microInsurance Innovation facility
PROTECTING THE WORKING POOR

International Labour Organization

MICROINSURANCE
PAPER No. 19

January 2013

VALUE-ADDED SERVICES IN HEALTH MICROINSURANCE

John Pott, Jeanna Holtz

Copyright © International Labour Organization 2013
First published 2013

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Permissions), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: pubdroit@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with reproduction rights organizations may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

ILO Cataloguing in Publication Data

John Pott, Jeanna Holtz

Value-added services in health microinsurance
John Pott, Jeanna Holtz; International Labour Office. - Geneva: ILO, 2013
37 p. (Microinsurance Paper; no. 19)

ISSN: 2303-9191 (web pdf)

International Labour Office

microinsurance / value-added services / health insurance

12.02.1

ILO Cataloguing in Publication Data

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications and electronic products can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland. Catalogues or lists of new publications are available free of charge from the above address, or by email: pubvente@ilo.org

Visit our website: www.ilo.org/publns

CONTENTS

LIST OF TABLES iv
LIST OF FIGURES iv
LIST OF BOXES iv
ACKNOWLEDGEMENTS v
EXECUTIVE SUMMARY vi
VAS and the value proposition of HMI vi
Status and potential of VAS vi
Client and business value of VAS viii
Emerging lessons viii
ABBREVIATIONS AND ACRONYMS x
1 > INTRODUCTION 1
1.1 Methodology and reviewed schemes 2
1.2 Organization of the paper 3
2 > THE CHALLENGES OF HMI AND THE CASE FOR VAS 4
3 > OPTIONS FOR VAS 8
3.1 Preventative VAS 9
3.2 Therapeutic VAS: Consultations 13
3.3 Therapeutic VAS through access to low-cost supplies and services 19
4 > CLIENT VALUE AND BUSINESS VIABILITY OF VAS 23
4.1 Client value from VAS 23
4.2 Scale, costs and business value of VAS 25
5 > IMPLEMENTATION LESSONS 27
6 > CONCLUSION 29
ANNEX 1: Additional detail on HMI and VAS providers reviewed 31
ANNEX 2: Assumptions for OP costs in India 33
ANNEX 3: Hospitalization rates, proximity and OP usage 34
REFERENCES 35

LIST OF TABLES

Table 1. HMI and VAS providers reviewed
Table 2. Estimated claims costs for health care – Urban families
Table 3. Types of VAS (present and future)
Table 4. Hospitalization incidence by proximity of OP VAS – SSP
Table 5. Main health expenditure concerns for MFI clients in Karachi
Table 6. Retail pharmacy mark-ups in different countries
Table 7. Client value from VAS
Table 8. Scale, costs and business value of VAS

LIST OF FIGURES

Figure 1. Proportion of Indian households falling into poverty because of expenditure on inpatient and outpatient treatment
Figure 2. Longitudinal comparison of IP and OP costs (estimated average for a low-income family in India)
Figure 3. Time between onset of illness and seeking treatment: insured versus non-insured

LIST OF BOXES

Box 1: Definition of VAS
Box 2: Uplift's health talks
Box 3: VimoSEWA's health education campaign
Box 4: Freedom from Hunger's health education initiative
Box 5: FMiA health camps
Box 6: Impact of OP VAS on renewals: The case of Swayam Shikshan Prayog (SSP)
Box 7: Proliferation of stand-alone Dial-a-Doctor services and mobile phones
Box 8: SAJIDA Foundation: Impact of health workers on maternal and child mortality
Box 9: CARE Foundation's model for village-based health workers to offer OP HMI and VAS
Box 10: Franchised pharmacies for low-cost medicines
Box 11: Low-cost clinics
Box 12: Relative popularity of various VAS at Uplift and Naya Jeevan

ACKNOWLEDGEMENTS

This paper has benefited from the contributions, insights and thoughts of scores of experts, including numerous health microinsurance practitioners and supporters and providers of health services, who generously provided their time and shared valuable information to enable us to complete this study.

Sincere thanks are extended to the following individuals and organizations for their input: Anju Aggarwal and Birendra Mohanty (ICICI Lombard), Zahid Ali Faheem (AMAN Foundation), Dr Aftab Iqbal (Naya Jeevan), Gautam Ivatury and Ajay Nair (Mera Doctor), Sundeep Kapila and Ankur Pegu (Swasth India Services), Rajeev Karunakaram and Devendra Shahapurkar (FINO), Dr Ganapathy Krishnan (Apollo – Health Net Global), Priya Kumar and Jyotsna Kumari (HDFC Ergo), Dr Vijay Kumar Reddy (Ziqitza), Marcia Metcalfe (Freedom from Hunger), Agrotosh Mookerjee (ILO Microinsurance Innovation Facility Fellow at SAJIDA Foundation), S. Prakash (Star Health and Allied Insurance), Shree Rajwade (IDA), Sameer Sarwakar and Gopi Gopalakrisnan (Sky Care/Neurosynaptics), Kumar Shailabh and Dr Deepali Kulkarni (Uplift), Chinu Srinavasan (Low Cost Standard Therapeutic (LOCOST), Prabal Singh and Rose Reis (Centre for Health Markets Innovations – CHMI), Balaji Utla (Health Management Research Institute, Hyderabad).

The authors also appreciate the detailed comments on drafts provided by a number of reviewers, including: B. Girish Babu (CARE Foundation), Aparna Dalal, Michal Matul and Pranav Prashad (ILO Microinsurance Innovation Facility), Sapna Desai (VimoSEWA), Sawsan Eskander (SAJIDA Foundation), Denis Garand (Garand and Associates), Prema Gopalan (Swayam Shikshan Prayog), Dr Asher Hasan (Naya Jeevan), Dr Dorien Mulder (PharmAccess), Rupalee Ruchismita (CIRM), Peter Wrede (World Bank).

An Indian firewood carrier and a client of SSP

EXECUTIVE SUMMARY

VAS and the value proposition of HMI

A number of health microinsurance (HMI) practitioners, primarily in the Indian subcontinent, have begun to experiment with offering value-added services (VAS), services provided by HMI schemes to enhance the appeal of a basic health insurance product to low-income families. At the same time, VAS are expected to have a favourable bottom-line impact on HMI through increased sales and improved claims experience, adequate enough to offset the incremental costs of the VAS.

Low-income families frequently mention health risks as the prime risk they face and against which protection is desperately needed. Indeed, health expenditure is the prime cause of low-income families' descent into poverty. These same families nevertheless show a limited appetite for a basic HMI product which for a generally affordable price (about US$ 10 per family per year in India) offers protection against the potentially devastating economic effects of a hospital stay. The lack of tangibility, the infrequency of hospitalization and the willingness of family and friends to assist at such a time of crisis make hospitalization HMI a low-value proposition for low-income families. Thus, demand, and therefore the market potential, for voluntary HMI has, in the main, proved disappointing for many HMI practitioners.

By contrast low-income families clamour for assistance with their more immediate health expenditure, most notably that associated with outpatient (OP) care. Recent findings have shown, contrary to earlier research, that it is the constant "dripping tap" of OP expenses (that is, consultations and medicines) for treatment of both acute, often infectious, disease, as well as chronic conditions over time, that drives three times as many families into poverty as do inpatient (IP) expenses. Friends and family are less likely to help in circumstances where the requests for help are ongoing. Unfortunately comprehensive benefits for OP care would be unaffordable for low-income families, where the premiums would likely be two to three times higher (that is, US$ 20–30 per family per year in India) than the premium for just IP coverage.

HMI practitioners in the Indian subcontinent have so far offered principally IP coverage – the lower-value proposition for clients. Like with most insurance, the claims incurred in an IP HMI scheme are infrequent, the actuarial data are now reasonably well developed, and the administration is relatively straightforward. By contrast if an HMI practitioner covers OP care, there will be approximately 50 times more claims per year for the same number of clients; the actuarial data are haphazard; the administration is considerably more costly and complex; plus claims are more open to fraud and abuse.

Status and potential of VAS

The findings of this report are that HMI practitioners, driven by both bottom line and social considerations, offer VAS to enhance a basic product (generally a hospitalization product) by adding an element of OP care, limited in either scope or access. In several instances, VAS are supported by technology to keep costs down.

Of these VAS, the Dial-a-Doctor services have achieved the greatest scale and proliferation, possibly because they appear to be most highly valued by clients. Other VAS schemes offer a limited number of free OP visits per year. Technology-assisted diagnostics transmitted to a doctor working from a remote location, when linked to an HMI scheme, offer significant potential as VAS for the future. Yet other schemes offer access to either discounted/low-cost medicines or, for the future, access to low-cost chains of clinics. Such VAS seek to have a favourable impact on claims, with the prospect of patients saving out-of-pocket (OOP) expenses, seeking health care earlier rather than later, and consequently lessening the chance of an expensive IP claim to the insurer. Indeed, there is some evidence offered in this report that access, even if limited, to OP services lowers IP claims.

Some HMI practitioners seek to add preventative VAS, examples being health talks and health camps, where the emphasis is on better health habits and health-seeking behaviour through health education. Often the draw for health camps is a free consultation. VAS which encourage better health habits and behaviour have substantial prospects of reducing overall claims costs and are reasonably inexpensive to provide; however, they are less popular with clients because of their lack of immediate and tangible impact on OOP expenses.

The table below lists the HMI VAS encountered by this study as well as other services that could be linked as VAS in the future.

Types of VAS (present and future)

VAS category	VAS intervention	Description
PREVENTATIVE	Health education	Client education to prevent illness and promote better health (hygiene, nutrition, etc.)
	Health camp	Most common of preventative VAS; can include education, consultation and prescription of medicines
	Health check-ups	Clients are screened for health risks or disease (e.g. hypertension)
THERAPEUTIC: CONSULTATIONS	In-person consultation	A visit that involves direct physical examination of the patient and real-time exchange between patient and health-care provider. Generally limited in scope or number of visits to contain costs; designed to reduce OOP expenditure and improve access to primary care.
	Remote consultation: Dial-a-Doctor	Telephonic contact with a health-care provider (nurse or doctor). Typically positioned as a convenient, low-cost way to provide access to basic diagnosis and medical advice. Can lead to referral for an in-person consultation if warranted. Greatest scale and proliferation among VAS to date.
	Remote consultation: assistant using remote doctor and technology-enabled diagnostics[1]	Technology-supported transmission of basic diagnostic information (e.g. blood pressure, ECG, pulse) by a medically trained health assistant to a doctor who provides a remote diagnosis and recommended treatment to the patient
THERAPEUTIC: ACCESS TO LOW-COST SUPPLIES AND SERVICES	Low-cost medicines	Provision of quality medicines to clients at owned or contracted pharmacies at a discounted or below-market price; designed to reduce OOP expenditure and improve access to medicines
	Low-cost clinics[1]	Provision of low-cost consultations, low-cost medicines and low-cost diagnostics, with doctors employed by the clinic
	Low-cost diagnostics	Provision of quality diagnostics to clients at owned or contracted pharmacies at a discounted or below-market price; designed to reduce OOP expenditure and improve access to primary care
	Emergency medical assistance	Employs GPS technology and incoming call dispatch centre to facilitate appropriate, quick-response access to care in case of medical emergency. Includes ambulance transport of injured or seriously ill patients to an appropriate hospital.

[1]Potential VAS to be linked to HMI schemes.

Client and business value of VAS

Presently, there are limited data to enable a robust quantification of the possible benefits of VAS to clients and to HMI practitioners, and even the scale at which various VAS operate. In the Indian subcontinent, a Dial-a-Doctor service seems presently to be the most viable of VAS. For example, a rural household benefits when it can resolve a health-care need with a remote (mobile phone) consultation, instead of having to give up a day's work and incur transportation costs to obtain a more costly consultation in person with a doctor in town. There is no direct evidence of a reduction in claims which should yield business value to the insurer for a Dial-a-Doctor service. However, the Aarogya Raksha Yojana (ARY) and Swayam Shikshan Prayog (SSP) schemes discussed in this report, combined with research on the Government of India's Rashtriya Swasthya Bima Yojana (RSBY) scheme, suggest that ease of access to OP services should reduce IP claims significantly. It is reasonable to assume that the same should be true of Dial-a-Doctor services given the ease of access to them, especially since experience has shown that 70 per cent of concerns are resolved during the call, and no referral for a prescription or physical visit is required.

Similarly, reducing clients' high OOP expenditure for medicines through discounts negotiated with a local pharmacy should be attractive to many clients. This should be especially applicable outside the Indian subcontinent, where medicine prices are higher and higher retail pharmacy margins provide scope for significant negotiation. Such a VAS benefit can be achieved at virtually no ongoing cost to the HMI scheme, and should yield business value through increased loyalty and the prospect of greater market penetration, therefore reducing the cost to the HMI scheme to acquire new clients. Again whilst intuitively reasonable, limited data are available to support such implicit business benefits to the HMI scheme. However, as an example, during focus group discussions in Tanzania, microfinance clients stated that discounts of 30 per cent would certainly attract them to an HMI scheme.

VAS that feature preventative health services are more difficult to evaluate. On the one hand, there is wide evidence that high levels of communicable diseases can be curbed by simple interventions, suggesting substantial benefits for clients. Hence, it might be reasonable to assume the potential business value to the HMI scheme of health camps or other hybrid approaches that combine some education with diagnosis and providing simple solutions on-site. On the other hand, client enthusiasm for preventative health education is lukewarm and as shown by recent research by VimoSEWA in India, increased knowledge and individual behavioural change do not necessarily translate into improved health outcomes, at least in the short term, for common illnesses.

Technology will substantially augment the opportunities for new VAS attached to HMI operations in the future. The Dial-a-Doctor schemes are already reaching millions of members of large HMI schemes. Individuals below the age of 40 have proved to be the earliest group of adopters. The Remote Medical Diagnosis (ReMeDi) technology should also be of interest to HMI schemes once its costs at scale have been reliably established. With the aid of the ReMeDi system, a village health worker transmits over the mobile phone network the vital sign readings of a patient to a remotely located doctor, who diagnoses the problem and prescribes the appropriate treatment. The patient saves time and transport costs and treatment occurs earlier rather than later, with the likely prospect of fewer and reduced IP claims.

The authors believe that as smartphones and now tablets proliferate, as their prices relentlessly fall (as has happened with mobile phones), and as clients/operators become more proficient with these devices, the microinsurance industry will further exploit the opportunities offered by technology in providing VAS for the future.

Amongst such possibilities in the immediate future will be a trusted and secure method for remote doctors to prescribe medicine via mobile phones, diagnosis by village health workers using diagnostic algorithms that only require a very brief verification by a remote doctor, and automatic directions to low-cost/discount pharmacies, clinics and hospitals within the client's vicinity. In addition, low-cost mass health education and tips for better preventative health practices will be at each member's fingertips, attractively illustrated and presented. Programs should focus on children and young adults, who are again likely to be the earliest adopters.

Emerging lessons

VAS can be further improved. Several key lessons emerged and should be of interest to HMI practitioners implementing VAS.

Firstly, HMIs providing VAS should promote each service and educate clients about them. Several interventions have faltered on account of clients' lack of understanding and awareness of the new services. As a result, some VAS have been underused and under-appreciated.

Secondly, VAS, when outsourced to third parties (for example, health-care providers delivering OP services), require the HMI schemes that support the VAS to have in-house medical expertise.

Thirdly, phasing of VAS is important. If VAS are launched at the same time as HMI, their success may be jeopardized because of lack of focus. It is important to get the core insurance product to some reasonable level of scale and stability before embarking on VAS initiatives; or, as has been suggested, begin by introducing the VAS, and then add the insurance component.

