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# INNOVATIONS AND BARRIERS IN HEALTH MICROINSURANCE

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# PREFACE

The primary goal of the International Labour Organization (ILO) is to contribute with member States to achieve full and productive employment and decent work for all. The Decent Work Agenda comprises four interrelated areas: respect for fundamental worker's rights and international labour standards, employment promotion, social protection and social dialogue. Broadening the employment and social protection opportunities of poor people through financial markets is an urgent undertaking.

Housed at the ILO's Social Finance Programme, the Microinsurance Innovation Facility seeks to increase the availability of quality insurance for the developing world's low-income families to help them guard against risk and overcome poverty. The Facility, launched in 2008 with the support of a grant from the Bill & Melinda Gates Foundation, supports the Global Employment Agenda implemented by the ILO's Employment Sector.

Research on microinsurance is still at an embryonic stage, with many questions to be asked and options to be tried before solutions on how to protect significant numbers of the world's poor against risk begin to emerge. The Microinsurance Innovation Facility's research programme provides an opportunity to explore the potential and challenges of microinsurance.

The Facility's *Microinsurance Papers* series aims to document and disseminate key learnings from our partners' research activities. More knowledge is definitely needed to tackle key challenges and foster innovation in microinsurance. The *Microinsurance Papers* cover wide range of topics on demand, supply and impact of microinsurance that are relevant for both practitioners and policymakers. The views expressed are the responsibility of the author(s) and do not necessarily represent those of the ILO.

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# EXECUTIVE SUMMARY

## INTRODUCTION

Health microinsurance (HMI) offers a promising way to mitigate the risks of disease and ill health, which are disproportionately borne by the world's poorest citizens. Despite that HMI is a relatively new phenomenon, recent figures indicate that approximately 40 million people worldwide have some form of HMI coverage, principally in India.

The emergence of HMI programmes worldwide provides hope that the poor will receive, at a minimum, a reliable, adequate level of access to affordable healthcare. Research shows that access to HMI reduces out-of-pocket health expenses, especially for catastrophic health events, and improves access to quality health care for those who are insured. There is also evidence that HMI stimulates important health seeking behaviours such as the use of mosquito nets and receipt of malaria treatment earlier in the disease cycle. Nevertheless, little is known about the impact of HMI on health outcomes and household well-being, especially when it concerns the poorest individuals who tend to be excluded from HMI programmes and who generally receive a lower quality of care. There is still scope to expand member benefits in HMI. In so doing, low-income individuals can be better enabled to access medically necessary care at the appropriate time, thus reducing financial catastrophe and promoting economic productivity and efficient use of resources.

HMI is one of many potential healthcare financing options for the poor. Other options range from out-of-pocket spending or credit to government-sponsored partial or universal access to healthcare services. Research indicates that 26% of households in low and middle-income countries resort to borrowing and selling assets to cover healthcare expenses, suggesting that there is a huge gap in health care financing. Although health care is increasingly perceived as a human right and a public good, the reality is one of resource constraints that slows the deployment and scale-up of national healthcare financing. In these cases, HMI can be a possible alternative; hybrid strategies that combine private sector led HMI with the strengths of the public sector also promise to push frontiers in healthcare financing for the poor.

Despite the positive indicators and potential of HMI, there are many challenges that limit the growth and impact of the sector. This briefing note, based on a longer thematic study that included a literature review of 68 documents covering the period from 1999 to 2010 and expert interviews with more than 31 experts representing 25 organizations, discusses these challenges and focuses on private sector HMI. In addition to identifying barriers to success, this note presents innovations that may move the field forward, including collaboration with public programmes.

## THE COMPLEXITY OF HEALTH MICROINSURANCE

Designing valuable, sustainable products is inherently more complex for HMI than for other types of microinsurance. Most HMI products cover catastrophic risks which occur with low frequency, are often unpredictable, and result in a need for high-cost services. These catastrophic events are more easily insured than routine healthcare needs, so insurers have focused on them, often designing in-patient only coverage. However, HMI programmes struggle to reach sustainable membership for these in-patient policies, partly because the poor perceive more value in coverage for high frequency, predictable and often low-cost services. An ideal solution would optimize both needs, simultaneously reducing clients' vulnerability to catastrophes and improving overall health outcomes.

## INNOVATIONS & INTERVENTIONS FOR HEALTH MICROINSURANCE

There are a number of areas in which HMI can be improved. Many exciting projects worldwide are working in the field and testing innovative solutions such as expanding member benefits, overcoming low capacity to pay, improving efficiency to achieve larger scale, and forging collaboration between public and private sectors.

### EXPANDING MEMBER BENEFITS

Member benefits should extend beyond hospitalization. Minor health shocks are a pressing concern for most low-income households, and meeting this demand can increase take-up and stabilize risk pools. Furthermore, enhancing outpatient benefits encourages regular health check-ups, earlier diagnoses, and timely care for minor illnesses. These changes should reduce overall treatment costs and lower claims for in-patient products, thus improving the overall viability of HMI programmes.

One approach that may add value for clients with chronic conditions, which is not currently covered by HMI programmes, is to provide discounts for routine consultations and drugs. Not only can discounts increase perceived value and encourage renewals, they may also prevent unnecessary hospitalizations, ultimately enabling lower premiums or enhanced benefits.

### OVERCOMING LOW CAPACITY TO PAY

Given that affordability remains one of the key factors influencing demand for HMI, many countries support health financing mechanisms such as cost-sharing and government subsidies. Despite these options, making HMI products affordable while generating sufficient revenue to sustain operations is an ongoing challenge. Currently, the most common payment practice is to collect annual premiums at or around the time of enrolment. However, some programmes are attempting savings-linked and other approaches that improve flexibility of premium payments to overcome unique problems among the poor, such as seasonality of income.

Financial constraints also need to be overcome on the claims side. One notable innovation is cashless benefits, which allow clients to access healthcare without having to pay cash up front and then file a claim for reimbursement. When an HMI programme serves a small geographic area and has sufficient scale, capacity, and operational expertise, the programme can handle the administrative burden of cashless products itself. Otherwise, HMI programmes often employ third-party administrators (TPAs) to establish direct payment arrangements with healthcare providers, to verify eligible clients, and to oversee the provision of healthcare services. The emergence of more TPAs with context-specific skills in information technology will likely help control costs in the low-margin, high-transaction world of HMI.

Another major effort to provide adequate capital is to subsidize HMI premiums. Some donors and governments experiment with temporary subsidies for health insurance. The rationale is that clients will see the value of insurance and continue to pay for coverage once the subsidies are removed. Given the inability of the poor to pay for healthcare, it is hard to imagine that valuable HMI programmes can scale regionally or globally without subsidies and other support from the public sector.

### EFFICIENCY TO ACHIEVE SCALE

Low-income clients' high sensitivity to price means that the entire process of selling and administering HMI must be as efficient as possible. Outsourcing administration to TPAs is one approach, but technology can also be employed as a helpful tool in many aspects of operations. Nevertheless, few HMI programmes are

utilizing technology and management information systems. Aside from data management, technology can be used in other ways, such as improving access to care for rural clients.

### PUBLIC AND PRIVATE SECTOR COLLABORATION

Another potential solution to the challenge of offering comprehensive HMI coverage is public-private partnerships (PPPs). In particular, PPPs can leverage the creativity and efficiency of the private sector in accordance with the fundraising capabilities of the public sector. Public money may be necessary to pay for most preventive care, health promotion, or to subsidize outpatient and/or inpatient care.

Public entities can also coordinate private sector players to create larger, more stable risk pools. The public sector may be able to provide enabling regulation and access to underutilized healthcare facilities that the private sector can use to expand access and lower costs, and can promulgate and enforce quality and accreditation standards. Finally, private sector management expertise can drive solutions to reduce fraud, manage programme risk and costs, and catalyze innovations across the entire HMI value chain.

## CONCLUSIONS: A COORDINATED EFFORT

Overall, the evidence review and expert interviews indicate that programmes can approach health financing either to reduce vulnerability (focusing on a catastrophic event or in-patient care) or to improve health outcomes (focusing on outpatient care, prevention, and chronic care). These two perspectives present a conundrum: the former is more aligned with principles of insurance, but the latter is desired by the clients and may produce better health outcomes. Through efficient business models, technological innovations, customized benefit packages, and varied payment plans, HMI programmes should seek a balance between the two perspectives. The solution should also leverage PPPs, combining the public sector's ability to source funding, pool large groups, and ease regulatory issues with the private sector's innovation, insurance expertise, efficiency, and technology.

Thus, the way forward for HMI lies with the combined efforts of policy-makers and governments, insurers and reinsurers, and private sector actors including technology firms, NGOs, and healthcare providers. Ultimately, no efforts are likely to be successful without constantly soliciting and utilizing input from the most important stakeholder: the potential client.

# 1 > INTRODUCTION

## 1.1 OVERVIEW

The world's poorest citizens bear a disproportionate share of disease and ill health. World Bank studies indicate that health-related issues both cause poverty and result from them (Narayan and Patesch 2000). In developing countries, illness is mentioned more frequently than job loss as the main cause of poverty (Dodd, Munck, and WHO 2002; Asfaw 2003), and many low-income individuals cannot afford medical treatment. Health risks pose dangerous threats to the lives and livelihoods of the poor, and health security remains integral to accomplishing many of the Millennium Development Goals.

