., adverse selection, catastrophic illness of one or several members of a small risk pool) can lead to claims exceeding premium collections. Building balanced risk pools offsets the potential for these kinds of catastrophic expenditures. Reinsurance is another mechanism that offsets the risks of smaller pools by transferring liability from the micro-insurer to another insurer.

To mitigate the risks associated with smaller risk pools, micro health insurance plans have experimented with diversifying the composition of their risk pools in several ways. Many of the same tactics that are used to avoid adverse selection, such as requiring group enrollment (en bloc enrollment) or family enrollment, are used to diversify and broaden a risk pool. Some programs even levy penalties for members who join on an individual basis. UpLift Health expects members to enroll their entire household; those that do not are charged double the premium for an individual membership.

Micro-insurers may consider ceding some risks through reinsurance. MicroCare in Uganda is one insurer that has relationships with several reinsurers. However, the reinsurance market in micro-insurance has not yet taken off, with commercial reinsurance only very rarely employed as a risk mitigation strategy. Commercial insurers see very little profit in the micro-insurance market (because of low premiums, small scale, high risks, and limited management capacity) and have designed few products for this market (Dror 2008).

In the absence of traditional commercial reinsurance, some micro-insurance programs have developed their own mechanism for managing higher-than-expected claims. At UpLift Health, where claims processing and reimbursement are managed at the local level, each insured community has made a pact with neighboring insured communities, allowing them to borrow from their sister organization's insurance funds in the event that claims exceed reserves. The funds are refunded once the community's insurance fund is in surplus.

#### Regulatory risks

The risk of cherry-picking or cream-skimming is usually most problematic when private commercial markets for insurance begin to develop. In the absence of effective insurance regulations, insurers pursue strategies designed to mitigate adverse selection, but these can quickly become opportunistic ways to increase profits, such as by insuring only healthy people or significantly overcharging sicker older people through individual underwriting. This can be particularly problematic if public systems are left with the most expensive cases.

Many nations, such as India, Nigeria, Uganda, have seen growing commercial interest in the health insurance markets in recent years. To counter some of the traditional risks of unregulated insurance markets, these countries have implemented stringent regulatory frameworks for commercial insurers interested in entering the market. Regulations include guidelines for risk-based capital requirements (minimum reserves) for commercial insurers as well as mandates for the provision of services to the poor and underserved.

Micro health insurance programs face a different problem altogether. They do not qualify to be regulated under traditional commercial insurance regulations (due to size or nature of their administrative structure) nor are they regulated under micro-insurance regulations because most nations do not have insurance regulatory provisions for micro health insurers. While many micro-insurance organizations would just as well not be regulated, some micro-insurance programs want to create an accreditation process or formal regulation for their thriving market. An organization in India, the Community Led Association for Social Security (CLASS), has been created my micro-insurers to facilitate access to health insurance to over 900 million people. CLASS members cooperate to pool technical and financial resources to establish an informal accreditation structure for micro-insurers. In addition to informal accreditation, CLASS is lobbying for formalized, government-implemented regulations in order to ensure fair practices towards the insured and fair competition among micro-insurance programs in a given market.

## Outstanding questions for developing supply- and demand-side incentives to mitigate risk

1. To what extent are various types of groups appropriate or optimal as the basis of a risk pool: rural cooperatives, labor cooperatives, villages, employers, specific demographics (e.g., young mothers)?

2. What are the implications of these various groups for risk selection, ability to achieve solidarity, mitigation of insurance-related risks, and the like?

3. What is an optimal group size from an actuarial perspective?

4. What is an optimal group size from an administrative perspective?

5. What is an optimal group size from a demand perspective (do groups sizes that are too large or too small dampen demand)?

6. How can private insurers be prevented from going too far in trying to mitigate risks, such that insurance is rendered less valuable to those who need it most?

#### Challenge 6. Managing insurance administration

The ongoing success of any insurance program is dependent on the effective management of several key administrative functions common to most health insurance programs. We have found that risk-pooling programs in the developing world engage in very different strategies for managing these core functions. One major factor that differentiates various programs is the level of involvement of the local community and other types of partner organizations such as nongovernmental organizations, third-party administrators, insurers, health maintenance organizations, and of course, health care providers. A related differentiating factor is the degree that the various functions are centralized across larger populations as opposed to localized within one community.

Table 6 summarizes the core activities involved in administering insurance and some mechanisms used in the developing world to improve the management of these activities.

Model	<b>Representative Programs</b>
Community-based enrollment	Hygeia Community Health Plan in Kwara, Nigeria UpLift, India MicroCare, Uganda
Retail enrollment	Arogya Raksha, India Most commercial health insurance for mid-income populations in the developing world (e.g., ICICI Lombard, India; MicroCare, Uganda)
Cyclical collections (based on when cash income is highest) Alternative premium	Bwamanda Insurance Scheme, diagnosis-related groups Hygeia Community Health Plan, Nigeria
payments Ongoing provision of products and information	Yeshasvini, India Arogya Raksha PhilHealth, Philippines Karuna Trust, India VimoSEWA, India BRAC, Bangladesh Grameen Kalyan, Bangladesh UMSGF, Guinea
Community-based processing and reimbursement	UpLift Health, India MIA-sponsored micro- insurance, India
Third-party administrator or insurer-managed involved in processing and reimbursement	Mutuelles de santé, Rwanda Aarogyasri, India MicroCare, Uganda Hygeia Community Health Plan, Nigeria Arogya Raksha, India
	Model         Community-based enrollment         Retail enrollment         Cyclical collections (based on when cash income is highest)         Alternative premium payments         Ongoing provision of products and information         Community-based processing and reimbursement         Third-party administrator or insurer-managed involved in processing and reimbursement

Table 6: Mechanisms for administering insurance in the developing world

Information	Information technology	MicroCare, MIA
technology/systems	platforms/management	AssEF, Benin
	information systems	VimoSEWA, India
		Aarogyasri, India
		Hygeia Community Health
		Plan, Nigeria

**Enrollment and premium collection.** In the developed world, enrollment and premium collection are relatively straightforward activities. In countries where health care is financed through general tax revenues, citizens do not pay direct premiums for insurance. In countries where health insurance is financed through payroll taxes, the government is able to deduct a predetermined percentage of an employee's wages to allocate toward universal health care financing. Even in the United States, employer-based insurance allows employers to deduct monthly health insurance premiums directly from an employee's paycheck. In all of these arrangements, there is little need for enrollees to proactively and recurrently pay premiums.

However, in the developing world, it is difficult to enroll members and collect premiums from individuals in the informal sector because there are few structures that allow automation of these functions. Instead, program managers typically must convince people to proactively pay premiums annually or sometimes monthly. This is difficult considering all the trade-offs people make in deciding how to spend their money. In the section on introducing insurance, we discussed how many programs rely on the solidarity of existing community organizations such as local cooperatives, self-help groups, and microfinance organizations, to enroll and collect premiums. However, even when strong communal mechanisms for collection exist, lack of personal financial liquidity often precludes programs from collecting a lump-sum premium up front. For example, subsistence farmers may not have enough available cash to be able to pay for even a modestly priced insurance premium because their livelihood is dependent on trading crops for money only during specific times of the year.

A number of programs have developed innovative models for collecting premiums, such as timing premium collection for periods in the year when individuals are likely to have cash; allowing in-kind payments, such as deducting premiums from agricultural cooperative revenues; or deducting premiums from micro-credit loan payments. For example, in the Bwamanda Insurance Scheme in the Democratic Republic of Congo, communities elected to pay premiums during the months that followed the second harvest period (March to April) because, after the first harvest, cash was needed for school expenses. In Bwamanda, the appropriateness of timing and collection was ensured by consulting the community (Dror 2008). In the Nkoranza Community Financing Health Insurance Scheme in Ghana, during the first year of operation, 72 percent of fieldworkers and 65 percent of household heads agreed that "people find it difficult to register because they are short of money between October and December" (Preker 2008). Similarly, 65 percent of fieldworkers and 75 percent of household heads were of the opinion that "more people will register if registration is between January and March" (Preker 2008). In

Nkoranza, adjusting the enrollment period or engaging in an alternate method for premium payment would likely remedy some of the affordability issues identified by the community.

Some plans have arranged for alternative, noncash methods for premium collection. In the Yeshasvini plan in India, cooperatives allow insurance members to pay premium costs in kind if they are unable to pay in cash. A milk cooperative, for example, allows its members to pay the price of their premiums in milk; a farmers' cooperative allows its members to pay for premiums in the form of crops. In cases where health insurance is layered onto microfinance plans, deducting the premium costs from loan repayments or even initial loan disbursements has proven to aid in premium collection. This strategy is used by microcredit-based insurers such as VimoSEWA in India.

Programs serving the poor in urban or periurban areas often have the greatest difficulty in enrolling members and collecting premiums because these areas are less likely to have strong community institutions. For example, Arogya Raksha, a partnership between Narayana Hrudalaya Hospitals, Biocon Pharmaceuticals, and ICICI Lombard, offers health insurance to the unorganized communities living in the slums of Bangalore, India. Arogya Raksha's cost of retailing insurance is nearly 40 percent of the price of the premiums. Arogya Raksha hopes to remedy the high cost of retailing by building low-cost clinics in the slums and suburbs of Bangalore so that a defined presence of the Arogya Raksha brand (and the demonstration of highquality delivery in easy-to-access areas) attracts demand.

Other interesting alternative premium collection mechanisms exist in the developing

#### PROGRAM PROFILE Arogya Raksha Yojana Karnataka, India

The Arogya Raksha Yojana, a health insurance scheme for the unorganized urban, peri-urban, and rural sectors, is a partnership between a highly reputable high-volume, low-cost hospital group (Narayana Hrudayalaya), a commercial insurance company (ICICI Lombard), and the foundation of a pharmaceutical company (the Biocon Foundation). Arogya Raksha undertakes retail sales of insurance through locally visible organizations as well as through new, proprietary clinics that serve both insured and uninsured patients for simple outpatient care and drug sales.

