Health and Microfinance: Leveraging the Strengths of Two Sectors to Alleviate Poverty

Summary of Research Findings from Freedom from Hunger's Four-Year Microfinance and Health Protection Initiative

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Executive Summary

This paper summarizes the health-related findings associated with the delivery of multiple health protection products and services designed, developed and tested by Freedom from Hunger and five microfinance institutions (MFIs)—Bandhan (India), CARD (Philippines), CRECER (Bolivia), PADME (Bénin) and RCPB (Burkina Faso) from 2006 through 2009. The purpose was to explore whether it was possible to design and offer health-related options to deliver positive health and other social impact for clients while also being practical, cost-effective and financially sustainable for MFIs. Each institution tested a package of health protection products and services that included several components, such as health education, health savings, health loans, health micro-insurance, linkages to health providers and the sale of health products in rural communities. By December 2009, the health protection options of the five MFIs were reaching a combined total of more than 300,000 people.

Market Research and Design of Health Protection Packages

Market research using participatory rapid appraisal methods provided information on client needs and revealed three main barriers to meeting these needs: health information and knowledge; health financing; and access to essential health services and products. This information informed the design of unique, context-specific health protection packages that were rolled out in 2007.

Methodology for Evaluation

Research studies were conducted during 2008–2009 using qualitative and quantitative data-collection methods to examine the impact of the health protection packages on the health and well-being of clients and households and on the institutional performance of the MFI. Study methods included individual client interviews (some with baseline and endline analyses), focus-group discussions and interviews, one randomized control trial to evaluate the impact of randomly assigned health education, the regular collection of financial indicators and detailed cost-benefit analyses of specific health protection options.

Findings

The findings and results are organized by type of intervention or component of the health protection package.

Studies of changes in health knowledge and behavior suggest that clients receiving health education through their MFIs benefited from increased health knowledge from education targeted at feeding of babies and treatment of diarrhea in young children (India), prevention of malaria and HIV/AIDS (Bénin), and financial planning for health and rational use of health services (Philippines and Bolivia). Statistically significant behavior changes were detected for breastfeeding immediately after birth, use of ORS for treatment of diarrhea, and appropriate complementary feeding of children in India; use of repellants or insecticides to prevent malaria and the availability of good bednets in Bénin; and use of preventive services in Bolivia.

Evaluations of health savings, health loans and health micro-insurance found these financial products to be responsive to clients' needs to reduce financial barriers to care and to help manage the financial impact of illness. Overall, clients were very satisfied with the availability and use of the products, indicated that they helped them access and manage the costs of healthcare services, and reported higher levels of confidence about financial security in the case of illness. Clients in Burkina Faso with access to health savings and loans reported higher use of preventive services, and a study of clients using health loans in Bolivia suggested reduced use of microenterprise loans for health purposes.

Other interventions designed to link or extend access for MFI clients to local health services and products added value to clients with respect to geographic access and convenience, greater choice of providers and cost savings. Of clients in Bolivia who accessed diagnostic and preventive services from mobile health providers, 24 percent reported never having visited a medical provider previously. Qualitative data suggest that these linkages are also of value to providers and local communities, mobilizing resources that can help sustain local providers, and exerting positive pressure to improve local community practice norms. The research studies were not conducted over a period long enough for a reliable assessment of changes in overall utilization of health services or in health status. Greater availability and access to specific health products such as treated bednets and ORS through MFI community health volunteers or agents may also have contributed to positive behavior changes reported in Bénin (availability of good bednets in the home) and in India (use of ORS to treat children with diarrhea).

Analysis, Implications and Conclusions

This paper ends with an analysis of the findings with respect to the main barriers to health identified during market research and compares these finding to those observed by others. In conclusion, we argue that

the experiences and findings from this initiative add support for advancing a cross-sectoral approach linking health with MFI operations as part of a broader strategy to extend health knowledge and information, healthcare financing and essential healthcare services and products to many millions of poor families.

Introduction

Microfinance institutions (MFIs) are breaking new ground with life-saving health information, health services and products to improve access to health care in some of the poorest and most remote areas of the world. With few exceptions, microfinance services and health-related programs have been implemented as separate development interventions to reduce poverty and enhance well-being with little integration across these two sectors. However, encouraging results from a four-year initiative testing health protection interventions in five countries strongly suggest that the microfinance sector is a largely untapped and valuable platform to improve health status.

In 2006, Freedom from Hunger, with funding from the Bill & Melinda Gates Foundation, launched the Microfinance and Health Protection (MAHP) initiative to test the feasibility and impact of adding health to MFI financial services in Bénin, Bolivia, Burkina Faso, India and the Philippines. This paper summarizes the health-related findings associated with the delivery of multiple innovations as drawn from a series of research studies and impact analyses over the four-year initiative.[1]

Illness and poor health are widely recognized as important contributors to persistent poverty, stubbornly impeding reliable progress towards greater economic security among the world's poor. Conditions such as poor living environments, unsafe and physically demanding income-generating activities, weak medical infrastructures and financing systems that place most of the burden for paying for care on individual out-of-pocket payments create a reinforcing and persistent cycle of poor health and poverty. The financial challenges associated with paying for the direct costs of health care and medicines, as well as the substantial indirect costs of transportation and lost income from the inability to work of the ill family member and other caretakers can be overwhelming. The poor are left with no choice but to spend what little they have when injury or illness strikes, frequently resulting in the sale of household assets, or borrowing necessary funds from whatever sources are available, perhaps at very high levels of interest.[2] A recent study in northern Ghana found that the cost of malaria treatment represented just 1 percent of wealthy households' income, but 34 percent of poor households' income.[3] In Kenya, 30 percent of all households faced "potentially catastrophic cost burdens" as a result of illness,[4] and a number of other studies report evidence that the poor spend a significantly higher proportion of income on health care than the rich.[5]

Barriers other than financial ones also limit the poor's access to effective, relatively low-cost healthcare interventions. These include insufficient or under-resourced public facilities, too few and inadequately skilled healthcare workers, a lack of knowledge on the part of individuals and communities to prevent and manage illness, and diverse cultural and gender issues, which influence and often constrain health access. The result is under-utilization of essential services, leaving huge gaps between the potential and realized benefits of health care for the poor. For example, 80 percent of maternal mortality is related to inadequate education, insufficient nutrition, lack of availability of trained birth attendants, and the inability to seek emergency obstetric care when needed.[6] In addition, preventable and treatable diseases such as diarrhea, pneumonia and malaria, which account for 52 percent of child deaths worldwide, could be impacted with better education leading to changed behaviors and access to primary care including basic pharmaceutical products.[7]

MFIs as a Conduit for Health Protection

MFIs Reach Millions of the Very Poor and Their Communities

MFIs reach more than 155 million households,[8] providing credit and other financial services to help them start and grow small businesses, build productive assets and better cope with financial shocks. Many of the clients served by microfinance are among the poorest people in the world.[9] MFI clients and staff report that illness and the related costs cause difficulties with loan repayment and savings, and often require clients to use their business loans to pay for unexpected healthcare expenses or even terminate participation.[10] Microfinance clients need and request services to protect themselves from illness and to manage the impact when illness occurs. From a business standpoint, our findings suggest that these health products can be inexpensive for MFIs to provide and that they have positive effects on client growth, client and staff retention and loan sizes.[11] Many MFIs also view the addition of health and other nonfinancial services as an important strategy to accomplish social performance goals.

MFIs Have Unique Advantages to Address Strategic Health Gaps

Although most MFIs are not likely to have extensive healthcare experience, they are uniquely positioned to play an important cross-sectoral role in reaching the very poor with a range of simple but highly effective health interventions. MFIs with their focus on market-based business principles and financial self-sufficiency provide demanded services at a price that is affordable to clients and also covers the institution's operational costs. Clients, who are often women, repay their loans at reliably high rates and demonstrate high levels of loyalty and trust in their MFI. Many MFIs provide financial services to groups, bringing women together on a regular basis over months and years to repay loans and deposit savings. These groups, supported by microfinance staff, provide an established, reliable and trusted channel for a range of health-related information, products and services.