Health microinsurance (HMI) is one way to mitigate these risks. In general, microinsurance operates like any other insurance by utilizing risk pooling, but it is tailored to those who cannot afford conventional insurance (Churchill 2006). More specifically, HMI is a microinsurance product that provides a defined set of health benefits and services. Such benefits can include catastrophic events such as surgery or more routine events such as outpatient services or maternal care. A relatively new phenomenon, most recent figures indicate that approximately 40 million people worldwide have some form of HMI coverage (Droret al. 2009), principally in India. Many indicators suggest that there is more latent demand.

HMI is one of many potential healthcare financing options for the poor. Other options range from out-of-pocket spending or credit to government-sponsored partial or universal access to healthcare services. Research indicates that 26% of households in low and middle-income countries resort to borrowing and selling assets to cover healthcare expenses (Kruk et al, 2009), suggesting that there is a huge gap in health care financing. Although health care is increasingly perceived as a human right and a public good, the reality is one of resource constraints that slows the deployment and scale-up of national healthcare financing. In these cases, HMI can be a possible alternative; hybrid strategies that combine private sector led HMI with the strengths of the public sector also promise to push frontiers in healthcare financing for the poor.

Private sector HMI programmes aim to fill this gap, but designing valuable, sustainable HMI products is inherently more complex than with other types of microinsurance. Most of the available health microinsurance products cover catastrophic risks –which are unpredictable and occur at a low-frequency yet result in a need for high cost services. These events are insurable, thus insurers have focused on them, often designing in-patient only coverage. However, insurers and/or health care providers struggle to reach sufficient membership levels for these in-patient policies. This happens in part because the poor perceive more value in coverage for high-frequency, predictable and often low-cost services. Most of these outpatient services, however, are difficult to insure. From both a practice and a policy standpoint, an ideal health microinsurance solution would optimize both perspectives, simultaneously reducing clients' vulnerability to catastrophes and improving overall health outcomes. Public-private partnerships, which combine the strengths of the public sector (the ability to source funding, create pooling of large groups, address delivery system issues, and ease regulatory issues) with strengths of the private sector (innovation, insurance expertise, management know-how, efficiency, and technology), may promise greater potential for success.

Positive indicators about the value of HMI have emerged. Data suggest that HMI, in some locations and some configurations, does mitigate the impact of illness and poor health and can prevent a deeper slide into poverty. The increasing emergence of HMI programmes worldwide provides hope that the poor will receive a minimum acceptable level of access to affordable healthcare. Possible outcomes of HMI

programmes, when designed and executed well, include health *and* economic benefits that accrue at the individual, household, and community levels. Ideally, HMI enables medically necessary care to be sought at adequately resourced facilities earlier in the disease cycle by appropriately skilled providers. This outcome would reduce financial catastrophe and promote economic productivity and efficient use of resources.

## 1.2 PURPOSE AND METHODOLOGY

Based on a literature review and expert interviews, this paper assesses the state of the HMI sector. We have focused on private-sector HMI, identifying barriers to success and presenting innovations that may move the field forward, including the potential benefits of collaboration with public programmes. Hence, this paper aims to inspire and guide HMI practitioners and their various potential partners, including governments and donors.

This paper addresses the following questions:

- What opportunities and challenges affect the ability to deliver programmes with an attractive value proposition for low-income households?
- What programme design improvements would enhance client value and strengthen the business models to assure sustainability of the programmes?
- What innovations are worth testing over the medium term to improve the scope, outreach, impact and operations of HMI?

In order to answer the above questions, we presume that value stems from meeting the demand for improved access to appropriate, medically necessary care using efficient, effective, fairly-priced interventions, and presumably leads to better health outcomes. With its client-centered focus, this paper is intended to interest and support varied stakeholders; in particular, it should serve health insurance practitioners (both for-profit and not-for-profit), programme designers, evaluation teams, and others interested in expanding the value proposition of HMI.

Two data sources inform this investigation: published literature and expert interviews.

1) The literature review covers the 11-year period between 1999 and 2010. Data sources included Web of Science, PubMed, EconLit, Science Direct, Business Source Premier, Gale-Academic One File, the Social Science Research Network, and Google Scholar. Search terms included: health microinsurance, community health funds, community-based health insurance (CBHI), mutual health organizations, and rural health insurance. Our search identified a total of 102 potentially relevant source documents, with 68 included in the final analysis. Inclusion in the final analysis required that documents matched one or more of the following criteria:
   - published in peer-reviewed journals or edited books;
   - sponsored by the World Health Organization(WHO), the International Labour Organization (ILO), or Consultative Group to Assist the Poor (CGAP);
   - exhibited a clear research design producing objective evidence; and
   - focused on HMI *design and/or impact*.

2) Interview data were collected by the ILO's Microinsurance Innovation Facility and McKinsey and Company from August to September 2009. More than 31 experts representing 25 organizations (see Table 4 in the appendix) provided information on trends and experience. The interviews represent valuable primary data and expert opinions to inform suggestions for the field.

Findings are presented in four main sections:

1) Overview of the complexity of HMI, followed by a description of the challenges and opportunities in terms of supply, demand, and the macro environment (regulation, complementary government programmes, etc.).
2) Findings from the literature about HMI's impact on clients.
3) Description of promising innovations, with input from practitioners and the literature.
4) Summary and implications for the future.

# 2 > DEMAND AND SUPPLY CHALLENGES FOR HEALTH MICROINSURANCE

## 2.1 COMPLEXITY OF HEALTH MICROINSURANCE

The very nature of HMI differentiates it from other forms of insurance. Health microinsurance is about service delivery rather than paying to compensate for a loss. This fact makes it extremely difficult to control demand and ensure that the services delivered are appropriate. Complicating the situation, healthcare services covered by HMI are delivered by a third party, the healthcare provider, who often may have a motive to maximize revenue. This creates another distortion of demand, encouraging fraud and irrational pricing.

HMI is further complicated by the intense demand for services thought to be required for good health. Standards of care continuously evolve and are influenced by factors such as technology and infrastructure, greater awareness, and improved partnerships. As a result, the frequency and type of services is increasing (e.g. diagnostic radiology once equipment and providers are accessible). At the same time, the cost of service is also increasing (e.g. CT scans replacing x-rays), compounding the challenge to deliver appropriate and affordable care. Low-income households suffer disproportionately from infectious disease and the consequences of poor living conditions, and they are also increasingly subject to chronic lifestyle-related diseases such as diabetes and heart disease that are traditionally more common in higher income populations.

Amidst such challenges, HMI programmes differ on many fronts: they differ in programme design, including the degree of integration with healthcare providers, distribution and servicing approaches in relation to coverage or benefits. This complexity exists for a reason; different programme configurations address different exigencies in the operating environment. Communities vary in relative wealth, health, and exposure to health risks, in addition to proximity to healthcare providers, pharmacies, and laboratories. For example, some programmes attempt comprehensive coverage (inpatient and outpatient), while some offer catastrophic (i.e. hospitalization) coverage only. Further variance relates to whether a product covers pre-existing conditions, maternity, preventive or chronic care, as well as the maximum benefit amount and the degree to which members are required to share in costs.

Another differentiator is what type of organization *offers* the insurance and what type of relationship it has with clients. Microfinance institutions (MFIs) can partner with insurers to offer additional financial services which attract and/or retain clients, and which may reduce defaults on loans. NGOs may offer HMI to increase services and protection for community members. Commercial insurers can move "down market" to attract new clients. Governments run social protection programmes at the state or national level, and hybrid models exist as well. The relationship between the programme and its clients has implications for the potential scale and viability of the programme, in adding to the kinds of benefits and pricing options that receive priority. By evaluating the current state of the sector, including these significant variations, we identify options for progress.

## 2.2 DEMAND-SIDE CHALLENGES

At least 93% of the global burden of disease falls on 84% of the world's poor (Preker et al. 2002). This statistic suggests a potentially high demand for healthcare and for viable means to finance healthcare services. The fact that risk management options available to the poor are typically very costly and limited in their effectiveness strengthens the notion of pent-up demand for insurance. Many of the poor understand first-hand how healthcare needs become financial catastrophes; they are frequently forced to

manage the cost of healthcare, both routine and catastrophic, through high interest loans, depleting savings, and/or unplanned selling of productive assets at a discount. A survey carried out by the Microinsurance Center revealed that respondents in Latin America, Africa, and Asia claimed that the most sought-after type of insurance was HMI (Microinsurance Center 2007; Dror 2007). Despite this demand, few of the HMI products currently available attract and retain desired numbers of clients.

A lack of perceived value for products that only cover hospitalization (which less than 5% of clients typically experience) is thought to be a key reason for low enrolment and renewal rates. Low-income households suffer other catastrophic expenses outside of hospitalization, for example a sustained drug regimen. These catastrophes and routine outpatient expenses impact poor families more than the chance of a hospitalization. In addition to offering coverage that is often perceived as insufficient, few HMI programmes have devoted the necessary resources to educate clients about the potential and actual value of HMI and how it works.

Research on demand challenges most often focuses on the affordability of HMI. Income constraints and the high and rising cost of healthcare are dominant barriers to stimulate demand for HMI, and most existing programmes cost more than the very poor can pay (Dekker and Wilms 2009; Dror 2001). In fact, one study in Uganda indicated that only 37% of insured households could pay their premiums from available cash resources (Dekker and Wilms 2009), further revealing that many who purchase HMI may be borrowing money or selling assets to do so.