Arogya Raksha benefits are nearly comprehensive, including drug benefits. Beneficiaries may seek care at any provider within the insurance network. Network hospitals include Narayana Hrudayalaya as well as other high-quality hospitals. Back-end subsidies on pharmaceuticals are provided by Biocon, but premiums are otherwise priced based on actuarial methods, and the cost of the premium is borne fully by the insured.

The program leverages the expertise of a commercial insurer to retail insurance (rather than enroll members through existing community or labor groups) to the unorganized informal sector (a sector not reached by world, including the use of cell phones for premium collection. PhilHealth in the Philippines is experimenting with cell phone technology to alert members when their payment date is nearing. PhilHealth is also partnering with mobile phone companies to experiment with the possibility of debiting insurance premiums from mobile phone charges.

**Communicating with beneficiaries.** Even when they manage to find workable mechanisms for enrolling members and collecting premiums, many health insurance programs in the developing world have low renewal rates. To sustain a health insurance program, the maintenance of long-term relationships with enrollees is essential. Some organizations have developed mechanisms that aim to increase retention through management of client relationships and continuous provision of information designed to educate clients on the benefits of their insurance and encourage them to make use of it. For example, BRAC in Bangladesh faced very low renewal rates in its first year of operation, with only 15 percent of members electing to continue their enrollment (Churchill 2006). But the program was able to increase the renewal rate to 50 percent in the third year by using local health workers and leaders to educate beneficiaries about the services offered through insurance. UMSGF in Guinea reports an 80 percent renewal rate, which may be due to the program's dedication to community-based information dissemination.

Others find ways to provide tangible benefits to enrollees even if they do not get sick. For example, MicroCare (Uganda) supplements insurance programs with free preventive health interventions targeting malaria, HIV, water-borne diseases, and maternal and child health. This has the benefit of preventing illnesses and thus improving health outcomes and reducing claims costs, but it also overcomes one of the difficulties associated with insurance, which is lack of product tangibility. When clients receive tangible items such as insecticide-treated mosquito nets and jerry cans with water purification tablets or when they benefit from health education sessions, they feel they have received some value from the insurance program, even if they have not fallen ill and filed an insurance claim. This increases their likelihood of renewing, thus improving client retention, especially of healthier clients.

**Claims-processing, reimbursement, and fraud-prevention.** There are many variations in the way health insurance programs are organized and, accordingly, as many variations in the way that claims are processed and reimbursed. A main objective in designing claims administration is to prevent fraud (both provider-induced and client-induced fraud) by closely monitoring claims and payment reimbursements.

Claims can be processed by the insured communities, by a third-party administrator, or by an insurer. When claims are managed by communities, generally a community claims committee meets monthly to scrutinize all the claims submitted during that month. UpLift Health's community-managed risk pooling in India devolves the management and administration of insurance to each self-help group at the community level. Beneficiaries must pay the health care provider at the point of service and then submit a claim for reimbursement to their community insurance representative. Each insured self-help group elects a representative to the district claims committee, which meets monthly. The committee reviews each submitted claim in detail, discusses weather the claim warrants reimbursement from the insurance fund, ultimately decides if and how much the beneficiary should be reimbursed, and disburses the payment. Relying on

the community to manage claims administration is a unique way of preventing demand-side fraud in the system. Because the claims committee members are aware of illnesses and use patterns within their communities, they are able to detect inaccurate or fraudulent claims. Claims ratios can become high, often exceeding the premium reserves for any one group. Community claims committees can prioritize need among the claims and allocate a higher reimbursement for some claimants over others (based on financial and health needs). Relying on communities to manage claims administration is also less expensive than using a third-party administrator or insurer. Unfortunately, community-based claims processing is not a sound mechanism for detecting provider-driven fraud because communities are not versed in provider pricing and medical practices.

For larger or more formally organized insurance programs, claims can be managed by a thirdparty administrator or an insurer. In these arrangements, the claims repayment system can be designed as a reimbursement to the beneficiary (who pays at the point of service) or to the provider (if the system is cashless). Most often, however, beneficiaries prefer that the system is cashless because large amounts of money are difficult for the poor to advance. When claims are processed by a third-party administrator or insurer, the chance of provider-driven fraudulent claims becomes lower because these organizations generally have the technical capacity and medical knowledge to detect troublesome claims. The Sanjeevini plan in Andhra Pradesh, India, has implemented a cashless mechanism with double-checking of claims to mitigate provider- and demand-driven fraud. Sanjeevini requires that claims be examined twice before approval. First, the claim must be approved by the insurance case manager on site; second, the claim must be verified by a medical doctor hired by the third-party administrator.

Proper monitoring of use can reduce fraudulent claims by up to 30 to 40 percent (Somerwell 2007). Photos, fingerprints, and retinal scans are now included in some high-tech membership ID cards for insurance beneficiaries. For example, MicroCare has a photo ID biometric smart card that allows point-of-service claims entry personnel (nurses) to control most membership impersonation fraud. The card includes photos of all members (primary member and dependents) and is encoded with all insurance-related information for the insured, including ceiling limits for outpatient and inpatient services. The card also holds utilization records for up to 40 transactions. Figure 5, below, is an example of a MicroCare membership ID card:

#### Figure 5: MicroCare health insurance card



Of course, insurance ID cards come in all shapes and sizes, and with varying degrees of sophistication. Basic ID cards provide names, ages, and identification numbers for all of the insured members in a family. Only a few insurance programs in the developing world, such as Aarogyasri in India (which uses retinal scans to distinguish the insured from uninsured) and Hygeia Community Health Plan in Nigeria are able to use advanced ID features like the ones employed by MicroCare. Most insurance membership cards remain basic.

**Information technology.** The maintenance (or introduction of) an information platform to collect, aggregate, and analyze provider- and beneficiary-related information is an important enabler to effective long-term management of insurance programs. Because the cost barriers of technology are declining every day, desktop personal computers and laptops are becoming increasingly affordable for even the smallest programs. Laptops or personal computers allow for local capture of relevant patient and program data. Barriers to connectivity are also declining, allowing for increases in voice and data communication between local areas and their counterparts in other regions, and thus the communication and transmittal of data from local to more central insurance administration.

As a result, many organizations are implementing personal-computer-based information capture at the point of service. For example, MicroCare has developed a unique networked check-in desk insurance control system to prevent common abuses and enable fast and accurate settlement of claims. MicroCare asserts that its information technology platform has contributed greatly to the success of the company, enabling it to become Uganda's leading health insurance company, covering over 80,000 members in both the formal and informal sectors (Somerwell 2007). MicroCare's information technology system supports its advanced smart health insurance cards for beneficiaries.

MicroCare designed its database with the belief that the structural blueprint of the database was critical to the efficiency of the organization. The system platform guarantees that "the Right person gets the Right treatment at the Right place for the Right cost" (Somerwell 2007). MicroCare's proprietary system was developed on an RDBMS database platform with a Web front end. The database is accessible at all points of entry (from local medical centers up to

insurance headquarters) and can handle millions of client profiles and thousands of health service providers. Claims can be entered and processed from the point of treatment, reducing laborintensive paper-based claims submission. The system includes drop-down menus to minimize data entry mistakes at the service delivery level. In addition, data is prioritized with diagnosis and drug information at the top and less relevant data lower on the page. Figure 6 provides a snapshot of MicroCare's easy-to-use dropdown data entry interface.



Figure 6: MicroCare's database entry interface

After several years of operation, VimoSEWA in India implemented a new information system in 2001. The new system allowed VimoSEWA to measure its renewal rates, a figure that was never tracked prior to the implementation of the management information system. Management was surprised to find that the organization had extremely low renewal rates at just 22 percent for members paying annual premiums (Churchill 2006). Aware of the problem, the organization was able to take steps to increase the renewal rate by communicating the value proposition of continuing to be insured. Ultimately, VimoSEWA was able to use the management information system to set and monitor target renewal rates for each sales promoter (Churchill 2006).

AssEF Benin is another organization that grounds its health insurance program on careful monitoring and evaluation. AssEF monitors actual claims in relation to expected claims and, in some cases, finds substantial differences between projected and actual figures. Once it identifies discrepancies, management is able to determine methods for implementing improvements. For example, in 2004, many unexpected issues captured management's attention, including the high rate of prenatal service use as well as an increase in nursing service use (Churchill 2006). With the help of its strong management information system, AssEF identified a strong adverse selection phenomenon with respect to prenatal consultations. While use patterns revealed that beneficiaries were over-utilizing prenatal care and were more inclined to join if they were

pregnant, AssEF did not change its practices because it feared that a change in policy could have a negative impact on the perceived benefit of the program. Clearly, the target population wanted this care included in the package and removing the benefit may have resulted in even lower renewals and new enrollment. AssEF could have implemented measures to curb this adverse selection and over-utilization but instead decided to use the phenomenon for marketing purposes and to attract more members to the plan (Churchill 2006).

AssEF also use its management information system to identify anomalies in claims rates by service type. By consistently monitoring service delivery and claims, AssEF identified that the frequency of use of nursing services was much higher in one clinic compared with the others. In the case of this clinic, the introduction of insurance led to a provider behavior change (Churchill 2006). As the beneficiaries became insured (and thus had a method of paying the clinic), the clinic asked them to return several times during a single illness to receive treatment with the first visit recorded as a consultation and the visits thereafter recorded as nursing services (Churchill 2006). AssEF administrators approached the clinic and discussed the anomaly in treatment patterns. The discussion resulted in a return to a more normal claims experience (Churchill 2006). If the claims were not monitored, the payouts would have exceeded the financial resources of the plan.

#### Administrative partners in health insurance

There are multiple actors that can play a role in the administration of a health insurance plan in the developing world. Partners that are most often seen in health insurance models for the poor in Africa and South Asia are local communities of the insured, third-party administrators (both for-profit and nonprofit), insurers, health maintenance organizations, and health care or health product providers. Each program uses a different set of partners in executing insurance, and depending on the administrative organization of the program, each partner can play a different role in delivering insurance to the poor.

