



MAHP Research Summary Report: Bandhan

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MAHP Research Summary Report: Bandhan

EXECUTIVE SUMMARY

From January 2006 until December 2009, Freedom from Hunger worked with the microfinance organization Bandhan in India to pilot new health protection products for its existing microfinance clients as part of a global initiative. Funded by the Bill & Melinda Gates Foundation, the Microfinance and Health Protection (MAHP) initiative piloted health protection innovations with four additional microfinance organizations, following the development of these innovations from market research through initial implementation and scale. Through the market research, Bandhan identified pressing health needs and concerns of its clients and designed four products to address these issues: health education forums, health loans, health product distributors and linkages to healthcare services.

A key component of the MAHP initiative also included conducting research activities to document evidence of the effects that these new products had on clients. The eight separate research activities executed identified interesting findings, which have been synthesized in this report to provide a holistic understanding of the performance and reception of these products. Although the research designs and data-collection methods varied in rigor, the outcomes are expressed in general terms as indications of program performance. We are cautious not to overstate the meaning of the data but attempt to use it to provide insight into understanding how the clients use the health protection products as well as their general satisfaction with them.

The most striking results regarding the health education forums and health product distributor programs comes from a Client Outcomes quantitative survey, which had a pre- and post-test design. The education forums initially delivered messages on various health topics, and the Swastha Sahayikas (SS) reinforced these messages when making visits to the homes of Bandhan clients to sell health products. A survey was implemented before and after a series of health forums that focused primarily on maternal and child health. Statistically significant outcomes were found regarding the following knowledge and behavior indicators:

- Knew a child should be breastfed immediately or within one hour after birth.
- Reported their child or a child in their care, 12 months or younger in age, was breastfed immediately or within one hour of birth.
- Knew a child should be exclusively breastfed for six months.
- Knew they should add oil, protein or vegetables to the first foods given to their babies to make the foods more nutritious.
- Reported introducing complementary foods into a child's diet at age six months or older (post-test outcome climbed to level of West Bengal state average).
- Knew a child should be dried and wrapped immediately after birth.
- Treated child in their household or in their care who had diarrhea with Oral Rehydration Salts (ORS).
- Treated a child in their household or under their care who had diarrhea with appropriate special liquids at home, such as coconut water, lentil water or rice water.
- Gave advice to others on breastfeeding and malnutrition, antenatal care, neonatal care, acute respiratory illnesses and/or how to treat diarrhea.

While the outcomes captured in the research indicate the effectiveness of the education and SS program, it should be remembered that improvements could be made to some education topics to achieve stronger results. No meaningful improvements were made in reported incidents of hand-washing (with or without soap); however, although the data was unclear, improvements could likely be made in areas of iron tablet supplementation and administering proper amounts of food to young children.

The SS program proved valuable to Bandhan clients and their families, as well as being a source of pride and satisfaction to the SS herself. The clients appreciate the availability of trusted medicines, personal consultations in convenient locations, and referrals at all hours. Clients have developed intimate relationships with the SS and feel confident approaching her about personal issues such as birth control. The SS have gained enough pride and prestige from their status that low profit margins from health product sales do not deter them from joining and maintaining participation in the program; the prestige gained within their community compensates for the low earnings. Being an SS is not uncomplicated, though; one needs to have time and flexibility in her schedule since personal conflicts can cause her to drop out of the program. Despite some challenges, there is much motivation to continue participation in the program and they highly recommend it to others.

Bandhan clients who had taken out a health loan greatly appreciated access to the money and felt gratitude for its assistance. The cost of healthcare services is a significant and recurring constraint on other household expenses and many clients either use business loan money or purposely postpone purchasing other needed items in order to pay for medical costs. Access to the loan decreases the amount they must find or borrow from other sources, and most felt the interest rate was sufficiently low. Clients appreciated the efficiency by which they could access immediate funds and expressed that the loans enabled them to seek treatment for themselves sooner. An impressive 98 percent of the respondents would recommend the loan to another member.

It is clear from the results of the research that Bandhan has executed a highly successful pilot program of health protection products. Evidence of positive changes in important maternal and child health knowledge and behaviors as well as high levels of client satisfaction indicate that the health education and SS programs are effective and well received. The presence of SS has not only provided easily accessible health resources for much-needed health products and information, but has also provided empowering roles in the community for the women who serve as SS. Bandhan clients expressed a great appreciation for access to the health loans, as well as a desire for increased loan sizes, since additional funds at a low interest rate would help them further cover healthcare costs. These products are popular and add to general client satisfaction of Bandhan, which likely adds to client loyalty towards the institution as a whole. The Bandhan health innovations stand out as impressive examples for other microfinance organizations to adopt as effective health protection programs.