Our research reveals several additional recurring themes about what constrains and what stimulates demand for HMI (see overview below). Diminishing one or more of these barriers should increase demand for HMI, as measured by increased enrolment and/or renewals. [1]

**Overview of Demand-Related Barriers for HMI**

- Mismatch of needs and products – low-income requesting coverage for outpatient, while most of the available products offer mostly in-patient.
- Low affordability - lack of options for adjusting the timing, frequency or amount of fees to address insufficient and/or seasonal client income
- Poor access to (quality) service providers - this may result from transportation and financial barriers to access care; from lack of quality health providers in a local area; fears (based on reputation or rumour) about insurance programme viability and/or about delayed reimbursement and payout, or perceived quality of available providers.
- Exclusions and mismatch between product and needs - programmes often exclude people with higher risk profiles (for example, HIV/AIDS, elderly), set higher premiums for high risk groups, or fail to address basic needs such as maternity care and medications.
- Lack of information and understanding – an issue for all types of microinsurance, poor clients often do not understand the concept of formalized risk-pooling. This problem is often exacerbated by poorly trained sales agents or insufficient client education before, during, and after a sale.

[1] A summary of the demand side challenges identified in the literature review can be found in Table 1 in the appendix.

## 2.3 SUPPLY-SIDE CHALLENGES

The literature review (summarized in Table 2 in the appendix) suggests that key supply-side issues in HMI revolve around capital constraints stemming from insufficient enrolment and from operational inefficiency. Improper pricing, limited use of technology, and lack of reinsurance only exacerbate these issues. However, despite these widespread challenges, evidence suggests that HMI *does* serve a need in locations where access to adequately skilled and equipped healthcare providers exist.

**Overview of Supply-Related Barriers for HMI**

- Health delivery system constraints – Health delivery system capacity is inadequate or mal-distributed (not proximate to clients). Particularly in rural areas, there are insufficient numbers of facilities, physicians and other trained health workers, and inadequate laboratory and pharmacy supplies.
- Insufficient programme scale - HMI programmes consistently fail to reach sufficient scale for improved pricing, efficiency, and adequate risk pooling.
- Improper pricing of HMI products along with funding deficiencies or uncertainty faced by insurers, hospitals, and clinics.
- Operating models are deficient in one or more categories: technology, information management, fraud prevention, pricing, and/or risk management.
- Lack of an enabling environment in terms of stable and supportive regulation and/or political support.

### HEALTHCARE DELIVERY SYSTEM CONSTRAINTS

The capacity of the healthcare delivery system fundamentally influences HMI programme success. Some healthcare delivery constraints concern:

- Access barriers, such as when patients cannot reach a facility due to distance or cost of transportation and lost wages
- Service quality, such as when clinics do not competently offer needed services (laboratory, x-ray, etc.)
- Staffing, such as inadequate numbers of physicians, poor distribution of providers, or deficiencies in skill and training
- Lack of resources; in particular, the availability of medical supplies and drugs is often insufficient (Preker et al. 2002).
- Insufficient or missing norms for performance monitoring, certification, or accreditation, making it more difficult to measure and ensure quality across providers.

The net result of these constraints is a severely limited range of options where individuals can receive care. In many cases, when HMI programmes are not affordable or not available, the alternative for the poor is either to receive no care or to receive care from public sector providers. There are cases where governments have well-functioning programmes with significant outreach, but in many locations the reputation of the public sector services suggests that they are underfunded and understaffed. This current dilemma where government-sponsored HMI programmes lack sufficient funding or are in early stages of development with long gestation periods, and private sector programmes lack essential governmental support, leaves the poor without a near-term solution to this financing and access problem.

## NEED FOR PROGRAMME SCALE

The size and scale of an HMI programme can also influence the quality of care, the price of the programme, the range of product options, and the sustainability of the programme. Programme Programmes that limit access to a small number of facilities often fail to offer clients viable options for quality care once travel expense and time loss are accounted for (McCord 2007; Ahmed et al. 2005). Larger programmes can often procure more favourable pricing from healthcare providers (Matin et al. 2005), and more easily recruit doctors and nurses to participate as part of the provider network (Marek et al. 2009).

A study of seven HMI programmes in East Africa revealed that each programme preferred to seek scale by enrolling groups rather than individuals, thus reducing adverse selection (McCord and Osinde 2005). Group enrolment can be achieved through partnerships with employers who hire low-income employees, as well as with MFIs or community groups (Kiwara 2007).

Attempts to enrol groups of workers in the informal sector have been more successful than attempts to enrol individuals from the same area (Kiwara 2007). In 1998, managers from UMASIDA in Tanzania tested payment frequency and renewal patterns over three years based on individual and group-administered payment plans. They found that repayments were highest when associations paid the premium on behalf of members and members paid daily or weekly sums into the group fund throughout the year (Kiwara 2007). Within the groups, 81% of enrolees were informal workers making less than $1 per day in purchasing power parity terms; they were small-scale artisans, carpenters, cobblers or retailers working in one place and engaged in mainly the same activity.

## PRICING AND FUNDING CONCERNS

Improper pricing creates situations where HMI programmes cannot reach their target populations in expected numbers and/or cannot sustain themselves over time. McCord (2007) indicated that in four of seven HMI programmes reviewed, premiums were improperly priced. In all cases, the premiums were too low. Of these, only two programmes had obtained actuarial assistance. Programmes have notably different philosophies about pricing, as some attempt to understand what the market can pay and others price for profitability or financial sustainability (Dror 2008; McCord 2007).

Research suggests that there are several reasons why HMI programmes make pricing miscalculations. As mentioned, under-pricing stems from failing to use actuarially sound practices to estimate costs and from setting premiums based on what clients can pay instead of what is required to cover costs and generate minimum margins for expansion and sustainability. Over-pricing can occur when assumptions are based on insufficient or flawed data, on overly cautious security margins, or on an expectation to breakeven or even make profits in too short a period or with too little membership. It must also be noted that an actuarially sound premium may be unaffordable for clients – in which case either the product benefits must be reduced (enabling the premium to correspondingly be lowered), or subsidies must be found.

Other reasons for pricing miscalculations relate to insufficient investment in support systems for the insurance schemes. Research indicates that private sector, government-sponsored, and NGO-sponsored insurance schemes may not direct sufficient funds to management systems or proper costing techniques, particularly in Africa (Sabri 2003). In addition, key informant interviews suggest that pricing of private sector HMI programmes is highly problematic when governments provide free (or nearly free) healthcare. As one interviewee explained: "Another big question regards the debate on free access to health services,

which is a huge issue in low income countries. It is very difficult for microinsurance programmes to define prices if the government decides services should be free"[2].

## OPERATING MODEL DEFICIENCIES

The critical risk factors in HMI are similar to those that exist in commercial insurance: namely, clients and healthcare providers will act differently with insurance than without (moral hazard); that only the most sick and risk-prone individuals will purchase the product (adverse selection); exposure to fraud, and the potential for cost escalation. Below, we briefly outline the deficiencies in the use of technology and reinsurance, which were common themes regarding risk management that emerged from our review.

*Deficiencies in Use of Technology*

Technology can be employed to mitigate healthcare provider and client fraud. It also can help to control the quality of healthcare services and gain efficiency for operations. However, research revealed that few HMI programmes were utilizing technology and management information systems to improve efficiency, increase quality of care, and/or suppress fraud. In fact, in-depth case studies of seven East African HMI programmes revealed that only two were using computer systems to increase controls and provide management data (McCord 2007). Derriennic, Wolf, and Kiwanuka-Mukiibi (2005) indicate that only two of the 12 community-based HMI programmes evaluated in Uganda had a general management information system that would enable evidence-based managerial decisions. However, much of the literature is silent on infrastructure elements such as the use of technology[3]

*Deficiencies in Use of Reinsurance*

Reinsurance supports three areas: financing, general stabilization, and catastrophe protection (Dror 2001).[4] A reinsurance contract guarantees that the reinsurer pays some or all costs above a predetermined threshold, thus reducing the HMI programme's risk of failure and insolvency. Scenarios run by Bonnevay et al. (2002) indicate that an HMI programme benefits more from paying the reinsurance premium than if it kept the same money for a safety margin in a reserve account. Their findings are robust regardless of how the HMI programmes are configured. The authors further illustrate that while profitable years for HMI programmes are unaffected by reinsurance, the inherent financial safety it provides allows programmes to use surpluses as discretionary monies rather than as reserves. Simulation work by Dror (2001) suggests that reinsurance contracts can stabilize programmes from the first year. Importantly, the author also notes that reinsurance pools may require several years of operation before they operate profitably. Note, however, that reinsurance can also be problematic, such as when it masks institutional inefficiencies.

## ENABLING ENVIRONMENT AND ROLE OF GOVERNMENT

Government support and the regulatory environment for HMI is a critical differentiator between countries and HMI programmes. Accordingly, Dror and Jacquier (1999) claim that regardless of what organization sponsors or initiates HMI, programmes need political, technical, and financial support from the government. Governments can also enable decentralized decision-making so that local level decisions and negotiations can be enacted (Churchill 2007). Some research argues that the role of government is so salient (and so varied) that it destroys the ability to draw any general conclusions about the state of the HMI sector (Churchill 2007). Along these lines, one interviewee emphasized that one must look at each country and government in isolation when assessing problems and solutions, and that generalized recommendations should be avoided (Adelhardt, Partners for Health 2009).