Extensive literature attempts to categorize the many different models of health insurance in the developing world based on the various partners involved and their role in the program (Preker and Carrin 2004; Churchill 2006). So many mutations and variations of each model exist in practice that it is difficult to neatly categorize each program. However, programs do seem to fall along a continuum of administrative organization and partnerships. At one end of the continuum are programs that are designed, sold, serviced, and managed at the community level with minimal technical assistance from the public sector or other organizations. At the opposite end of the continuum are fully integrated administration and delivery, where one external organization is responsible for all aspects of administration. In the middle of the continuum are programs in which some administrative tasks, such as enrollment and premium collection, are performed by the community and other more complex tasks, such as claims processing, pricing, negotiating with providers, and information management are performed by third-party administrators or insurers. At one end of the continuum is UpLift Health, a network of community-based and managed health risk funds, receiving some help technical help from UpLift and other nongovernmental organizations, but managed and administered by the communities wholly. At

the other end of the continuum is MicroCare, which undertakes all the sales and operational administration of insurance on its own.





As programs grow, and thus evolve from purely community-owned, managed, and administered, to involving other partners (such as third-party administrators or insurers), technical capacity and economies of scale typically increase. This allows programs to become more sophisticated. For example, the kind of provider purchasing and pricing agreements (if any) between insurance administrators and health care providers depends on the structure of the insurance organization and the various partners involved. An entirely community-owned and -managed insurance organization will most likely not enter into sophisticated pricing and purchasing agreements with providers because the program does not have the negotiating power (or expertise) to enter into such arrangements. Rather, these organizations' health insurance products are likely to be an indemnity-type of products where the beneficiary is reimbursed for claims through local claims processing mechanisms. This is the case at UpLift Health in India and other small-scale microinsurance programs that are owned, managed, and administered at the local level. However, as program move up the continuum, they may be able to implement more sophisticated purchasing arrangements with networks of providers. UpLift Health is gaining scale, growing at nearly 10 percent each month as of June 2008, and has plans to create a delivery network (and, accordingly, negotiate purchasing and pricing arrangements with network providers). Figure 8 describes how various health insurance programs that fall along the continuum of insurance administration organize their purchasing and pricing arrangements with providers of health care.

#### Figure 8: Health care provider network purchasing and pricing arrangements



It is not clear that any one administrative model along the continuum is superior to another; the purpose of the continuum is only to depict the diversity of program organization and to understand where existing and emerging programs may fall within the range of administrative organization.

Each function of insurance administration may be undertaken centrally by an administrative body or locally, by a community. Economies of scale play a large role in determining administrative structures, including centralization versus localization of insurance administration. For example, for enrollment and servicing, some activities benefit from centralization due to economies of scale, while others may not. Table 7 outlines where economies of scale may allow for centralization of administrative activities.

Administrative Activity	Economies of Scale and Centralization of Activity
Enrollment Premium collection	Most community-based programs leverage community organizations to enroll members and collect premiums, with economies of scale yielding little benefit on centralization of these activities. Centralizing enrollment and premium collection may in fact be even more administratively complex and expensive as a program grows from one to many communities.
	For retail insurance sales, centralization of enrollment and premium collection makes sense no matter what the size of a program. However, these programs should still take advantage of local community, MFI, or labor groups for lowering costs associated with enrollment and collection.
Communicating with beneficiaries Claims processing Reimbursement	Larger programs benefit from economies of scale in centralization of beneficiary management, claims processing, reimbursement, and fraud prevention activities.
Fraud prevention	As programs grow, centralization lowers costs of the administration and leverages expertise centrally to standardize procedures across the program(s).
Information technology/systems	IT and systems should be centralized no matter the size of a program. Small scale programs may not be able to implement sound IT systems due to the cost and technical capacity required to create and implement these systems. However, as programs grow, IT plays a critical role in ongoing management of providers and beneficiaries and should be centralized to be able to manage effectively.
Provider and network management	As outlined in figure 8, provider and network management benefit greatly from economies of scale, with larger programs being able to centralize these functions to implement sound pricing and purchasing arrangements as well as to undertake ongoing network development and management activities.

## Table 7: Economies of scale in insurance administration activities

## Outstanding questions for managing insurance administration

1. Is there an ideal model of insurance administration? If not, in which contexts does each model of insurance administration make the most sense?

2. What are the relative benefits of relying on an insurer or third-party administrator to undertake the various parts of insurance administration? (For example, do programs that conduct all insurance administration at the community level function better than those that employ an insurer or third-party administrator for insurance administration? Or do programs that employ an insurer or third-party administrator to conduct all insurance administration fare better?)

3. What kind of organization is best suited to undertake each portion of insurance administration?

4. In which contexts does each model of insurance administration make sense?

## 4. Dimensions of Risk-Pooling Programs in the Developing World

The literature on health insurance for the poor in the developing world uses a number of different definitions and classifications to describe smaller scale insurance efforts. The terms most commonly used include "micro health insurance," "community-based health insurance," "private/voluntary health insurance," and "*mutuelles*" or "mutual health insurance." However, in identifying and analyzing numerous innovative risk-pooling programs, we found that it is difficult to place them in any neat or mutually exclusive categorizations. Instead, we have found it useful to identify a few key dimensions that characterize the various programs. Some key dimensions for health insurance programs in the developing world are outlined in Figure 9:

Key Dimensions:							
	Building Health Ins	surance Programs in th	e Developing Wor	ld			
How is insurance introduced?	What is included in the benefits package?	Who delivers the health care services?	How is the premium funded?	What partners a engaged and in what capacity?			
<ol> <li>Retail sales</li> <li>Leverage existing community organiza- tions (e.g., micro- finance institutions, labor coops, self-help groups)</li> </ol>	<ol> <li>Primarily inpatient benefits</li> <li>Primarily outpatient benefits</li> <li>Compre- hensive benefits</li> </ol>	<ol> <li>Existing health care providers are engaged to create a network of providers</li> <li>A proprietary health care delivery system is built</li> </ol>	<ol> <li>Fully paid by the insured</li> <li>Subsidized by third- party funding</li> <li>Cross- subsidized from other income groups</li> </ol>	<ol> <li>Community of the insured</li> <li>Third-party administra- tor</li> <li>Insurer</li> <li>HMO</li> <li>Service providers or product providers</li> </ol>			

# Figure 9: Key dimensions of health insurance programs in the developing world

# INSURANCE FRAMEWORK

While these are the high-level considerations that have emerged from our analysis, there are clearly many other sub-dimensions within each. For example, depending on how a program decides to introduce insurance (through retail or through existing community organizations), it will be important to also decide what organization is responsible for collecting premiums from the insured population.

Other important dimensions will also emerge depending on the basic design elements determined by initial dimension selection. For example, selection of a benefits package, providers, and a method of funding insurance requires an understanding of pricing and how pricing will be determined. The following are other dimensions that must be considered:

1. How is insurance product priced?

2. If the premium is subsidized, what kind of subsidy is used (e.g., premium subsidy, back-end subsidy)?

3. If third-party subsidization is used, who provides the subsidization (e.g., donors, governments, corporate social responsibility)?

4. Does the program use reinsurance?

5. What kind of monitoring and evaluation system does the program have in place?

Clearly, there is no one-size-fits-all approach to analyzing or designing health insurance models for the poor in the developing world. Financing models must be built based on the contextual nuances of the existing financing and delivery system, as well as the socioeconomic characteristics of the society. Models must also be flexible to dynamic state and national conditions, and need to evolve over time. As a result, we have found that there are reasonable arguments for choosing program designs along various pieces of the continuum of each dimension, depending on the particular context. However, an important next step for health system implementers and researchers will be to continue evaluating the pros and cons of the various design choices along these dimensions to determine which designs are most feasible and effective within different contexts. The diversity of challenges and solutions discussed above underscores that there is no one-size-fits-all solution for health care financing.

## 5. Practical Recommendations: Scaling up Risk Pools

Very few low-income countries have yet been able to successfully implement large-scale, sweeping health insurance reforms. However, innovative small-scale insurance programs like the ones highlighted in this paper are emerging as promising building blocks or stepping stones to national health insurance systems. There are now several cases of low-income countries, such as Rwanda and (to a lesser extent) Ghana, or states, such as Andhra Pradesh in India, that started with micro health insurance programs and have been able to convert to broader government-led health coverage programs (albeit through different means). The question remains: How to speed up this process so it does not take decades, as it did in the OECD countries?

Based on our analysis of a number of innovative developing world health insurance programs, as well as our assessment of the literature and our personal experience, we offer the following suggestions for scaling up health insurance in the developing world:

#### Improve understanding of potential paths to widespread national reforms

A fundamental question, still unanswered by this paper, is whether smaller-scale risk-pooling programs can be a stepping stone to more comprehensive health insurance reforms. Going forward, it would be useful to analyze the evolutionary paths of OECD countries, more recent middle-income reformers, as well as failed attempts at health insurance reform, to better understand obstacles and enablers.

#### Revisit the definition of "sustainable" and recognize the need for ongoing subsidies

We encourage and laud the social entrepreneurs who are recognizing the need for health insurance and creating programs to fill the void. We also understand that many of them are wary of relying on ongoing subsidies, given the fickle nature of many donor funding sources. However, we feel that it is important to caution that health insurance is and should be fundamentally different from many other products that are now being marketed to the poor (e.g., cell phones, laundry detergent, condoms, oral rehydration salt tablets).

Health insurance, when designed well, should cover a comprehensive set of preventive and curative products and services. A minimal benefits package, estimated by the World Health Organization to cost at least \$36 per year per person, would be beyond the reach of most people at the "bottom of the pyramid" in the developing world, whose willingness to pay for health insurance has been measured at roughly \$2 to \$5 per year. It is not surprising that, in the developing world, willingness to pay is less than the cost of comprehensive benefits. In the developed world, health care is subsidized for the poor and even the rich in many cases. No OECD country relies on individual willingness to pay for health insurance premiums as the primary source of funds for health insurance. In most European countries, contributions are mandated through social insurance and cross-subsidized between rich and poor, healthy and sick.

Even in the United States, employers, encouraged by government tax incentives, subsidize premiums for their employees.

In the developing world, long-term subsidies for the poor are already customary when it comes to many health interventions. The international development community and most ministries of health do not expect that poor and informal populations will pay out of pocket for basic services such as immunizations, malaria treatment, HIV-AIDS treatments, deliveries, hospitalizations, and the like.