Fourthly, most VAS innovators have focused on one intervention, but others have tried two or more at the same time. Whilst this multi-intervention approach can enable useful feedback from clients on the relative merits of the VAS, the risk is that resources are not sufficiently focused to make any one of the interventions effective enough to be appropriately appreciated by clients and for full business value to be realized.

Finally, it is the government-sponsored schemes that have taken the lead in driving scale of VAS. For the smaller, private-sector HMI schemes, not surprisingly, the scale of VAS is a function of their ease to implement.

Clearly more VAS interventions need to be launched in the next two years, in the Indian subcontinent but in particular in other developing countries. At the same time a research programme encapsulating these emerging initiatives needs to pursued so that many of the gaps in knowledge can be filled by solid empirical findings and data. In the interim, broad measures often used as a proxy for assessing the effectiveness of health-care financing or delivery mechanisms, such as child and maternal mortality, can provide first indicators of impact.

Encouragingly, VAS promise to be part of a multifaceted solution under which HMI can become a more valued and viable mechanism to protect the health (and wealth) of the poor.

ABBREVIATIONS AND ACRONYMS

AKAM	Aga Khan Agency for Microfinance
ARY	Aarogya Raksha Yojana
CFW	Child and Family Wellness Shops
CIRM	Centre for Insurance and Risk Management
FFH	Freedom from Hunger
HMI	Health microinsurance
ILO	International Labour Organization
IP	Inpatient
OOP	Out-of-pocket
OP	Outpatient
OTC	Over the counter
RSBY	Rashtriya Swasthya Bima Yojana
SSP	Swayam Shikshan Prayog
VAS	Value-added service(s)

1 > INTRODUCTION

The purpose of this paper is threefold: (1) to explore the use of value-added services (VAS) in health microinsurance (HMI) schemes;[1] (2) to analyse client value and the business viability of VAS; and (3) to provide tips for the many practitioners who the authors hope will embark on providing VAS.

VAS are defined as services that supplement a product that insures against health risks (box 1). HMI products can cover inpatient (IP) and/or outpatient (OP) health risks. This paper focuses on VAS which complement IP HMI, commonly known as hospitalization insurance, as this is the HMI product most frequently encountered in this study.[2]

Box 1: Definition of VAS

VAS are bundled with existing HMI to provide better value to clients and improve the business viability of HMI schemes. A Dial-a-Doctor hotline providing free[3] medical advice and a health camp that provides vaccinations or offers clients free consultations are examples of VAS.

VAS are an ongoing benefit to clients, whereby the provider of the VAS dedicates quantifiable resources to provide the VAS. VAS are available to members of an HMI scheme either at the time of enrolment (for example, an initial check-up for the enrolee) or thereafter during the coverage period (for example, discounts for visits to doctors or on purchases at pharmacies).

A number of related activities fall outside the definition of VAS used in this paper. Excluded are: (1) pre-enrolment health education sessions that form part of a marketing campaign and are delivered to the target population as a whole; (2) delivering information about how to use HMI, such as how to claim, or access hospital care; and (3) services provided on an ad hoc basis. Additionally, many HMI providers provide an admissions facilitator at empanelled hospitals. The facilitation of hospital stays may be a valued service, but it is so widely deployed and so tied to the effective operation of an IP product that it is deemed to be a part of the HMI product (and not a VAS).

A conundrum faced by HMI providers is that, on the one hand, low-income households place significantly greater value on products that provide tangible benefits that help them cope with health-care needs likely to occur in the more immediate future, soon after paying their premium. Thus, an HMI product that only covers infrequent though potentially catastrophic events like hospitalization, such as an IP product, is perceived by clients as a low-value proposition; voluntary enrolment in such schemes has frequently proved disappointing for insurers.

On the other hand, it is much easier for HMI providers to provide a stand-alone IP HMI product expected to incur relatively infrequent claims and lower administrative costs,[4] and for which there is reasonably reliable actuarial data. Yet practitioner experience shows that such IP HMI products fail to incentivize low-income households to improve preventative health practices or address an emergent health problem before it becomes so serious that it requires hospitalization. The result can be higher claims for insurers and the risk of a longer recovery and poorer health outcomes for clients.

VAS are of interest to HMI providers because of their significant potential to improve both the business viability of HMI and its client value proposition. For clients, VAS provide a tangible, more immediate value (compared with just IP insurance) and will, in theory, keep them healthier, hence more productive. VAS which low-income families would not be able to organize on their own (for example, technology-enabled interventions or discounts on medicines and other services negotiated because of scale) should be particularly attractive to them.[5]

VAS can provide client value in other profound, if indirect and difficult-to-measure, ways. For example, receiving health information via a Dial-a-Doctor service can enable access to the benefits offered by developments in telecommunications and technology, in the same way that an HMI identification smart card imbues a sense of

[1] Health microinsurance (HMI) refers to health insurance schemes that target low-income families.
[2] Whilst IP HMI schemes are the most common, the authors recognize that there are mutuelles in West Africa offering OP coverage, as well as schemes in other countries, such as Gono Shasthaya Kendra in Bangladesh, EESP in Guatemala and CARE Foundation in India.
[3] "Free", from the perspective of the client; that is, the insurer does not charge the client for the VAS in addition to the HMI premium.
[4] For example, in India, to demonstrate the contrast between the administrative implications of IP coverage and OP coverage, an insurer covering 10,000 families for hospitalization is likely to experience 1,200 claims a year, with an average claim amount of US$ 100. An insurer covering 10,000 families for full OP services might expect more than 54,000 claims a year, with an average claim amount of US $5.
[5] Low-income households may see little value in simple group insurance, since in theory, they are just as able to organize themselves into a mutually self-insuring group – and without an insurer's administrative costs.

legitimacy and belonging to the modern world in someone who may lack a formal, legal identity. Such benefits, tangible and less tangible, should trigger higher demand and greater loyalty, and therefore contribute to scale, which is a prerequisite for any HMI scheme.

VAS should generate additional business value by reducing both policy acquisition and claims costs. By promoting higher renewals, VAS could play a role in managing adverse selection, reducing the propensity of clients to enrol when they expect to use the benefits provided, and then dis-enrol thereafter to avoid ongoing premiums. If VAS promote earlier diagnosis and treatment, they could also reduce the frequency and intensity of IP care, hence reducing claims costs for the IP HMI schemes with which they are bundled.

1.1 Methodology and reviewed schemes

This is a practice-based paper. It reviews the experience of 13 HMI schemes with VAS and also presents insights from seven programmes that are not currently linked to HMI, but could become VAS in the future (table 1). Research was conducted using an in-depth questionnaire and face-to-face and phone interviews. For each of the VAS, the following data were collected: (1) a description of the service; (2) scale; (3) the cost of providing the service per person per period covered; and (4) the frequency of use by clients. Only general estimates of the cost of VAS are presented, because of confidentiality requirements on the part of some interviewees, and as well as a lack of detailed costing data for a number of the VAS reviewed. Some general HMI cost and frequency assumptions were made to aid calculations (Annex 2). Unless otherwise stated, the estimates are based on the authors' own calculations.

The majority of the schemes studied are from the Indian subcontinent, despite a desire to document VAS bundled with HMI schemes from a global perspective.[6] This is not surprising, given the expansion of HMI schemes in India, partly driven by the mandate of the Indian Insurance Regulatory and Development Authority for insurance companies to originate a percentage of their portfolio in the "rural and social sectors", as well as the expansion of public-private partnerships for health and agricultural microinsurance schemes.

The majority of HMI initiatives reviewed in this paper have implemented VAS as a complement to hospitalization insurance, the most frequently encountered HMI product on offer in the Indian subcontinent. One exception, which illustrates the broader possible application of VAS, is the HMI product of CARE Foundation, which includes VAS with an OP HMI scheme (box 9, section 3). Each of the HMI schemes is voluntary.[7]

Most VAS interventions reviewed in this paper are limited in scope, falling short of fully comprehensive health-care benefits. These pioneering HMI providers of VAS are, however, cautiously moving towards more comprehensive benefits with interventions designed to add value for clients and/or improve the viability of the HMI scheme. In several instances the schemes investigated are making use of technology to improve cost-effectiveness of the VAS.

Table 1: HMI and VAS providers reviewed

Common name[1]	Location	Covered lives
HMI schemes		
ASR	Guatemala	25 000
HDFC Ergo (ARY)	Karnataka, India	100 000
Weavers and Artisans*	Pan India	7.5 million
Naya Jeevan	Karachi, Pakistan	15 000
SAJIDA	Bangladesh	500 000
Aarogyasri*	Andra Pradesh, India	70 million
Kalaignar*	Tamil Nadu, India	36 million
SSP	Maharashtra, India	10 000
Uplift	Maharashtra, India	120 000
Yeshasvini*	Karnataka, India	3 million
AKAM	Pakistan	50 000
VimoSEWA	Ahmedabad, India	100 000
Arogya Card	Maharashtra, India	3 800

[6] The authors acknowledge the likely existence of other HMI schemes with VAS that were not identified during this study, and hope that this paper will encourage additional information sharing on such schemes.

[7] Uplift's scheme is mandatory for all clients of partner microfinance institutions (MFIs), though in theory a client wanting to opt out of the health benefits programme can choose another credit institution. Uplift is also in the process of creating a savings-based, voluntary health benefits scheme to offer to clients who do not have loans. The programme of SAJIDA Foundation in Bangladesh is also mandatory for all its borrowers but again in theory SAJIDA members have the option of joining one of the many other MFIs in Bangladesh that do not have mandatory health insurance.

VAS providers not linked to HMI schemes		
AMAN	Karachi, Pakistan	
Freedom from Hunger (Bandhan)	West Bengal, India	
Mera Doctor	Mumbai, India	No HMI membership data provided as these schemes are not linked to insurance
Apollo (Health Net Global)	Tamil Nadu, India	
Sky Care/ Neurosynaptics	Bihar, India	
Swasth India Services	Mumbai, India	
Ziqitza	Six states in India	

[1] For full names, additional details about sponsors and additional parties supporting the schemes, please see Annex 1.

[*] Schemes where the Government subsidizes premiums, either in part (Yeshasvini) or in full (Weavers and Artisans, Aarogyrasri, Kalaignar). The Kalaignar scheme has recently become the Chief Minister Critical Illness Scheme in Tamil Nadu insured with United India Insurance Co.

1.2 Organization of the paper

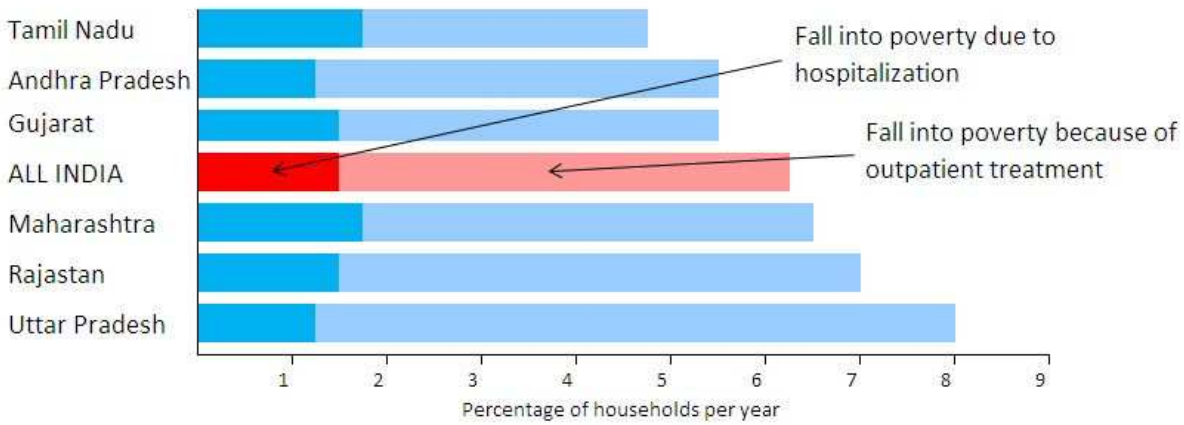
The next section expands on the challenges in HMI and the rationale for VAS. Section 3 describes the different VAS offered. Section 4 presents preliminary results on value to clients and businesses, and the costs and benefits of the various VAS. Section 5 describes the primary implementation lessons that could be useful for those contemplating the introduction of VAS. The concluding section synthesises the findings and provides some guidelines to HMI practitioners who may be considering which VAS to offer to their clients.

2 > THE CHALLENGES OF HMI AND THE CASE FOR VAS

Health expenditure often pushes households into poverty. In 2002 Peters et al. reported that 25 per cent of low-income households in India fell into poverty as a result of a hospitalization. The average cost of a hospital stay is about 4,800 Indian rupees (INR) (US$ 96) (Krishnaswamy and Ruchismita, 2011), which can amount to nearly a month's income for a low-income family; IP treatment for more serious conditions can cost the equivalent of many more months of income. These findings on the impact of health on poverty have supported a focus by HMI practitioners on products that protect against the low but often catastrophic risk of hospitalization.

More recently, however, Berman et al. (2010) show that the number of households falling below the poverty line in any one year due to the burden of OP expenditure is more than three times as high as the number who become poor because of IP expenditure (figure 1).

Figure 1. Proportion of Indian households falling into poverty because of expenditure on inpatient and outpatient treatment



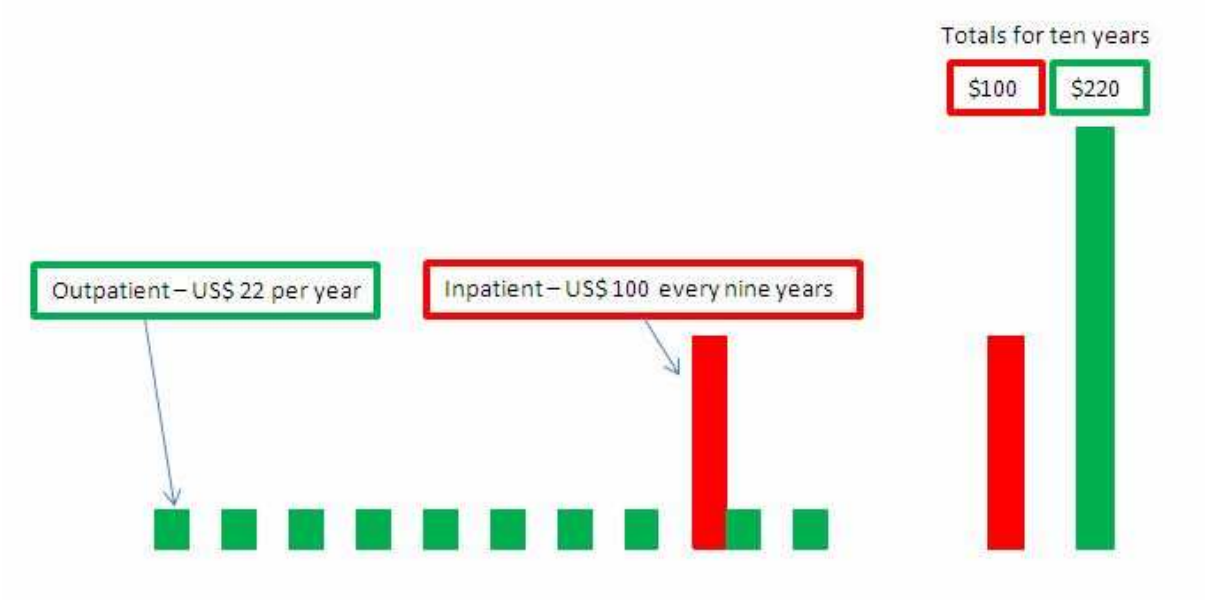
Source: Adapted from La Forgia and Nagpal, 2012, based on 2004 data from Berman et al., 2010.