[2] Interview with Brouillet, AFD 2009

[3] For exceptions, see Derriennic, Wolf, and Kiwanuka-Mukiibi 2005; Leftley 2009; McCord 2007.

[4] Other authors who analyze and value the role of reinsurance (Bonnevay et al 2002; Dror, 2001; Dror and Armstrong 2006; Prekeret al. 2002; Wiedmaier-Pfister and Chatterjee 2006).

Certainly, the regulatory environment can stimulate or constrain the development and scaling of sustainable HMI programmes. For example, India mandates through the Insurance Regulatory and Development Authority (IRDA)[5] that all commercial insurance companies serve the poor in increasing numbers over time. While the original mandate was launched in 2002, the IRDA has since issued new regulations to facilitate partnerships between regulated insurance agencies and unregulated entities (IRDA 2005)—the new policies maintain government regulation of the risk carriers while allowing for greater innovation in product distribution and outreach. Also, there was no concomitant lowering of the minimum capital requirement for an insurance company, so there may be insufficient competition in the Indian environment (Wiedmaier-Pfister and Chatterjee 2006).

In contrast to the Indian case, Bangladesh, Sub-Saharan Africa, Sri Lanka, and other locations have considerably less regulation around insurance, and, in particular, around HMI (Arun and Steiner 2008). Besides government programmes and private healthcare insurance, in many countries (such as South Africa) there are healthcare facilities that offer access to healthcare in exchange for regular payments – essentially, premiums. Though these programmes have a risk-pooling element, and may offer full or partial subsidies, they are called pre-payment programmes in order to avoid promoting an unregulated form of insurance. Because the programmes are not licensed or regulated, clients have no recourse if the healthcare provider does not meet its commitments (Wiedmaier-Pfister and Chatterjee 2006).

Other barriers worth identifying and evaluating are whether some governments subject HMI programmes to over-regulation (such as when foreign direct investment in insurance is restricted), whether there are overlapping regulations that complicate operations and add unnecessary administrative costs, or whether governments launch subsidized programmes that undermine market-based insurance programmes (Wiedmaier-Pfister and Chatterjee 2006). In cases where HMI programmes survive without or despite these challenges, there may still be other barriers to distributing products. Research reveals that HMI programmes attempting to partner with cooperatives or MFIs for distribution can be thwarted by strict licensing requirements for insurance agents. Also, restrictions on commissions, which are used in a commercial context, may require greater flexibility to support the relatively higher cost structures of microinsurance (Wiedmaier-Pfister and Chatterjee 2006).

In addition to improving regulatory support, governments can contribute to HMI via PPPs, which are described in more detail in Part IV below. Seeking out these opportunities for collaboration is an important step toward overcoming the many supply-side challenges discussed in this section.[6]

[5] Each insurer has to maintain at least 5,000 policies a year with "unorganized workers, economically vulnerable or backward classes in urban and rural areas" (IRDA 2002). The number of policies must rise to 20,000 in year 5 regardless of size of operations (IRDA 2002).

[6] Table 2, in the appendix, identifies key research papers and findings regarding these and other factors that affect the amount and quality of the supply of HMI.

# 3 > EVIDENCE OF THE IMPACT OF HEALTH MICROINSURANCE

Up to this point, we have explored the complexities of HMI and described constraints that affect programme effectiveness. As we transition from descriptions of demand and supply-related challenges to a discussion of innovations that may mitigate these problems, we summarize why this matters: what does research tell us about the *impact* of HMI? In addition, investigating impacts helps determine what potential solutions can increase the value of HMI.

There is a body of literature focused on assessing the impact and opportunities that HMI creates. This section describes the range of impacts reported in the research, including field results to date for a select number of programmes. Impacts fall into two major categories: household finances and access to and quality of care. Unfortunately, the literature still lacks information on short- or long-term health outcomes, and we close this section with a discussion of why this problem plagues insurance and related fields.

## 3.1 IMPACTS ON HOUSEHOLD FINANCIAL VULNERABILITY

Overall, significant portions of the published evidence suggest that clients of HMI programmes experience better financial protection from health shocks than do non-clients. While the size of the effects may vary across countries, programmes consistently help reduce individual and household out-of-pocket health expenses (Galarraga et al. 2008; King et al. 2009; Wagstaff et al. 2007). In particular, HMI programmes protect the poor from catastrophic health events (Asfaw and Jutting 2007), though this is not true in all cases (Werner 2009). Results from Vietnam indicate that involvement in HMI programmes reduces annual out-of-pocket health expenditures and/or improves access to healthcare[7] (Waddington, 2009). Positive outcomes from insurance were replicated in India, Senegal, Uganda, Tanzania, Nepal, Indonesia, and some parts of India (Asfaw and Jutting 2007; Dror, Radermacher, Khadilkar, Schout, Hay, Singh, and Koren 2009; Gertler, Levine, and Moretti 2009; Musuya, Jutting, and Asfaw 2004; Wagstaff and Pradhan 2005).

Despite this general positive impact on household finances, there is mixed evidence showing that not all population segments are benefiting from HMI, as discussed in the section on access below.

## 3.2 ACCESS TO AND QUALITY OF CARE

A key concern noted across all analyses of HMI impacts is that the extreme poor (e.g. those living below the poverty line or those living on less than $2/day in purchasing power parity terms) are not being reached. Essentially, the poorest cannot afford to pay the premiums, even in locations where some level of subsidy was supposedly available as part of the HMI programme structure (Asfawand and Jutting 2007; Derriennic et al. 2005; Msuya et al. 2004, Jutting 2004; Wagstaff and Pradhan 2005). Again, these findings were consistent across programmes and countries, including programmes in Senegal, Tanzania, Vietnam, Uganda, and India.

On a more positive note, while the very poor do not access healthcare services through HMI programmes, research indicates that the poor (but relatively less poor) do experience greater access to care. In particular, many studies reveal that clients of HMI programmes are more likely to use hospital services than are non-clients (see Table 3 in the appendix). One study in rural Tanzania revealed that sick individuals with HMI were 15% more likely to get treatment than individuals in non-member households (Msuya et al. 2004).

[7] See Werner(2009) for data that microinsurance in Bangladesh improved access but did not protect against catastrophic losses.

Other positive findings were that people with HMI were more likely than the uninsured to seek malaria treatment earlier in the disease cycle once they realized they were ill (Blanchard-Horan 2007). This result for malaria was consistent across health-seeking behaviour for other, more general health conditions. For example, focus groups and interviews with HMI programme managers in Uganda revealed that members no longer postpone healthcare until they are seriously or catastrophically ill, as they had before joining the programme (Derriennic et al. 2005).

Generally, individuals with HMI are less likely to self-diagnose and self-manage illness. For example, enrolment in HMI programmes in Vietnam increased use of medicines prescribed by a health professional instead of the prior behaviour of using non-prescribed drugs and or relying on pharmacists for diagnostic advice (Wagstaff and Pradhan 2005). Self-treatment can cause medical complications, such as progression of the untreated or misdiagnosed illness, complications from self-prescribed drugs, or public health problems in the case of infectious disease (Derriennic et al. 2005). Clearly, delays in obtaining healthcare can lead to increased morbidity and mortality in many cases (Derriennic et al. 2005; Msuya et al. 2004).

Note, however, that many illnesses resolve without intervention, so obtaining medicine early does not always result in the lowest cost outcome. Further, though increased access to care is a generally positive indicator, the benefit design of an HMI programme can also influence use of healthcare services for reasons not related to medical necessity. For example, when an HMI programme covers inpatient care only, there is an incentive for clients seeking benefits and healthcare providers seeking revenue to choose expensive hospitalization for healthcare that could be appropriately provided in an outpatient setting. Similarly, programmes where patients incur reduced or no out-of-pocket cost for care can prompt less scrupulous healthcare providers to provide unnecessary drugs or even perform medically unnecessary procedures.

One question that has not received significant attention is whether enrolment in HMI programmes leads to an increase in preventive care behaviours, either because the HMI promotes or covers such behaviours or because the members demand such changes from each other and their programmes. The issue is broader than examining the impact of discrete preventive care activity, such as immunizations, and includes other interventions in water and sanitation, hygiene, education, lifestyle, etc. Further research on this topic would be valuable for the HMI sector.

## 3.3 HEALTH AND WELL-BEING

Health outcomes remain an elusive target when measuring the impact of health system performance and the value of HMI. There are a number of factors that mitigate the ability to measure health outcomes, including but not limited to: poor data availability, the definition of meaningful measures across all populations, and the different abilities of academics and practitioners to conduct and analyze studies. The collection of valid outcome data is still considered embryonic even in developed health systems in affluent countries. Inevitably, it hardly exists in resource-poor settings. Furthermore, measuring impacts in HMI requires significant measurement specificity because health outcomes are highly correlated with the design of the benefits and the quality of the service delivery (Dercon et al. 2008). For example, a programme could have limited health impacts because the HMI product is poorly matched to local needs or because the quality of care at the hospital or clinic is sub-par.

While the research is fairly silent on this subject, the ability to define and measure health outcomes must become a routine operational competency for a number of reasons: it will help determine where monies should be spent for benefits/services that make a difference in well-being, it will help in formative evaluations of HMI policies and processes, it will enable identification of best practices for wider adoption, and it will enable accountability and transparency in programme design and operations.