However, the traditionally preferred methods of ongoing subsidy from donors and country-level ministries of health have been on the supply side, such as through the funding of public facilities and free distributions of key health interventions by nongovernmental organizations. Billions of dollars in donor subsidies, mostly on the supply side, are currently provided to the developing world by organizations such as the World Bank; the Global Fund for HIV/AIDS, Tuberculosis and Malaria; the Global Alliance for Vaccines; and numerous bilateral donors and private foundations. Ministries of health also spend their own resources on subsidizing the health care of their populations. But these supply-side subsidies can create perverse incentives that lead to inefficiency and lack of equity. In addition, despite all the subsidies (and perhaps because of their problematic incentives), many poor people seek services in the private sector and pay for them out of pocket, despite existing subsidies that are supposed to accrue to the poor.

Demand-side financing mechanisms, such as health insurance, by which funds follow the patients rather than the providers or inputs, have the potential to shift incentives positively. However, if implementers and funders persist with the notion that innovative models must be "sustainable" in the sense that they are not reliant on any third-party funding, they will be unlikely to leverage enough resources, through out-of-pocket premium payments, to significantly improve health outcomes.

Instead, the global health community should consider whether some of the current supply-side subsidies should be converted to demand-side subsidies, through third-party premium supplements for health insurance. This could be a more effective way of funding important health services for poor people—especially those residing in highly "marketized" environments.

In these countries, the development of health insurance may provide an opportunity to leverage current private expenditures more efficiently and effectively because well-run plans can better monitor quality than individuals alone. In addition, a demand-side mechanism, in which the individual funds a portion of the premium and a third party funds the balance, may be less likely to crowd out private expenditures for health (Van der Gaag 2007–2008), which could ultimately lead to greater total health expenditures. Over time, as countries develop, this expenditure would ideally be gradually taken on by the ministry of health, funded through general taxes and/or payroll taxes applied to an increasingly formalized workforce.

#### Tap existing donor financing streams to fund health insurance

The global health community should consider whether some of the current supply-side subsidies (e.g., official development assistance from multilateral and bilateral donors) should be converted to demand-side subsidies, through third-party premium supplements for health insurance. This could be an effective way to fund important health services for poor people—especially those residing in countries with mixed health systems, who already seek much of their care in the private sector and pay for many services out of pocket. Under this type of financing mechanism, the funds would follow patients to the providers they choose (within a designated network) rather than being provided directly to providers, such as public hospitals.

In addition to tapping official development assistance for the health sector, it may make sense to convert some disease-specific donor funding to health insurance premium supplements. For example, an HIV donor program like the President's Emergency Plan for AIDS Relief could provide enough premium subsidies to cover the average cost of HIV/AIDs prevention and treatment for a given covered population in exchange for assurances that these services would be part of the covered benefits package. Financing disease-specific services through a broader health insurance financing platform could help to solve some of the health system fragmentation and resource allocation problems that have been created in the last decade as so much funding has flowed to the suppliers of services for a few specific diseases. In this way, these "vertical" programs can help to develop broader health system financing mechanisms that can be leveraged for other diseases and health services, while continuing to finance treatments for the disease in question.

An increase in third-party premium supplements for (public or private) health insurance provides an opportunity to leverage current private expenditures more efficiently and effectively. If donors supplement individual premiums (which could be set at their "willingness to pay"), health insurance programs will be able to offer broader benefits packages. Individuals are likely to be more willing to enroll in health insurance that offers more comprehensive benefits. This pool of combined donor and individual funds can then be used to purchase services using payment mechanisms that provide incentives for achieving quality.

## Create incentives and support for countries to transition funding from supply-side to demandside

A major impediment to a movement toward demand-side financing through health insurance is that, in most low-income countries, most of the health ministry's budget goes to fund public provider facilities and salaried civil servants. To begin experimenting with health insurance, health ministries would have to shift some funding away from public providers, which is typically politically unpopular. In the few examples of movement toward health insurance in low-income settings, the country or state has had access to significant outside funding that obviated the short-term need to shift finds from the supply side to the demand side. For example, the reforms in Rwanda were heavily donor funded, and the reform in the Indian state of Andhra Pradesh was funded through the Indian national government's Rural Health Mission program, which provides new funding to states. If, as discussed above, donor funding were made available in the short term to aid the shift to demand-side financing, governments could have a transition period to build support for health insurance and slowly make a transition. Over time, as countries develop, this donor expenditure could ideally be shifted gradually to the health ministry, funded through increased general and/or payroll taxes made possible by growth, as well as shifts of supply-side expenditures to demand-side expenditures. In Kwara state, Nigeria, the Dutch Health Insurance Fund and its partner organizations Hygeia and PharmAccess are experimenting with such a model. The governor of the state has agreed in a memorandum of understanding to take on the full cost of premium subsidies currently being funded by the Health Insurance Fund within five years.

Donors should consider creating similar health insurance funds to enable more experimentation with models that offer comprehensive benefits, with the idea that the cost of these programs would transition to governments over time. The funding for this transition would come from a gradual movement away from providing direct funding for government facilities and employees. For example, health ministries could slowly close some under-utilized or poor-quality facilities and use the savings to fund health insurance premium supplements. Or they could gradually cut back on public facilities' allocated budgets as those same facilities become eligible for partial reimbursements under the national health insurance plan.

#### Link health insurance to innovative delivery models

There are a number of examples of innovative delivery models that are being developed in various parts of the developing world, including numerous social franchising, social marketing, high-volume/low-cost facilities, and telemedicine models. However, it is interesting that many of these models assume that their financing will come from out-of-pocket payments from patients. Many of the innovative delivery program implementers we have spoken with have never even considered a risk-pooling model as an alternative to financing their delivery programs. Meanwhile, many of the innovative risk-pooling programs struggle to find adequate delivery systems with which to contract for care.

There is an opportunity to create integrated financing and delivery models with strong incentives for quality by linking innovative delivery with innovative financing. One obvious example is the case of social franchising. Many social franchisors, such as Greenstar in Pakistan or Janani in Bihar, India, have created networks of providers. They offer these providers training, high-quality products, and some monitoring of quality. Typically, the incentive used to bring providers into the social franchise network is branding, which is expected to drive up volume and, therefore, revenues for the providers. But an even stronger incentive for participation in a quality-monitored network would be steady revenue streams from insurance, especially if these streams were supplemented with some donor financing, as discussed above. These revenue streams would also offer the insurer or purchaser greater influence over the activities of providers because the insurer or purchaser could withhold funds to network providers who fail to comply with quality standards and pay bonuses to high-performers. The Hygeia Community Health Plan in Nigeria is one example of an integrated financing and delivery system that is experimenting with a model that incorporates the strong incentives of insurance with the delivery standardization mechanisms used by social franchisors.

## Create tools and platforms that can be shared across health insurance programs

Health insurance in the developing world is quite fragmented, with many different programs evolving in different regions independently. This fragmented situation can be a fertile ground for innovation. However, when each small-scale program invests in the development of similar tools, total costs go up. There is an opportunity to create more central repositories of tools and ultimately to develop some common open-source platforms that could be used by different health insurance programs.

An obvious area for collaboration is information technology, where development can be costly and existing systems can be relatively easily tailored and leveraged. There could be significant benefits from convening a number of key parties who have developed, are in the process of developing, or hope to develop an information platform, at least to develop some common frameworks and benefit from lessons learned. Ideally, this group might decide, with help from a willing funder, to combine forces and develop open-source health insurance information technology systems that could be used by the many different emerging community-based health insurance programs. This could speed up the collection of data, which in turn would aid in the evaluation of the impact of many of these programs, in addition to improving their effectiveness in monitoring quality, pricing accurately, and preventing fraud.

Other areas that may be ripe for shared tools and platforms include:

1. Provider payment mechanisms and incentive structures

2. Benefits package development tools, including baseline surveys that assess willingness to pay and benefit needs, and that can provide baseline health and financial information that can be used in an impact evaluation

- 3. Actuarial models or support systems
- 4. Health insurance education tools (such as CHAT)

5. Reinsurance programs that mitigate the risk taken on by small, community-based risk-pools

#### Improve the tracking and evaluation of various health insurance models

This paper has pointed to a number of quite varied models of health insurance across several design dimensions, most of which frequently are grouped together as community-based health insurance or micro health insurance. We suggest that there is a need for better understanding the relative effectiveness of the various models in different country contexts. Therefore, we suggest that rather than trying to prove or disprove the effectiveness of health insurance as a broad model, the focus of research should be at a more granular level, which will ultimately be more useful to social entrepreneurs and program implementers.

1. Create more detailed case studies that describe program design and, ideally, offer some insight into why the particular designs were chosen and how easy they were to implement

2. Identify and evaluate failed models to try to isolate key reasons for failure

3. Conduct analysis to determine which designs appear to achieve the greatest benefits and scalability in different country contexts

4. Evaluate alternative benefits packages to determine which lead to the greatest health improvements and financial protection

5. Evaluate various administrative mechanisms to determine which are ultimately most effective and most scalable

6. Identify any unintended consequences of health insurance and develop mitigation strategies

## Outstanding questions for scaling up risk pools

Some key questions that have already been explored to some extent but that could be further addressed include:

1. Is it possible to knit together a number of smaller community health insurance programs into a broader national system? If so, using what types of administrative structures?

2. To what extent is it easier to develop multiple programs aimed at different segments of the population, and then attempt to merge them later versus attempting a comprehensive effort that involves all segments at the same time?

3. What are the implications of creating different benefits packages for different segments of the population?

4. Is it better to start with the formal sector (as has been the case in most attempted reforms) or attempt a reform that starts with the poor?

5. What are the best mechanisms to build trust in a social insurance model in countries where governments have poor track records of stewarding funds?

6. What are the implications of mandating coverage through employers?

7. What are the implications of reliance on a central government-chartered purchaser versus reliance on private health insurance companies as the conduit of national health insurance?

8. What are ideal funding mechanisms and how could donor financing be leveraged to provide greater support for health insurance?