We are most appreciative of the support from Mr. Chandra Shekhar Ghosh and the staff at Bandhan, as well as the willing participation of Bandhan clients, for making these studies possible.

INTRODUCTION

Many microfinance institutions (MFIs) have witnessed the significant impact that common health shocks can have on their clients' ability to repay, save and flourish in their microenterprise endeavors. These MFIs seek sustainable approaches that help safeguard their clients' health while also protecting the institutional bottom line.

Freedom from Hunger, a recognized expert in integrated financial and nonfinancial services for the poor, launched the Microfinance and Health Protection (MAHP) initiative in January 2006 with funding from the Bill & Melinda Gates Foundation. This initiative enabled Freedom from Hunger to add new health protection products to existing microfinance programs, including healthcare financing, health savings, health education or other services as identified through market research. The pilots for these new products were implemented in Benin with PADME, in Bolivia with CRECER, in Burkina Faso with RCPB, in India with Bandhan and in the Philippines with CARD.

In keeping with Freedom from Hunger's longstanding commitment to measuring progress and documenting effectiveness, the grant also underwrote impact studies and other assessments of MAHP-related innovations. The overarching goals for conducting this research centered on addressing the following two key research questions:

- 1) Whether the provision of these health products improves client well-being
- 2) Whether the provision of these health products improves institutional performance

As the MFIs introduced and implemented new products, Freedom from Hunger worked with them to design and conduct relevant research activities to answer these questions. Various activities assessed client well-being in regards to the individual MFI's products and services, and other activities addressed specific aspects of institutional effectiveness in order to better understand how certain factors affected project implementation.

This paper provides an overview of the research activities organized by Freedom from Hunger to examine the MAHP innovations implemented by Bandhan in India. The paper is organized by first providing general background information on Bandhan, the prominent health issues that the products were designed to address, and a general description of the products and their outreach. Next, the paper outlines the research goals, activities and timeline, and the key results. Last follows a discussion section interpreting the key results with a short conclusion.

Bandhan

Bandhan opened its first microfinance branch in July 2002 in the Howrah district of West Bengal. By 2007, Bandhan had received numerous industry awards and was ranked second in Forbes magazine's list of the World's 'Top 50 Microfinance Institutions. Bandhan provides microenterprise loans, microenterprise development, education, health and disaster management services for "socioeconomically disadvantaged" people, focusing especially on urban and rural women who are poor, landless, and lacking in assets. Bandhan started with the aim of impacting women's empowerment believing that enhancing the status of the woman in the family and society, through her ability to generate income, would reduce poverty. Recognizing that financial services alone cannot alleviate poverty, Bandhan developed health protection services beginning in 2006 to better

accomplish its mission of improving the living conditions of clients and their communities, while also protecting the MFI's own financial sustainability.

Table 1: Institutional Data on Bandhan*

Year MFI established	2002
Number of active borrowers	1,924,016
Outstanding gross portfolio	234,768,206
PAR 30	0.16%
Operational self-sufficiency	NA
Year started <i>Credit with Education</i>	2007
Number of members in credit group program receiving <i>Credit with Education</i>	51,900

*Data as of December 31, 2009; provided from routinely collected MAHP Indicators.

Healthcare Concerns in India

Health status indicators have improved nationally as a result of public health interventions, infectious disease prevention and control, and greater use of modern medical practices; yet substantial discrepancies persist across regions, incomes and castes. Infectious diseases such as malaria and tuberculosis continue to account for high levels of morbidity and preventable death, and HIV/AIDS is a growing concern. Some clients lack important knowledge and health products to recognize and treat common yet potentially serious illnesses, such as diarrhea in young children. Diarrhea is the second leading cause of death among children, and knowledge of appropriate treatment remains low. Acute and chronic illnesses such as cancer, heart disease, diabetes and gynecological problems are on the rise. Bandhan clients report that they spend up to 20 percent of their monthly income on health-related expenses.

Bandhan clients indicate that their most pressing concern is not the availability or quality of healthcare services, but rather their inability to pay for specialty and inpatient hospital care when needed to treat serious illnesses and accidents. During emergencies and serious illnesses, people rely on relatives, friends and neighbors for financial assistance. Failing support from these sources, they turn to moneylenders to whom they pay exorbitant rates of interest.