The majority of research (see Table 3 in the appendix) finds that the poorest are not realizing the benefits of HMI commensurate with other populations, and suggests that subsidies and/or government intervention may still be the best option to reach the poorest (Asfaw and Jutting 2007; Jutting 2004). Preker et al. (2002) suggest the following best practices:

- Increase and carefully target the subsidies to pay for the premiums of the poorest
- Seek re-insurance to enlarge the effective size of small risk pools
- Enact prevention and case management techniques to limit expenditure fluctuations
- Provide technical support to strengthen the management of local programmes, and
- Establish links with formal financing and provider networks.

These recommendations are consistent with those in the rest of the literature, but in no other document were they offered simultaneously. We agree that this type of specific, simultaneous, and multi-pronged approach is exactly the kind of intervention that the field requires. Below we describe a full range of interventions that have the potential to improve the field of HMI.

# 4 > INNOVATIONS AND INTERVENTIONS FOR HEALTH MICROINSURANCE

In this section, we move from investigating issues and impacts to examining options to meet the needs of the poor through improved HMI business models. We return to the empirical research to examine innovations and best practices, augmenting these findings with expert opinion from key informants interviewed by the ILO's Microinsurance Innovation Facility and McKinsey and Company (See Table 4 in the appendix for the complete list). Collectively, these informants represent the insurance industry, health systems and health financing, and academia or research. From these varied backgrounds, several common themes emerged regarding the topics where innovation is most needed:

- Expanding Member Benefits
- Organizational Models and PPPs
- Overcoming Low Capacities to Pay
- Enrolment, Sales and Distribution
- Use of Information and Communications Technology

Each of these themes is discussed below.

## 4.1 EXPANDING MEMBER BENEFITS

Member benefits must extend beyond hospitalization. Minor health shocks are a pressing concern for most low-income households, and meeting this demand has the potential to increase take-up and improve risk pools. More assistance with the cost of drugs, particularly the drugs necessary for long-term treatments also has the potential to increase demand. Taking care of the outpatient side should also improve health outcomes and health-seeking behaviours. More regular health check-ups, early diagnoses and timely care for minor illnesses should result in a reduction in overall treatment costs, better cost controls and lower claims for in-patient products. For example, VimoSEWA, an insurance arm of a large trade union that provides composite health, life, and property coverage to more than 200,000 self-employed women in Ahmedabad, discovered that one third of hospitalization claims are for highly preventable illnesses such as malaria, gastroenteritis and other water-borne diseases. Leaving diseases like these untreated not only drives vulnerability in poor communities, but also impedes the viability of health microinsurance. Several Indian organizations have creatively addressed the outpatient component, as described in Boxes 1 and 2 below.

**Box 1: Uplift Health Mutual Fund (India): Member Participation to Cut Costs**

Established in 2003, Uplift Health Mutual Fund currently serves more than 65,000 members in urban and peri-urban slums of Pune, Mumbai and rural Marathwada. Supported by Uplift staff and systems, members themselves administer the scheme through regular, participatory claim settlement meetings. This mutual system, coupled with strong partnerships with various health care providers, allows the programme to maintain a broad benefits package that includes inpatient surgical services, some outpatient services and all primary healthcare consultations for a very competitive price (INR 400 or 9 USD per year for a family of four with benefits capped at INR 15,000 or USD 333). Uplift also conducts monthly health camps and runs a 24-hour hotline staffed by qualified doctors who assist in navigating the complex healthcare system (Dimovska et al 2009, Ruchismita and Virani 2009). The programme is not yet fully sustainable, but the recent growth rate, scale achieved so far, established processes and systems, and professionalism of the core team distinguish the UpLift model from other tiny community-based schemes in Africa.

**Box 2: Comprehensive coverage through community health workers in India**

Swayam Shikshan Prayog (SSP), an Indian NGO that promotes social and economic opportunities for low-income women and their families, is piloting a hybrid HMI model to overcome some of the limitations of community-based schemes. Financial risk for in-patient benefits is carried by an insurance company, bundled with a package of outpatient services, implemented by community health workers, and delivered through a network of local practitioners, diagnostic centers and drug dispensing units. The community health workers function as social entrepreneurs who promote better health and earn commissions by enrolling new members. Besides covered hospitalization services, members can receive additional health services and access outpatient primary and preventive services and drugs at a targeted 30-40% savings from usual charges.

One approach that may add value for clients with chronic conditions not covered by an HMI programme's benefits package is to provide discounted prices for routine consultations and drugs. Not only can such a benefit increase perceived value and thus client satisfaction with HMI (and encourage renewals), but it may also prevent unnecessary hospitalizations, ultimately enabling lower premiums or enhanced benefits (McCord and Osinde 2005). The important idea here is that client satisfaction and utility (as well as better health outcomes) can be achieved if clients receive special considerations (e.g. discounts) as part of membership even if they don't have a medical claim. Other suggestions to achieve this outcome include providing auto-generated reminders about preventive care or disease management behaviours (interview with Ray, Medicare TPA 2009).

Research shows that as customers become savvier and consider existing products, they will increasingly demand customized products. Because of extreme variations in client needs, costs of healthcare, availability of services and client demand, there is no single benefit package that can optimize all factors and receive universal acceptance. Researchers suggest that context-specific solutions are most likely to address this issue of heterogeneity (Dror 2007, MicroInsurance Academy 2009).

Expert interviewees urged programmes to "involve the clients in the product design process" (Leppert, Pro-MHI Africa 2009). Innovative tools are being designed to allow clients to participate in the customization of products. For example, the programme known as CHAT, or "Choosing Healthcare All Together," is a decision-making tool designed to engage the public in healthcare priority setting. It includes community members in the benefits allocation process by having them work individually and then in groups to distribute a limited number of pegs on a board. One strength of the tool is that the exercises do not require significant literacy or numeracy for participation (Dror et al. 2007; Dror 2008). The operating principle is that the poor themselves are well positioned to determine what should be included and excluded in their benefits package. Further, co-creation can create trust, acceptance, and willingness to be insured (Dror et al. 2007).

## 4.2 ORGANIZATIONAL MODELS AND PUBLIC-PRIVATE PARTNERSHIPS

As stated earlier, the model used to design an HMI programme plays a key role in determining the impact of the programme, as design decisions can impact pricing, benefits, and even long-term funding. Dror (2008), examining the insurance industry in India, found that HMI programmes can change models over time. For example, communities may start out by purchasing group insurance from commercial insurers, but later shift to community-based health insurance models, which offer more flexibility and relate better to the client need for customized products. Also, members may agree to ration benefits more readily when they have a role in the decision making process rather than when they attempt to understand the acceptance

and rejection decisions from a distant and impersonal company. This suggestion hints at just a few of the possible connections between organizational model, marketing and product design.

Typically, grassroots HMI programmes understand low-income communities, but do not understand health insurance, while traditional insurers do not know how to reach communities or gain their trust. Insurers can bridge this gap by partnering with delivery channels that are more in touch with poor communities; grassroots HMI programmes can fill their capacity gaps by participating in trainings and receiving technical assistance. With any potential solution, however, understanding and meeting clients' needs should remain a priority.

When public or private sector interventions alone cannot accomplish enough, public and private actors may need to join together in innovative and more substantive ways. Importantly, research reveals that advancing the goals of fighting poverty and providing access to healthcare often requires the cooperation and blended competencies of public and private sector actors, with complementary resources and roles (Marek et al. 2005; Cowley and Ehrbeck 2007, Lomas 2009).

Up to this point, this paper has emphasized private sector interventions and programmes that directly or indirectly provide HMI and access to healthcare. However, innovative public-private partnerships (PPPs) have the potential to catalyze a greater quantity and quality of healthcare options for low-income individuals and groups. In particular, PPPs can leverage the creativity and efficiency of the private sector in concert with the fundraising capabilities of the public sector. Public money may be necessary to pay for most preventive care, for health promotion, or to subsidize HMI premiums. The majority of PPPs identified in the research focus on contracting arrangements where the public sector purchases specific services from a private provider (Marek et al. 2005).

The public sector, however, can provide more than just financial and contracting support. It is obvious that HMI needs to be developed in parallel with public health strategies. For example, developing HMI programmes in countries where health systems are very weak does not make sense. If well coordinated, the public sector may be able to provide access to underutilized healthcare facilities that the private sector can use to expand access and lower costs. Public actors can also coordinate with private sector players to create larger, more stable risk pools. Such partnerships can promulgate and enforce quality and accreditation standards. Finally, private sector management expertise can drive solutions to reduce fraud and manage programme risk and costs. Some of these options are explored further below.

*PPPs for Scale*

One of the most frequently mentioned benefits of PPPs is the potential for significant outreach (possibly leading to universal coverage or coverage for the very poor) with the support of government resources. Some lessons from the field from interviewees:

- "Multiple variations of government support exist for effective public-private partnerships. In Ghana and Rwanda, the public-private partnership relationship is one where the government provides significant subsidization to pay for premiums. In Laos, the government subsidizes healthcare directly. In Cambodia, the government finances equity funds; donors also contribute to these funds which are used to subsidize local programmes to distribute insurance to the poor" (interview with Brouillet, AFD 2009).
- "In Soviet Georgia, they decided two years ago that they could not carry out their plan to build government-run primary care centres; instead they decided to provide public insurance for those who qualify for a guaranteed minimum income. They self-insured it in the first year and in the second year they contracted out to private insurers. They now have 17 private contractors - a whole private

insurance industry. In April 2009 they invited all Georgian citizens to join a national insurance plan in which the government provides a subsidy at 2/3 the cost of a premium for a family" (interview with Griffin, World Bank 2009).