9. What regulatory environments are most conducive to health insurance reform (e.g., requirements for risk-based capital, requirements for insurers to serve the poor, community versus risk-rating rules)?

10. What are the political and operational implications of various evolutionary paths?

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### **Appendix 1: Risk-Pooling Program Summaries**

The following pages present a summary of the risk-pooling programs discussed in this paper. (The programs are presented in alphabetical order.)

PROGRAM	Adamjee and National Rural Support Program Network
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Pakistan 235,877 (as of April 24, 2007) In 2005, the government-led National Rural Support Programmes Network (NRSPN), in association with Adamjee Insurance Company Ltd., the largest private, property and casualty insurance company in Pakistan, introduced two insurance plans targeted at the poor. One insurance plan is for members of local community organizations and the other is for micro-credit clients. Insurance premiums are slightly higher (with slightly higher maximum claims limits) for non-micro-credit clients, however the benefits covered are similar for both programs.
<b>KEY DIMENSIONS</b>	
How is insurance introduced?	Micro-credit organizations Community organizations
What is included in the benefits package?	Primarily inpatient benefits
Who delivers the health care services?	Beneficiaries may seek care at any existing provider in Adamjee's network of private hospitals
<i>How is the premium funded?</i>	Fully paid by the insured; no subsidy
What partners are engaged and in what capacity?	<i>Community of the insured:</i> Marketing and enrollment <i>Commercial insurer</i> (Adamjee): All back-office administration (claims processing, reimbursements, network building and maintenance, pricing, and the like) <i>In-network hospitals:</i> Service provision
PROGRAM HIGHLIGHTS	The program leverages the technical and administrative expertise of a commercial (non-health) insurer to bring health insurance to the rural poor.

### References

Hamed, J. (Brookings Institution). 2008. Interviews by G. Lagomarsino and S. S. Kundra. January, February, March, April, and June.

National Rural Support Programmes. n.d. [http://www.nrsp.org.pk/. ].

PROGRAM	Arogya Raksha Yojana
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Karnataka, India 60,000 The Arogya Raksha Yojana, a health insurance plan for the unorganized urban, peri-urban, and rural sectors, is a partnership between Narayana Hrudayalaya, ICICI Lombard General Insurance Company Pvt. Ltd., and the Biocon Foundation. Arogya Raksha undertakes retail sales of insurance through locally visible organizations as well as through new, proprietary clinics that serve both insured and uninsured patients for simple outpatient care and drug sales.
Key DIMENSIONS How is insurance introduced?	Retail sales through existing, well-known organizations Proprietary clinics in targeted locales
What is included in the benefits package?	Nearly comprehensive benefits (including drug benefits)
Who delivers the health care service?	Beneficiaries may seek care at any provider in within the plan's network of health care providers
<i>How is the premium funded?</i>	Back-end subsidies on pharmaceuticals, but premiums are otherwise priced based on actuarial methods and most of the cost of the premium is borne by the insured
What partners are engaged and in what capacity?	Community of the insured: Marketing and enrollment Commercial insurer (ICICI Lombard): All back-office administration (claims processing, reimbursements, network building and maintenance, pricing, etc.) In-network health service providers: Network hospitals: Service provision Biocon: Pharmaceuticals
PROGRAM HIGHLIGHTS	<i>Partnerships with commercial insurer and pharma company:</i> The program leverages the expertise of a commercial insurer to retail insurance (rather than enroll members through existing community or labor groups) to the unorganized informal sector (a sector not reached by traditional micro health insurance programs due to the high costs of retailing insurance). The program has formed a strategic alliance with a pharmaceutical company that offers drugs at a reduced rate.
	Actuarial Pricing: The insurance is priced using actuarial methods.
	<i>Local Branded Clinics:</i> Local Aarogya Raksha Yojana (including ICICI Lombard and Biocon logos) clinics are built to create a presence in local communities. The clinics serve many purposes: (1) provide care to both insured and uninsured; (2) lower the costs of insurance claims by diverting non-surgical cases to clinics; (3) offer branded care in local communities to both insured and uninsured; and (4)

Create a buzz around the insurance program (through the local presence of clinics).

### References

Prasad, H. (Arogya Raksha Yojana; Yeshasvini). 2008. Interview by S. Sealy and S. S. Kundra. June.

Shetty, D. (Narayana Hrudayalaya Hospitals; Yeshasvini; Arogya Raksha). 2008. Interview by S. Sealy and S. S. Kundra. June.

PROGRAM	Aarogyasri
LOCATION LIVES INSURED	Andhra Pradesh, India 37.5 million (expected to scale to the entire below-poverty-line population of 48 million)
<u>Program Summary</u>	The Aarogyasri community health insurance plan was formulated by the government of Andhra Pradesh to bring quality medical care within the reach of the poor. Through Aarogyasri, the state is able to provide insurance for the treatment of serious ailments such as cancer, kidney failure, heart, and neurosurgical diseases that require hospitalization and surgery through a network of public and private providers. The cost of insurance is fully subsidized by the state.
KEY DIMENSIONS	
<i>How is insurance introduced?</i>	Each village in Andhra Pradesh has a women's self-help group. These self-help groups have been leveraged by Aarogyasri to undertake awareness building and information dissemination around their state-led insurance program and its benefits.
What is included in the benefits package?	Primarily inpatient surgical benefits
Who delivers the health care services?	Aarogyasri network of 180 hospitals (140 private hospitals and 20 public hospitals)
<i>How is the premium funded?</i>	Premiums are fully subsidized by the state government.
What partners are engaged and in what capacity?	Community of the insured: Awareness building and information dissemination; case workers. Aarogya Mitras (case workers for each in-network facility) are recruited from the local communities. Commercial insurer (Star Health and Allied Insurance Company): All back- office administration (claims processing, reimbursements, network building and maintenance, pricing, etc.) Aarogyasri Trust: Comprised of representatives from various government agencies, the trust serves as the governing body for the program and also oversees the insurance company's management of network providers and the claims processing mechanism. Network hospitals: Provide services
<u>Program Highlights</u>	<i>State-sponsored:</i> State-led and -funded inpatient insurance for all BPL <i>Leverages private providers:</i> Network hospitals are mostly private <i>Aarogya Mitras:</i> Employed by Aarogyasri to oversee each network hospital and serve as representatives of the insured to help them navigate the system, receive quality care, prevent fraud, and conduct reviews and evaluations of service provision.

*Health camps:* Network providers are required to organize a specified number of village health camps to maintain their network status.

### References

A., B. (CEO of Aarogyasri). 2008. Interview by S. S. Kundra. June.

Aarogyasri Web site [www.aarogyasri.org].

PROGRAM	Bangladeshi Rural Advancement Committee (BRAC)
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Bangladesh 35,000 For the past several decades, the Bangladeshi Rural Advancement Committee (BRAC) has been running rural poverty reduction programs, including microfinance plans and health programs. On the health side, BRAC focused on building three tiers of health care: local health workers, health paramedics, and health clinics. To expand access to their services, BRAC created four health insurance benefits packages. The first package is for microfinance clients. The second is an equity package offered to the ultra-poor (free of cost). The third package is a pre-paid pregnancy package. And the fourth package is for school children.
Key DIMENSIONS How is insurance introduced?	Existing three-tier network of BRAC providers Microfinance village organizations
What is included in the benefits package?	Primarily outpatient benefits (preventative and curative care)
Who delivers the health care services?	The three-tier proprietary network of providers: Tier 1: Part-time community health workers (Shashtho Shebikas), Tier 2: Cadre of female health paramedics (Shashtho Kormis) Tier 3: Network of health clinics (BRAC Shushasthos) Referral to external providers in the event that the BRAC network is unable to handle a case.
<i>How is the premium funded?</i>	Premium funding differs based on the package, with all premiums supplemented with subsidies in some form: General benefits package for microfinance clients, pregnancy package, and school children package are funded by insured with some third-party subsidy Ultra-poor equity package: cross-subsidized by revenues from other income brackets (insured co-payments and uninsured out-of-pocket payments)
What partners are engaged and in what capacity?	<i>Village organizations:</i> Awareness building and information dissemination <i>BRAC:</i> All back-office administration is undertaken by BRAC staff. <i>Three-tier service delivery platform:</i> The Shashtho Shebikas, Shashtho Kormis, and BRAC Shushasthos are used for both service delivery and enrollment (e.g., enrollment procedures including premium collection and issuing ID cards)
<u>Program Highlights</u>	Leverages proprietary network of providers: BRAC built its health insurance plan onto its own delivery network. <i>Three-tier service delivery:</i> Case workers, paramedics, and clinics are used as a network of service providers.

Ahmed, M. U., S. K. Islam, A. Quashem, and N. Ahmed. 2005. Health microinsurance: A comparative study of three examples in Bangladesh. Good and Bad Practices Case Study 13. CGAP Working Group on Microinsurance, Washington, DC.

Churchill, C., ed. 2006. *Protecting the poor: A microinsurance compendium*. Geneva: International Labour Organization.

PROGRAM	Bwamanda Insurance Scheme
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Democratic Republic of Congo 99,430 (2005 data) An insurance plan (locally referred to as a <i>mutuelle</i> ) covering hospital care in the rural district of Bwamanda in the Democratic Republic of Congo. After more than 10 years of operation, the Bwamanda plan has achieved a high rate of coverage, contributed to a significant improvement in access to hospital- based inpatient care, and constitutes a stable source of revenue for the operation of the hospital. The hospital's data indicate that hospital services are used by a significantly higher proportion of insured patients than uninsured people.
<b>Key DIMENSIONS</b> How is insurance introduced?	Hospital presence Village organizations
What is included in the benefits package?	Primarily inpatient coverage
Who delivers the health care services?	The Bwamanda Hospital
<i>How is the premium funded?</i>	Premiums are funded wholly by the insured because government interventions are virtually absent and external subsidies are uncertain.
What partners are engaged and in what capacity?	<i>Village organizations:</i> Awareness building, information dissemination, and enrollment. <i>Bwamanda Hospital:</i> Premium collection and all back-office administration are handled by the hospital. The hospital is also the only provider of care.
PROGRAM HIGHLIGHTS	The plan uses latent capacity in an existing hospital to supply low-cost insurance to rural poor that otherwise would high pay out-of-pocket prices for the same services.