Private health care has little access to rural areas, as it is primarily found in larger towns and cities and is beyond the means of most Bandhan clients. In seeking health care, people generally look for free medical services. In order to reduce health expenses, most clients try to treat common diseases themselves with home remedies and herbal medicines, or consult a local faith healer. People will sell or mortgage their possessions to pay for healthcare expenses from specialists and hospitals, or delay or forgo life-saving medicines and treatments until they can afford to pay, risking complications and in extreme cases, death.

MAHP Health Protection Products for Bandhan

The design of Bandhan's health protection services reflects the particular demands of the local population, as revealed through an analysis of the health economy profile, in conjunction with in-depth market research. In the research, Bandhan's clients expressed the need for assistance with healthcare financing and for health education. Bandhan then created a combination of health protection products for the MAHP project that included the following:

- Health education

- Health loans
- Health product distributors
- Linkages to health care

Bandhan hired and trained Health Community Organizers (HCOs) to provide health education to Bandhan clients with the goals of increasing knowledge and influencing behaviors of maternal and child health, and potentially reducing the incidence of common, preventable diseases. Trained community health volunteers called SS reinforced health education messages and further supported behavior change by providing access to affordable, high-quality health products such as ORS, paracetamol, de-worming medications, antacids and oral contraceptives. Bandhan also built collaborative partnerships with local public health professionals to improve the quality, effectiveness and use of local services by allowing the SS to refer community members for medical assistance.

Bandhan created health loans to enable members who encounter major medical problems to pay for the care they need, and to repay slowly over time, while protecting their business assets. Bandhan also does this at a lower interest rate than the business loan; at the time of pilot program, the interest rate on the business loan was an annual flat rate of 12.5 percent and for the health loan, an annual flat rate of 10 percent. Health loans are typically held for up to one year with flexibility on frequency of repayments, whereas business loan terms are fixed.

All four MAHP innovations were piloted in the administrative branch areas of Bagnan, Birshibpur and Shyampur of the Howrah district, and later expanded in branches in the district of Murshidabad. Table 2 showcases general institutional program indicators that demonstrate the expansion of outreach from the launch of the products in early 2007 through the end of the project in December 2009. The data reflects information reported by Bandhan to Freedom from Hunger.

Table 2: Bandhan's MAHP Health Protection Product Outreach

Monetary figures=USD	December 2007 (data for 3 pilot branches)	December 2008 (data for 3 pilot branches plus 2 branches in Murshidabad, unless otherwise noted)	December 2009 (data for 3 pilot branches plus 7 branches in Murshidabad, unless otherwise noted)
Number of active borrowers	761,565	1,228,698	1,924,016
People receiving full MAHP package	11,758	14,459	51,900
Percentage of active borrowers receiving full MAHP package	1.5%	1.2%	2.7%
Number of members receiving education during forums	8,299	14,459	51,900
Outstanding health loan portfolio balance	\$6,110	\$57,848*	\$34,409**
Number of outstanding health loans	117	1,051*	826**
Average outstanding health loan balance	\$52	\$55*	\$42**
Number of health product distributors/SS	26	150	298
Products being sold at time of reporting date	ORS, paracetamol, antacid	Antacid, paracetamol, oral contraceptive pills, cotton, pregnancy tests, adhesive bandages, ORS, de-worming pills, antiseptic lotion, sanitary napkins	Antacid, paracetamol, oral contraceptive pills, cotton, pregnancy tests, adhesive bandages, ORS, de-worming pills, antiseptic lotion, sanitary napkins

*Data reported to Freedom from Hunger by Bandhan that represents all branches offering health loans as of December 2008, which extends beyond the three pilot branches and two branches in Murshidabad. Bandhan makes health loans available in all branches that have been operating for more than two years.

** Data reported to Freedom from Hunger by Bandhan that represents all branches offering health loans as of December 2009, which extends beyond the seven pilot branches and two branches in Murshidabad.

Bandhan's Research and Evaluation Goals and Activities for MAHP

A key component of the MAHP initiative was to provide evidence of the effects that integrated MAHP products have on MFIs and their clients. The MAHP research and evaluation activities for Bandhan included the documentation of both quantitative and qualitative results across all of the MAHP package components. Research design and data collection for client-level and institutional-level indicators began in 2007 and continued through December 2009.