- "It is unclear whether it is possible to go from grassroots spontaneous themes to eventually scaling up and linking to a more formal and more organized system, without the type of complete takeover of the type that Ghana has done. To date, the only massive scale-ups have been through government support, and it is to be determined whether this can be done without such a funding source" (interview with Makinen, Results for Development 2009).

PPPs for Quality Assurance

Quality assurance and the need for uniform standards of quality, cost of treatment, and accreditation are other areas where the government can play an important role. According to one interviewee, "One of the biggest challenges is the lack of standard treatment protocols. By engaging with the government and the state, they can create these, as it is too much of a stretch for insurers to do that on their own. There is also a need to establish required healthcare provider credentials, e.g. what constitutes a clinic, a hospital, a pharmacist? The public sector can do this well" (interview with Ruchismita, IFMR 2009).

PPPs for Dynamism

Broadly speaking, the private sector has an inherent ability over government to innovate and respond to market opportunities, and "stay close to the customer." The application of established business practices, including continuous quality improvement, actuarially based pricing, robust product research and development, operations monitoring and use of technology are all essential to the success of HMI programmes.

In conclusion, PPPs have the potential to enable the development and expansion of client centred, sustainable HMI in ways that neither public nor private sponsored programmes may be able to accomplish. Though more complex and fraught with politics and competing stakeholder values and interests, the complementary advantages of each can be used to address some of HMI's greatest challenges.

## 4.3 OVERCOMING LOW CAPACITIES TO PAY AND LIQUIDITY CONSTRAINTS

Given that affordability remains one of the key factors that impact demand for HMI, many countries support health financing mechanisms such as cost-sharing, government interventions (e.g. rate setting) and subsidies, and/or the introduction of private for-profit healthcare services (Kiwara 2007). Despite this range of options, one of the greatest challenges for HMI is to identify and implement pricing and payment methods that result in an affordable product while generating sufficient revenue to sustain operations. This is an area where considerable analysis is needed to identify best business practices. Currently, the most common premium collection practice is to collect annual premiums at or around the time of enrolment. However, some HMI programmes are trying new approaches to make premium payments more flexible, such as in-kind premium payments and various savings-linked arrangements, as described in Boxes 3 and 4 below.

**Box 3: VimoSEWA (India): Interest Earned Pays Premium**

VimoSEWA offers clients a special fixed deposit account where interest earned on savings pays the annual premium (McCord 2001). The innovation gives low-income clients the option to contribute to a special savings account until they have accumulated the balance sufficient to pay the premium (500 rupees). The interest that VimoSEWA earns on the savings eventually covers the cost of the insurance premium. SEWA

also offers a consumption loan designed to finance the 500-rupee premium, enabling the client to repay the loan over the regularly scheduled period (Brown and Churchill 2000).

**Box 4: Electronic premium payment from savings in Bolivia**

Zurich Bolivia Group has had much success delivering HMI products through BancoSol, a commercial bank focused on the low-income market. One contributing factor was that sales and premium payments are linked to savings accounts. The product, sold at bank offices, offers medical consultation coverage at 100%, ancillary services and maternity at 80%, and hospitalization and surgery at 70% plus life insurance for $3.99 per month. Zurich Bolivia invested in customized management information systems to automate premium collections and integrate them with banking functions. Monthly premium collection is flexible: if the savings account has insufficient funds when a scheduled premium payment is processed, the system retries every day to debit the account until 1) there are sufficient funds to pay the premium, or 2) sixty days have gone by, in which case the policy is cancelled.

Subsidizing premiums

Another major effort to provide adequate capital is to subsidize HMI premiums. Some donors and governments experiment with temporary subsidies for health insurance. The Health Insurance Fund, a Dutch foundation backed with funding from the Netherlands government, provides two-year subsidies for their health schemes in Nigeria to allow the poor to experience the benefits of unknown products. The rationale is that clients will see the value of insurance and continue to pay for coverage once the subsidies are removed. Permanent subsidies are also targeted at poorer classes in several countries such as Georgia and Ghana. Given the inability of the poor to pay for healthcare, it is hard to imagine valuable HMI programmes for all in some contexts without subsidies and other support from public sector.

Cashless or Near-Cashless Payments

Another notable innovation to release liquidity constraints is cashless (or almost cashless[8]) products, which allow the poor to access healthcare without having to pay cash up front and then file a claim for reimbursement. Cashless arrangements require coordinated record-keeping, documentation, and back-office support. When an HMI programme serves a small geographic area and has sufficient scale, capacity, and expertise, the programme can handle this administrative burden itself. Otherwise, HMI programmes often employ third-party administrators (TPAs) with regional or national provider networks in order to establish direct payment arrangements with healthcare providers, to verify eligible clients and to preauthorize and oversee provision of healthcare services (Weidmaier-Pfister and Chatterjee 2006). However, Ahuja and Narang (2005) indicate that TPAs in India have not been universally successful because they typically lack experience providing services to low-income clients. The emergence of more TPAs with context-specific skills such as familiarity with information technology and reporting will likely help control costs in the low-margin, high-transaction world of HMI (Wiedmaier-Pfister and Chatterjee 2006). There are several documented cases of organizations that employed TPAs to enable cashless or near cashless products, as highlighted in the Box 5 below.

**Box 5: Yeshasvini Farmers' Cooperative (India): An Early TPA Adopter**

The Yeshasvini farmers' cooperative in Karnataka, India, contracted all HMI programme administration through Family Health Plan Limited (Cowley and Ehrbeck 2007; Virani 2009). The Yeshasvini programme offered cashless surgical benefits, free outpatient consultations, and discounted diagnostic tests to members of cooperatives. It enjoyed scale, a strong reputation, and administrative support from its PPP with the State Department of Cooperatives. Yeshasvini was self-funded and experienced bottlenecks in fund dispersal and cases of poor financial planning and budgetary allocations that resulted in difficulty honouring

[8] If a product requires some form of cost sharing for covered services (e.g. a co-payment or deductible), or if clients receive a non-covered service, then clients incur some out-of-pocket expense and the health care utilization experience becomes almost cashless instead of truly cashless.

legitimate claims. Further, without the benefits of insurance or reinsurance arrangements, much of its potential was unrealized due to financial problems— and the plan is heavily subsidized and not as replicable as it seemed initially (Virani 2009).

HMI programmes' use of innovative arrangements like these – subsidies, cashless products, and savings-linked premium payments – will be crucial to making HMI accessible and affordable for poor clients.

## 4.4 ENROLMENT, SALES AND DISTRIBUTION

Tapping into latent demand among the poor requires creative strategies for facilitating access to HMI products. The poor are often hard to reach, hesitant to trust insurers, and reluctant to invest scarce resources in HMI. In this section, we cover strategies for maximizing the attractiveness of enrolment, including redefining eligibility, making premium payment as hassle-free as possible, partnering with MFIs and other, less conventional distribution channels, and offering creative bonuses and incentives to clients.

An eligibility-related practice identified in Brown and Churchill (2000) occurred at the Uganda Health Cooperative. The U.S.-based HMI partner adjusted its definition of family coverage from the western-centric model of a nuclear family to one that more accurately reflects the Ugandan reality. The updated and local definition was adjusted to refer to "everyone who eats from the same pot". The authors also draw attention to the need, in war-torn countries or those with high concentrations of HIV/AIDS, to adjust "family" coverage to extend to orphans who reside as dependents (Brown and Churchill 2000).

More than one expert interviewee mentioned the role of MFIs as MHI distributors, but the MFIs must have sufficient incentives to sell insurance. For example, if it can be proven that MFI performance improves when clients have access to healthcare and HMI, then MFIs would be more amenable to marketing HMI aggressively among their clients (McCord and Osinde 2005). Another possibility would be to provide incentives for the MFI to offer savings or loan products together with HMI. On one hand, MFIs operate in increasingly competitive environments, and the benefits of offering HMI – increased revenue, client retention, and diversified income – may be outweighed by the costs. On the other hand, there is increasing evidence that promoting healthy clients not only aligns with the social mission of MFIs, but is also important for maintaining healthy loan portfolios. Thus, MFIs are increasingly experimenting with programmes to improve access to healthcare (Leatherman and Dunford 2010). Interviewees mentioned that distribution channels are also worth exploring. "Use farmer's groups (irrigation groups), or micro-institutions, microcredit programmes—if people in the programme have a mandatory health insurance plan then you can avoid adverse selection, and we need to find a way to make selection into a health programme independent of whether they are healthy" (Griffin, World Bank 2009). Certainly, all distribution partnerships deserve close scrutiny to ensure that incentives and motivations align.

Incentive design can also have an effect on renewals. McCord and Osinde (2005) suggested several marketing and sales innovations that recognize the difference between educating people and marketing to them. With many incentive structures, salespeople tend to focus on the initial sale rather than upon the more distant issue of renewal. Redesigned incentives, such as paying an initial commission at enrolment and a larger commission at the time of renewal, might foster more education upfront and during the policy period, helping clients to understand and value HMI.