Carrin, G., M.-P. Waelkens, and B. Criel. 2005. Community-based health insurance in developing countries: A study of its contribution to the performance of health financing systems. *Tropical Medicine & International Health* 10 (8): 799–811.

Criel, B., M. Van Dormael, P. Lefèvre, U. Menase, and W. Van Lerberghe. 1998. Voluntary health insurance in Bwamanda, Democratic Republic of Congo. An exploration of its meanings to the community. *Tropical Medicine & International Health* 3 (8): 640–53.

Preker, A. S., and G. Carrin, eds. 2004. *Health financing for poor people: Resource mobilization and risk sharing.* Washington, DC: World Bank.

PROGRAM	China's Rural Mutual Health Care (RMHC)
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	China (Not available) China's Rural Mutual Health Care (RMHC) is a partially government- subsidized voluntary health insurance plan that aims to reform the Chinese health care delivery system at the village level. The RMHC has been implemented with thorough evaluations to understand exactly the impact that health insurance has on rural farmers' health care use, willingness to pay for insurance, risk protection, quality of care.
<b>Key DIMENSIONS</b> <i>How is insurance</i> <i>introduced?</i>	Government Communities Providers
What is included in the benefits package?	Several packages: Catastrophic (inpatient) plus savings accounts (with drug benefits) RMHC: Essentially comprehensive care (with drug benefits)
Who delivers the health care services?	Network providers
<i>How is the premium funded?</i>	Project pays \$2.50/person/year. Farmers select one of three packages and pre-pay \$1.50 to \$2.20/person/year, depending on the package. The very poor are fully subsidized.
What partners are engaged and in what capacity?	<i>Farmers:</i> Partial self-governance by farmers through village committees and town board <i>Government:</i> Supervise, regulate, and monitor performance <i>In-network Providers:</i> Provision of care
PROGRAM HIGHLIGHTS	Reforming delivery at the village level Central purchasing and distribution of drugs Comprehensive impact evaluations

Hsiao, W., and W. Yip. 2008. Discover new models of health insurance through social experimentation. Brookings Institution, Washington, DC.

PROGRAM	Grameen Kalyan
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Bangladesh 290,000 Grameen Kalyan is a part of the Grameen family of organizations in Bangladesh. Grameen built its Kalyan network of providers to offer health care to its microfinance clients. Financial access to the services was first created with a pre-paid health card system. This system has evolved into the present GK health insurance plan; the card still remains as part of the new plan.
Key DIMENSIONS How is insurance introduced?	Through existing microfinance village organizations Grameen Kalyan health centers
What is included in the benefits package?	Primarily outpatient benefits
Who delivers the health care services?	Grameen Kalyan health services are provided primarily through Kalyan health centers/clinics; however, there is some village outreach through village health workers.
<i>How is the premium funded?</i>	Premiums are fully funded by the beneficiary, with some upfront premium subsidy provided by Grameen. The very poor are fully subsidized. No patient is ever turned away. Pricing is based on ability to pay rather than actuarially.
What partners are engaged and in what capacity?	<i>Village Organizations:</i> Marketing and enrollment <i>Grameen Kalyan:</i> GK is both the insurer (undertaking all insurance administration) and the provider of care.
<u>Program Highlights</u>	<i>Grameen proprietary clinics:</i> GK has built 33 independent, private health centers at the village level to serve its bank clients. The health centers are usually attached to a village-level Grameen Bank branch. <i>Incentives to attract doctors to rural areas</i> : Grameen allows doctors and nurses to moonlight in private practice after Kalyan clinic operating hours. In addition, GK has implemented a two-prong incentive mechanism for doctors that practice rurally: (1) doctors who agree to open a Grameen Kalyan clinic receive a start-up bonus as incentive; and (2) a system of incentive payouts is offered to doctors who attract more clients to the insurance plan.

Ahmed, M. U., S. K. Islam, A. Quashem, and N. Ahmed. 2005. Health microinsurance: A comparative study of three examples in Bangladesh. Good and Bad Practices Case Study 13. CGAP Working Group on Microinsurance, Washington, DC.

MicroEnterprise Best Practices. 2000. Summary of conference discussions. USAID MBP Virtual Conference on MicroInsurance, October 9–27, 2000.

PROGRAM	Hygeia Community Health Plan/Hygeia
LOCATION Lives Insured	Nigeria Shonga: 75,000 farmers Kwara: 71,000 farmers Lagos: 40,000 market women: 30,000 ICT workers
<u>Program Summary</u>	The Health Insurance Fund (HIF) and PharmAccess are working with Hygeia (a health maintenance organization) in Nigeria to offer health insurance to a group of market women in Lagos and poor farmers in Kwara State. The program is implemented by Hygeia, funded by the Health Insurance Fund, and technically supported (including monitoring and evaluation) by PharmAccess. The program is championed by the governor of Kwara, who has pledged to participate in the responsibility for providing subsidies to another community in the state, over a five-year period.
<b>KEY DIMENSIONS</b>	
How is insurance	Farmers' cooperatives in Kwara
introduced?	Market women's cooperatives in Lagos
What is included in the benefits package?	Comprehensive benefits
Who delivers the health care services?	Network of private Hygeia clinics and hospitals as well as public facilities
<i>How is the premium funded?</i>	The premium is heavily (95 percent) subsidized by donor subsidy and will eventually to be reduced (with premiums rising) as economic growth and the enrollees' willingness and ability to pay increases, and as replaced by state financing.
What partners are engaged and in what capacity?	<i>Community groups:</i> Awareness building and information dissemination <i>Health Insurance Fund:</i> Funding via subsidy and interfacing with Hygeia as local implementing partner <i>Hygeia:</i>
	Risk bearer Insurance administrator (community awareness, enrollment, premium collection, claims processing, reimbursement)
	Health service provider via network of private and public clinics and hospitals contracted with Hygeia
	PharmAccess:
	Technical support
	Capacity building
	Monitoring and evaluation

# **PROGRAM HIGHLIGHTS** Hygeia Community Health Plan is able to achieve lower administrative cost of providing health insurance to the informal sector by leveraging economies of scale created in its corporate and government sector health maintenance organization activities.

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Van der Gaag, J. (Health Insurance Fund). 2007–2008. Interviews by G. Lagomarsino and S. S. Kundra.

Van der Vorm, C., and O. Schellekens (Health Insurance Fund and PharmAccess). 2008. Interviews by G. Lagomarsino and S. S. Kundra. February.

PROGRAM	Kadic Hospital
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Uganda 6,000 A 32-bed private hospital with approximately 5 percent profit margins serving middle-income patients in Kampala. It also serves low-income patients, primarily through outreach programs. Kadic first established an in-house insurance program to help patients finance health care at a time when most patients had no external source of insurance. Currently about 6,000 members contribute 10 percent of hospital revenue through membership premiums.
<b>Key DIMENSIONS</b> How is insurance introduced?	Kadic Hospital
What is included in the benefits package?	Primarily inpatient benefits
Who delivers the health care services?	Kadic Hospital
<i>How is the premium funded?</i>	Premiums are fully funded by the beneficiary. Low-income benefits are cross-subsidized by high- and mid-income patients.
What partners are engaged and in what capacity?	<i>Kadic Hospital:</i> Kadic is both the insurer (undertaking all insurance administration) and the provider of care.
PROGRAM HIGHLIGHTS	Kadic offers insurance to both middle-income patients and low-income patients, with different pricing and benefits packages designed for each bracket. The middle-income segment serves as a for-profit business for Kadic, while the low-income patients comprise the hospital's nonprofit plan. Insurance comprises 10 percent of the hospital's total revenues.

PROGRAM	Karuna Trust
LOCATION LIVES INSURED PROGRAM SUMMARY	India 630,000 Karuna Trust provides health insurance the very poor dalit/untouchable class. Karuna collaborated with the state-owned National Insurance Company (NIC) in designing a health insurance product that complements the public health care infrastructure and compensates for some of its weaknesses. Karuna Trust acts as an agent for NIC. The insurance product compensates the insured for loss of income in case of hospitalization at a public health facility. Furthermore, a drug fund was set up to supply medicines that are unavailable in public facilities. People with income around the poverty line receive treatment in public health facilities free of charge. A tight network between the insurance plan and the public infrastructure has evolved.
Key DIMENSIONS How is insurance introduced?	Self-help groups Karuna Trust employees (local community workers)
What is included in the benefits package?	Comprehensive benefits via the public sector Supplementation of free hospitalizations by ensuring income replacement, which enables clients to access care Drug benefits
Who delivers the health care services?	Public delivery system
<i>How is the premium funded?</i>	Premiums are funded by the beneficiary with some subsidization from the United Nations Development Programme (UNDP).
What partners are engaged and in what capacity?	Karuna Trust: Awareness building, information dissemination, enrollment, and premium collection National Insurance Company: Insurance provider and risk bearer UNDP: Donor Centre for Population Dynamics: Research and development Government of Karnataka structures: Health care provision

# **PROGRAM HIGHLIGHTS** *Low-cost insurance that leverages existing delivery systems:* The insurance product builds on existing public delivery and therefore helps to keep the premiums low while offering an effective risk-management mechanism for the clients.

*Wage-loss and transportation benefits rather than traditional insurance:* Indirect costs of seeking care (e.g., lost wages and transportation to provider) often constitute a high financial burden for poor households—sometimes as high as the direct costs of seeking care. Compensation of costs of care is likely to influence clients' health care use positively—people are less likely to delay seeking care. Karuna Trust takes this into account by compensating for loss of wages and by providing emergency transportation to the general hospital.

#### Reference

Radermacher, R., O. van Putten-Rademaker, V. Muller, N. Wig, and D. Dror. 2005a. Karuna Trust, Karanataka, India. Good and Bad Practices Case Study 19. CGAP Working Group on Microinsurance, Washington, DC.