For Bandhan, as with all five MAHP partners, the evaluations drew on data collected from individual client interviews, focus-group discussions (FGDs), institutional assessment exercises and MAHP institutional indicators to examine two primary questions:

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

In order to address these questions, Freedom from Hunger worked with Bandhan to design and implement research activities that looked at various aspects of the MAHP innovations. It should be noted that the data collection and analysis efforts to answer Question #2 regarding stronger institutional performance are detailed in a separate report on the cost-benefit analysis, entitled *Costs of Health Education and Health Product Distribution: Bandhan's Experience with Microfinance and Health Protection in India*. The description of data collection and analysis efforts, which focus on impact on client health and financial status, are included only in this report.

The final list of accomplished research activities reviewed included eight activities within seven main study areas, as outlined below.

1. CLIENT OUTCOMES QUANTITATIVE STUDY
 - a. Baseline and Follow-Up
2. SS OUTCOMES STUDY
 - a. SS Outcomes Survey (current and exited SS)
 - b. SS FGDs
3. COMMUNITY OUTCOMES QUALITATIVE STUDY
 - a. FGDs on HCO education forums and SS program
4. IMPACT STORIES
 - a. Qualitative interviews
5. HEALTH LOAN USE STUDY
 - a. Qualitative interviews
6. COMPETITOR'S ANALYSIS
 - a. Desk study
7. ENABLING ENVIRONMENT
 - a. Desk study

The timeline for data collection during these specific activities covered the period from May 2008 to July 2009.

KEY RESULTS

The following section of this report provides descriptions of the methodology and key outcomes for each research activity for Bandhan's MAHP innovations organized by Freedom from Hunger. Note that study design, sampling methodologies and sample sizes vary per activity. Most results are based on a one-point-in-time observation, but for those studies that compared data from two points in time, we cannot attribute the changes seen to the intervention. In these cases, however, it is likely that the intervention influenced the outcomes. We are cautious not to overstate the meaning of the data; these outcomes are intended to enhance understanding of the performance of the products overall, the general impressions of those receiving the products, and the environment in which they were introduced.

Client Outcomes Quantitative Study

Methodology

Freedom from Hunger conducted a pre- and post-test study with clients from the three MAHP-pilot branch areas of Birshibpur, Bagnan and Shyampur to assess changes in knowledge, attitudes and behavior regarding several health topics delivered in the community health education forum. A few indicators regarding advice and medicines in the SS program were also included. The pre-test was conducted in May 2008 and the post-test in June 2009; the survey asked questions about the five health topics discussed in education forums only during that time period. The five topics included diarrhea and sanitation (safe water), acute respiratory illnesses, breastfeeding and malnutrition, antenatal and neonatal care. The study also explored the reinforcement of messages and referrals made by the SS.

Prior to delivering the health education forums, hired enumerators interviewed a cross-section of clients served by the nine HCOs across all three pilot branches. Two-hundred-and-forty clients were randomly selected from 57 Bandhan credit groups across 27 villages to participate in the study, and women with children under the age of one year were deliberately oversampled. All women selected were given the same core survey. Women who had children under the age of one year were asked additional questions related to childcare and prenatal behaviors. For the post-test, a new cross-section of 180 clients across 90 Bandhan credit groups was selected from the same geographic area. Both the pre- and post-test survey questions covered knowledge, attitudes and behavior based on the five main health topics covered in the forums as described above. Each survey took 45–60 minutes to complete. The pre-test was conducted in May 2008 with data collection performed by AC Nielson, and the post-test was conducted in June 2009 with data collected by GfK Mode.

For the majority of the client knowledge and behavior indicators presented, the study population for the post-test is limited to those respondents who attended the relevant health education forums for the particular measure. To analyze data at the program level, pre- and post-test frequencies were used to describe the study population, while Pearson's χ^2 tests and f-tests were used to compare pre-

and post-test changes in knowledge, attitudes and behaviors. Statistical significance was determined based on a p-value <0.05.