Incentives can also be offered to encourage clients to enrol. Interviewees suggested several innovations from the field:

- "Some 'try before you buy' initiatives have had success - e.g. through PharmAccess, the Dutch have supported initiatives in Nigeria with substantial subsidies for the first two years" (DeFerranti, Results for Development 2009).
- "Consider offering cash-back incentives if members commit to five years at a time at enrolment or re-enrolment. There is also the example of an insurer offering the full premium back after ten years if no claims are filed" (Pott, Aga Khan Agency for Microfinance 2009).
- "You have to make it easy, not just affordable. In Nicaragua we gave away tickets for free insurance (a six-month subsidy) – all you had to do was go to the MFI with your documents, form of ID, photo for the card, and copies of children's birth certificates to register. When we first gave the prize away only 27% of the winners signed up! The rest said it was too inconvenient. So, we sent out surveyors to fill out forms and take pictures so we could do everything at their shops. Enrolment went up to 68%. Technology could also help streamline this process" (Magnoni, EA Consultants 2009).

All of these innovations attempt to make HMI enrolment more accessible and attractive for clients. When attempting to stimulate latent demand, it is important to remember what one expert interviewee pointed out: "You cannot achieve greater coverage with more money alone. Coverage requires people to also feel they are in *need* of insurance" (interview with Chamberlain and Smith, Cenfri 2009).

## 4.5 USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

Technology has enormous potential to trim costs and increase efficiencies for all types of microinsurance products across the entire value chain, e.g., enrolment, sharing information with distribution partners, etc. Cashless products are a good example of application of technology to enable access to HMI for the poor and to gain more efficiency on the supply side.

In the context of HMI, innovations in mobile phone technology can enable cost-efficient, appropriate access to healthcare. For example, Project Masiluleke in South Africa sends about one million text messages a day, encouraging recipients in their local language to contact a national AIDS hotline. The hotline then directs them to clinics outside their local region where they can avoid the stigma of getting tested in the vicinity of peers. Responses have been beyond expectations, particularly from previously hard-to-reach young men (Economist 2009). In other parts of the world, such as Thailand, compliance with a drug regimen to treat tuberculosis jumped to over 90% when patients were sent a daily text reminder to take their medication. More advanced technology can also be used to improve access to care for rural clients (see Box 6).

A more direct way to use mobile technologies to improve supply-side dynamics is to better support rural health workers to serve patients, as the shortage of trained doctors in rural areas is significant. The Council on Foreign Relations (CFR) has developed a "doc in a box" concept, in which they will equip a shipping container to serve as a rural clinic. Trained community

**Box 6: Mobile technology to connect doctors with rural patients**

Based in Hyderabad, India, CARE Foundation is piloting a rural health delivery and microinsurance scheme that focuses on the provision of outpatient care in the village setting. Community members are trained to be Village Health Champions (VHCs) who provide "healthcare at the village doorstep." For routine diagnoses, VHCs use a hand-held terminal with a built-in clinical decision support system to provide appropriate medical advice and order prescriptions. In less routine cases, they liaise with a remote CARE doctor who recommends treatment through an SMS text message. Final testing of the technology, training of health workers, and product design are currently being completed. The product will be piloted in 2010, with a target outreach of 50 villages that have approximately 100,000 low-income residents by 2012.

health workers will offer services from the units, and have access to fully trained professionals by mobile phone (Economist 2009). Innovations like these have the potential to make HMI more viable in rural areas by improving early access to care, thus reducing costly claims later in the disease cycle.

Medicall Home in Mexico is also using technology to improve health outcomes for people who suffer from a lack of available clinics, by providing unlimited phone consultations with doctors for a flat fee of about $5 per month (Medicall Home 2010). John Pott of The Aga Khan Agency for Microfinance describes a similar experience with HMI in Pakistan: "They have found success in a dial-a-doctor programme because it enables them to better serve their members and cut down on hospital admission/ER visit rates" (2009).

Some interviewees suggested process-related applications of technology for HMI—specifically, funds transactions and general improvements in operating efficiencies. "The ability to transfer funds using cell phones to allow clients or insurers to pay healthcare providers will be key. Also, the use of smart cards for identification purposes, for medical records, and claims information will help as well" (interview with Makinen, Results for Development 2009).

# 5 > THE WAY FORWARD

The collected data, as well as the glaring omissions, suggest ways that HMI programmes can become more valuable to clients and more sustainable over time. Specifically, we have highlighted strategies to respond to market demand, to address supply gaps by improving product design, delivery, and operations, and to integrate public and private sector efforts. We summarize each of these elements in turn and then suggest some strategic directions for the field of HMI.

## 5.1 EXPANDING MEMBER BENEFITS TO RESPOND TO MARKET DEMAND

Member benefits should extend beyond hospitalization. Minor health shocks are a pressing concern for most low-income households, and meeting this demand can increase enrolment and stabilize risk pools. Furthermore, enhancing outpatient benefits encourages regular health check-ups, earlier diagnoses, and timely care for minor illnesses. These changes should reduce overall treatment costs and lower claims for in-patient care, thus improving the overall viability of HMI programmes.

HMI programmes must simultaneously educate clients about the benefits of HMI products and respond to client needs. Currently, lack of understanding of HMI is a key reason for the low renewal rates of many HMI programmes –clients often feel that insurance is a wasted purchase if they did not fall sick during the year (McCord 2001). Few programmes have devoted adequate resources to segment-specific market research, education, and marketing, limiting understanding and acceptance of HMI products by clients and even practitioners.

Compounding these issues is the fact that the poor, by definition, lack the capacity to pay. As a result, stimulating demand for HMI will require very careful design of optimal benefit packages, ideally through a participatory process involving potential clients. Furthermore, low-income individuals require flexible premium payment arrangements in order to more readily finance HMI premiums.

## 5.2 IMPROVED SUPPLY: PRODUCTS AND PROCESSES

Currently, universal healthcare is out of reach for many countries. Market-based solutions are not reaching scale and may not meet all needs due to exclusions, and healthcare provider infrastructure is constrained in many areas. These factors leave the poor without reliable access to necessary health services or dependable financial risk management solutions. As discussed in this paper, numerous challenges are hindering HMI programmes' ability to supply valuable products, and overcoming these challenges will require careful, multi-pronged interventions.

Private sector activity, by commercial insurers in particular, has been limited to-date partly because of the perceived complexity of designing and administering comprehensive (e.g. outpatient and inpatient) products. Context-specific solutions must be sought, using carefully constructed benefit packages. Until products are developed that meet client demand while remaining financially viable, adequate scale for risk pooling will not be attained. Furthermore, many HMI programmes lack adequate financial support due to investor concerns about reaching scale, and, ironically, struggle to reach scale due to this same lack of financial support. Additional hurdles to scale include inadequate health infrastructure and insufficient data and technical know-how, highlighting the need for more market research and capacity building assistance.

Because HMI is characterized by frequent transactions and low margins, efficient claims and policy administration processes are essential to success. Thus far, experience with TPAs is not satisfactory, and more innovation is needed in obtaining and executing third party support. Appropriate pricing, reinsurance coverage, and fraud controls also require significant attention and investment, particularly for community-

based programmes. Though commercial insurers may have a better grasp of these insurance concepts, they lack an understanding of how to best reach the low-income market. What's more, HMI programmes face these challenges in environments that often lack stable political systems and supportive regulatory treatment of HMI programmes.

We believe that the best solution is a coordinated effort to tackle multiple challenges simultaneously, involving players from many different aspects of the HMI sector. This effort should be combined with active communication between actors, sharing their discoveries of what works – and what does not.

## 5.3 PUBLIC AND PRIVATE SECTOR COLLABORATION

The presence (or co-creation) of underlying health services provision is critical to advancing HMI and to improving health outcomes in general. Certainly, no HMI programme can be successful unless adequate healthcare services and personnel are within close proximity to the patient. In addition, public health programmes can create supportive environments to strengthen the impact of HMI. For example, public actors can improve sanitation conditions to reduce overall systematic health risk and to support the viability of HMI programmes. They can also promote health education and preventive care. Such activities will encourage the kind of behaviour change that enables HMI to have a greater impact and may also reduce risks for programmes.

In addition, to create an enabling environment, private sector actors need to leverage the presence of any organizing bodies that consolidate groups of people on non-health criteria. This practice is critical to addressing the adverse selection and risk-pooling problem (Ito and Kono, 2010). Management of healthcare through treatment protocols, discharge planning and other forms of care coordination can improve consistency and efficiency.

Ideally, governments should provide 1) sustainable sources/models of financing, 2) a stable yet flexible regulatory environment, and 3) consistent political support. With some or all of these factors in place, the probability that HMI programmes will be valued sufficiently by clients to stimulate enrolment and that the programmes will thrive long enough to achieve scale improves significantly.

## 5.4 IMPROVE EVALUATIONS

Another element that deserves consideration is improved metrics for programme evaluation. Programmes where managers are testing innovations will certainly move through a trial-and-error stage and evolve over time; some will fail and most will require at least several years' time before they reach breakeven. Thus, programme longevity may not be the best signal of a viable and sustainable HMI programme. Other relevant metrics include: standard financial indicators and ratios examining both clinical and administrative performance, robustness of management information systems, credible pricing reviews, and staff training and incentives (Biswas and Devi 2008).

The selection of metrics and the continuous tracking of performance measurement each play a role in advancing healthcare access and quality. Ideally, management attention should focus on measuring and tracking HMI programme indicators as well as client health outcomes.