MFIs are often important and influential institutions in the areas they serve with opportunities to influence health providers' policies and practices, toward small but potentially important changes in local services to the benefit of their clients and their communities. A number of examples were observed during the MAHP initiative of how MFIs can exert both influence and the purchasing power of their clients for positive impact on access and quality of essential health services in local communities.

Freedom from Hunger's Microfinance and Health Protection Initiative

Through the MAHP initiative, Freedom from Hunger set out to innovate and experiment with a range of health protection products that respond to the requirements of poor microfinance clients and their families, while being practical and realistic for an MFI to deliver. The health protection products developed and packaged under MAHP were designed to be financially sustainable, scalable (by the MFI itself) and replicable (by other MFIs facing similar client needs and circumstances).

Five MFIs from three continents signed on to participate in this experiment: Bénin (Projet d'Appui au Developpement des Micro-Entreprises—PADME), Bolivia (Crédito con Educación Rural—CRECER), Burkina Faso (Réseau des Caisses Populaires du Burkina—RCPB), India (Bandhan) and the Philippines (Center for Agriculture and Rural Development—CARD). Selection criteria for the MFIs included their geographic location, size, financial and operating self-sufficiency, their interest and support for adding

new health services, and their willingness to participate in research and provide a range of financial and performance data over four years to support the evaluation of the impact of the health programs on clients and MFI financial performance. Three of the MFIs (CARD, CRECER and RCPB) had previously worked with Freedom from Hunger to launch credit group-based client education (Credit with Education, including health education).

Market Research to Inform the Design of Health Protection Packages

Each MFI, assisted by Freedom from Hunger and Microfinance Opportunities, conducted market research to describe health needs and desires of the target populations and to assess the availability and client preferences for local health resources. The market research used Participatory Rapid Appraisal (PRA) tools and focus-group discussions with clients, MFI staff, and local healthcare providers, and consulted other secondary sources such as available epidemiological data.[12] The results confirmed the overwhelming burden of ill health and provided a detailed understanding of health access issues and coping strategies of the MFI clients. While the epidemiology of some diseases varied across settings, overall the research showed that MFI clients needed a broad range of health services and financing products that would work together to improve access to preventive and other routine care, while also protecting from the financial shock of more serious illnesses.

Three main barriers to health that were potentially remediable through integrating microfinance and health services emerged:

- Insufficient knowledge and information about health risks, health-related behaviors and appropriate use of health services
- Inability to afford necessary health services
- Inadequate and unreliable access to effective and appropriate health services and products

Need for Health Education and Information

Microfinance clients shared their needs for information and training on how to prevent illness and treat common conditions and diseases such as under-nutrition, malaria, diarrhea and poor reproductive health to reduce negative consequences. Notably, there was also demand for education about chronic diseases such as cardiovascular illness, diabetes and asthma. Also, women asked for education to enable them to make better judgments in the use of health services; on how to self-manage illness when appropriate; and in what circumstances to seek modern over traditional healthcare interventions. In addition, the market research pointed to a lack of awareness about how regular health-related expenses add up and the possibility that saving ahead specifically for necessary medical care would enable faster treatment, thereby reducing the overall cost of a health incident.

Need for Means to Finance Health Expenses

Direct and indirect health-related expenses represent a significant proportion of many microfinance clients' small incomes. Clients in Bénin, India and Burkina Faso reported that they spent between 20 and 40 percent of their family budgets on direct costs of health care. The indirect costs of treating illness are also substantial; clients recounted experiences of making long journeys to regional specialty or referral centers as a last resort to treat serious illness such as stroke, cancer and complications from childbirth. In the

process, families incur transportation costs, as well as the cost of lost productive time as they travel and wait for treatment, stay to attend to the needs of the patient, and/or recuperate or provide follow-up care after hospitalization. While these microfinance clients had regular sources of income from their microenterprises, health-related expenses were found to often impede their ability to consistently meet their families' needs for food and other necessities. Routine, minor expenses accumulate over time causing a cost burden, while serious illnesses or health emergencies can have a major impact on productivity, thus threatening a family's progress in reducing its poverty. Clients reported a number of coping strategies to finance medical costs, including using their working capital, selling productive assets, and obtaining additional credit from other sources (often at high interest rates), all with negative repercussions on future earnings and cash flow. Clients in Burkina Faso reported that they had delayed treatment, knowingly sought inferior health services, reduced food consumption and pulled children out of school to manage the costs of illness.

Clients indicated that although they preferred free or very-low-cost services, they were willing to pay to access effective and reliable health services. As an example, CRECER in Bolivia found that clients prefer to pay for cervical cancer screening that provides immediate and reliable results rather than use a free service for which reporting was lengthy and unreliable. Clients also indicated a high desire to be able to access and pay for medical services when needed, whether or not cash is immediately available. In fact, many of the clients expressed enthusiasm for the idea of setting aside health savings and having access to health loans with flexible repayment terms and for insurance or similar mechanisms to protect them from major medical expenses.

Need for Improved Access to Health Services and Products

The market research findings showed that client health-seeking behavior was also constrained by the limitations of the availability of skilled health providers. Access to timely and affordable health products and services in local communities was unanimously described as a deficiency. In all five countries, publicly funded health systems were in theory providing first-level care in local health clinics and making specialized and diagnostic services available at regional or national referral clinics and hospitals. Many clients, however, bemoaned the un-reliability and low quality of services available and reported that when illnesses were considered serious enough for treatment, they would bypass the local clinics in favor of regional or private providers. Private healthcare providers were seen as more qualified, more likely to have modern technology and adequate supplies of medicine, and therefore better able to diagnose and treat serious or complicated illness. However, clients also reported that these providers were often not locally available or financially affordable. Many clients indicated a preference for services that would be directly provided by the MFI, while others suggested the MFI develop special arrangements or partnerships with local community providers.

MFI clients also reported very limited access to healthcare products. Essential drugs were reported to be frequently in short supply at local public health centers, and prescription drugs from pharmacies were reportedly very expensive. When costs were evaluated with RCPB clients in Burkina Faso, drugs made up to 80 percent of the total amount of out-of-pocket expenses for seeking treatment. Clients also reported potentially dangerous practices such as self-prescription and medication with drugs purchased at the local markets in West Africa and the purchase and consumption of sub-optimal doses of antibiotic pills in the Philippines. Over-the-counter products that could have an enormous impact on common diseases, such as insecticide-treated mosquito nets, oral rehydration solution, anti-fungals, water purification tablets and condoms, were simply unavailable for purchase in many rural areas.

Table 1 summarizes the demand for different products and services across all of the MFI clients in the five countries, illustrating the variations related to specific diseases along with the commonality of their needs for combinations of different health services and health products to improve information and the ability to access and pay for health services.