An OP visit may only cost INR 150 (US$ 3) – including medicines, but the visits are much more frequent (about seven per family per year). It is the toll of these repeated visits, that is, "the unceasing dripping tap of health expenditures"[8] that can ravage a family's finances. Figure 2 illustrates the estimated average expenditure per low-income family in India for both IP and OP health care over ten years. Based on an average of US$ 22 per family per year for OP expenditure versus US$ 100 once every nine years for IP health care, the total average expected costs for IP and OP health care over a ten year horizon are US$ 220 and US$ 100, respectively.

Assuming a 50 per cent discount rate, the net present value (NPV) of expected expenditure for OP services over 10 years is US$ 43, compared with a NPV of US$ 4 for IP services. In other words, in terms of the immediate cash value (NPV) to the low-income family, OP expenditures are a stark ten times more onerous than IP expenditures over a ten-year period.

[8] Freedom from Hunger's Plan for better health: technical learning conversations facilitator's guide. "These illnesses come regularly like dripping water—each drop of water is small but together the drops make a huge puddle. Each illness is not always serious, but together the illnesses make a lot of costs for her family."

Figure 2. Longitudinal comparison of IP and OP costs (estimated average for a low-income family in India)



Source: These data assumptions are based on extensive discussions with several field practitioners, including SSP and CARE, and their observations and research on the low-income individuals seeking outpatient care. These data reflect patient behaviour in the absence of any insurance coverage.

In the Democratic Republic of Congo, low-income households spend up to a third of their gross income on treatment for malaria (mainly OP expenditure on medicine)[9] – considerably in excess of their net disposable income after food and other essentials. In India, for chronic illnesses, like diabetes, the cost of the prescribed maintenance medicines can amount to INR 450 (US$ 9) per month, or a total of INR 5,400 per year (US$ 108 per year).[10] Such expenditure on chronic conditions can amount to up to half of a family's net disposable income after payment for food and basic necessities. These examples illustrate the difficult choices low-income people must make in such situations between, for example, consuming less food, going into debt, selling assets or foregoing treatment for the illness.

This new finding reflects what market research with low-income households has consistently found: a preference of clients for assistance with OP expenditure over IP insurance coverage. Family and friends (the traditional recourse for a low-income person) are far more likely to help with the expenses of an infrequent event, like a hospitalization for an acute illness, than they are with the relentless OP expenditure for a chronic condition like diabetes.

The need for comprehensive benefits beyond hospitalization is evident, but the cost of comprehensive cover is out of reach for low-income households. HMI schemes that limit cover to hospitalization are priced for an average claims cost of INR 100 (US$ 2) per person per year or INR 500 (US$ 8-10) per average household per year.[11] The estimated claims cost for an OP HMI product with broad benefits covering diagnosis and treatment of both acute and chronic illness is estimated at INR 1,100 (US$ 22) per household per year in urban areas, and INR 1,550 (US$ 31) per household per year in rural areas.[12] Combining comprehensive benefits for OP and IP care yields estimated claims costs of INR 1,600 and INR 2,050 (US $32 and US$ 41) per family per year for urban and rural households respectively (see table 2 for a summary of urban household claims costs). This amount, even before considering the addition of other components of the premium (for example, administrative costs and profit, which can be 25 per cent or more of the total premium), is well beyond the reach of the average low-income family, particularly if payment is required upfront. Covering preventative healthcare would increase estimated claims costs yet more – to between

[9] European Commission. March 2012. "Winning the fight against malaria", Development and cooperation – Europeaid, http://ec.europa.eu/europeaid/news/24-04-2012_malaria_en.htm

[10] It is important to note that throughout this paper, all of the premium, cost and savings data are expressed in nominal US $. No attempt has been made to express financial data in purchasing power parity dollars. Price levels in the Indian subcontinent are generally lower than those encountered in other parts of the world.

[11] Family size is assumed to be 4.5 persons throughout this paper. See NSSO (2011).

[12] See Annex 2 for a model of a typical urban and rural individual's OP costs per annum. To obtain the equivalent household expenditure, the figures in Annex 2 are multiplied by 4.5, the assumed average family size. Costs for transportation and lost wages affect rural households disproportionately. For purposes of this report, the terms family and household are used interchangeably.

INR 1,700 (US$ 34) and INR 2,150 (US$ 43) per urban and rural household per year respectively, putting the total premium for a fully comprehensive scheme yet further beyond a low-income family's financial reach. Table 2 gives the estimated claims cost for an urban family. For rural households, if the cost of transport and loss of wages due to long travel distances were covered, the estimated claims cost would be even higher.

Table 2. Estimated claims costs for health care – Urban families

Type of coverage	Cost per family per year
Hospitalization coverage[1]	INR 500 (US$ 10)
Hospitalization plus OP coverage	INR 1 600 (US$ 32)
Hospitalization plus OP coverage plus preventative measures[2]	INR 1 700 (US$ 34)

[1] For the first year of the Rashtriya Swasthya Bima Yojana (RSBY) programme, covering 47 million individuals, the incidence rate was 2.4 per cent and the average claims cost was INR 4,480, yielding a claims cost per enrolee of INR 108 per year. Assuming 4.5 persons per family as above this translates to INR 486. Rounding out, the assumption is an average claims cost of INR 500 (US$ 10) per family per year.

[2] For preventative measures see gross costs (before income from product sales) of US$ 2 per client family (Metcalfe et al., 2010).

Clearly an insurer in seeking to add value to an IP HMI product cannot offer comprehensive coverage when the premiums would be of this scale. Instead insurers may opt for an intervention which provides an element of OP (or preventative) care which would incrementally enhance the value proposition to the client and at the same time provide the prospect of reduced claims costs.

HMI practitioners have focused, with some exceptions, on IP cover to the exclusion of OP and preventative programmes, mainly because hospitalization products are easier to design, price and manage, and they are more affordable. Nevertheless, the uptake of IP HMI products has proved challenging, unless they are mandatory, or heavily subsidized, like India's Rashtriya Swasthya Bima Yojana (RSBY) programme. In part, this buyer reluctance is linked to the low frequency of hospitalization. Approximately one family in ten experiences a hospitalization in any one year. Many households may pay an IP HMI premium for several years before they realize any benefit from their loyalty to the scheme.

VAS provide an opportunity to address a number of long-standing challenges facing HMI, from both the client and the HMI practitioner perspectives, including:

Client perspective:

- a lack of tangible or immediate benefits (especially when the product cover is limited to hospitalization)
- a high burden of out-of-pocket (OOP) expenditure and other costs of illness (e.g. lost wages)
- a mismatch between HMI products, affordability, and client needs
- lack of both trust and awareness that HMI "is a good deal and is good for me."

HMI viability:

- poor health status of clients, compounded by lack of preventative health care and early detection and treatment of illnesses
- insufficient, inefficient and ill-timed health-seeking behaviour in low-income communities (for example, hospitalization for fever)
- low enrolment and renewals, and adverse selection (in voluntary schemes)
- unsustainable claims costs
- insufficient numbers of good-quality, geographically accessible health-care providers.

Addressing these challenges can lead to improvements from the perspective of client value (driving better access to health care, health and well-being, satisfaction), and from the perspective of business viability (reducing claims costs and, through scale, cutting acquisition and other indirect costs).

Imagine a client with an IP HMI policy who also has, through VAS, access to a limited number of free outpatient consultations each year.[13] She has a fever and suspects she has contracted malaria. In the past, without such a policy, she has always delayed treatment, owing to the associated expense, until symptoms were pronounced and she became too ill to work, with the likelihood that she would have to be hospitalized. Now, she seeks earlier diagnosis and treatment and can avoid a more serious, acute period of illness which might well include a costly hospital stay. By using VAS both she and her insurer should experience a better outcome. Figure 3 illustrates how health-seeking behaviour is delayed among uninsured people, compared to insured people – documented from malaria incidence data of Microcare Uganda.

Figure 3. Time between onset of illness and seeking treatment: insured versus non-insured

Source: Liber et al., 2007, adapted from Blanchard-Horan, 2006.

[13] For example, the HDFC Ergo (ARY) scheme offers such VAS.

3 > OPTIONS FOR VAS

The VAS reviewed in this study can be classified into two main categories: preventative and therapeutic. Therapeutic services consist of consultations or access to low-cost supplies and services.[14] Table 3 presents the different types of VAS.

Table 3. Types of VAS (present and future)

VAS category	VAS intervention	Description	Providers
PREVENTATIVE	Health education	Client education to prevent illness and promote better health (hygiene, nutrition, etc.)	Uplift, VimoSEWA, Freedom from Hunger, SSP, Naya Jeevan (some schemes)
	Health camp	Most common of preventative VAS; can include education, consultation and prescription of medicines	Uplift, Weavers and Artisans Scheme, AKAM, Naya Jeevan, Aarogyasri
	Health check-ups	Clients are screened for health risks or disease (e.g. hypertension)	Naya Jeevan
THERAPEUTIC: CONSULTATIONS	In-person consultation	A visit that involves direct physical examination of the patient and real-time exchange between patient and health-care provider. Generally limited in scope or number of visits to contain costs; designed to reduce OOP expenditure and improve access to primary care.	ARY, Uplift, Weavers and Artisans Scheme, Yeshasvini, Aarogyasri, Naya Jeevan (some schemes)
	Remote consultation: Dial-a-Doctor	Telephonic contact with a health-care provider (nurse or doctor). Typically positioned as a convenient, low-cost way to provide access to basic diagnosis and medical advice. Can lead to referral for an in-person consultation if warranted. Greatest scale and proliferation amongst VAS to date.	Aarogyasri, Kalaignar, Naya Jeevan, AKAM, SAJIDA, CARE Foundation Mera Doctor, Apollo, AMAN
	Remote consultation: assistant using remote doctor and technology-enabled diagnostics[1]	Technology-supported transmission of basic diagnostic information (e.g. blood pressure, ECG, pulse) by a medically trained health assistant to a doctor who provides a remote diagnosis and recommended treatment to patient	Sky Care/ Neurosynaptics

[14] Another category of VAS, managed care services, is not covered in this study, but is more prevalent in mainstream health insurance and addresses care management, both before, during and after the episode of treatment.

THERAPEUTIC: ACCESS TO LOW-COST SUPPLIES AND SERVICES	Low-cost medicines	Provision of quality medicines to clients at owned or contracted pharmacies at a discounted or below market price; designed to reduce OOP expenditure and improve access to medicines	SSP, ARY, Uplift, AKAM Swasth India, CFW Kenya, Naya Jeevan
	Low-cost clinics[1]	Provision of low-cost consultations, low-cost medicines and low-cost diagnostics, with doctors employed by the clinic	Swasth India
	Low-cost diagnostics	Provision of quality diagnostics to clients at owned or contracted pharmacies at a discounted or below-market price; designed to reduce OOP expenditure and improve access to primary care	Uplift, Naya Jeevan, Sky Care/ Neurosynaptics
	Emergency medical assistance	Employs GPS technology and incoming call dispatch centre to facilitate appropriate, quick-response access to care in case of medical emergency. Includes ambulance transport of injured or seriously ill patients to an appropriate hospital.	ASR, HMRI Ziqitza

[1]Potential VAS to be linked to HMI programme

3.1 Preventative VAS

Preventative VAS are important because of the high frequency of common, preventable illnesses (for example, gastroenteritis or respiratory infections). Often, simple, inexpensive interventions such as hand-washing can decrease the prevalence of common illnesses dramatically. In Poor Economics Banerjee and Duflo (2011) cite examples of what can be achieved with inexpensive approaches such as deworming tablets, iron-fortified fish sauce or oral re-hydration solutions to treat diarrhoea. Claims costs can be significantly reduced if those basic interventions are widespread.

While it seems sensible to assume that prevention (when applied by clients) adds tangible value for clients, both financially (through reduced expenditure) and more importantly from a health standpoint (less illness, better health, higher productivity), little is known about the relative costs and benefits to HMI providers of offering preventative health care, either as a stand-alone intervention or as a VAS embedded in an HMI product.

Health education

Health education campaigns, which focus on prevention, and not diagnosis and/or treatment of illness, feature infrequently as formal VAS in the HMI schemes covered by this paper. Exceptions are health talks by Uplift (box 2) and VimoSEWA's rigorous study of the impact of health education interventions (box 3). By contrast, health education programmes more frequently form part of an HMI scheme's marketing campaign, serving as an enrolment tool addressed to the entire target population, rather than as a benefit for members.

Box 2: Uplift's health talks

As one of several VAS initiatives it started in 2008, Uplift holds 36 health education talks per year (approximately three per month) in each zone its partner microfinance institutions (MFIs) operate from. Talks last 30-45 minutes. They are given by the field staff of the partner MFI. Uplift trains the field staff on the health topic and how to conduct the talk. The topics for the talks are chosen according to the need of the community, for example, in response to an outbreak of a certain disease or current health problems prevailing in the community.

People attending an Uplift health talk

On average 12 topics are presented each year and are repeated as needed. They include malaria, typhoid, worms, first aid, diarrhoea, dysentery and anaemia.

In 2011, 45,000 persons attended Uplift's health talks – some attending just one of the 36 talks offered at a branch, while others came more regularly. An estimated 15-30 per cent of all households in the Uplift scheme attend at least one health talk per year.

Uplift spends an estimated INR 17 (US$ 0.35) per person per year on health education (US$ 1.60 per household).

Source: Interviews with Uplift personnel.

When VimoSEWA analysed its claims, it found that at least one third resulted from preventable acute illnesses such as malaria, gastroenteritis and water-borne disease that, if treated early on, should not require hospitalization.[15]

VimoSEWA believes that preventative health information, and access to immediate treatment and OP health-care services can reduce the incidence of avoidable procedures and the need for hospitalization for common illnesses, resulting in savings for households, as well as for the insurer. As a result, in 2009 VimoSEWA began rigorous assessment of whether VAS in the form of preventative community health education and referral for common illness had an effect on the viability of its insurance programme and on the health-related expenditure and health-seeking behaviour of clients (box 3).

[15] VimoSEWA Learning Journey 2012, ILO Microinsurance Innovation Facility website, http://www.microinsurancefacility.org/en/learning-journey/bringing-%E2%80%9Chealth%E2%80%9D-health-insurance-evidence-converged-approach

Box 3: VimoSEWA's health education campaign

VimoSEWA operates a health program that includes community-based group health education, doorstep primary health-care service by community health workers (arogya sevikas), and facilitating access to OP services, including referral, when appropriate, to government health-care services.

A research project with support from the ILO's Microinsurance Innovation Facility evaluated the impact of providing targeted health education on commonly claimed-for conditions. The education intervention was implemented by a randomly chosen group of health workers and evaluated through a cluster randomized trial. Through concurrent qualitative investigation, VimoSEWA learned that hospitalization for common illnesses resulted only after repeated OP care interventions.

A tailor-made "snakes and ladders" participatory game on the prevention of diarrhoea and malaria used by VimoSEWA

The VAS improved knowledge and preventative health behaviour amongst urban (but not rural) participants, but did not decrease hospitalization for diarrhoea or fever. With the added understanding that hospitalization was sought only after other options failed, the findings indicate that improved OP care and structural interventions in water and sanitation are paramount in decreasing claims for hospital stays for common illnesses.