PROGRAM	L'Union des Mutuelles de Santé de Guinée Forestière (UMSGF)
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Guinea 14,000 The Union des Mutuelles de Santé de Guinée Forestière (UMSGF) is an association of mutual health organizations. It was established as part of a health insurance program initiated in 1999 by the International Centre for Development and Research (CIDR). Overall, the insurance sector in Guinea is underdeveloped, and neither the target populations nor health care providers are particularly familiar with health insurance. The current program was divided into three phases: a pilot phase to test micro-insurance products and the mutual model (1999–2002); a consolidation phase in which a regional network of mutual health organizations was created (2002–2005); and an institutionalization phase that will facilitate the gradual withdrawal of CIDR's support (2005–2007).
Key DIMENSIONS How is insurance introduced?	UMSGF's mutual health organizations
What is included in the benefits package?	Mostly inpatient benefits with some outpatient benefits
Who delivers the health care services?	Network health care providers
<i>How is the premium funded?</i>	Premiums are funded by the beneficiaries with some subsidization from CIDR (to be gradually eliminated by 2008).
What partners are engaged and in what capacity?	<ul> <li>Mutual health organizations: Awareness building, information dissemination, enrollment, premium collection and basis insurance administration. This is the first level of health risk management and pooling.</li> <li>UMSGF: Political and governance role, representing and supporting entire group of mutual health organizations</li> <li>Technical unit of UMSGF: All insurance administration, from network development and pricing to training and monitoring and evaluating.</li> <li>Network of health care providers: Service provision</li> </ul>
PROGRAM HIGHLIGHTS	UMSGF presents a classic mutual health organization model for the introduction and management of insurance in the developing world.

Gautier, B., A. Boutbien, and B. Galland. 2005. L'Union des Mutuelles de Santé de Guinée Forestière, Guinea. Good and Bad Practices Case Study 17: CGAP Working Group on Microinsurance, Washington, DC.

PROGRAM	MicroCare
LOCATION	Uganda
LIVES INSURED	100,000
<u>Program Summary</u>	MicroCare is a for-profit insurer that seeks to leverage its proprietary information technology system, delivery network, and technical expertise to bring health insurance products to the poor. Currently, its insured base is composed of 70 percent formal sector and 30 percent informal sector, but the vision is to flip the customer base in the next five years to 30 percent formal and 70 percent informal.
KEY DIMENSIONS	
How is insurance	MicroCare retail insurance sales
mnounceu.	Community organizations
What is included in the	Primarily inpatient benefits
benefits package?	Some outpatient services and all primary health care consultations
Who delivers the health care services?	Network of private providers
<i>How is the premium funded?</i>	Informal sector premiums are subsidized (25 percent), but MicroCare plans to transfer the full premium cost to the consumer after gaining credibility from beneficiaries.
What partners are engaged and in what capacity?	MicroCare: Marketing Enrollment Risk bearer Insurance administrator (pricing, network development and management, premium collection, claims processing, reimbursement, information technology systems, etc.) Network health care providers: Provide services to insured
PROGRAM HIGHLIGHTS	Leveraged expertise and delivery platform of commercial insurer to reach low-income populations with health insurance Sophisticated information technology platform Actuarial precision

Noble, G., and F. Somerwell (Microcare, Uganda). 2008. Interview by G. Lagomarsino and S. S. Kundra. May 29.

PROGRAM	MicroInsurance Academy
LOCATION	India
LIVES INSURED	(Not available)
<u>Program Summary</u>	The MicroInsurance Academy (MIA) was launched in 2007 to provide assistance to micro health insurance units throughout India and other developing countries. MIA's mission is to offer innovative, context- specific solutions to micro health insurance units through a process emphasizing subsidiarity, solidarity, scalability, and sustainability of insurance solutions. Specific MIA activities include: Technical assistance for launching insurance Ongoing education for insurance administrators A universal information technology platform for micro- insurance programs Reinsurance MIA provides ongoing support for ground structure of micro-insurance plans.
<u>Program Highlights</u>	Facilitates the creation of sound micro health insurance units through dissemination of evidence-based knowledge Centralized open-source information technology platform available to all micro-insurance plans in a given geography Reinsurance

Dror, D., I. Dror, and D. Kumar (MicroInsurance Academy).. 2008. Interviews by S. Sealy, and S. S. Kundra. July.

PROGRAM	Mutuelles de Santé
<b>LOCATION</b>	Rwanda
LIVES INSURED	5.8 million (70 percent of the entire population)
<u>Program Summary</u>	To make curative services affordable, to increase utilization, and to ensure sustainability of financing for these services within the informal sector, Rwanda has implemented sector-based health insurance plans known as <i>mutuelles de santé</i> to raise revenues for curative health services. <i>Mutuelles</i> are community-based health organizations that offer voluntary, nonprofit health insurance plans for the informal sector. They are formed on the basis of mutual aid and the collective pooling of risks at the local level for primary care, with larger pools at the district level for secondary care, and the national level for tertiary care.
Key DIMENSIONS How is insurance introduced?	Community organizations ( <i>mutuelles</i> )
What is included in the benefits package?	Comprehensive benefits
Who delivers the health care services?	Network of mostly public and some private providers
<i>How is the premium funded?</i>	Approximately 50 percent of mutuelle funding is comprised of annual member premiums. When citizens cannot pay the individual or family premium up front, microfinance institutions provide individual loans for the premium. The very poor are fully subsidized. The remaining half of mutuelle funding is obtained through transfers from other insurance funds, charitable organizations, nongovernmental organizations, development partners, and the government of Rwanda.
What partners are engaged and in what capacity?	Mutuelles:       Marketing         Enrollment       Enrollment         Premium collection       Basic management         Government:       Risk bearer         Insurance administrator (pricing, network development         and management, premium collection, claims processing,         reimbursement, information technology systems, etc.)         Network health care providers: Provide services to insured

**PROGRAM HIGHLIGHTS**National scale: Rwanda is one of the few developing nations that has<br/>been able to achieve widespread coverage of private voluntary health<br/>insurance. Rwanda's success cannot be attributed to any one feature of<br/>the program; however, some critical features of program design that led<br/>to high uptake include:<br/>Bottom-up architecture<br/>Political will<br/>Results-driven atmosphere

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Butera, D. (World Bank). 2008. Interview by S. S. Kundra. March.

Kayonga, C. (Minister of Health, Rwanda). 2007. Interview by S. S. Kundra and G. Lagomarsino.

D	Society for the Elimination of Rural Poverty (SERP) (umbrella
PROGRAM	organization for Sanjeevini Insurance Scheme and Karimnagar Drivete Medicel College Insurance Scheme)
LOCATION	Andhra Pradesh India
LUCATION LIVES INSURED	630 000
PROGRAM SUMMARY	Under the umbrella of the Society for the Elimination of Rural Poverty (SERP), there are a number of poverty reduction programs serving the rural poor—these are community-based programs "run by the poor for the poor." Each community begins by implementing a Health Risk Fund, eventually introducing health insurance for inpatient and outpatient care. SERP serves as an umbrella organization providing technical assistance and administrative support for the programs.
Key Dimensions	
How is insurance	Village based calf help groups
introduced?	village-based self-nelp groups
What is included in the benefits package?	Primarily inpatient surgical benefits Some outpatient services and all primary health care consultations Comprehensive when combined with state-funded Aarogyasri insurance
Who delivers the health care services?	Network public and private hospitals and public clinics (In addition, there are plans to build SERP clinics.)
<i>How is the premium funded?</i>	Fully funded by beneficiaries
What partners are engaged and in what capacity?	Self-help groups: Awareness building, information dissemination, enrollment, premium collections, reporting. Self-help groups are the risk bearers. Case workers: Help beneficiaries navigate the system and prevent fraud SERP: Conducts most back-office administration, including claims processing, reimbursements, network building, pricing. Network hospitals and clinics: Provide services to insured
PROGRAM HIGHLIGHTS	Empowerment of existing self-help group network Leveraging public providers and using private providers where public care is inadequate or unavailable Locating latent supply of care (e.g., private medical teaching hospital in Karimnagar) and building insurance around it Case workers Local SERP clinics

Durga, L. (Society for the Elimination of Rural Poverty). 2008. Interview by S. S. Kundra. June.

Kalavakonda, V. (World Bank). 2008. Interviews by S. S. Kundra, S. Sealy, and G. Lagomarsino.

Kumar, T. V. (CEO, Society for the Elimination of Rural Poverty). 2008. Interview by S. S. Kundra. June.

PROGRAM	St. Jean de Dieu Hospital
LOCATION Lives Insured Program Summary	Senegal (Not available) St. Jean de Dieu Hospital in Senegal offers up to 50 percent discounts on inpatient procedures and hospitalizations for members of local mutual health insurance programs. The hospital has been able to scale its offering to many local mutual health organizations resulting in significant revenue for the hospital, as well as quality, affordable care delivered to those who otherwise would not be able to access the services of the private hospital.
KEY DIMENSIONS	
introduced?	Through St. Jean de Dieu Hospital
What is included in the benefits package?	Primarily inpatient benefits
Who delivers the health care services?	St. Jean de Dieu Hospital
<i>How is the premium funded?</i>	Fully funded by beneficiaries
What partners are engaged and in what capacity?	Community groups: Awareness building and information St. Jean de Dieu Hospital: Enrollment Risk bearer Management of entire insurance administration Service provision
PROGRAM HIGHLIGHTS	The plan uses latent capacity in an existing hospital to supply low-cost insurance to the rural poor who otherwise would high pay out-of-pocket prices for the same services.

Preker, A. S., and G. Carrin, eds. 2004. *Health financing for poor people: Resource mobilization and risk sharing*. Washington, DC: World Bank.