TABLE 1: CLIENT DEMANDS FOR HEALTH PROGRAMS: EDUCATION, SERVICES AND FINANCING

MFI	Topics for Health Education and Information	Better Access to Health Services and Products	Types of Health Financing
Bandhan India	▪ Reproductive health	▪ Low-cost medicines	▪ Health loans ▪ Voluntary weekly savings ▪ Health insurance for families
CARD Philippines	▪ Preparing for illness and using health services	▪ Clinic with free or lower-cost services and medicines ▪ Affordable medicines ▪ Optometric services	▪ Enrollment in PhilHealth (government hospital insurance program) ▪ Discounts for doctors, hospitals, medicines
CRECER Bolivia	▪ Prevention and management of frequent illnesses ▪ Use of traditional medicines ▪ Women's health ▪ Training on health system and how to access services	▪ Health center or clinic located in CRECER branches ▪ CRECER doctor ▪ Regular health checks	▪ Provider agreements for discounted hospital care, specialists, surgery, medicines and diagnostic care ▪ Health emergency loans with low interest and quick access ▪ Healthcare savings arrangements ▪ Family health insurance with periodic payments and/or prepayment scheme for private clinics
PADME Bénin	▪ Malaria ▪ Family planning ▪ HIV/AIDS ▪ Low-risk pregnancy ▪ Other infectious diseases	▪ Affordable and easily available mosquito nets	▪ Affordable health insurance
RCPB Burkina Faso	▪ Prevention and management for prevalent diseases	▪ Access to low-cost clinical services and medicines ▪ Advocacy to improve public services	▪ Voluntary savings to be quickly accessed ▪ Emergency loans ▪ Health insurance ▪ Solidarity fund for high-impact diseases

Design and Pilot-Testing of Health Intervention Packages

Market research findings were used to design unique, context-specific health programs or packages of health protection services and products for each MFI's clients. Each of the health programs set out to address the three main barriers to meeting the needs revealed through market research: health knowledge, health financing and access to health products and/or services. The MFIs introduced and began to promote the health programs in 2007. In several cases in which the MFI was already providing health education topics,

modifications or new topics were introduced to better address the identified needs.

TABLE 2: HEALTH PROTECTION PROGRAMS DEVELOPED BY MFI

MFI, Total Clients and Outreach of Health Products (12/09)	Health Education and Information	Access to Health Services and Products	Health Financing
Bandhan,India Total Clients–1.9 Million Outreach–51,900	▪ Health education provided in community health forums and reinforced with information from trained community volunteers	▪ Health products (sold and delivered locally by community health volunteers) ▪ Referrals to local providers	▪ Health loans
CARD MRI, Philippines Total Clients–991,474* Outreach–152,424	▪ Health education in credit groups	▪ Discount network of private health providers	▪ Linkage to national health insurance program with premiums paid by MFI as additional health loan to MFI client
CRECER, Bolivia Total Clients–102,212* Outreach–26,296	▪ Health education and information in credit groups and community-wide health fairs	▪ Mobile services provided through "health days" in local communities ▪ Referrals to health providers ▪ Contract linkages with private health providers	▪ Health loans
PADME, Bénin Total Clients–48,962* Outreach–11,290	▪ Health education in credit groups	▪ Distribution of insecticide-treated mosquito nets (1000 nets distributed	
RCPB, Burkina Faso Total Clients–671,909* Outreach–59,746	▪ Health education in credit groups		▪ Health savings ▪ Health loans

** Includes active borrowers and savers.*

Methodology for Evaluation of Impact

Scope of Evaluation

The evaluation and conclusions about the impact of the MAHP health packages draw on quantitative and qualitative data collected from individual client interviews (some with baseline and endline analyses), focus-group discussions and interviews with staff and health providers, institutional assessment exercises and regular reporting of financial indicators from each MFI. At PADME (Bénin), research was conducted using a randomized control trial method to look at the impact of education in female-only and mixed-client (female and male) groups. All of the studies were carried out over a relatively short, two-year period, and most were initiated at least one year after program start-up. The studies were intended to examine two primary questions.

1. Does the provision of integrated microfinance and health protection services by an MFI have a positive impact on client health and financial status?
2. Does this provision of services result in stronger institutional performance as measured by growth rate, client loyalty and retention, repayment rates, demand for and effective use of MFI services, and overall competitive position?

Freedom from Hunger worked with each MFI to design and implement research activities to examine various aspects of the health protection products to address these questions. The data analysis and findings for the second research question regarding institutional performance are detailed in a set of separate reports on the costs and benefits of the health packages at each partner and in an aggregate analysis.[13] This paper focuses primarily on the impact on client and household health knowledge, behaviors, access and use of health services and products, and client perceptions of her ability to manage healthcare costs.

The total list of research conducted across all of the MFIs, each with a unique set of health programs, constitutes a broad portfolio of studies. Detailed description of research methods and presentations of the complete range of findings are presented in a comprehensive research report for each MFI, which is available for reference.[14]

Domains of Interest

Research tools were designed to generate relevant information about important domains of interest both regarding the impact of the health protection products on the MFIs as business entities and on their clients. The three principle areas of interest in impact on clients and households were changes in financial status, food security and health. Realizing that it would not be possible to measure health outcomes of the interventions within the limits of available time and resources, the evaluation of the health benefits to clients were organized around the following key process dimensions of health:

- **Responsiveness.** The extent to which health programs focused on clients and addressed demand and needs (both perceived and real).
- **Change in Knowledge.** Client knowledge about how to plan and prepare for illness, how to access health services and how to prevent and manage common and chronic diseases.
- **Change in Behavior.** Changes in health behavior that would be expected to affect health status of clients and their households as well as influence utilization of health providers and health products (pharmaceuticals, mosquito nets, etc.).
- **Improvements in Access and Use of Services and Products.** Impact on client ability to access needed health services—services more easily available and easier for clients to afford or manage financially.

Methods, Limitations and Constraints

Several factors related to the design and implementation of the health protection products at each MFI proved challenging to the evaluation process and complicated the analysis and interpretation of results.

Rapid expansion of the health programs and their components—in some cases considerably beyond the scale originally anticipated—was positive with respect to client responsiveness, but it made evaluation difficult to impossible. The changing nature of the breadth, diversity and stability of target populations reached by the health protection products, compromised the ability to reliably compare indicators such as client-health

behaviors, utilization of services and financial measures before and after the new health protection products were introduced and between intervention and non-intervention areas. In the case of PADME, unexpected changes in MFI leadership that led to interruptions of service may also have had an impact on the manner in which the health program was implemented across the treatment and control areas.

The short time frame between implementation and evaluation meant that certain longer-term impacts could not be captured or that others may have been incorrectly interpreted. Although efforts were made to allow for at least one year of program operation prior to evaluation, some of the MAHP packages took longer to launch than others and required more time to communicate and promote to clients. Consequently, it is likely that fewer clients were aware of and using the services than if the research studies had been conducted even six months later.

The findings and results below are organized and discussed by type of intervention or component of the MAHP packages—health education, health financing, and linkages to health services and products—in order to understand as clearly as possible the impact of each of these interventions by the specific need or barrier that they are intended to address. However, all of the health services and products that made up the individual MFI health programs were offered in combinations designed to complement each other and for greater leverage and impact within the specific context of client needs and available health services in an area. Accordingly, it is not possible to link observed results only to discrete interventions and, therefore, to attribute causality with certainty to individual interventions. For example, health education was combined with other services such as health loans or linkages to health providers or the distribution and sale of health products to enable clients to put newfound knowledge into practice for positive impact on health.

With the exception of the RCT study at PADME, the research studies cannot establish a causal link between the provision of the health protection products by the MFIs to their clients and subsequent client knowledge, attitudes and especially behavior change. In each case, considerable effort was invested in selecting random and representative samples of clients and other respondents; but without random assignment of the interventions, it is possible that the samples include differences that are unmeasured and may contribute to the outcomes reported. Additionally, all client data were self-reported and subject to the limitations and risk that responses do not accurately represent actual behaviors.

The multiplicity of methods across five settings, different approaches and combinations of qualitative and quantitative methods enabled us to compare findings using more than one study and approach. This is particularly important given the reliance on self-reported data. In some cases, quantitative data show only small, though statistically significant, impact, yet these same indications of positive impact are echoed and even amplified in other qualitative studies. So while the triangulation of results and findings are not conclusive proof, it provides additional evidence of significant movement in the direction of positive impact across the studied health dimensions.