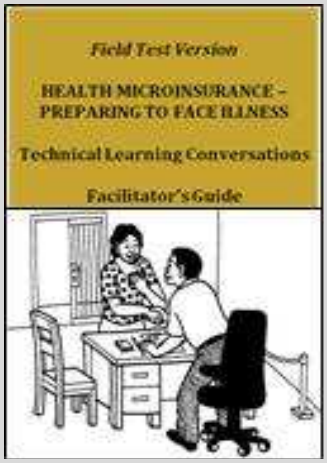
Source: Sapna Desai, VimoSEWA researcher, preliminary findings of impact study, pending publication.

MFIs frequently offer health education programmes. Some 25 per cent of Indian MFIs devote resources to health programmes and of those that do, 50 per cent do so through a formal health education programme dedicated to member borrowers (Saha, 2011). Freedom from Hunger programmes are good examples of such efforts (box 4).

Box 4: Freedom from Hunger's health education initiative

The NGO Freedom from Hunger (FFH) works with partner MFIs and self-help groups in India and globally to offer a range of integrated health and financial services to poor people. Whilst FFH has not conducted a campaign with an HMI scheme, it has done so with several MFIs. A health programme developed during 2006-09 in West Bengal in partnership with the large MFI Bandhan included a health education campaign run by community health workers. The cost was US$ 2 per household, or US$ 0.45 per person, during a pilot phase that reached 16,000 clients.

FFH trained Bandhan staff to hold a series of health forums for the MFI's female microcredit clients and others in communities they served. Messages focused on maternal and child health practices. The messages were then reinforced by a team of shastho shohayikas (community health workers) who visited clients and community members in their homes, sold health products for mothers and children, and recommended referrals when needed to local health providers. These doorstep services, coupled with health loans to enable eligible members to pay for serious medical treatment if and when the need arises, facilitated access to health products and information, and increased the likelihood that people would act on what they had learned. The results included statistically significant improvements in breastfeeding practice, as well as the care of infants with diarrhoea, among other positive outcomes.



FFH Training Manual

Source: Gash and Chanani, 2010.

Improved client health practices, resulting from a health education programme, should reduce hospitalization. Taking the example of Swayam Shikshan Prayog (SSP) (box 6), where 45 per cent of hospital stays were associated with communicable water-borne diseases, the authors assume it is reasonable to achieve a 50 per cent reduction in incidence, which in turn could result in 22.5 per cent reduction in claims costs, a reduction of INR 68 (US$1.35) per member per year for SSP's scheme – offering the prospect of significant business value.

Health camps

Health camps are the most frequently encountered preventative VAS provided by HMI practitioners. Schemes that offer health camps include Uplift, Weavers and Artisans, Aarogyasri, Kalaignar, Naya Jeevan and AKAM (box 5).

The camps are typically held outdoors, within or conveniently near low-income communities. They can emphasize a particular medical speciality, such as ophthalmology, and make specialists available for focused consultations. In other instances the camps are staffed by general practitioners, who provide consultations and education on a range of health topics, most frequently preventative. In Uplift's HMI scheme, the health camps are provided by empanelled hospitals as part of their service agreement with Uplift. One draw for clients to these health camps is that the consultations are often free of charge, and offer an opportunity, for example, for a client with a chronic illness to consult a doctor and renew a prescription free of charge. Usually, health camps have elements of both health education (prevention) and consultations (therapeutic OP care). For the HMI schemes reviewed, the costs to the provider of health camps range from US$ 0.75 to 4.00 per attendee.

Box 5: FMiA health camps

The First Microinsurance Agency (FMiA) of the Aga Khan Agency for Microfinance (AKAM) organized health camps for the insured borrowers of MFIs in Karachi, Lahore and some rural communities in Pakistan. With the approval of the local authorities, suitable open space was identified in a location near members' homes. Borrowers and their families were advised through the MFIs' loan officers of the forthcoming camp.

The day-long event was organized by one of FMiA's senior insurance marketing officers. A shamiana (tent) was erected, and a limited number of chairs provided. The attending FMiA doctor was available to provide consultations free of charge to borrowers and their families, to administer basic glucose and blood pressure tests and to write prescriptions for drugs (usually generic) obtainable at the nearby pharmacy. During the day a series of two to three health talks was given on topics such as the benefits of clean water, hand washing and hygiene in the preparation of food; the dangers and results of smoking; the risks of anaemia to mothers; care of newborns; and the diagnosis and treatment of diabetes.

Two to three hundred members would attend such camps, plus a fair number of non-members, who would be welcome to come and listen, which would give the marketing officer the opportunity to explain the benefits of health insurance to them.

A health camp organised by FMiA

Source: AKAM files.

Health check-ups

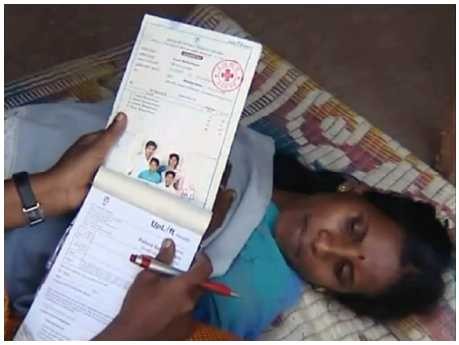
Health check-ups or screening are another type of preventative health VAS that are relevant in theory to all clients regardless of health status. Earlier detection of illness or elevated health risks is the first step towards treatment that may reduce the likelihood of more serious, costly interventions (such as hospitalization). Health check-ups to detect disease or risk of disease (separate from providing treatment) provide tangible value to all clients, sick or well. In addition, they are a mechanism to identify individuals who may benefit from treatment of previously undiagnosed health conditions (for example, hypertension or anaemia) or who are at higher risk of developing an illness due to certain habits or circumstances (for example, malnutrition, or tobacco use).

Only one HMI scheme offering VAS in the form of a health check-up on a stand-alone basis (without being bundled with treatment, such as in health camps) was encountered during the survey. Individual annual health check-ups by a doctor have featured in Naya Jeevan's scheme in Pakistan. The initial check-up is given at the time of enrolment free of charge. Clients rated health check-ups as the second most popular of VAS, after the Dial-a-Doctor service. Naya Jeevan has, however, found it difficult to organize these check-ups at the time of enrolment (for example, it was difficult to get whole households together without disrupting work or school schedules). Further, health check-ups are expensive, estimated at US$ 3 per patient. Naya Jeevan is considering replacing the physical examination with a "virtual check-up", conducted by telephone.

The lines blur between the preventative health care and therapeutic VAS offered by the HMI practitioners identified in this report. For example, health screening is often a component of health camps, which may also provide things like medical advice and medicines to treat a diagnosed health problem. Nevertheless, preventative health care is one category of VAS that is taking root.

It is reasonable to assume that a focus on prevention will both enhance client well-being and improve the bottom line for insurers. Evidence, such as that presented by VimoSEWA, is still scarce, and lack of it limits the precision of a cost-benefit analysis. Only assessments can be made as given in the summary tables 7 and 8 in section 4.

3.2 Therapeutic VAS: Consultations



Uplift clinic visit

Therapeutic VAS identified in this study included consultations and access to low-cost supplies and services. Consultations can be in person or carried out remotely with health-care providers. Other therapeutic VAS (discounted prices for medicines, diagnostics or visits to empanelled clinics) do not involve direct provision of health care by the HMI provider, but establish access to health-care services in the community at a discounted rate. The HMI provider negotiates volume-based discounts for clients with an outside supplier or provider, something clients would struggle to achieve on their own.

Consultations offered in VAS traditionally consist of visits by the patient to a doctor in a clinic operated by the HMI provider, limited in either the scope of service or the number of visits allowed, in order to contain costs.[16] Recent innovations intended to reduce travel and associated costs for clients use technology-enabled alternatives to in-person visits. "Virtual consultation" (Dial-a-Doctor) available through a team of clinicians based in a call centre is one technology-supported solution. Another variant is to use a village-based (or locality-based in urban areas) health worker who liaises with a doctor or others on a clinical support team using a mobile phone, tablet or other device and in some cases uses a clinical diagnosis algorithm. The doctor and his/her team are typically in a central location and support a network of communities with local health workers. In the simplest scenario, the health worker uses a cell phone to consult a clinician, but there are also telemedicine protocols and devices being tested and in use that assist the health worker to perform basic diagnostic procedures, at least so far as to collect and transmit health information on the patient – for example, his/her medical history, basic diagnostic information, or symptoms. In some instances treatment of a patient, based on the remote guidance from the doctor with the aid of established treatment protocols, can be completed through the local health worker, at least for basic complaints, which comprise the majority of OP encounters, thereby obviating the need to travel to a clinic for an in-person consultation.

VAS consultations are quite tangible and frequent; that is, they are likely to occur on average once or twice per person per year. This regular visibility and opportunity to benefit from reduced OOP expenditure and greater convenience may explain the popularity of consultations among both clients and HMI providers, and may help build loyalty to the HMI scheme and improve health-seeking behaviour. In contrast, benefits for hospitalization, while highly valued when used, are less frequently realized, and experienced by fewer clients overall. Findings thus far indicate that on average, hospitalization occurs once every nine years per low-income household.[17] This implies that families will not benefit from an IP HMI scheme for most of the years during which they pay premiums – a common reason cited by HMI practitioners for disappointing client uptake and renewals.

In-person consultations: Clinics run by the HMI scheme

A number of VAS offering access to clinics staffed by a doctor were encountered during the survey. Two large-scale government-funded HMI schemes in India, the Aarogyasri scheme covering the 70 million people in Andhra Pradesh, and the Ministry of Textiles' Weavers' and Artisans' scheme serving nearly 7.5 million people across India, offer face-to-face doctor OP consultations from a fleet of specially equipped vans visiting villages and urban localities. Visiting each community periodically, (for example, once per month in the case of the Aarogyrasri scheme), mobile clinics are most suitable for regular OP care of the chronically sick. They are less suitable for treating acute conditions which

[16] As discussed earlier in this paper, the cost of providing full OP services without limitation would be prohibitive.

[17] From RSBY's first year of results, the incidence of hospitalization is 2.4 per cent per person per year. For a family of 4.5 persons that means the incidence will be 10.8 per cent per household per year. This is equivalent to 100 per cent/10.8 per cent = approximately 9, meaning that on average a household will suffer a hospitalization of one member every nine years.

inevitably arise and which require immediate attention. In all likelihood the vehicle will be away from the village in question, serving one of the many other villages it services on a monthly basis.

Uplift (120,000 members) offers doctor consultations once a week at each of the branch offices of its partner MFIs. The ARY scheme (100,000 members) offers three free doctor consultations per year at its clinics,[18] located an average of 5 km from the member's village. Yeshasvini Farmers' Cooperative (3 million members) offers OP consultations at a panel of private hospitals, but because the hospitals are generally at a considerable distance from the member's community, use of this VAS intervention is constrained by transportation and associated costs. As shown in Annex 3, use of OP consultations was 6–10 times higher for ARY than for Yeshasvini.

In-person consultations: Discounts at other clinics (not run by the HMI scheme)

Access to discounted consultations is distinguished from provision of consultations by the HMI provider. One difference is that setting up access to discounted consultations does not require the same level of effort. The HMI scheme is neither running the clinics nor does it partner with an external service provider like a doctors' call centre. Instead the scheme uses its client base to negotiate volume-based discounts from external health-care providers.

SSP observed that access to and use of discounted OP consultations appeared to increase satisfaction and renewals with an HMI product, as outlined in box 6.

Box 6: Impact of OP VAS on renewals: The case of Swayam Shikshan Prayog (SSP)

SSP piloted an innovative "hybrid" community-trust-operated HMI scheme in August 2009 in Maharashtra, India. This scheme bundled an IP HMI product, underwritten by Oriental Insurance Co., with OP VAS, most notably, discounted consultations and medicines. Preventative health care and servicing of the scheme were provided by a network of village-based health "sakhis" (workers). The scheme offered clients cashless IP hospitalization benefits within a network of hospitals (private and public), complemented by health education and discounts of approximately 50 per cent on consultation fees from a selection of local physicians and 30 per cent on drugs.

In these communities, where water-borne diseases are frequent, much attention was given to health-prevention activities, including education on personal and environmental hygiene and the setting up of health groups to monitor use of products to make drinking water safe. In communities where OP services were not easily accessible, sakhis were a focal point for emergency services, referrals to OP and IP services, and to conduct regular health education sessions and to provide health guidance.

Although the scheme was active for less than two years and there was low use of the OP VAS due to implementation problems, SSP observed that of 10,000 clients, those 1,100 who had accessed discounted consultations and medicines were three times more likely to re-enrol. Clients who did not use either OP VAS or incur an IP claim had a 15 per cent renewal rate compared to a 45 per cent renewal rate for those who used OP VAS and a 69 per cent renewal for clients who used both OP VAS and IP insured benefits.

Discounted OP services made further sense when considering that at least 40 per cent of SSP's IP claims were for common water-borne illnesses (diarrhoea and typhoid), which can often be prevented or treated without hospitalization. In areas where such illnesses are prevalent, providing access to OP clinics and giving people incentives to visit them, along with prevention mechanisms, makes economic sense and provides better value to clients. Clients can be treated faster and avoid or reduce the adverse consequences of being ill, both economic (for example, lost wages or OOP costs) and health-related (for example, temporary or permanent disability, or death).

SSP primary care doctor

SSP health promotion meeting

Source: Mid-term evaluation, ILO Microinsurance Innovation Facility 2011, unpublished.

[18] ARY charges INR 10 per visit for visits which exceed three in any one year.

Empirical data from the ARY and SSP schemes suggest that the provision of easily accessible and free or discounted OP services, either directly or through networks, can provide benefits to IP HMI schemes. Data on discounted OP VAS by SSP show that member proximity to discounted OP clinics may be associated with lower hospitalization rates, leading to lower overall costs for the insurer. As outlined in Table 4, villages with a clinic have a hospitalization claim rate about 50 per cent lower than villages where a clinic is more than 2 km away. The comparison of hospitalization incidence for the ARY scheme, where its clinics are in reasonable proximity to clients, and the incidence for Yeshasvini, where OP services are considerably further away, shows a similar correlation (see Annex 3).[19]

Table 4. Hospitalization incidence by proximity of OP VAS – SSP

	Proximity to OP services		
	OP clinic in village	OP clinic within 2 km of village	OP clinic more than 2 km from village
Hospitalization incidence p.a. (%)	5.9	7.1	12.5

Source: SSP Records, 2010, Solapur and Osmanabad Districts, Maharashtra.

Research conducted by the Centre for Insurance and Risk Management (CIRM) on the experience of RSBY (Krishnaswamy and Ruchismita, 2011) shows that, although RSBY does not offer OP VAS,[20] the greater use by RSBY members of public health clinics for free OP care reduces IP claims incidence by a third (admission rates fell from 3 per cent to 2 per cent) (Annex 3). This supports the ARY and SSP findings, which imply that greater use of OP services (due to easier access or other considerations) as part of an IP scheme could yield significant business value for HMI schemes. The authors calculate that use of OP services for 40 per cent of expected illnesses will result in claims savings of US$ 0.32 per client per year for the HMI provider.[21] In the case of the ARY scheme, the authors calculate, clients could save US$ 1 per person per year (US $4.50 per family) in consultation expenditure.

Remote consultation: Dial-a-Doctor

The Dial-a-Doctor VAS are operated at the largest scale and have been one of the most frequently encountered VAS noted in this study. Taking advantage of the now widespread use of mobile phones, a Dial-a-Doctor service provides "virtual" consultations, especially important in remote areas. Larger operators function as a call centre, with a team of nurses and doctors placed in a central location and accessible through the call centre. The more sophisticated programmes make use of clinical diagnosis algorithms, which enable incoming calls to be dealt with by nurses at the call centre. The nurses make a diagnosis and provide clinical advice on relatively simple cases (for example, treatment of conditions with over the counter (OTC) medicines). When cases are more complicated (for example, when there is a need for prescription drugs), nurses refer the case to a call centre doctor.