PROGRAM	UpLift Health
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Maharashtra, India 35,000 UpLift Health is a community-based health insurance plan that relies on strong community structures (e.g., self-help groups, village microfinance organizations) in urban and peri-urban slums to build and maintain health insurance. The program empowers local community groups to fully administer insurance and provides assistance in "navigating the jungle" of health care. The program is growing by 5–10 percent a month.
Key DIMENSIONS How is insurance introduced?	Local community groups (microfinance institutions, labor cooperatives) Microfinance institutions
What is included in the benefits package?	Primarily inpatient surgical benefits Some outpatient services and all primary health care consultations Wage loss benefit
Who delivers the health care services?	Network of 100 public and private hospitals and public clinics 24-hour hotline manned by doctors
<i>How is the premium funded?</i>	Premiums fully funded by beneficiaries with back-end subsidies for funding UpLift operations.
What partners are engaged and in what capacity?	Community groups: Awareness building, information dissemination, and most administrative functions including enrollment, premium collections, claims processing, reimbursements, and reporting. These groups are the risk bearers. <i>Case workers:</i> Help beneficiaries navigate the system and prevent fraud <i>UpLift:</i> Provides oversight, support, and technical assistance (e.g., 24-hour hotline and network management) to communities administering insurance <i>Network hospitals and clinics:</i> Service provision
PROGRAM HIGHLIGHTS	Empowerment of community organizations Leveraging public providers and using private providers where public care is inadequate or unavailable 24-hour hotline manned by doctors Case workers Fully administered by community groups (e.g., local claims committees)

Conversations with François-Xavier Hay, Kumar Shailabh, Eamon Kelly, and Medha Semant of UpLift Health.

PROGRAM	VimoSEWA
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Gujarat, India 186,517 (2006 estimate) VimoSEWA has a mission "to provide social protection for SEWA members to cover their life cycle needs and the various risks they face in their lives, through an insurance organization in which they themselves are the users, owners and managers of all services." To this end, VimoSEWA provides an integrated insurance package of life, medical, accident, asset loss, and widowhood coverage for women workers in the informal economy, and their families. Tailored to the poor, the package has an affordable premium and a "doorstep claims process" that is provided by a community-based team.
Key DIMENSIONS How is insurance introduced?	Vimo Aagewans (community workers)
What is included in the benefits package?	Primarily inpatient surgical benefits in the form of reimbursement for hospitalizations
Who delivers the health care services?	SEWA Health Centres Thirty-seven public, private, and trust providers (that meet inclusion criteria set by VimoSEWA and ICICI Lombard)
<i>How is the premium funded?</i>	Fully funded by the beneficiaries
What partners are engaged and in what capacity?	Vimo Aagewans: Awareness building, information dissemination, enrollment, premium collection, and assistance in claims submission VimoSEWA: Oversight and nontechnical administration of insurance. VimoSEWA is the risk bearer. ICICI Lombard Insurance Company: VimoSEWA and ICICI have signed a memorandum of understanding for ICICI Lombard to provide administrative support to VimoSEWA insurance administration; ICICI Lombard would serve as a third-party administrator. Network hospitals and clinics: Service provision
PROGRAM HIGHLIGHTS	<i>"Doorstep claims" through Vimo Aagewans:</i> Aagewans are used creatively not only for marketing, enrollment, and referrals, but also for efficient claims processing. Aagewans direct patients to the appropriate provider and also handle doorstep claims processing. Aagewans assist patients in filing claims at the insured patient's bedside (before the patient is discharged) or at the patient's home. For the poor who cannot afford to pay for care and wait for reimbursement, this system helps by providing the immediate cash (claim reimbursement) for treatment

costs.

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MicroInsurance For and By Women Workers: VimoSEWA's Cashless Reimbursement. 2006. [www.changemakers.net/en-us/node/1650].
PROGRAM	Yeshasvini
<u>Location</u> <u>Lives Insured</u> <u>Program Summary</u>	Karnataka, India 1.45 million (2005 data) The Yeshasvini Cooperative Farmers Health Scheme is a large micro- insurance plan in Karnataka, India, that provides high-quality surgeries through insurance for the very poor. The plan began in 2003 with 1.6 million insured in the first year and 2.2 million insured in the second year of operation; however, in the third year, after nearly doubling the premium, membership dropped to 1.45 million members. Yeshasvini has been expanding ever since, experimenting with new methods for pricing and benefits packages to reach the poor in the state of Karnataka.
Key DIMENSIONS How is insurance introduced?	Statewide farmer and other labor cooperatives (e.g., Karnataka Milk Federation)
What is included in the benefits package?	Primarily inpatient surgical benefits
Who delivers the health care services?	Network of private hospitals
<i>How is the premium funded?</i>	Premiums paid by beneficiaries are subsidized by government funds.
What partners are engaged and in what capacity?	<ul> <li>Yeshasvini Cooperative: Awareness building, information dissemination, enrollment, and premium collections</li> <li>Yeshasvini Trust: Program implementation, management, and oversight. Comprised of representatives from the government Board of Cooperatives, State Department of Health, and network hospital leadership.</li> <li>Commercial third-party administrator (Family Health Plan Ltd.): All insurance administration</li> <li>Network hospitals: Service provision</li> </ul>
PROGRAM HIGHLIGHTS	Yeshasvini is used as a model for leveraging labor cooperatives as a distribution channel for health insurance to the informal sector. In fact, the Yeshasvini model has been used as a basis for the formation of a state-led insurance plan for surgical coverage in Andhra Pradesh (Aarogyasri). Currently, the government of Karnataka is developing ways to subsume the Yeshasvini plan to make it a fully state-funded insurance for the poor (like Aarogyasri in Andhra).

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# **Appendix 2: Questions for Introducing and Scaling Health Insurance in the Developing**

## World

Many unanswered questions remain regarding health insurance for the poor and its viability as a mechanism for larger scale insurance reform. The following pages catalogue all the questions raised in this paper:

### **Overarching** questions

1. Is it possible to knit together a number of smaller community health insurance programs into a broader national system? If so, using what types of administrative structures?

2. To what extent is it easier to develop multiple programs aimed at different segments of the population, and then attempt to merge them later versus attempting a comprehensive effort that involves all segments at the same time?

3. What are the implications of creating different benefits packages for different segments of the population?

4. Is it better to start with the formal sector (as has been the case in most attempted reforms) or attempt a reform that starts with the informal sectors?

5. What are the best mechanisms to build trust in a social insurance model in countries where governments have poor track records of stewarding funds?

6. What are the implications of mandating coverage through employers?

7. What are the implications of reliance on a central government-chartered purchaser versus reliance on private health insurance companies as the conduit of national health insurance?

8. What are ideal funding mechanisms and how could donor financing be leveraged to provide greater support for health insurance?

9. What regulatory environments are most conducive to health insurance reform (e.g., requirements for risk-based capital, requirements for insurers to serve the poor, community versus risk-rating rules)?

10. What are the political and operational implications of various evolutionary paths?

### Outstanding questions for overcoming barriers to introducing health insurance

1. What is the long-term relative effectiveness of community-level, grass-roots plans?

2. Which aspects of an insurance program administration are best implemented at a community level as opposed to aggregated across a larger population to leverage economies of scale, better technology and skills, and or larger insurance pools?

3. What types of private or grass roots insurance models are more likely to be building blocks to ultimate broader scale reforms (e.g., *mutuelles de santé*, microfinance-based plans, labor cooperatives)?

4. In which contexts might different models make sense (e.g., mainly rural settings versus urban areas)?

5. Are there any other existing structures that could foster the introduction of insurance?

### Outstanding questions for building a viable benefits package

1. What are the relative trade-offs of packages focused on outpatient primary and preventive care versus catastrophic hospital and surgical episodes versus specific episodes (e.g., delivery) versus comprehensive benefits?

2. In which context does each type of benefits package make sense?

3. What types of services are most likely to lead to household financial burden?

4. What are the benefits and risks of designing benefits packages around supply of services, rather than demand-driven factors?

#### Outstanding questions for ensuring a quality delivery system

1. Can insurance, and its associated purchasing incentives, be used as a mechanism to drive the improved quality of existing fragmented, low-skill private providers?

2. To what extent and in which contexts must risk-pooling programs be accompanied by direct investments in supply?

3. What are the most effective mechanisms for quickly improving provider quality?

4. What is the optimal mix of standards, direct investments, and incentives to achieve the greatest quality impact?

5. To what extent can social franchising models be used in conjunction with insurance to further improve quality?

6. To what extent can insurance models be used to improve quality in public delivery systems or are they most useful in contexts where most of the existing delivery and financing are private?

#### Outstanding questions for pricing and funding insurance

1. What is true willingness to pay for insurance? How much is this driven by existing levels of out-of-pocket payments, user fees (formal and informal), or both? What other contextual factors drive willingness to pay?

2. To what extent and in what contexts are risk-pooling models viable without subsidies for the poor?

3. How much subsidy is optimal to achieve broad enrollment and comprehensive coverage?

4. Do initial subsidies dampen ultimate willingness to pay? Is it better to start with a low subsidy or no subsidy or start with a very large subsidy?

5. To what extent can you reduce the level of a subsidy over time, once enrollees begin to see value in purchasing insurance?

6. If a subsidy is required over the long term, what are viable sources of long-term subsidy? (e.g., local/state/national government funds, donor sector-wide approaches, vertical donor dollars including, for example, the President's Emergency Plan for AIDS Relief and the Global Fund)?

### Outstanding questions for developing supply- and demand-side incentives to mitigate risk

1. How to prevent private insurers from going too far in trying to mitigate these risks, such that they render insurance invaluable?

2. To what extent are each of the following groups appropriate or optimal as the basis of a risk pool: rural cooperatives, labor cooperatives, villages, employers, a specific demographic (e.g., young mothers)?

3. What are the implications of the various groups for: risk selection, ability to achieve solidarity, mitigation of insurance-related risks, and the like?

4. What is an optimal group size from an actuarial perspective?

5. What is an optimal group size from an administrative perspective?

6. What is an optimal group size from a demand perspective (do groups sizes that are too large or too small dampen demand)?

#### Outstanding questions for managing insurance administration

1. Is there an ideal model of insurance administration? If not, in which contexts does each model of insurance administration make the most sense?

2. What are the relative benefits of relying on an insurer or third-party administrator to undertake the various parts of insurance administration? (For example, do programs that conduct all insurance administration at the community level function better than those that employ an insurer

or third-party administrator for insurance administration? Or do programs that employ an insurer or third-party administrator to conduct all insurance administration fare better?)

3. What kind of organization is best suited to undertake each portion of insurance administration?

4. In which contexts does each model of insurance administration make sense?