Findings

Health Education

Health education was a component of each of the MFI health protection packages. Three new education modules were created in response to market research to educate on financial planning for health, rational use of available health services, and on preventing chronic disease. Already-designed and tested educational

modules were available for prevention and management of malaria, HIV/AIDs prevention and integrated management of childhood illness. With the exception of Bandhan, all MFIs chose to deliver the education through MFI credit officers and as part of regular credit-group meetings. CRECER supplemented the credit-group education with additional education at its health days. Bandhan's health education was delivered by separate staff (hired for this purpose—not credit officers) during monthly health forums held in local villages, with health messages then reinforced by community volunteers during home visits. Although RCPB set out to provide group based clients with education on financial planning for health and how to rationally use health services, this education was not completed prior to the evaluation process.

The following table summarizes key findings related to several education topics.

TABLE 3. IMPACT OF HEALTH EDUCATION

A. Bandhan (India): 52,900 Clients with access to health education	
Findings	**Study Methods**
100% of focus-group participants reported that they: ▪ were satisfied with education ▪ gained new knowledge ▪ would recommend to others Increased health knowledge related to care of newborns, feeding of babies and treatment of children with diarrhea: ▪ At baseline, 75% knew (n=240) that a child should be exclusively breastfed for 6 months, compared to 92% at follow-up (n=62)* ▪ At baseline, 54% knew (n=151) that immediately after a baby is born, it should be dried and wrapped, compared to 77% at follow-up (n=60)* ▪ At baseline, 71% knew (n=240) how soon after birth a child should breastfeed, compared to 98% at follow-up (n=62)* ▪ At baseline, 86% knew (n=230) to add oil, protein and vegetables to a child's first foods, compared to 97% at follow-up* Positive changes in health behaviors for infant feeding and treatment of children with diarrhea: ▪ At baseline, for women who have or care for a child 12 months of age or younger, approximately 61% said (n=98) they breastfed their child within 1 hour after the child's birth, compared to 96% at follow-up (n=57)* ▪ At baseline, 39% said (n=106) they had introduced complementary foods into a child's diet at age 6 months or older, compared to 55% at follow-up (n=48)* ▪ At baseline, 60% of women with a child in their household or care who had diarrhea in the last 3 months (n=10) treated the child with ORS, compared to 88% at follow-up (n=42). A higher number also reported treating a child in their household or care with special liquids at home (increased from 30% to 69%)* No meaningful improvements were detected for hand-washing before or after food preparation, eating, feeding a child or after defecation or assisting a child with defecation.	▪ Client focus groups (10 groups with 80–100 total clients participating) ▪ Baseline and follow-up studies administered about one year apart

** Statistically significant at p≤0.05.*

TABLE 3: IMPACT OF HEALTH EDUCATION *(continued)*

B. CARD (Philippines) 152, 424 clients with access to health education	
Findings	**Study Methods**
Increased percentage of clients who reported knowledge and behavior changes: ▪ Talking to a family member about saving money for future medical need increased from 68% to 78% ▪ Saving to prepare for a future illness or medical emergency increased from 79% to 92%* ▪ Reported negotiating in a way to focus on what is needed (repeating needs if necessary) increased from 55% to 69%* No changes were detected for knowledge of calculating the total cost of illness, getting needed services, and how to use the MFI-provider network, which were all high at pre-test.	▪ Client surveys before and after education using Lot Quality Assurance Sampling (LQAS) methodology (n=90)
C. CRECER (Bolivia) 26,296 clients with access to education	
Findings	**Study Methods**
Most clients (82%, n=190) were satisfied with the number of education sessions, and 76% were satisfied with content. Increase in reported use of preventive care: ▪ Clients seeking preventive care for themselves increased from 9.4% to 14.6% (significant at p=.07) ▪ Clients seeking preventive services for themselves and additional family members increased from 1.5% to 9.8%*	▪ Client survey (n=190) ▪ Baseline (n=240) and endline (n=247) studies conducted 2 years apart
D. PADME (Bénin) CRECER (Bolivia) 26,296 clients with access to education	
Findings	**Study Methods**
MALARIA PREVENTION Increased knowledge that mosquito nets and insecticide-treated nets could prevent malaria: ▪ Difference of +6 percentage points for mixed groups (men and women) with education (n=807) than for mixed groups without education (n=899)* Increased knowledge that pregnant women and children under age 5 are at high risk for malaria: ▪ Difference of +8 percentage points for all groups with education (n=1766) compared to groups without education (n=1859)* Increased use of mosquito repellant or insecticide in past two weeks: ▪ Difference of +9 percentage points for households in groups with education, compared to groups without education* ▪ Difference of +14 percentage points for mixed groups with education, compared to mixed groups without education* Increased percentage of households that had an insecticide-treated net in good repair in the house: ▪ Difference of +16 percentage for mixed groups with education compared to mixed groups without education* No significant differences were found in individual indicators for: use of mosquito nets, numbers sleeping under nets or numbers with treated nets in the home between all groups and groups with education or for mixed groups with and without education.	▪ Randomized control trial (RCT) evaluation in 138 villages in which credit was provided to all female groups and mixed (male and female) groups. Half of each type of group received education and credit, and the other groups received only credit.

** Statistically significant at p≤0.05.*

TABLE 3: IMPACT OF HEALTH EDUCATION *(continued)*

D. PADME (Bénin) CRECER (Bolivia) 26,296 clients with access to education	
Findings	**Study Methods**
HIV/AIDS PREVENTION Increased levels of people who knew that you cannot get AIDS from mosquitoes, sharing food or from supernatural means: ▪ Average difference of +6 percentage points for all groups with education (n=1766) compared to groups without education (n=1859)* Increased number who knew where to get a condom: ▪ Difference of +6 percentage points for all groups with education compared to groups without education* Increased number who could get a condoms themselves: ▪ Difference of +6 percentage points for all groups with education compared to groups without education* There were no statistically significant differences observed in use of a condom during last sexual intercourse or for women having talked to their husbands about not getting AIDS. **ANTENATAL AND CHILD HEALTH** There were no statistically significant differences observed in knowledge and behaviors between groups that received education and those that did not for antenatal care or child health.	

** Statistically significant at p≤0.05.*

Results across these four MFIs suggest that clients receiving health education through their MFIs benefited from increased health knowledge. In India, where education was targeted specifically at maternal and infant health and hand-washing, women reported changes in knowledge across all subjects except hand-washing and changed behaviors for feeding of babies and treatment of diarrhea in children that are known to have positive impact on improving child nutrition and survival. Survey error prevented an accurate comparison of women reporting exclusive breastfeeding for at least six months following birth. It is not clear why there were not similar improvements in hand-washing, and more inquiry would be useful here to determine scope and approach to achieve improved levels of this behavior to prevent diarrhea.

Data available from the National Health Survey 2005–06 for West Bengal enables a further comparison of client-reported behaviors with similar regional data. These data indicate that Bandhan clients had better health practices both prior to and following the introduction of the health program, than for the region overall.

TABLE 4: HEALTH PRACTICES OF BANDHAN CLIENTS AS COMPARED TO WEST BENGAL AVERAGES

Health Practice	Pre-Education Averages for Bandhan Clients	Post-Education Averages for Bandhan Clients	Comparable West Bengal Average*
Among women who have or care for child 12 months of age or younger, percentage whose child or child in their care was breastfed within 1 hour of birth	61%	96%	23.7% (for children under 3 years who were breastfed within one hour)
Women who were pregnant or had been pregnant in the past 18 months who visited a medical professional at least 3 times	85%	86%	62% (for mothers who had at least 3 antenatal visits for their last births, for births in last three years)
Women who had an ill child with cough in prior 2 weeks who sought advice or medical treatment when child had trouble breathing	88%	96%	74% (for children under 3 with acute respiratory infection or fever in the last 2 weeks taken to health facility)
Women who had a child in their household or care who had diarrhea in the last 3 months who treated that child with ORS	60%	88%	44% (for children under 3 with diarrhea in last 2 weeks)

** All indicators for West Bengal are taken from the National Institute for Population Sciences, National Family Health Survey 2005–06. Retrieved from: http://www.nfhsindia.org/pdf.West%20Bengal.pdf.*

At PADME (Bénin), credit with and without education were randomly assigned to groups in different villages with a total of four different interventions: all-female groups with credit only; all-female groups with credit and education; mixed-gender groups with credit only; and mixed-gender groups with credit and education. The results obtained at PADME indicate that villages receiving health education on HIV/AIDS and malaria performed better than credit-only villages in malaria and HIV/AIDS knowledge and behavior change. Out of the four product variants introduced, the mixed groups with education performed better in knowledge and behavior change than all-women groups with education. This somewhat unexpected result is perhaps not surprising in the context of rural Béninois culture in which women often rely on the financial and nonfinancial support or permission from men in their lives in order to make key decisions or implement changes.