In India two large government-supported HMI schemes, Aarogyasri and Kalaignar provide a Dial-a-Doctor VAS.[22] The Aarogyasri operation receives 25,000 to 30,000 calls a day, serving a population of 85 million in Andhra Pradesh, and the Kalaignar scheme receives an estimated 15,000 calls a day, serving a population of 72 million in Tamil Nadu. These are probably the largest doctor call centre operations in the world; in comparison, the United Kingdom's countrywide NHS Direct service receives 12,000 calls per day. Mexico's Medicall Home service receives 3,000 calls a day. Uplift, Naya Jeevan, and AKAM also provide Dial-a-Doctor services. These smaller-scale HMI

[19] The ARY and Yeshasvini schemes operate in contiguous areas of Karnataka.
[20] RSBY is currently piloting an expanded benefit package which includes OP services but the results are not yet known. Additional pilots, testing further variants of OP benefits bundled with the core IP benefits of RSBY, are being planned.
[21] Using assumptions based on the RSBY experience of 2.4 per cent hospitalization incidence and claims cost of US$ 100 per admission, then claims cost to a scheme is US$ 2.40 per member per year. Full use of OP care, according to CIRM's findings concerning the RSBY experience (table A.4, Annex 3), would result in a reduction of one-third of IP claims, that is, a savings for the insurer of US$ 0.79 (0.33 ~~rK~~ US$ 2.40). However, if it is also assumed that the patient uses OP care for only 40 per cent of illnesses, the savings would be US$ 0.32 (0.40 x US$ 0.79).
[22] Star Insurance continues underwriting Aarogyasri, while Kalaignar is insured by another company.

schemes offer the Dial-a-Doctor VAS with in-house doctors. Uplift and AMAN both receive 10–15 calls a day, others fewer.[23]

The cost of Dial-a-Doctor services, based on data from these schemes, is estimated to be INR 50 (US$ 1.00) per call. For HMI scheme members using the service for 40 per cent of their episodes of illness, the cost to the HMI scheme of providing such a service is INR 35 (about US$ 0.65) per member per year. The most significant, and encouraging, finding common to almost all these Dial-a-Doctor operations, whether large or small, government-supported or independent, is that around 70 per cent of incoming calls for medical assistance are resolved during the call – most frequently with advice that the patient use OTC medicines. Calls which do not require referral to a health-care provider save the patient money (lower or no travel costs, less disruption of work). The remaining 30 per cent of calls require referral for an in-person consultation with a doctor. The authors estimate that Dial-a-Doctor services can generate savings in consultation costs for clients of up to US$ 3 per family per year in urban areas. In rural areas, savings in transport costs and lost earnings, in addition to savings in consultation costs, can amount to as much as US$ 10 per family.

The authors did not identify any data on realized IP claims savings for the Dial-a-Doctor services linked to HMI schemes. However, it is reasonable to assume that the convenience and significant potential savings to the client of Dial-a-Doctor services will lead to lower hospitalization rates and lower claims, in the same way that physical proximity has been shown to reduce incidence rates in the SSP and ARY schemes already discussed.

The market for mobile phone diagnosis and treatment, currently only a few million dollars, is forecast to attain US$ 5.7 billion worldwide in 2017, with emerging markets in Asia Pacific (including the Indian subcontinent) accounting for US$ 2.3 billion and Africa, US$ 0.8 billion (GSMA, 2012). As shown in box 7, there are many stand-alone Dial-a-Doctor services (not linked to HMI) provided through mobile phone operators.

Box 7: Proliferation of stand-alone Dial-a-Doctor services and mobile phones

Several other organizations in India, all private sector, also provide Dial-a-Doctor services, notably Aircel and Idea in partnership with Health Net (part of the Apollo group), Airtel with Religare, and Tata Indicom with Healthcare Magic. The best-known examples in other emerging markets are Medicall Home in Mexico, Health Line in Bangladesh, Teledoctor in Pakistan, Safaricom's Call-a-Doc (Kenya) and South Africa's Hello Doctor, along with others in developed countries such as Informed in the United States, the United Kingdom's NHS Direct (now NHS 111), and several government programmes in Australia and New Zealand. The AMAN Foundation in Pakistan has also just started a Dial-a-Doctor operation. In India the break-even point is thought to be 15,000 calls a day.[24] Bangladesh's Health Line, a partnership with Grameen Phone and Telemedicine Research Services Ltd, is the largest independent operation on the Indian subcontinent and believed to be profitable, receiving 10,000 calls a day.

Remote clinicians

In the past ten years, mobile phone access has leapfrogged the penetration of more traditional forms of health improvements in developing countries. In both Kenya and Nigeria access to mobile phones is now twice that of access to improved sanitation (tap water, toilets) (GMSA, 2012). Thus, it seems logical to expect a similar acceleration in the expansion of mobile-phone-supported VAS such as Dial-a-Doctor services, as well as remote consultations, as described below.

[23] A further VAS initiative is due to start with FINO Fintech, HDFC Ergo, mHealth Ventures, CIRM and the ILO's Microinsurance Innovation Facility as partners in Uttar Pradesh and Maharashtra.

[24] The break-even point for Medicall Home in Mexico is significantly lower since it primarily targeted at the middle-income market, with a fee of US$ 5 per family per month.

Remote consultation: Assistant with remote doctor

This use of trained health workers, instead of doctors, for primary care consultations is taking place globally.[25] In the developing world there simply are not enough doctors – and those found are concentrated in cities. Health workers, in contrast, are often members of client communities and reside locally, making them easily accessible, both geographically and culturally, to clients.

The use of village- or community-based health workers has been tested by SAJIDA, SSP, VimoSEWA and CARE Foundation. In the case of SAJIDA, a health worker programme focusing on safe pregnancies and deliveries has shown promising results regarding maternal and child mortality, and is described further in box 8.

Box 8: SAJIDA Foundation: Impact of health workers on maternal and child mortality

SAJIDA Foundation in Bangladesh is a microfinance programme with 500,000 members. SAJIDA offers a mandatory insurance package consisting of health, life, education and disaster (mainly fire) cover. The microfinance programme includes rapidly expanding VAS where health workers provide doorstep primary and preventative health services to clients and their families, but with a current focus on maternity care and safe deliveries. The health workers perform simple diagnostic tests (pregnancy tests, blood pressure, blood sugar) for clients and their households at subsidized rates, identify needs by conducting regular health surveys, and encourage expectant mothers to go to hospital for their deliveries, or refer them there, and follow up after discharge. Health workers also facilitate the vaccination of children and enable members to have cataract operations. In addition, they raise awareness of health issues, provide health education and act as an emergency contact, for example, in case of a high-risk home delivery.

So far those members assisted by the health worker to have a hospital delivery have experienced a child mortality rate of 1 per cent, with no maternal deaths, compared with births at home where the child mortality rate has been 5 per cent and the maternal mortality rate has been 0.6 per cent. Mothers delivering at a hospital without the prenatal attention of the health worker experience a child mortality rate of 1.6 per cent. The indications are, as might be expected, that hospital births significantly reduce mortality risks but also that the involvement and attention of the health worker during pregnancy lowers even further the child mortality risk for hospital births.

One of SAJIDA's health workers visits a pregnant woman

The VAS are currently reaching about a quarter of all members and are expected to develop into a broader OP programme in time, when a significantly larger number of health workers will provide more extensive OP services.

The cost of the health workers' services is presently met through SAJIDA's overall operations. By improving access to good-value and better-quality treatment for maternity care, this service brings additional value to SAJIDA clients.

Source: Interviews with SAJIDA, 2012.

The case of CARE Foundation is different from all other cases in this paper as the consultations offered are part of an OP (as opposed to an IP) HMI product. The jury is still out as to whether this model is viable, but the indications are, whether the OP services are offered as part of an HMI product or as complimentary VAS, that the use of primary care and early treatment and referral mechanisms may be cost-effective means to reduce the number of days spent in hospital and thus expenses (or claims on IP HMI products). The case study in box 9 highlights the many innovative features of CARE's model.

[25] "Squeezing out the doctor", The Economist, 2 June 2012

Box 9: CARE Foundation's model for village-based health workers to offer OP HMI and VAS

CARE Foundation village health champion

Unlike other HMI schemes observed, CARE Foundation offers an OP only HMI product. This is provided in rural Maharashtra through an innovative self-insured scheme, co-conceived and evaluated by research partner CIRM. The product offers unlimited visits per insured family per year "at the village doorstep" to a health worker called a village health champion (VHC). VHCs are trained to provide basic health services and use technology-enabled diagnostic protocols with the support of remote doctors accessed via mobile phone. VHCs also support sales and servicing of the OP HMI product, and provide services on a fee-for-service basis to non-HMI scheme members in their village. A continuum of care is made possible through a CARE hub-clinic in Yavatmal, as well as a district hospital in Nagpur. In this "hub-and-spoke" model, a clinic in town can support up to approximately 50 villages and VHCs.

The OP policy covers general medical consultations, and a range of common low-cost, non-branded OTC medicines (such as paracetamol or cough syrup). The VHC can dispense these medicines to clients upon consultation, after she obtains validation from a remote doctor. This allows the VHC to treat the most common primary health complaints. Additionally, up to nine diagnostic blood tests are covered, along with minor dressings and intravenous fluids, which are provided at the clinic.

The HMI OP product has a number of limits and exclusions (in particular treatment of chronic and pre-existing conditions), and all benefits are capped at a total of INR 2,500 (US$ 45) per family per year in order to contain risks and offer an affordable premium at INR 300 (US$ 6) per family per year). CARE supplements the OP product with VAS such as health education and discounted prices for preventative health items such as mosquito repellents and antiseptic soap. Discounts on IP care at CARE hospitals are also offered.

Although the scheme is in its second year of operation, serving approximately 4,300 people, CARE believes that the tangibility of VAS, along with paperless, cashless claims, have positively contributed to initial results of the scheme, which include a 16 per cent penetration in targeted villages and a renewal rate of 37 per cent for year 2.

At the same time, hospitalization expenses decreased by INR 570 per insured household during a six month recall period (reflecting an average of 0.5 fewer days per year in the hospital), more than offsetting the INR 300 premium charged for the OP HMI product. Viability and the scalability of the scheme, designed to take advantage of the appeal and potential cost-efficiency of this primary care delivery model, will be more systematically evaluated in 2013.

Source: CARE Foundation and CIRM documents and interviews, 2012.
Mahal, Ajay; Krishnaswamy, Karuna; Ruchismita, Rupalee; Babu, B. Girish. 2012. "What is a Health Card Worth? An Evaluation of an Outpatient Health Insurance Product in Rural India" (pending publication).

Sky Care's services are more technology-oriented. The Sky Care programme is not currently linked to any HMI scheme, but it offers potential to HMI practitioners. Sky Care works with Neurosynaptics and its telemedicine system called ReMeDi (Remote Medical Diagnostics). The operation currently fields 3,000 health workers serving 500,000 clients situated in rural villages using ReMeDi diagnosis "box kits". The box kits measure, record and transmit vital diagnostic information (blood pressure, electro-cardiogram trace, pulse, temperature and breathing pattern) to one of 300 Sky Care Centres where a doctor is located. At present, transmission of health data requires a village internet connection, but in the future the box kit will link to a mobile phone to transmit data. After transmission the health worker discusses the case with the doctor at the Sky Care Centre and according to his or her instructions treats the patient. For complex diagnoses the doctor is linked to a specialized Sky Care Central medical facility, based in a multi-speciality hospital.

It is difficult to evaluate the costs of health worker interventions as they are still evolving. SAJIDA's operation is still primarily a referral service with a focus on maternity care and currently serving only 25 per cent of member families, and hence its current cost of US$ 0.12 per client per year reflects a limited range of OP services. Sky Care costs are currently high, as would be expected with such a new, technology-focused initiative, but are expected to decrease with experience and scale.

3.3 Therapeutic VAS through access to low-cost supplies and services

The study encountered a number of HMI schemes offering discounts on consultations, medicines from independent practitioners and diagnostics: SSP, Uplift, Naya Jeevan and AKAM.

Low-cost medicines

A number of wide-ranging studies confirm the heavy burden of medicines in OP costs.[26] Market research in Pakistan and elsewhere shows that the cost of medicines is a major health concern for low-income households (table 5). As exhibited in Annex 2, in urban areas medicines account for 70 per cent of OP expenditure and in rural areas, 50 per cent (less in percentage terms due to the additional costs of transport and loss of income).

Table 5. Main health expenditure concerns for MFI clients in Karachi

Type of expense	% of clients
Medicines	64
Prolonged hospitalization	18
Hospital day visit	16
Surgery	1
Children's immunization	1

Source: Gallup Pakistan survey for AKAM 2006.

Although medicines account for 50–70 per cent of client OP expenditure, HMI schemes in India are presently and for the most part unable to negotiate prices on medicines, at discounts deep enough to be meaningful. Although providing discounts through pharmacies involves minimal recurring costs for the insurer, it can be a time-consuming and difficult task to build a network of participating pharmacies. Several pharmacies may need to be approached before one is chosen, and ideally a pharmacy needs to be located within walking distance of members. Uplift has negotiated discounts with nearly 80 pharmacies on behalf of its 120,000 members.[27] Given the fragmented retail pharmacy sector in India, and the number of pharmacies that an HMI scheme would need to contract, it is understandable that this study has identified a limited number of Indian HMI schemes offering medicine discounts.

In the Indian subcontinent, the discounts negotiated by HMI schemes on branded medicines from retail pharmacies range from 5 to 10 per cent.[28] Discounts sometimes extend to OTC medicines such as paracetamol and cough syrup. In India, client savings of 10 per cent on drug expenditure amount to a modest US$ 1.60 per household per year. This limited amount of saving may partly explain why discounted medicines are a less popular feature of Uplift's programme. Likewise in Pakistan, where retail pharmacy margins are similarly controlled, Naya Jeevan believes that pharmacy discounts are the least appreciated of the VAS it offers. A survey in Karachi, Pakistan, revealed that only 13 per cent of low-income households asked for the 5 per cent discount that pharmacists routinely give when asked by customers (Griffith et al., 2010b). Discounts perhaps have to be more substantial if they are to be appreciated by clients. Further, clients will not access discounts if they are not made more aware of them, and if they are not confident enough to request them from the "white-coated" pharmacist.

Using an alternative supply model, SSP offered 30 per cent lower retail prices on medicines to its 10,000 clients by buying unbranded (though chemically identical) versions of common medicines directly from manufacturers and supplying them to doctors and pharmacists in its network.[29] This procurement approach is estimated potentially to save clients an estimated US$ 4 per household per year. It required, however, SSP's service provider, Swasth India Services, to purchase and warehouse the medicines, an onerous task for an HMI scheme to undertake at scale. More importantly Swasth found it challenging to manage the prescribing activity of doctors, as doctors are given incentives

[26] See (1) Ghosh, 2010; (2) Garg and Karan, 2008; and (3) for a worldwide perspective, Saksena, et al., 2010.
[27] The ARY scheme serves 100,000 members with discounted medicines from its nine district clinics, but these clinics are frequently several kilometres (average 5 km) away from a member's residence and are only used for approximately one out of three pharmacy visits.
[28] Since there is a government cap of 15 per cent on retail pharmacy margins for prescribed drugs, in order to make some minimum profit retail pharmacies are unable to offer significantly larger discounts than 5–10 per cent.
[29] The traditional model for selling medicines (in India and many other countries) is associated with heavy brand advertising, sales visits from a manufacturer's representative to the doctor, and financial incentives to doctors for prescribing the brand. The alternative form of distribution is to purchase the same medicine (chemically identical) under a non-branded name from (frequently) the same manufacturer. Non-brand medicines are of equal quality and composition as a branded version. A non-brand medicine is the same "molecule", unlike a generic medicine, which may be "equivalent" yet not chemically identical. Non-branded drugs are up to 60 per cent cheaper because they eliminate for the manufacturer the heavy promotion and incentive costs associated with branded medicines.

by pharmaceutical companies to prescribe high-cost branded drugs and pharmacists are by law not allowed to substitute lower priced, non-branded equivalents if a branded drug is prescribed by a doctor.