## 5.5 A COORDINATED EFFORT TO EXPAND MEMBER BENEFITS

Overall, the evidence review indicates that programmes can approach health financing either to reduce vulnerability (focusing on a catastrophic event or in-patient care) or to improve health outcomes (focusing on outpatient, prevention, and chronic care). These two perspectives present a conundrum: the former is more aligned with principles of insurance, but clients desire the latter. Through efficient business models,

customized benefit packages, and varied payment plans, HMI programmes should seek a balance between the two perspectives. The solution should also leverage public-private partnerships (PPPs), combining the public sector's ability to source funding, pool large groups and ease regulatory issues with the private sector's innovation, insurance expertise, efficiency, and technology.

Thus, the way forward for health microinsurance lies with the combined efforts of policy-makers, private sector and NGO actors, government officials, management educators, and technology firms. Ultimately, no efforts, even combined efforts, are likely to be successful without constantly soliciting and utilizing input from the most important stakeholder: the potential client.

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# APPENDICES

## TABLE 1: RESEARCH REVIEW OF HEALTH MICROINSURANCE DEMAND-SIDE CHALLENGES

| Key Findings | Authors |
|---|---|
| Poor want insurance, but make a quality vs. price trade-off; people want choice; take note of seasonality of health needs; people need education on insurance. | Ahmed, Mbaisi, Moko, Ngonzi 2005; |
| Microinsurance needs to be simple, affordable, and proximal to members. | DrorandJacquier 1999; |
| Income determines participation- even with exemption mechanisms poorest are not served. | Msuya, Jutting, Asfaw 2004; |
| Members cite transportation costs as barriers to use and non-members cited cost of care. | Blanchard-Horan 2007; |
| When poor pay a premium, they should have choices. Communities may prefer Community-Based Health Insurance as it lets members ration benefits and eligibility. Clients tend to choose packages that combine preventive care with underwriting of rare healthcare risks. | Dror 2008; |
| Demand depends on how easily clients can pay the premium. Innovations in premium collection include: savings accumulated through MFI weekly meetings paid in full in four months, or credit (FINCA Uganda), small amounts paid daily by groups (UMASIDA), payments deducted from interest earned on deposits (SEWA), or payment in instalments (GRET). | McCord 2001; |
| Dissatisfaction came from lack of benefits for certain diseases (hypertension, diabetes), limit on number of family members and orphans, and confusion about benefits. People don't differentiate between pre-payment and premiums. | Cohen andSebstad 2005; |
| Many programmes don't have a sufficient inventory of drugs, so patients make multiple trips for supplies. Design suggestions: time premium payments to match cash flows, provide differentiated products for different needs, allow many small payments. Poor don't understand premiums versus pre-payment. | Brown and Churchill 2000; |
| Insured have higher willingness to pay (WTP) than uninsured, majority of Indian sample willing to pay 1% of annual HH income, nominal WTP correlates to income, HH with male respondent or with experience with high-cost health event had higher WTP. | Dror, Radermaker, and Koren 2006; |

| | |
|---|---|
| Members want outpatient care at clinics close to home.<br><br>Eight years of focus groups, primarily with MFI clients, indicate the poor express "great desire" for access to health insurance. | Derriennic, Y, Wolf, K, and Kiwanuka-Mukiibi P 2005;<br><br>Leftley 2009 |

## TABLE 2: RESEARCH REVIEW OF HEALTH MICROINSURANCE SUPPLY-SIDE ISSUES

| Nature of Issues | Authors |
|---|---|
| Members should make collective decisions about what risks they want covered and type of insurance and coverage options. | Drorand Jacquier 1999; |
| Managers with experience or skills in insurance have improved pricing and better risk management/controls against moral hazard, adverse selection and fraud, reduced costs and operational efficiencies. HMIs prefer working with employers vs. MFIs. Pricing should be outsourced to actuaries. Training and incentives should focus on renewals. Key controls include employees stationed at facilities, networked computers, and minimum membership required of MFIs. | McCord 2007;<br><br>Werner 2009; |
| Inadequate MIS limits growth and efficiency; reinsurance is key in India and Bangladesh (natural disasters), regulatory environment affects products and costs. HMI should expand to cover high-cost low-frequency events and should expand membership to poor. | Dror 2008; |
| Commercial insurers offer top-down products insufficiently adapted for risks of poor. One-size-fits-all approach does not allow sufficient choice. Independent operations, however, come at price of enhanced actuarial and organizational risk and less opportunity for scale. Challenges to provision include: affordability, trust, acceptance of product and process, and asymmetry of info. | McCord 2001; |
| High dropout rates may relate to lack of understanding about benefits of risk pooling. Repeatedly, clients feel they bought something that was wasted if they didn't get sick during the year. Attrition can also result after price increases or benefit reductions or after clients have received care for deferred health needs (e.g. hernia repair). | Asfawand Jutting 2007; |
| Health insurance in Senegal delivered to the more educated, wealthier, and the more urban households with smaller families. Not necessarily reaching intended beneficiaries. | Drorand Armstrong 2006 |
| Simulation reveals a programme size-related premium bias and suggests reinsurance is cheaper than capital loading to correct the bias. | Kiwara 2007; |
| Group premium payments help suppliers enrol members and provide services to large numbers at cost effective rates- renewal is better with group plans versus individual plans. | Jutting 2004; |

## TABLE 3: IMPACTS OF HEALTH MICROINSURANCE PROGRAMMES

| Nature of Evidence/Type of Impact | Authors |
|---|---|
| Members of CBHI group pay less than non-members for healthcare, have higher probability of using hospital. The programmes do attract poor people but poorest are excluded. | Msuya, Jutting, and Asfaw 2004; |
| Members and non-members spend the same but members more likely to get treatment. Members are better protected against health shocks. | Blanchard-Horan 2007; |
| People with HMI more likely to go for care, less use of hospital- suggests reduced financial vulnerability and more early care with HMI. | Werner 2009; |
| HMI increases access and use but does not protect poor from catastrophic expenses that increase poverty. | Gertler, Levine, Moretti 2009; |
| Living near an MFI protects closer households from consumption losses- findings consistent with signs of self-insurance and not state-dependent preferences. Live near an MFI and you are likely to self-insure via savings and liquidity (Indonesia). | Asfawand Jutting 2007; |
| Insurance improves access to HC services, increases utilization, lowers risk of catastrophic expenses, and shields from impoverishment, but existing programmes are not reaching the poor and non-urban.HMI (in form of community health financing) improves access by rural and informal sector workers and provides some financial protection against cost of illness. | Preker, Carrin, Dror, Jakab, Hsiao, and Arhin-Tenkorang 2002; |
| HMI leads to higher immunization rates, healthy breastfeeding practice and better management of diarrhea. | Pronyk, Hargreaves and Morduch, 2007; |
| Better height for weight ratios for insured children and better BMI index among insured adults, insurance leads away from using pharmacists as a source of advice, older children and adults' higher use of hospital, reduced overall out of pocket on healthcare. NOTE: This was a government sponsored and funded programme for government workers and others. | Wagstaff and Pradhan 2005; |
| Members no longer postpone seeking care until they are very ill, members no longer have to sell assets at a loss to pay for care, members receive health education and promotion info. | Derriennic, ., Wolf, K, and Kiwanuka-Mukiibi, P 2005 |

TABLE 4: KEY INFORMANTS

| | | |
|---|---|---|
| **HMI practitioners and service providers**<br>David Dror, Micro Insurance Academy<br>Bruno Galland, CIDR<br>Richard Leftley, MicroEnsure<br>John Pott, Aga Khan Agency for Microfinance Microinsurance Initiative<br>Utpal Ray, Medicare TPA | **Health systems/health financing**<br>Michael Adelhardt, Partners for Health<br>Pascal Brouillet, AFD<br>BenedicteBrusset, AFD<br>David de Ferranti, Results for Development<br>Charles Griffin, World Bank<br>Christian Jacquier, ILO/STEP<br>Marty Makinen, Results for Development<br>HarrieOostingh, Oxfam-Novib<br>Matthias Rompel, GTZ | **Research institutions**<br>Chris Atim, AfHEA<br>Doubell Chamberlain, Cenfri<br>Sheila Leatherman, UNC School of Public Health<br>Gerald Leppert, Pro MHI Africa<br>Ajay Mahal, Harvard School of Public Health<br>RupaleeRuchismita, IFMR<br>Anja Smith, Cenfri |
| **Microinsurance consultants**<br>Barbara Magnoni, EA Consultants<br>Denis Garand, Consultant, Garand and Associates<br>Michael McCord, Microinsurance Centre | **Commercial insurers**<br>Michael Anthony, Allianz Group<br>Rolf Hüppi, ParaLife Management AG<br>**Technology providers**<br>Jan Malek, Cisco | **Microinsurance investors**<br>Eric Berkowitz, Bamboo Finance<br>Doug Lacey, Leapfrog Investments<br>Jim Roth, Leapfrog Investments<br>Keely Stevenson, Bamboo Finance |

## MICROINSURANCE INNOVATION FACILITY

Housed at the International Labour Organization's Social Finance Programme, the Microinsurance Innovation Facility seeks to increase the availability of quality insurance for the developing world's low income families to help them guard against risk and overcome poverty. The Facility was launched in 2008 with the support of a grant from the Bill & Melinda Gates Foundation.

See more at: www.ilo.org/microinsurance

International Labour Office

microinsurance innovation facility

The social dimension of finance

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