Obviously, the goal of education should be to ultimately improve or change important behaviors with known positive impact on outcomes. Therefore, it is of particular interest that findings across all of the MFIs in which education was fully implemented and evaluated suggest improvements in health behaviors in one or more targeted areas, including prenatal health, care and feeding of young infants, use of insecticides and availability of good bednets for malaria prevention. Notably, there were also knowledge and behavior changes following the delivery of educational modules focused on preparing for and saving for future medical needs and use of health services in both Bolivia and the Philippines.

It is important to note in the case of PADME, positive differences in health knowledge and behaviors were detected in samples of residents of credit-with-education villages who were not PADME clients, demonstrating impact beyond the actual credit group participants. This conclusion that the impact of education reaches beyond those who actually receive education is further supported by findings with Bandhan where open health forums are frequently attended by women who are not Bandhan members. Women are encouraged to share the information from their learning sessions with others in their families and their communities. Pre- and post-test studies asked Bandhan clients whether they had ever given advice about a variety of topics to other people in their households or community. Across all health topics covered in the study, women reported much higher and statistically significant levels of providing advice to others on breastfeeding, ante- and neonatal care, and treating respiratory illness and diarrhea following the introduction of the health program than before, suggesting that information provided in a health-education session reaches many more than those who actually participate in the education.

Health Financing

Four of the MFIs included health financing products in their packages to address client demand for tools to help access, pay for and manage the costs of illness and accidents.

Three MFIs developed the capacity to offer health loans; in India, Bolivia and Burkina Faso the health loans are offered at lower interest rates than the microenterprise loans and with more flexible repayment terms to assist clients with paying for major health expenses such as surgery or other hospital-based services or extensive dental work (CRECER). A health savings product at RCPB allows clients to establish a special account devoted to health expenses. Clients with savings accounts in good standing can also apply for lower interest health loan for major health costs for themselves or a family member.

> *"We are poor country people living where life is expensive or where it is already painful trying to have enough to eat. When we have to invest our small incomes in health, this is even more punishment. We don't have a great way to get to the hospital, but if someone can give us ideas on how to prevent disease, we will apply these tips and save our children and ourselves."*
>
> –PADME client

The Filipino MFI CARD was the only institution to include health micro-insurance as part of the financing package. Annual premiums for the client and her family are financed through health loans and paid directly by CARD to PhilHealth, the government-sponsored social insurance program. Clients repay the loans with small, regular payments at the same time as they make MFI loan payments and savings deposits.

Table 5 presents key findings from studies to evaluate client satisfaction with and use of the health financing products.

TABLE 5: HEALTH FINANCING PRODUCTS

A. Bandhan (India): Number of health loans disbursed was 1,932 (12/09)	
Findings	**Study Methods**
▪ 84% of clients were relieved they could access health loans ▪ 98% would recommend the loan to others, and 80% would take out the loan again ▪ 62% felt able to afford other necessities as a result of loan availability ▪ One-third (33%) indicated that without a loan, they would have delayed treatment	▪ Individual in-depth interviews with samples of women who had used health loans (n=65)
B. CARD (Philippines): Number of active enrollees and premium loans was 13,651(12/09)	
Findings	**Study Methods**
After the second year of program availability, CARD reported a retention rate of 87% of enrollees.	▪ CARD enrollment and premium remittance records
Data from four different studies of clients with access to insurance, clients who had used the insurance, and those who had disenrolled from the insurance, yielded the following:	
▪ Most clients reported that the insurance was affordable (94%–98%), that it was useful (90%) and would recommend it to others	▪ In-depth interviews of randomly selected clients with access to insurance (n=166)
▪ Most common reason for not enrolling in insurance was a lack of information about available options and benefits	
▪ 88% of current clients with insurance reported that the insurance "helped a lot," 97% indicated that it gave them protection from health emergencies	▪ In-depth interviews of randomly selected clients who had enrolled in the insurance (n=40)
▪ 85% of clients with insurance preferred the weekly payments and 98% claimed the loan was within their ability to pay	
▪ 35% indicated that the insurance covered more than half of their total medical expenses and 58% that it covered half or less	
▪ Most clients who had disenrolled from insurance had either lost enrollment when they left the MFI or because they became eligible through another program; 85% of these exited members indicated satisfaction with either benefits, ease of use, security or low payment, and 73% indicated that the premium loan was within their capacity to pay	▪ In-depth interviews of 48 randomly selected clients who had disenrolled from the health insurance (n=48)
▪ 100% of clients in focus groups would recommend insurance to others	▪ Focus groups (12 groups)

TABLE 5: HEALTH FINANCING PRODUCTS *(continued)*

C. CRECER (Bolivia): Number of health loans disbursed was 256 (12/09)	
Findings	**Study Methods**
▪ Clients expressed high satisfaction with availability of health loans (77%), satisfaction with interest rates (80%) and size of loan (88%) ▪ 100% of clients who had used a health loan would do so again ▪ Health loan recipients had higher average healthcare expenditures than those who had not used loans and were less confident that they could take care of their health ▪ Clients with loans and those with access to health loans reported less frequently that cost prevented them from seeking treatment in the last year ▪ Health loan recipients reported reduced use of business (microenterprise) loan for health purposes	▪ Interviews of random sample of clients with health loans (n=34) ▪ Interviews of randomly selected clients who 1) access to and used health loans (n=41); 2) had access to but did not use a health loan (n=27); 3) clients who had no access to health loans (n=21). Sample sizes too small to determine statistical significance.
D. RCPB (Burkina Faso): Health savings accounts (12,099) and health loans (84 disbursed) (12/09)	
Findings	**Study Methods**
▪ Clients in the intervention area reported higher use of preventive care (24% in intervention compared to 9% in non-intervention area)* ▪ Clients in the intervention area were 2.6 times more likely to feel somewhat or very satisfied with their preparations to meet future health expenses* ▪ Clients in the intervention area were 3.7 times more likely to feel somewhat to very confident that they would be able to save for future healthcare expenses*	▪ Interviews with randomly selected clients with access to health savings and health loans (n=96) and of clients without these products (n=96). Data collected was partially quantitative and qualitative.

** Statistically significant at p≤0.05*

Findings regarding client satisfaction strongly suggest that the health financing products have been well-received by clients meeting needs for safe, secure and affordable sources of funds to finance healthcare expenses. Clients who had access to the health financing products reported previous use of part of their microenterprise loans to cover healthcare expenses, ranging from 11 percent (RCPB) to 48 percent (Bandhan). Clients reported that the loans, savings and insurance in various degrees improved their ability to access care, helped them with larger healthcare expenses and provided a source of funds that enabled them to maintain some privacy regarding their health needs. At CARD, the only MFI to experiment with health micro-insurance, the unusually high level of re-enrollment is an indicator of strong client value for this product.