In the future on the Indian subcontinent, more equitable pharmaceutical pricing regulations as well as the rapid deployment of the government-owned and managed low-price retail Jan Aushadhi chain (117 outlets in 11 states) should enable greater access to very substantially lower-cost medicines (Government of India, 2011).[30] If the Government of India were to allow franchising of the Jan Aushadhi outlets to private sector operators, India would in all likelihood experience a massive proliferation of low-cost medicine outlets, as has occurred in countries such as the Philippines in the recent past (box 10).[31]

Discounted medicines are likely to offer greater reduction of OOP health-care expenditure outside the Indian subcontinent where they are typically more expensive, with higher retail margins and may be subject to less retail price regulation. In Africa, for instance, retail pharmacy prices are frequently double those of the subcontinent.[32] Two focus group discussions held in 2008 in Tanzania revealed that discounts of 30 per cent on medicines would make low-income households strongly attracted to an IP HMI product.[33] Retail pharmacies in the vicinity were found to be typically making margins of 40 to 60 per cent. Several pharmacies indicated they would be prepared to grant a discount of up to 30 per cent on their normal retail prices to members of a fair sized HMI scheme, if the HMI scheme members were directed exclusively to them, rather than to their competitors (Griffith et al., 2010a). Discounted medicines are likely to be a more potent VAS outside the Indian subcontinent.

Table 6 indicates the typical retail pharmacy mark-ups in different countries.

Table 6. Retail pharmacy mark-ups in different countries

Country	India	Sri Lanka	Nepal	Kenya	Brazil	Armenia	Kosovo	Mauritius	Tanzania	South Africa
% mark-up on medicines	15	16	16	20	22	25	25	27	50	50

Source: Levison and Laing, 2003.

Whereas the pharmacy sector in the Indian subcontinent remains very fragmented, extensive pharmacy chains have been well established in a number of countries, like the Philippines (Mercury Drug), and Kenya (Pharmart). In such markets, it may prove easier to negotiate a standard volume discount across the entire chain of outlets.

Box 10: Franchised pharmacies for low-cost medicines

A new phenomenon is developing in a number of emerging market countries – franchised discount/generic drug pharmacies, offering affordable medicines to low-income households. Farmacias Similares ("Dr Simi"), based in Mexico, with 3,400 outlets spread across nine Latin American countries, and the Generics Pharmacy in the Philippines, with 1,500 outlets, have been successful in seizing substantial (up to 40 per cent in unit volumes) market share from traditional pharmacy outlets, including, in the Philippines, from the long-established Mercury chain.

Typically, the Generics Pharmacy sells its medicines (unbranded but chemically identical) at no more than one-third of the retail price of branded medicines at the traditional outlets. Starting with a handful of outlets, Generics Pharmacy became the largest retail pharmacy chain in the Philippines within four years. The development of low-cost pharmacy chains may help accelerate the scaling of VAS which promote accessible, more affordably priced medicines that circumvent the margins applied to branded medicines. Of course trust established in the names of the franchisors, "Dr Simi" and the Generics Pharmacy, and their reputation for the quality and effectiveness of the drugs they sell has been paramount to their success.

Sources: Chu and Garcia-Cuellar, 2007; Richard Ivey School of Business, 2011.

[30] Jan Aushadi offers commonly purchased medicines (unbranded) at prices ranging from 20 to 60 per cent of the prices charged for the same branded drugs at retail pharmacy outlets.

[31] In a franchising arrangement, the franchisor (for example, McDonalds) provides a brand name (and often advertising), well-defined technical operating procedures and quality standards, usually the layout and décor of the facility, and frequently key input supplies. For all these services the franchisee pays a regular fee to the franchisor. The franchisee owns, manages, and finances the business outlet and premises which he or she operates. The franchise model typically facilitates a more rapid deployment of a retail outlet.

[32] The retail price of paracetamol in India is US$ 0.02 a tablet to be compared with an average price in Tanzania of US$ 0.04.

[33] AKAM focus group discussion with clients of BRAC Microfinance, Tanzania. 2009.

Discounted clinics

Chains of low-cost health-care clinics that establish a trusted name for themselves, offering both low-cost medicines and low-cost consultations are another recent phenomenon that could be attractive to HMI practitioners to help them develop their VAS. The key advantage of these clinics is their access to low-priced non-branded medicines from manufacturers, thereby eliminating the high margins associated with the traditional retail pharmacy distribution model, which, as discussed, is based on use of branded medicines and their associated heavy promotional expenditures. These clinics are more likely to feature in urban areas at first because of higher population density. As with low-price pharmacy chains, it will be important that HMI schemes create awareness of and promote access to these low-cost clinics. It remains to be seen (as with the pharmacy chains) whether low-cost clinics will provide additional discounts to members of HMI schemes. The savings to a member accessing these discount clinics in India are likely to be US$ 6.5 per family per year, based on assumptions in Annex 2. In Kenya, the savings for users of CFW clinics are likely to be rather more (box 11).

Box 11: Low-cost clinics

CFW clinic

CFW Clinics in Kenya is probably the best-known example of a franchised chain of low-cost clinics. It operates 60 clinics across the country, which had a total of 490,000 patient visits in 2010. A visit to a CFW clinic costs US$ 1.30 including medicines, whereas a visit to a private clinic would cost US$ 4, and medicines would most likely be extra. CFW is a franchise operation started in 2000. Two of the founders had previously worked in the pharmaceutical industry in Africa. An important source of success for the CFW clinics is that nurses who have been trained for four years and with ten years of experience are legally permitted in Kenya to dispense prescription drugs – crucial on the African continent, where doctors are in such short supply and command high incomes. Another important source of success has been the use of a franchising model to enable more rapid scaling. Life Net is a similar organization to CFW, operating in Burundi with 20 clinics.

Swasth India Services low-cost clinic sign

On the Indian subcontinent, low-cost branded clinics have so far had mixed success. There have been some failures where the promoters lacked "on the ground" experience. Swasth India Services, with its experience working with the villages in Maharashtra, is now building a network of branded clinics in a low-income area of Mumbai. A client will pay US$ 1.60 per visit including medicines, compared to the typical bill of US$ 3, an estimated saving of US$ 1.40 (47 per cent). The doctors are employed by Swasth, which enables control over prescribing behaviour. As a result, Swasth is able to furnish patients with a range of quality, non-branded medicines carefully selected and stocked at each clinic to cover essential, common OP needs, but at significantly lower cost.

Sources: Kasturi Rangan and Lee, 2012; Swasth India Services interviews and reports, 2012.

Low-cost diagnostic services

Most HMI schemes offering discounts on medicines (for example, Uplift, Naya Jeevan, ARY) also offer discounts for diagnostic services. Diagnostic services represent a newer and more quickly evolving business, primarily because of rapid advances in technology which reduce the cost and invasiveness of diagnostics. Presently suppliers appear to be amenable to giving discounts ranging from 30 to 70 per cent to enable a VAS. Dip stick tests or digital blood pressure readers do not require a laboratory and can be overseen by less technically qualified staff. Suppliers are also less fragmented, making it easier for HMI schemes to obtain substantial discounts and build a diagnostics supply network. As with discounts on medicines, there is minimal ongoing cost to the HMI provider to maintain a network. Diagnostics currently constitute no more than 10 per cent of a low-income family's OP expenditure (Annex 2).[34] Thus, despite more substantial discounts, diagnostics presently make only a minor difference overall to the client, with estimated savings of US$ 0.72 per family per year. Diagnostics are likely to play a greater role in primary health care in the future, so offering discounts may become an increasingly more attractive VAS option.

[34] As seen in Annex 2, diagnostics typically feature as a zero cost component in rural areas.

Emergency medical assistance

VAS that assist clients during a medical emergency have also been developed. Many IP HMI policies provide reimbursement of transportation expenses. VAS linked to this insurance benefit provide assistance to mobilize an ambulance or other appropriate response at the time of an accident. From the HMI scheme's point of view, facilitating prompt access to care for an injured client may result in a better health outcome and therefore claims costs could be lower. A medical emergency is also a "moment of truth", a time of crisis during which VAS and visible support by the HMI scheme can bring great value to a client in need. Theoretically, such services could even be life-saving. Some examples of emergency response VAS include:

- The Guatemalan insurer, Aseguradora Seguros Rurale (ASR), offers insurance for hospitalization due to accidents to schoolchildren whose parents are clients of the MFI Banrural. Emergency ambulance transport combined with telephone assistance 24 hours a day is provided at the time of accident.
- In India the Aarogyasri scheme in Andhra Pradesh provides emergency ambulance assistance.[35] Another operator, Ziqitza, is a public-private partnership operated with a number of states in India, where GPS guided emergency ambulance service is provided and funded by the Government. It is not linked to any insurance programme. Ziqitza matches the location of the mobile call, the nearest hospital facility and the nearest available ambulance using a GPS system. It covers a population in excess of 100 million people and handles about 2,500 calls a day, across several Indian states. Ziqitza's service could become a VAS feature of an HMI scheme.

[35] The Aarogyasri scheme combines the ambulance service with the IP coverage, a Dial-a-Doctor service and mobile OP services discussed earlier in this report.

4 > CLIENT VALUE AND BUSINESS VIABILITY OF VAS

This section summarizes what we know about value for low-income clients and the business viability of VAS. The industry is still embryonic and evidence is scarce. Based on the discussion in section 3, the assumptions in Annex 2 and data collected from practitioners, this section first discusses client value. It then looks at current scale, costs of delivery and gains for insurers and other sponsors in order to discuss business prospects for VAS.

4.1 Client value from VAS

A low-income family in India served by SSP

In theory, clients should receive net financial benefit from VAS if the services are of good quality and address salient needs. VAS are provided free to clients by the HMI with an expectation that the cost of offering the VAS can be offset by the additional business value anticipated from them.

Much of the value from VAS is expected to come from encouraging clients to make better health-care decisions, and hence experience better health outcomes. VAS are expected to nudge low-income households to become and stay insured against catastrophic health risks. By encouraging earlier treatment, VAS are assumed to lead to better health and less overall shock when an illness or injury occurs. Due to lack of knowledge and access to medical care, low-income households often fail to act appropriately or at all to address common health problems. VAS can help to break existing inertia by providing simple health education tips and incentives to, for example, put chlorine in water, take deworming tablets, eat more nutritious food or use mosquito nets. Such interventions, described by Banerjee and Duflo (2011) as "low-hanging fruit to improve global health", can make a huge difference to the lives of millions of low-income people.

There is no clear client value "winner" among the range of VAS reviewed (table 7). Client value is a function of both the popularity of VAS, which fuels their ability to effectively reach large numbers of people, and their estimated benefit for clients, defined as financial savings (or lower OOP expenditure). Client savings are also a function of how likely VAS are to encourage low-income households to make a better health-care decisions.[36]

[36] Matul et al., 2011

Table 7. Client value from VAS

VAS	Observed popularity with clients	Estimated benefit for clients
Preventative care		
Health education	Low	Medium
Health camps	Low to medium	Data not available
Health check-ups	Medium	Medium
Therapeutic consultations		
In-person consultation	Medium	Medium
Dial-a-Doctor (remote)	High	Medium (urban) – high (rural)
Assisted remote consultation	Data not available	Low (urban) – high (rural)
Access to low-cost supplies and services		
Low-cost medicines	Low (Indian subcontinent) High (outside Indian subcontinent)	Low (Indian subcontinent)[1] High (outside Indian subcontinent)
Low-cost diagnostics	Data not available	Data not available
Discount clinics	Data not available	Data not available
Emergency medical assistance	Data not available	Data not available

[1] For India, the relative estimated benefit for clients will become "high" if and when more HMI schemes gain access to significantly lower-cost medicines from a low-cost clinic such as Swasth India or from the Jan Aushadhi chain of low-cost pharmacy outlets.

Source: Authors' own estimates based on the data and assumptions in section 3 and Annex 2. This is a relative analysis that compares VAS to each other so "low" means lower than other VAS and does not necessarily imply "low" in absolute terms. Discounted diagnostics are not yet a significant cost feature of OP treatment, as shown in Annex 2, so there are really no data available. However, in the future they will be much more important.

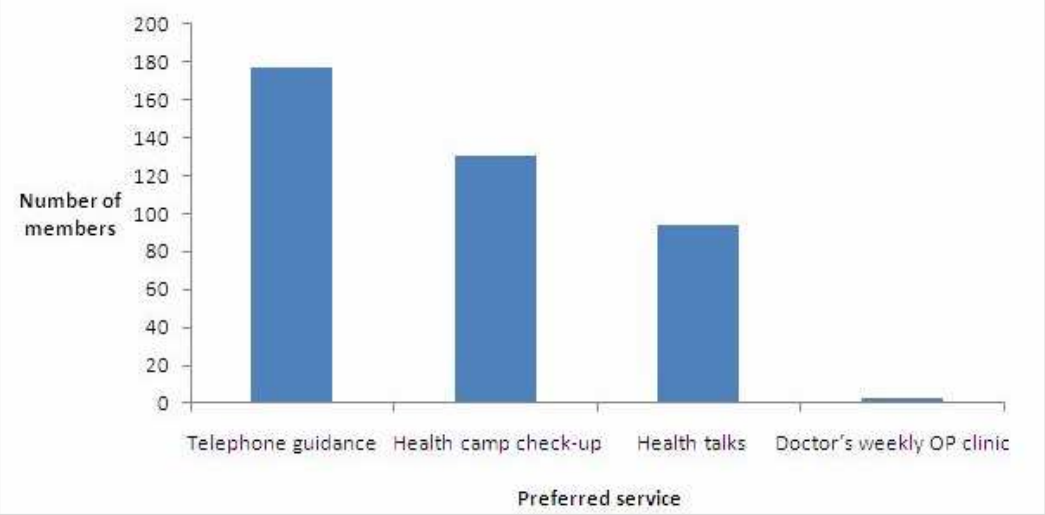
For those using VAS, the estimated benefits appear to be reasonably positive for most VAS, especially in certain contexts. For example, remote consultations (Dial-a-Doctor or assisted consultations) should bring value to rural households as they offset burdensome transportation costs and make health-care services more accessible. Mitigating the high OOP expenditure for medicines should yield significant benefits, especially outside the Indian subcontinent, since medicine prices and retail margins are higher there.

Preventative services are more difficult to evaluate. On the one hand, there is wide evidence that high levels of communicable diseases can be curbed by simple interventions, suggesting considerable benefit for clients. Hence, it might be reasonable to assume greater potential of health camps or other hybrid approaches that combine some education with diagnosis and the provision of simple solutions on site. On the other hand, as shown by VimoSEWA, increased knowledge and individual behavioural change do not necessarily translate into improved health outcomes, at least in the short term, for common illnesses.