At CRECER, it appears that the health loans reached clients who may have had greater health needs and concerns and who were more vulnerable to the impact of illness, as inferred from higher average health expenses and a lower level of confidence that they could protect their health when compared to groups who had not used a health loan. Furthermore, when CRECER clients who were health loan users were asked about use of their first regular group loan, [17] percent indicated that they had used some portion of their first loan for health expenses. When asked how they spent their current regular group loan, 4.9 percent indicated using it for health expenses, suggesting that those clients with a health loan were using their microenterprise loans less frequently for health expenses.

Some of the findings also suggest that health loans enabled clients to reduce waiting times or even gain access treatment that they might not have otherwise. In addition to client reports from CRECER that suggest

the cost of care may be less of a barrier for loan users than non-loan users, these clients also reported that without the health loans they would have resorted to a range of alternatives, including borrowing from family members (53.8%), selling personal belongings (24.4%), taking a loan from another institution (14.6%) and 12.2 percent would not have gotten the health service at all. Similar findings from India indicate that one-third of health loan clients would have delayed or not received recommended treatment. At RCPB, clients with access to health savings and loans indicated they were able to seek treatment more quickly and reported greater use of preventive services.

Although these tools appear to help, not all financial worries were eliminated. Health loans at Bandhan are limited to about US$100 per loan, have ranged from $40–$100, and often do not cover all health expenses, sometimes leaving members with a need to borrow from other sources. Health insurance for CARD members provides coverage of many hospital expenses, yet 58 percent of interviewed clients who had used the insurance reported that it paid for half or less of their total costs of care, with the difference made up from savings and borrowing from families or friends. Of CRECER clients receiving health loans, 63.4 percent reported that the loan did not cover all of their expenses and cited costs for medicines, follow-up care, emergency transport, physical therapy, special studies and medical equipment as exceeding the available loan amount. Clients covered these through additional funds from families, their business earnings, savings and from their microenterprise loans. Client reports from RCPB indicated that the combination of financing tools such as health savings and health loans may create greater levels of security, providing a source of money for more frequent and less costly needs (savings) and less frequent but higher-cost health events (health loans).

> *"When you go to the market in the morning, you never know what will happen, but when you have the health savings and can get a health loan, you have the security of knowing that if you have a problem, you will be protected."*
>
> –RCPB client

Access to Health Services and Products

Improving health knowledge and providing additional capacity to finance healthcare costs have the potential to address two key barriers to health for the poor. However, a range of supply-side issues must also be addressed to improve access to health services and products.

The MFIs in the MAHP initiative used a range of mechanisms to link or extend access for their clients to local health services and products, in lieu of developing and providing health services directly. At Bandhan, the community health volunteers, who are credit-group members from the local community, play an active role encouraging women to visit local health centers to obtain prenatal and other preventive care, and to seek early care for illnesses that do not improve. Selling a variety of competitively priced health products such as paracetemol, antacids, oral contraceptives, oral rehydration salts, hand soap, de-worming medication, and more; the volunteers also provide instructions for how and when to use products, and they often follow up to make sure that problems such as diarrhea or fever have been resolved.

CARD's "preferred provider network" enables clients to access approved local, private healthcare providers, with discounts that range from 10 to 30 percent off regular fees. The network providers are selected by CARD using client feedback about providers they would prefer to use and with an eye towards increasing

geographic access for as many clients as possible. Providers are evaluated using a simple checklist that helps evaluate quality and availability of the services needed by clients.

CRECER also has formal agreements in place with health providers who agree to provide services to CRECER clients at reduced fees and who accept direct payment from CRECER for clients who are paying for care with health loans. Contracted providers staff the local "health days" during which clients receive a range of diagnostic and preventive services that include screening tests for high blood pressure, cervical cancer and diabetes; sonograms to detect gallbladder disease; dental examinations and fluoride treatment; optical exams and referrals for glasses as needed; and sometimes other services, depending on local needs. CRECER credit agents also routinely encourage and refer clients to visit local public health centers for preventive care.

And finally, at PADME, insecticide-treated nets were sold at reduced rates in the villages by the credit agents to clients who were also receiving education on how to prevent and manage malaria. An initial supply of nets was secured using donor funding, with proceeds from sales intended to finance an additional stock of nets for future sales.

Table 6 summarizes findings from studies of these different interventions.

TABLE 6: LINKAGES TO HEALTH SERVICES AND PRODUCTS

A. Bandhan (India): Referrals to public and private providers and access to health products in local villages (52,900 clients with access as of December 2009)	
Findings	**Study Methods**
▪ 90% of groups were satisfied with product availability and also asked for additional products ▪ 100% of groups indicated that the community health volunteer had referred them for care when they were very sick ▪ Community-health volunteers reported that clients value the convenience and privacy of being able to access medicines Women who indicated that they had received active advice and referrals from community health volunteers: ▪ Children with diarrhea in the past 3 months (81%, n=52) ▪ Children with acute respiratory problems in the past 2 weeks (80%, n=180) ▪ Pregnancy and antenatal care (36% , n=121) ▪ Neonatal care (77%, n=180) ▪ 40% of new mothers (n=78) were visited by a community health worker within 48 hours of birth to provide advice and identify need for referrals Use of health products: ▪ 41% of respondents had purchased ORS from the village health volunteers (n=180) ▪ 88% of women reporting a child with diarrhea (n=42) within last three months gave the child ORS	▪ Client focus groups (10 groups, 80-100 clients) ▪ Individual interviews with active community health volunteers (n=35); inactive volunteers (n=7). Focus groups with active community health volunteers (9 groups) ▪ Baseline and follow-up studies administered about one year apart

TABLE 6: LINKAGES TO HEALTH SERVICES AND PRODUCTS (*continued*)

B. CARD (Philippines): Network of health providers with discounted fees. 139,774 clients with access (12/09)	
Findings	**Study Methods**
▪ 9% of clients reported use of a network-preferred provider ▪ 100% indicated a positive experience with accessing a network provider and would recommend to others ▪ A greater number of clients reported problems with accessing affordable medicines (35% increase) ▪ A greater number of clients reported their first choice of care (when possible) would be private provider (from 29% to 53%)	▪ Pre- (n=100) and post-test (n=100) cohort studies using in-depth interviews one-and-half years post-introduction of intervention
C. CRECER (Bolivia): Mobile health providers providing preventive and diagnostic services in community health days and referrals serving 23,900 clients (12/2009)	
Findings	**Study Methods**
"Health Day" Participants: ▪ 24% of health fair participants reported never having visited a medical provider before ▪ 83% of participants were comfortable with the care received at the health fair ▪ 22% of participants reported that they did not seek care when needed because of lack of money, compared to 50% of those who did not participate in a health fair Entire sample (participants, non-participants): ▪ 56.6% of all clients interviewed indicated that they had a chronic disease (gall bladder, high blood pressure, digestive problems) and more who attended a health day reported having a chronic disease ▪ More than half (66%) of the clients reported not treating or not properly treating health problems (not purchasing prescribed medicines and/or not taking dosage prescribed, not seeing a doctor when sick, stopping treatments), and 24% reported that they had not received needed dental attention	▪ Interviews of randomly selected clients who 1) had participated in a "health day" (n=41); 2) had access to "health days" but had not participated (n=22); 3) did not have access to a "health day" (n=20). *(Sample sizes too small to determine statistical significance)*

TABLE 6: LINKAGES TO HEALTH SERVICES AND PRODUCTS *(continued)*

D. PADME (Bénin): Sale of 1000 insecticide-treated bednets	
Findings	**Study Methods**
Availability of bednets and member appreciation was important factor or driver of overall satisfaction with PADME program. Use of mosquito nets: ▪ Villages with mixed-gender groups that received education are more likely to have obtained a mosquito net in the past three years (.12 compared to -0.030 standard deviation units) than villages in which mixed groups did not receive education ▪ Residents of villages with mixed-gender credit-groups that received education were more likely to have a good net in their household (85% with nets) compared to mixed-gender groups with no education (69% with nets)* ▪ Respondents in villages with mixed gender groups are more likely than women-only group villages to have a mosquito net in the home (74% vs. 68%)* for groups with and without education. ▪ Residents of villages with mixed-credit groups receiving education were more likely to have a mosquito net in the home than were residents of villages with women-only credit groups receiving education (75% vs. 67%)*	▪ Client satisfaction study with 36 focus groups and 10 key informants (n=467) ▪ Randomized control trial (RCT) evaluation in 138 villages in which credit was provided to all-female groups and mixed (male and female) groups. Half of each type of group received education and credit, and the other groups received only credit.

** Statistically significant at p≤0.05*

Linkages to Health Services

Quantitative and qualitative data suggest that the various linkages between MFI clients and health providers afforded clients with services that were more convenient and often provided in their own village; that they appreciated greater choice of providers, especially private providers; and that savings were realized through discounts or other negotiated fee levels. A majority of CRECER clients (63%) paid less than $3 for services received at the health fairs and many spent nothing at all, and CARD clients reported that they saved money with every visit to a network provider.

The research studies do not provide enough information about utilization patterns over a sufficient period to reliably assess the extent to which the greater availability of more affordable health services has or will increase use by MFI clients. For example, although a large percentage of women reported receiving referrals from Bandhan community health workers, the studies do not enable tracking and measuring the number who actually sought the needed care. However, the participation rates in the health fairs by CRECER clients and the active role that the Bandhan community health volunteers play in encouraging use of local health providers for preventive and curative care are important structural and process interventions that are supportive of greater access over time. CRECER's health fairs may be creating access to medical services for the dramatically underserved, as 24 percent of the attendees in one survey reported having never before visited a medical provider. In addition, the availability of care at the health days may have been an important contributing factor to higher use of preventive services by CRECER clients in the intervention area as compared to an area in which clients were less likely to have been able to access these services.

At the same time, 31 percent of clients with access to the "health days" (n=63) at CRECER reported that during the past twelve months they had not sought medical treatment for an illness due to costs. Although this is lower than for those without access to the "health days" (50%, n=20), it suggests a remaining gap

between client need and affordable and available services. At CARD, the study conducted one year after implementing the provider network showed very low use rates. However, about two years later, CARD data from administrative records indicated that visits had continued to steadily increase, suggesting that it takes time to change long-established care patterns characterized by very low use of preventive care and delaying other care until illnesses are more severe.

> *"We are with CRECER because we can reach rural communities through them. CRECER's clients are poorer than our typical patients, and therefore we are appreciative to be able to access this population. This alliance will help prevent reproductive health-related illnesses."*
>
> —Doctor, Marie Stopes International, Bolivia

Once again, the impact and potential benefit of these linkages extended beyond the MFI clients to the broader communities in which clients live, which are typically rural and medically underserved areas. CARD's establishment of a network of contracted private providers, in an area with a chronic shortage of physicians and other health professionals, has been very successful and is being extended with the goal of eventually providing access to all CARD members throughout the Philippines. Beyond providing expanded choice of healthcare providers to CARD members and their families, CARD also intends for this program to mobilize local resources to help improve the predictability of income for health providers, enabling them to remain in practice and even encourage others to locate in the underserved areas, for the benefit of the entire community.

At Bandhan, the health community organizers and village-level health volunteers have forged informal relationships with local public-health providers and informal providers, meeting with them and inviting their attendance at community-health forums to help improve accuracy and consistency of health information and community-wide health provider practices such as safe birth practices. Bandhan's community-health volunteers have been enlisted by the public health service as extenders of local health campaigns such as oral polio vaccine distribution. And CRECER's regular health days are open to relatives and friends of clients, while larger health fairs are held periodically and organized as multi-day community-wide events with health education activities and a wider range of diagnostic services available to all for a very low or no charge.

Health Products

Assuring access for poor MFI clients to essential medical supplies and affordable medicines is an ongoing challenge. Bandhan's approach, modeled after a similar program at BRAC, appears to be yielding a small amount of income for the community health volunteers, and enabling clients to act on new knowledge obtained in community-health forums by accessing basic but important health products such as ORS, water purification tablets, de-worming medicines, oral contraceptives and more. The number of women who purchased ORS from the community health volunteers (41%) and used them to treat children with diarrhea (88%) is very encouraging evidence about the value of combining education and health products in an MFI setting to reduce the risk of childhood mortality. Although revenue from product sales is not currently a significant source of income for the volunteers selling products, after two years of program operation, turnover was extremely low, suggesting that the role that Bandhan has created and supports for these women provides valued non-economic benefit.

The distribution of insecticide-treated mosquito nets at PADME by the credit officers to credit groups that were also receiving education on prevention and treatment of malaria is another approach to getting needed health products into the hands of poor families. Clients welcomed the availability of affordable nets, and data from the randomized control study indicates a statistically greater likelihood to have a treated net of good quality for families in areas in which education was provided to mixed-gender groups than for those areas in which similar credit groups did not receive education.

> *"We appreciated the sale of the mosquito nets very much because it was not expensive. Since we have used them, our children fall less and less sick."*
>
> —PADME client

CARD has recently begun the pilot of an affordable medicines program that links generic drug supplies to independent local pharmacies, providing pharmacies access to a dependable supply of low-cost, quality products. The pharmacies in turn agree to support CARD's efforts to educate members about use of generic drugs, to provide discounted or minimum retail prices to CARD members, and to work with local CARD entrepreneurs (who operate convenience stores) to supply non-prescription generic medicines in more remote areas. Over time, CARD hopes to reduce costs and improve geographic access to essential drugs.

Analysis

The MFIs that were part of the MAHP initiative have successfully demonstrated that a range of relevant and cohesive health protection options can be provided by MFIs to improve health knowledge, health behaviors and the ability of poor families to access and manage the costs of healthcare expenses. The initial target was for each MFI to reach 5,000 clients with its health protection packages; however, at the end of the initiative in 2000, each MFI had significantly exceeded this target and were collectively reaching a combined total of 300,000 MFI clients.

Improved Health Knowledge and Behaviors

The findings from the MAHP initiative indicate that health education provided by MFIs is an important intervention with proven capacity to change knowledge and behaviors associated with important and measureable health outcomes as diverse as improvements in nutritional status, increased child survival rates, and decreases in incidence of morbidity from infectious and non-communicable disease. Results from the various research studies across multiple MFIs and settings are consistent with those from other research studies in which the combination of health education and microfinance services was associated with significant improvements in client health knowledge.[15] In the Dominican Republic, Dohn et al. found significant improvements in the treatment of diarrheal illness for MFI clients in credit groups that received health education as compared to credit groups without education.[16] In Ghana and Bolivia, longitudinal research found that mothers' health and nutrition practices can be changed by programs that integrate village banking and child survival education with resulting behavior changes in breastfeeding and management of diarrhea, thereby producing significant height and weight-for-age improvements for children of participants.[17] Another recently published study of MFI clients in rural Ghana found a malaria education program to be effective in increasing knowledge measures as well as behaviors such as purchase and use of mosquito nets.[18]

Results from the work described in this paper as well as the published literature indicate that the impact of health education can be both significant and realized within relatively short periods of time, making a strong case for rapidly replicating and scaling health education within MFIs whenever possible. Further, this work strongly suggests that when health education is supplemented with other related health benefits such as health financing tools and linkages that help to increase access to health providers and products, the impact can be even greater.

An additional and somewhat unanticipated outcome of the MAHP programs was the embedded capacity to communicate and educate when public health crises emerged, efficiently delivering key messages to clients throughout a region or even a country. During 2009, both CARD and CRECER quickly organized and delivered education on prevention of H1N1 influenza to all of their MFI clients, reaching nearly 1 million poor families in the Philippines and 100,000 in Bolivia in a short period. CARD mounted a similar campaign on leptospirosis when a severe outbreak threatened rural areas in the Philippines. It is difficult to overstate the potential importance and public health impact of these large networks that enjoy trusted relationships with poor families and that can quickly mobilize resources to potentially reduce the impact of outbreaks of infectious disease.