Box 12: Relative popularity of various VAS at Uplift and Naya Jeevan

A Dial-a-Doctor service appears to be the most appreciated of VAS, based on client feedback from the Uplift and Naya Jeevan HMI schemes. More rigorous analysis of why, and under what conditions or contexts, is needed. Initial findings, however, suggest that it is the convenience of an often free telephone call (which on average averts the need for further consultation) compared with the OOP expenditure and opportunity cost associated with an in-person consultation, that drives client perception of value. Dial-a-Doctor programmes, because of their convenience and scalability, also presently reach the most clients (millions) compared with other VAS.

Results from Uplift's survey on the popularity of VAS with clients



Source: Adapted from Uplift member survey, 2009-10.

4.2 Scale, costs and business value of VAS

Client value is an essential element of business analysis. A virtuous cycle starts with the modified behaviour of HMI clients who are hypothesized to renew their policy more often and seek treatment earlier, hence reducing administrative and claims costs. As discussed above, there is no clear answer as to which VAS maximize value for clients; they all have some potential in various contexts. There should be, however, VAS that are easier to deploy and are more viable than others to sustain without transferring too much cost to end users or to scheme sponsors. Business analysis sheds more light on these issues.

A quick assessment of the limited data on scale and unit costs reported by VAS providers allows an initial overview of the potential business prospects of VAS. Scale is one good proxy to determine if a service can be viable, because fixed costs can be spread. Encouragingly, several types of VAS evaluated in this report have reached significant scale (over 100,000). Based on costs reported, therapeutic VAS such as Dial-a-Doctor, access to low-cost medicines and diagnostics,[37] and emergency medical assistance appear to be feasible for implementation at scale.

There is evidence of a viable business model for stand-alone Dial-a-Doctor services, a fact which has probably accelerated rapid and broader adoption by HMI schemes offering VAS. Interestingly, it appears that despite their relative ease of use, there is scope for greater use of Dial-a-Doctor services amongst clients – presently it is estimated that only between 15 and 40 per cent of clients actually use a Dial-a-Doctor service when it is offered to them.[38] The relative scale, costs and business value of VAS are presented in table 8.

[37] Diagnostics are not yet a significant cost component of OP, as shown in Annex 2. However, in the future they will be much more important.
[38] The low use has to do with client age. As explained in section 5, younger people are more enthusiastic users of Dial-a- Doctor services whilst older people adopt the use of mobile phone services more slowly.

Table 8. Scale, costs and business value of VAS

VAS	Observed scale[1]	Estimated cost to insurer per client	Estimated IP claims savings
Preventative care			
Health education	Low	Medium	Medium – high
Health camps[2]	Low	No cost – high	Data not available
Health check-ups	Low	High	Data not available
Therapeutic consultations			
In-person consultations	Medium	High	Medium – high
Dial-a-Doctor (remote)	High	Medium	Medium – high
Assisted remote consultation	Medium	High	Medium – high
Access to low-cost supplies and services			
Low-cost medicines	Medium	No cost	Data not available
Low-cost diagnostics	Medium	No cost	Data not available
Discount clinics	Low – medium	No cost	Data not available
Emergency medical assistance	High	Low	Data not available

[1] High = over 1 million; medium = c.100,000; low = several thousand.
[2] Some health camps are sponsored by local hospitals.

Source: Authors' own assessments based on the commentary in section 3 and assumptions of Annex 2. This is a relative analysis that compares VAS to each other so "low" means lower than in case of other VAS and does not necessarily imply "low" in absolute terms.

Estimated IP claims savings should correlate with the client value created by VAS. With only fragmented data available, the conclusion is similar to the one presented in the preceding sub-section, on client value. Greater reductions in IP claims costs can be expected from preventative services or some therapeutic ones such as in-person consultations and Dial-a-Doctor services. Despite high potential benefits for clients and providers, those services are relatively costly to implement, and there is limited evidence on their effectiveness so far. A more robust connection between prevention and its impact on IP treatment and costs is essential. Further research on how to optimize the cost of delivering preventative VAS, and to scale them successfully, is pending.

Those services that are popular (that is, perceived as valuable) should trigger higher renewals. Evidence on the effect of VAS on renewals is scarce. One exception is limited data from SSP, which show that those who accessed OP VAS consultations were three times more likely to renew their hospitalization HMI. This suggests that some costs of delivering such VAS can be offset by the expected positive effect of lower average client acquisition costs, increased premium revenue, and possibly less adverse selection and lower claims costs. It seems that even the simplest but most popular VAS, such as Dial-a-Doctor, can potentially have positive effect on renewals. The same effect may be observed with medicines and basic OP consultations if discounts for these are offered to households in countries where a significant share of the household budget is spent on them.

Though the jury is still out on which VAS can maximize both client and business value, there is potential for a win-win scenario. Less costly solutions such as a Dial-a-Doctor service (especially for rural areas) or access to low-cost medicines (especially outside Indian subcontinent) and, for the future, discounted diagnostics, seem to generate enough value for clients to provide the prospect of improving an HMI provider's bottom line. More resource-intensive therapeutic solutions can deliver even higher client value but at a cost that might be difficult to bear by HMI providers or their clients. Preventative VAS are reasonably low cost in some circumstances and should improve health, but they lack appeal and therefore their perceived value to the client is low. More pilot testing and rigorous research should shed more light on questions concerning the cost-effectiveness of VAS.

5 > IMPLEMENTATION LESSONS

VAS can be further improved. Several key lessons emerged and should be of interest to HMI practitioners implementing VAS.

Build awareness of VAS: It requires as much effort to create awareness of VAS as for the HMI product itself. Almost every VAS provider studied emphasized the need to promote awareness of VAS, with far more intense promotion than they had undertaken at the outset. Practitioners realized that when VAS are provided, they must assume that clients will be unaware of them, and even less likely to use them. Listing VAS benefits on the member's membership card is just not enough.

An impact evaluation of the SSP scheme (Platteau et al., 2012) infers that poor knowledge regarding the discounts on consultations and medicines offered as a VAS contributed to low appreciation by clients of the overall value of the HMI scheme. If clients had used the VAS intensively, they could have derived significant savings in health-care expenditure. Consequently they could have been expected to be more satisfied with the scheme, leading to higher renewal rates than were actually experienced.

Younger clients are the best early adopters of VAS, particularly when technology is involved. For example, with Aarogyasri's Dial-a-Doctor service, 67 per cent of callers were in the 15–24 age group whilst no more than 5 per cent of callers were older than 40. It is reported recently that this has begun to change. However, in promoting awareness of a VAS it is important for the HMI to know who are likely to be the first users and how they can be motivated to create awareness amongst the rest of the clients.

The HMI scheme should have in-house medical expertise to design VAS and to monitor their progress and effectiveness. Several HMI schemes encountered problems using an external partner to provide VAS that included medical advice. It is evident a number of VAS interventions are trying to address the limited availability of qualified doctors, particularly in rural areas and in Africa – for example, by having one doctor supporting, on a remote or rotating basis, health workers located in villages. Since lack of doctors is a critical constraint on the delivery of health care, the use of Ayurvedic doctors in India and the equivalent of Nurse Practitioners and physician extender staff in Africa and elsewhere can help alleviate this problem. With this approach, knowledgeable in-house clinical expertise on the part of the HMI scheme becomes a prerequisite.

Introduce HMI and VAS sequentially (not at same time). Some HMI providers have chosen to launch VAS at the same time as HMI. However, the launch of a core insurance product is challenging enough on its own. The SSP scheme in India and AKAM in Pakistan each launched a VAS complementing a hospitalization product; however, each experienced difficulties with the core insurance product, substantially distracting their attention from successfully implementing the VAS. One insurer suggested that a better approach would be to implement the VAS intervention, such as a limited OP consultation service first, get the intervention working effectively, and then add the HMI (assuming start-up funding is available). Another approach is being implemented by HDFC Ergo and FINO Fintech in partnership with CIRM and funded by the ILO's Microinsurance Innovation Facility. This approach will begin by implementing a simple hospital cash IP HMI policy (a "tried-and-tested" product), and then complement it with VAS, in this case by a Dial-a-Doctor service offered by Mera Doctor. This sequenced approach will allow a focus on the innovative Dial-a-Doctor component after the insurance product is launched.

Introduce VAS one at a time, promote them heavily, and get each intervention working successfully before introducing others. Both Uplift in India and Naya Jeevan in Pakistan introduced several VAS with their insurance products. Uplift's were phased in over time, and Naya Jeevan's were introduced at the outset. Although both schemes have been able to learn from staff and clients about which interventions are preferred and which are easier to implement, the fact that there were multiple VAS initiatives may have diluted the schemes' ability to successfully scale up or popularize their most promising ones.

Government-sponsored VAS are most likely to achieve scale. The majority of VAS programmes that have reached scale, that is, more than 200,000 clients, have done so with either total government subsidy (Aarogyasri, Kalaignar and Weavers and Artisans) or partial government subsidy (Yeshasvini). Private sector VAS operations are almost all small in size, although several service providers who could link up with HMI schemes are already operating at scale. For instance, Sky Care is serving 5 million clients.

Monitoring of key performance indicators and costs is essential to test the viability of VAS. A common element across all the VAS profiled in this study is a need for expanded monitoring and evaluation. Areas of importance include:

- cost–benefit analysis of OP interventions versus IP experience (that is, whether claims are reduced);
- the frequency and intensity of OP care utilization (to build reliable actuarial data);
- accurate, sufficiently detailed costing of VAS programmes, both to set up and to maintain;
- effect of VAS interventions on client satisfaction with HMI schemes, as reflected in renewal and uptake;
- qualitative data to better understand client needs and barriers to health-care access.

6 > CONCLUSION

VAS in HMI should be further explored as they promise to provide more tangible value for clients, which should promote better health risk management decisions and better health practices. If improved health practices lead to better health, this in turn should result in a more favourable business case for IP HMI through higher take-up and renewals and lower IP claims. Despite VAS in HMI being an embryonic business sector challenged by a scarcity of data, evidence gathered in this paper is sufficient to flag some promising options and identify improvements to existing VAS. In the future, we are likely (and indeed hope) to see many more HMI programmes offering VAS as the market matures and insurers try to attract and retain clients with products whose value is sustainable.

The heavy burden of OP expenditure on low-income households' finances and the tangible nature of therapeutic VAS, usually answering an acute client need, make therapeutic services the most frequently encountered VAS. Easy-to-deploy Dial-a-Doctor programmes have reached scale and should provide enough client value to be viable. There is some evidence that having traditional OP facilities nearby, and using them more frequently, results in lower hospitalization rates. Therefore, VAS which enable access to OP facilities may create business value for the HMI scheme, as well as provide health expenditure savings for the client. It is hoped that Dial-a-Doctor programmes and the emerging assisted remote consultation programmes may exhibit similar results in the future.

Preventative VAS can be a powerful supplement to other VAS that are bundled with IP HMI. Given high rates of communicable diseases, preventative VAS on the one hand have the potential to significantly improve the health and well-being of low-income households. On the other hand, some preventative VAS can be more costly (per beneficiary) than some therapeutic VAS. More analysis of the costs of health camps and health education in relation to their benefits is needed. Health camps are frequently encountered in part because they may be provided free by local hospitals and not tied to HMI, and also because they often include a free consultation, an obvious draw for HMI clients. Health education presently features less frequently in VAS. Even if education is less costly, its benefits are less tangible and it is not yet clear if an increase in knowledge triggers better health-seeking behaviour (or health).

Although medicines account for most client OP expenditure, the study encountered limited data in India relating to the business value of access to discounted/low-cost medicines and diagnostic programmes and the extent to which clients value them. With less regulation in a number of other emerging markets (for example, in Africa), the value of discounted medicines to businesses may be particularly attractive and merits aggressive pursuit, while the savings to clients should also be significant. Access to low-cost clinics with their ability to include access to low-cost drugs and consultations may be an especially effective combination of VAS that can enhance value for clients.

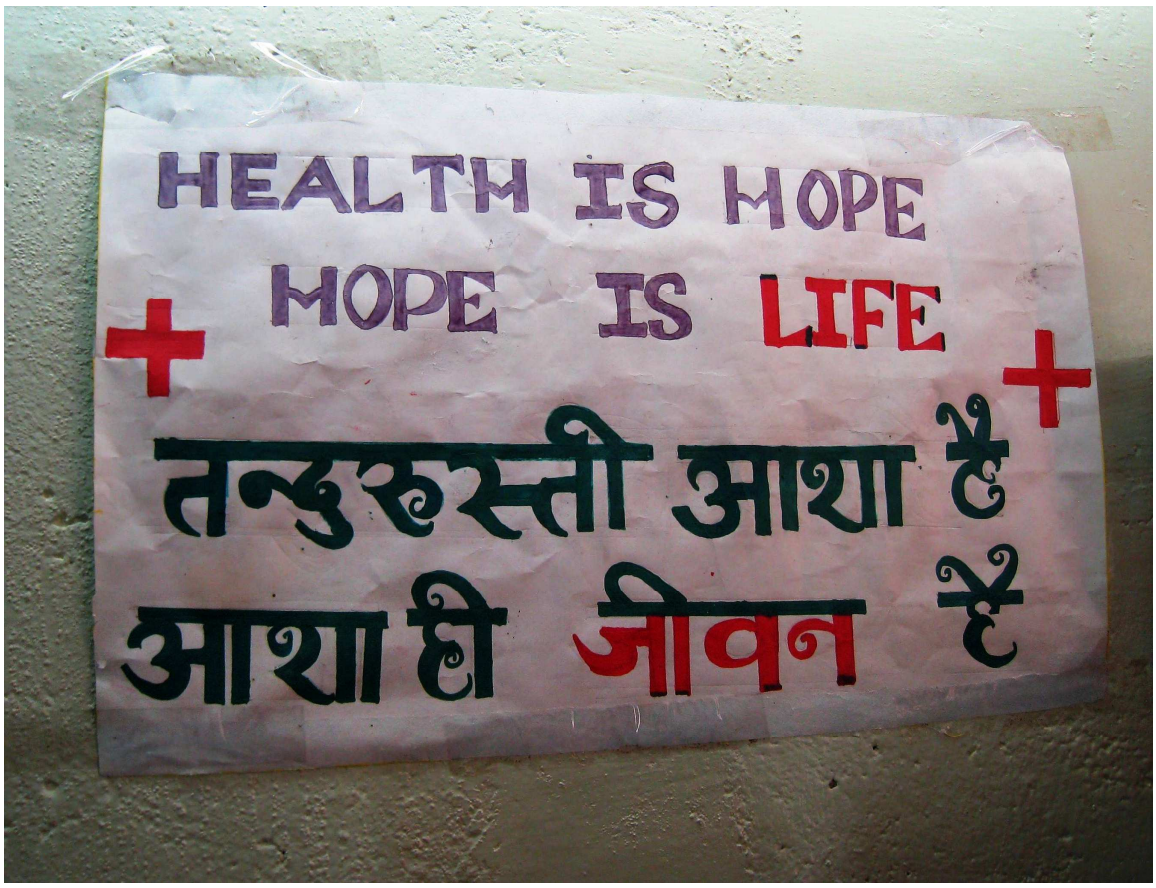
There is evidence that greater awareness of VAS can in some circumstances lead to unnecessary OP care, such as unnecessary medication and (as technology advances) the increasing risk of unnecessary, relatively expensive diagnostic procedures (for example, ultrasound), with no evident enhancement of health outcomes. Implementers of VAS must be particularly alert to such abuse by health-care providers and/or their patients and control the use of any VAS they may offer (for example, through limits on OP visits).

Pioneering examples and emerging business models of VAS provide useful tips for insurers and other sponsors that contemplate delivering VAS. They should:

- build awareness of VAS,
- acquire in-house medical expertise to design VAS and to monitor their performance,
- introduce HMI and VAS sequentially,
- introduce VAS one at a time, promote each service heavily, and achieve a degree of success before introducing others,
- monitor key performance indicators and costs to assess the viability of VAS.

More rigorous experimentation with VAS, which captures data on the benefits both for the client and HMI schemes, is needed. Proxy measures, such as infant and maternal mortality and life expectancy, frequently employed to assess general health outcomes, might be considered for the large VAS programmes.

Quantitative/measurable results are required to demonstrate that VAS interventions do indeed bring value to clients, and to learn how they can be improved and expanded. A holistic view of OP and IP costs and benefits, for both clients and the HMI schemes, is essential.



A poster from Swasth India Services

ANNEX 1: ADDITIONAL DETAIL ON HMI AND VAS PROVIDERS REVIEWED

Table A.1. HMI and VAS providers reviewed – further details

Programme or product name	Sponsor or lead	Additional partners	Location	Covered lives
HMI schemes				
Aarogya Raksha Yojana (ARY)	HDFC Ergo and Biocon Foundation Narayana Hrudyalaya	Insurer: HDFC Ergo	Karnataka, India	100 000
Aga Khan Agency for Microfinance (AKAM)[2]	AKAM	Jubilee Life (formerly New Jubilee Life)	Pakistan	50 000
Arogya Card	CARE Foundation Rural Health Mission	Research partner: Centre for Insurance and Risk Management	Maharashtra, India	3 800
Chief Minister's Critical Illness Insurance scheme* (formerly Kalaignar)	State Government of Tamil Nadu	United India Insurance Co. (formerly insured with Star Health and Allied Insurance Co.)	Tamil Nadu, India	36 million
Government-sponsored scheme for Weavers and Artisans*	Ministry of Textiles	Insurer partners: ICICI Lombard General Insurance Co. Ltd; Reliance Insurance Co.	Pan India	7.5 million
Naya Jeevan for Employees, Kids, & Families	Naya Jeevan Foundation	Insurer partners: Allianz-EFU; IGI; Asia Care	Karachi, Pakistan	15 000
Rajiv Aarogyasri*	State Government of Andhra Pradesh;	Star Health and Allied Insurance (Chennai); Health Management Research Institute (HMRI), operator of Dial-a-Doctor	Andhra Pradesh, India	70 million
SAJIDA Foundation	SAJIDA Foundation		Bangladesh	500 000
Sakhi Arogya Samudaya Trust (SAST)	Swayam Shikshan Prayog (SSP)	Swasth India Services (SIS); IP insurance with Oriental Insurance Co.	Maharashtra, India	10 000
Seguro Estudiante	Aseguradora Seguros Rurale (ASR)	Bancode Desarrollo, SA	Guatemala	25 000
Uplift Mutuals	Uplift Mutuals	Annapurna MFI, Parvati MFI and others	Maharashtra, India	120 000

Programme or product name	Sponsor or lead	Additional partners	Location	Covered lives
HMI schemes continued				
VimoSEWA (research study)		National Insurance Corporation of India; ICICI Lombard	Ahmedabad, India	100 000
Yeshasvini Co-operative Farmers' Health Care Trust[1]*	Dept. of Cooperatives – State of Karnataka	Family Health Plan (TPA) Ltd	Karnataka, India	3 million
VAS providers not linked to HMI schemes				
AMAN Foundation			Karachi, Pakistan	No HMI membership data provided as those schemes are not linked to insurance
Apollo (Health Net Global)			Tamil Nadu, India	
Freedom from Hunger		Bandhan (local MFI partner)	West Bengal, India	
Mera Doctor			Mumbai, India	
Sky Care/ Neurosynaptics		Global Health Partners	Bihar, India	
Swasth India Services			Mumbai, India	
Ziqitza			Six states in India	

[1] No questionnaire was submitted to Yeshasvini. Data on Yeshasvini were obtained from Garand, D. 2008. "Yeshasvini year IV and year V, June 1, 2006 to May 31, 2008 Analysis of demographics and claims", Sep-Oct 2008, ILO (unpublished); Yeshasvini Co-operative Farmer's Health Care Trust, annual accounts 2008,9,10,11. [2] No questionnaires were sent to AKAM and no interviews done. One of the authors, the project manager for five years, has an intimate knowledge of its operations in Pakistan and Tanzania. The AKAM programme was absorbed into Jubilee Life's operations in 2011.

* Schemes where the Government subsidizes premiums, either in part (Yeshasvini) or in full (Weavers and Artisans, Aarogyrasri, Kalaignar).

ANNEX 2: ASSUMPTIONS FOR OP COSTS IN INDIA

Table A.2. Basic assumptions for annual OP costs – India

	Charges per visit (INR) (rounded)	No. of OP visits p.p.p.a. (INR)	Expenditure p.p.p.a. (INR)	Expenditure per family p.a. (INR)	Expenditure per family p.a. (US$)	No. of OP visits p.p.p.a. (INR)	Expenditure p.p.p.a. (INR)	Expenditure per family p.a. (INR)	Expenditure per family p.a. (US$)
Urban		Constrained				Unconstrained			
Doctor fees	30	1.4	42	189	3.78	1.6	48	216	4.32
Medicines	110		154	693	13.86		176	792	15.84
Diagnostics	10		14	63	1.26		16	72	1.44
Total	150		210	945	18.90		240	1 080	21.60
Rural		Constrained				Unconstrained			
Doctor fees	30	1.2	36	162	3.24	1.6	48	216	4.32
Medicines	110		132	594	11.88		176	792	15.84
Diagnostics	0		0	0			0	0	
Sub-total	140		168	756	15.12		224	1 008	20.16
Transport	25	1.2	30	135	2.70	1.6	40	180	3.60
Loss of income	50		60	270	5.40		80	360	7.20
Sub-total	75		90	405	8.10		120	540	10.80
Total	215		258	1 161	23.22		344	1 548	30.96

Source: These data assumptions are based on extensive discussions with several field practitioners, including SSP and CARE, and their observations and research on the low-income individuals seeking OP care. These data reflect patient behaviour in the absence of any insurance coverage.

The number of visits per year can be derived from the NSSO Report 2006, *Morbidity, Health Care and Condition of the Aged*, which notes that across the entire Indian population, an individual suffers an episode of illness 1.1 times per year. Given that some episodes of illness require multiple doctor visits and that the incidence of illness may be more frequent among lower-income, less healthy families than higher-income, healthier families, the assumptions (1.2 visits in rural areas and 1.4 visits in urban areas) appear in the authors' opinion to reconcile reasonably well with the NSSO data. The authors' unconstrained assumption estimates that 25 per cent of illnesses afflicting low-income families go untreated due to either financial constraints or transportation/access problems – thus giving the number of unconstrained visits as 1.6 per person per year. For unconstrained access in urban areas where only a financial constraint prevails, the assumption is that only 10 per cent of individuals do not seek treatment when ill, giving in rounded numbers an unconstrained number of 1.6 visits per person per year (that is, the same as for rural areas).

The cost data per person per year presented here are significantly lower from what can be computed from the same NSSO report. However, on the one hand cost data in the NSSO report reflect expenditure across all income strata for India, so the average for all India would be expected to be higher than for low-income Indians. On the other hand the data from the NSSO report are eight years old, and thus do not include the effect of inflation. The NSSO report gives insufficient detail and is not current enough to provide and valid guidance on costs, thus the authors have relied principally on discussions with practitioners. The costs reflect rational, effective use of treatments and may be significantly lower than what may be observed on the ground (for example, because of over-prescribing, overuse of injectibles, and other wasteful practices.) The assumed average family size of 4.5 individuals per family is referenced from NSSO (2011).

ANNEX 3: HOSPITALIZATION RATES, PROXIMITY AND OP USAGE

Table A.3. The HDFC (ARY)/Yeshasvini cases - OP proximity and OP usage

	HDFC Ergo (ARY)			Yeshasvini			Comparative OP attendance ARY/ Yeshasvini	Comparative hospitalization ARY/ Yeshasvini
Year	Average distance to clinic	OP attendance rate (% p.a.) A	Hospitalization rate (% p.a.) B	Average distance to clinic	OP attendance rate (% p.a.) C	Hospitalization rate (% p.a.) D	A/C (%)	B/D (%)
2004					2.2	0.6		n.a.
2005		20	0.9		2.4	0.7	9.1	1.28
2006		23	0.7		3.6	1.3	6.4	0.54
2007	5 km	23	0.8	40 km	4.1	2.1	5.6	0.38
2008		31	0.7		5.4	2.6	5.7	0.27
2009		31	1.0		n.a.	2.6*	n.a.	0.38
2010		53	0.8		n.a.	2.0*	n.a.	0.40

*Interpolated from annual accounts

Sources: Garand, D. 2008. Yeshasvini year IV and year V June 1, 2006 to May 31, 2008: Analysis of demographics and claims. ILO Sep 2008 (unpublished); Yeshasvini Farmers Co-operative Health Care Trust, Annual Reports 2009,2010,2010; Kuruvilla and Liu, 2007

The ARY and Yeshasvini schemes cover more or less contiguous areas in Karnataka. The significantly closer proximity of the ARY programme clinics to clients' villages exhibits both increased OP clinic utilization and lower rates of hospitalization, although the two schemes have very similar features. Both schemes use the same network hospitals. Because of the distances of on average 40 kilometres between Yeshasvini hospitals and clients, except for the individuals living near the hospitals, the rate of Yeshasvini OP visits is assumed to be most likely associated with pre- and post-hospitalization visits, rather than OP visits not linked to a hospital admission. Therefore the comparison may more accurately be interpreted to be between no VAS OP availability (Yeshasvini) and reasonably close VAS OP availability (ARY).

Table A.4. RSBY: OP service utilization and hospitalization rates (%)

Utilization of public health-care OP facilities (quartiles)	Hospitalization incidence p.a.
Lowest	3.1
2nd-lowest	2.2
3rd-lowest	2.1
Highest	2.0

Source: Krishnaswamy and Ruchismita, 2011.

The RSBY follow-up research exhibits 30 per cent lower rates of admission for RSBY members using OP facilities most frequently compared to those who use such facilities either infrequently or not at all during a one-year period. The one percentage point reduction is associated with a 33 per cent reduction in claims.

REFERENCES

Banerjee, A. and Duflo, E. (2011) *Poor economics: A radical rethinking of the way to fight global poverty* (New York, NY, PublicAffairs).

Berman, P.; Ahuja, R.; Bhandari, L. 2010. "The impoverishing effect of healthcare payments in India: New methodology and findings", *Economic and Political Weekly*, Vol. 45, No. 16, pp. 65-71.

Chu, M.; Garcia-Cuellar, R. 2007. *Farmacia similares: private and public health care for the base of the pyramid in Mexico* (Boston, MA, Harvard Business School).

Garg, C.C; Karan, A.K. 2008. *Reducing out-of-pocket expenditures poverty – A disaggregated analysis at rural–urban and state level in India* (Delhi, Oxford University Press).

Gash, M.; Chanani, S. 2010. *MAHP Research Summary Report: Bandhan*, Freedom from Hunger Research Report No. 9A (Davis, California, Freedom from Hunger).

Ghosh, Soumitra. 2010. *Catastrophic payments and impoverishment due to out-of-pocket health spending: The effects of recent health sector reforms in India*, Working Paper No. 15, Asia Health Policy Program (Palo Alto, CA, Asia-Pacific Research Centre, Stanford University).

GMSA. 2012. *Touching lives through mobile health: Assessment of the global market opportunity http://www.gsma.com/connectedliving/wp-content/uploads/2012/03/gsmapwctouchinglives throughmobilehealthreport.pdf* (India, GMSA and PwC).

Government of India. 2011. *A comparative analysis of Jan Aushadhi and branded drugs* (New Delhi, Ministry of Chemicals and Fertilisers, Department of Pharmaceuticals, Government of India).

Griffith, D.; Kibassa, B.; Komakoma, F.; Umar, N. 2010a. "Study for AKAM – Giving microfinance clients access to quality drugs" (Options Consulting Services – unpublished).

Griffith, D.; Umar, N.; Sheikh, L.; Muttaqui, S.; Grainger, C. 2010b. "Prefeasibility study to support the Aga Khan Agency for Microfinance to widen the package of benefits for insured clients in Pakistan" (Options Consulting Services, unpublished).

Kasturi Rangan, V.; Lee, K. 2012. *CFW clinics in Kenya: To profit or not for profit?*, Case 512-006 (Boston, MA, Harvard Business School).

Krishnaswamy, K.; Ruchismita, R. 2011. *Rashtriya Swasthya Bima Yojana: Performance trends and policy recommendations. An evaluation of the mass health insurance scheme of Government of India*, IFMR-CIRM Working Paper (Chennai, CIRM and IFMR).

Kuruvilla, S.; Liu, M. 2007. *Health security for the rural poor? A case study of a health insurance scheme for rural farmers and peasants in India* (Ithaca, NY, School of Industrial and Labor Relations, Cornell University).

La Forgia, G.; Nagpal, S. 2012. Government-sponsored health insurance in India (Washington, DC, World Bank).

Levison, L.; Laing, R. 2003. *Essential Drug Monitor No. 033* (Geneva, WHO).

Liber, D.; McCord, M.; and Roth, J. 2007. *The landscape of microinsurance in world's 100 poorest countries* (Appleton, MicroInsurance Centre). Adapted from Blanchard-Horan, C. 2006. *Malaria treatment seeking behavior in Kisiizi, Uganda: Health microinsurance among Engozi groups*. An unpublished PhD dissertation (Walden University).

Matul, M.; Tatin-Jaleran, C.; Kelly, E. 2011. *Improving client value from microinsurance: Insights from India, Kenya and the Philippines*, Microinsurance Paper no. 12, ILO Microinsurance Innovation Facility (Geneva, ILO).

Metcalfe, M.; Chanani, S; Reinsch, M.; Sutta, S. 2010. *Costs of Health Education and Product Distribution; Bandhan's Experience in India*, Research Paper No. 10A (Davis, CA, Freedom from Hunger).

NSSO. 2011. *Employment and unemployment situation in India 2009–2010*, NSS Report no. 537 (New Delhi: National Sample Survey Office, Government of India).

Preker, A. S.; Peters, D. H.; Yazbeck, A. S.; Sharma, R. R.; Ramana, G. N. V.; Pritchett, L. H.; Platteau, J.P.; Guirkinger, C.; Verardi, V.; Ugarte, D. 2012. "Impact assessment report of the Health Microinsurance Programme of Swayam Shikshan Prayog (SSP)" (unpublished).

Saha, S. 2011. *Provision of health services for microfinance clients* (Ghandinagar, Indian Institute of Public Health).

Saksena, P; Xu, K.D.; Durairaj V. 2010. *The drivers of catastrophic expenditure: OP services, hospitalization or medicines?* World Health Report, Background Paper 21 (Geneva, World Health Organization).

Richard Ivey School of Business. 2011. *The Generics Pharmacy* (University of Western Ontario).

Wagstaff, A. 2002. *Better health systems for India's poor: Findings, analysis, and options* (Washington, DC, World Bank).

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 generous support from the Bill & Melinda Gates Foundation to learn and promote how to extend better insurance to the working poor. Additional funding has gratefully been received from several donors, including the Z Zurich Foundation and AusAID.

See more at: www.ilo.org/microinsurance