Improved Capacity to Manage Costs of Illness

Data and information collected through year-long financial diaries from hundreds of poor families in India, Bangladesh and South Africa and described and analyzed by Collins et al. in Portfolios of the Poor: How the World's Poor Live on $2 a Day,[19] clearly illustrate how irregular and uncertain incomes challenge the poor as they struggle to meet the demands of meeting basic household-consumption needs, including health. The authors report that the average poor household used 8–10 different types of financial instruments, both formal and informal, and that while they continued to use the informal sources (loans from families, moneylenders, tontines, etc.), they strongly valued the reliability of the formal instruments available through micro-lenders. The experiences recorded in Portfolios of the Poor are consistent with findings from use of the health financing tools at the MFIs that were part of the MAHP initiative. Health loans, health savings and health insurance were viewed by clients as one of perhaps several important sources of health financing available when they needed to cope with the often unpredictable nature of health expenses. Clients at RCPB and CRECER repeatedly reported that they valued the ability to access health loans through their MFI and preferred the loans over seeking funding from family and friends and the accompanying uncertainly and loss of dignity.

The use of health loans and health savings as part of the array of financial instruments available to the poor to weather the impact of illness has not been widely tested and there is little to draw from in the literature or from other experiences for relative comparisons of results. The experience of CARD with micro-insurance is consistent with observations and conclusions from other studies, indicating that health micro-insurance provides financial protection for poor households and improved access to health care. In India, Dror et al. found that three different low-cost insurance schemes enrolling poor households raised use of hospital services.[20] Retention rates were also high even if somewhat lower (50%–72%) than those achieved to date by CARD (87%); and the studied schemes were judged to have enjoyed success in attracting and providing financial protection to enrolled members. Similar to the CARD experience, caps on benefits meant that the insurance was inadequate for higher-impact health events.

Clearly the clients of the MAHP MFIs valued their ability to access health financing products from organizations that provided transparent and reliable terms and at rates that were lower than could be obtained from other sources. They also valued the way in which these tools enabled them to secure at least some of the money needed for healthcare expense without losing their dignity and privacy. Nevertheless, health loans and health savings, even when combined, have limitations with respect to how adequately they can protect the poor from health shocks. Both still depend on the ability of very poor individuals to either save or repay borrowed money for healthcare costs that often represent substantial portions of their total incomes. Clients also reported that when healthcare expenses were large, these financing options still left gaps that required them to find funds from other sources.

Health micro-insurance provided through linkages similar to the one developed by CARD provide significant (if still somewhat inadequate) financial protection and increase the ability of the poor to access care when needed. MFIs are trusted agents with the capacity to reach many poor families with existing low-cost delivery channels to enroll members and collect premiums, with the added advantage of being able to provide financing so that annual premiums can be paid over time with small regular payments. MFI-client education can be targeted toward appropriate use of insurance benefits and even toward goals of reducing the incidence and cost impact of common diseases that contribute to unneeded suffering, loss of productive time for clients, and claim costs for insurers. Needed here are more health insurance options, both public and private, that meet the needs of the poorest consumers, as well as more willingness on the part of MFIs and insurers to create partnerships that further explore the potential for significantly extending health insurance to the poor.

Our studies did not span time periods that help determine to what extent these new financing tools will reduce the longer-term risks associated with healthcare costs for poor families. Additional research is needed to look at the impact of these and other interventions over longer time periods and to examine the extent to which these types of health financing products improve both health and financial security of poor families. There is also scope for demonstration and evaluation of combinations of financing tools such as health savings and health insurance.

Improved Ability to Access Healthcare Services

Several of the MAHP partners were able to demonstrate improvements that are possible through developing linkages between MFIs, on behalf of their clients and families, and existing private and public healthcare providers of all types. The MFI-negotiated provider contracts and referral arrangements, the use of community-health volunteers to provide advice and encourage clients to seek preventive and sick care, and health fairs that bring providers directly to remote areas, helped mitigate some of the barriers to care faced by the rural poor. Providers demonstrated not only willingness but also enthusiasm for forging relationships with the MFIs to reach greater numbers and at price points that enabled more of these poor families to afford and access care. Private- and public-health providers in Bolivia, India and the Philippines quickly recognized the potential for MFIs to help them both increase their market share and efficiently extend their services to otherwise difficult or unreached families to achieve public health goals. These provider linkages, along with the deployment of community-health volunteers and credit agents to put essential health products directly into the hands of poor clients, are examples of how health providers and suppliers can use the established, trusted and sustainable delivery channels of MFIs.

As our experiences support, these MFI-health linkages do not need to be difficult to establish or maintain, and they provide benefits to each set of stakeholders—MFI clients, health providers and the community—creating better access and mobilizing local resources to sustain and improve the quality and supply of local health resources. Linkages between MFIs and health providers provide low-cost channels to reach the poor with low-cost and effective healthcare services and products and as such are well worth further investment, innovation and evaluation. The use of trained and well-equipped community health volunteers, referral relationships for primary care and specialty care, social franchise models that deliver low-cost and safe medicines and medical products are all in demand by the poor, who continue to demonstrate their willingness to pay something for quality services and products that are accessible, safe and reliable.

Financial Sustainability

Other research conducted during this initiative presents evidence that these health protection options are practical and low cost for MFIs to provide, that they provide competitive advantage, and contribute added net social value to their communities.[21] Evidence from in-depth cost and benefit studies indicate that health protection options can be inexpensive for MFIs to provide when looked at on an annual cost-per-client basis, and in some cases can even earn a profit. Health protection options can also differentiate an MFI in a competitive market, enhancing client loyalty, and lead to other advantages that have indirect but quantifiable impact on MFI growth and net income. Findings also indicate that these health protection options generate value for clients that exceeds the MFI's costs of providing them, creating net social value and contributing to social mission. By mid-2010, all of the MFI partners were actively expanding their health programs to reach greater numbers of clients.

Implications and Conclusions

MFIs represent a vast and growing distribution network and an important platform for reaching the poor with health knowledge and information, providing financing tools to help them manage the costs of illness, and improving the availability of and access to essential healthcare services and products. Relatively modest investments to support replication of health protection options and results like the ones described in this paper, along with further innovation of financing tools and healthcare provider-MFI linkages, have the potential for substantial financial and nonfinancial benefits for the MFIs, their clients, healthcare and health insurance providers and the broader community. Adding health services and products for even 10 percent of current MFI clients around the world would reach over 75 million of the poor, providing the potential to prevent and improve management of common diseases, reproductive health and care in the first year of life and to reduce the heavy burden of poor health on upward progress towards achieving greater food and financial security. Hundreds of MFIs would gain competitive advantages accruing from greater client satisfaction, enabling even greater reach to the poor, and contribute to their social missions as they add services that are proven to meet important needs of their clients and communities. Finally, healthcare providers and health micro-insurers would find new markets and low-cost distribution channels to reach remote areas and populations that are currently difficult and expensive to access, with the added advantage of reaching customers who, through their MFI participation are more likely to be informed and receptive to appropriately using health services and products.

The link between poverty and ill health is longstanding, and the heroic, yet typically separate efforts of the microfinance and public health sectors to address these issues are not new. But we are now on the

cusp of combining the important incremental contributions of both sectors in an efficient, sustainable and holistic manner for real and meaningful function integration for substantial population health impact. And the leap ahead for very poor people, as a result of integrated microfinance and health services, is likely to be exponential.

Endnotes

[1] Complete research reports that describe individual studies, methods and results, as well as other initiative papers on costs and benefits and financial impact at each MFI are available at http://www.ffhtechnical.org/.

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