Key Results

Key results comparing pre- and post-test knowledge and behavior are provided in Table 3. Indicators of interest that did not have appropriate corresponding pre- and post-test indicators were not included in the table, but post-test outcomes may still be mentioned in the relevant section description. For many of the knowledge indicators, a significant increase in knowledge was observed from the post-test group when compared to the pre-test group. For more than one-half of the behavioral indicators, the post-test group reported choosing the best behavior more than the pre-test group. For several indicators, when similar data is available, comparisons to West Bengal state data from the National Family Health Surveys of India are presented. The last column in Table 3 includes the all-state West Bengal average percentage for the specific indicator. When interpreting the findings from the Client Outcomes Survey, it is important to note that the SS helped reinforce and emphasize the key messages of the community forums. Most likely this reinforcement contributed to the results of clients participating in the forums.

Knowledge and Behavior: Breastfeeding and Malnutrition

Overall, respondents in the post-test group more often displayed knowledge that corresponds to the target behavior in this category than those in the pre-test group. Furthermore, more women in the post-test group reported having target behaviors for breastfeeding and malnutrition. More respondents in the post-test group knew that a child should be breastfed immediately or within one hour after birth and also exhibited this knowledge by reporting that they initiated breastfeeding immediately or within one hour of giving birth (this statistic also includes reporting that children under 12 months who were in their care were also breastfed within that time period). This result is even more striking when compared to state-level data for West Bengal. More women in the post-test group also knew that a child should be exclusively breastfed for six months, but survey error prevents comparing the corresponding behavior indicator for exclusive breastfeeding. Behavior questions were asked about amount of food given to children two years and younger, but the outcomes were unclear. Finally, more women in the post-test group knew they should add oil, protein or vegetables to the first foods given to their babies to make the foods more nutritious, and more in the post-test reported doing so.

Knowledge and Behavior: Antenatal and Neonatal Care

The majority of both groups knew that a woman should visit a medical professional at least three times during her pregnancy, and the majority of women who had given birth in the last 18 months actually visited a medical professional at least three times. More women in the post-test group indicated that they knew a child should be dried and wrapped immediately after birth, and although there was a slight increase in those who practiced this behavior, the outcome was not statistically significant. Similarly, both groups had a nearly equal number of women who responded that they received two or more tetanus shots during their last or current pregnancy. Almost the same number of women in the post-test knew that a woman should take 90–100 iron and folic acid (IFA) tablets during pregnancy, and a coding error in the analysis prevents accurately reporting on results of the corresponding behavior indicator.

Knowledge and Behavior: Acute Respiratory Illnesses

Although there were no significant changes for knowledge or behavior indicators in the pre-test and post-test regarding acute respiratory illnesses, it should be noted that knowledge and reported behaviors were already high at the pre-test. Regarding whether respondents could identify a danger sign of a child with a cough that signifies that the child should be taken for medical care, the pre-test outcome was 94 percent and the post-test outcome was 89 percent (there was no clear indication as to the reason for the slight decrease). There were similar results in both groups for women who sought advice or medical treatment for an ill child with cough who had trouble breathing or fast-breathing as well, but with a slight increase.

Knowledge and Behavior: Diarrhea, Sanitation, and Safe Water

Eighty-eight percent of those in the post-test group whose child respondents cared for had diarrhea in the last three months treated that child with ORS versus 60 percent in the pre-test group. This behavior among the post-test group is also notably higher than similar West Bengal levels of behavior. Similarly, there was a significantly larger number of women in the post-test who had treated their child with diarrhea at home with special liquids, including coconut water, lentil water or rice water. However, there appeared to be less clarity in the post-test about the amount of these liquids to give a child; 60 percent of the respondents said they gave the child “less than usual” to drink when they treated the child for diarrhea. Women were asked several questions concerning hand-washing before and after certain events, such as before food preparation, eating, or feeding a child, and after defecation and assisting a child with defecation. There were no meaningful improvements made in this area. In all cases, more women in the pre-test group than in the post-test group replied that they always washed their hands before or after any of the acts mentioned above, but there is no indication as to why there was a decrease. There was no clear improvement between the two groups as to whether or not they had used soap in the last week to wash their hands. These outcomes suggest scope for improvement in delivering crucial messages about hand-washing and more specifically hand-washing with soap.

Disseminating Advice about the Health Topics

Women were asked whether they had ever given advice about a variety of topics to other people in their households or community. For all five topics covered in the survey, more women who had attended the session gave advice to others than in the pre-test. The women reported giving advice primarily to relatives and to other community members for all three indicators. All five outcomes are statistically significant.

Table 3: Bandhan Health Education Outcomes

Characteristic	Pre-Test* Averages	N	Post- Test* Averages	N	Comparable West Bengal ¹ Average
Breastfeeding and Addressing Malnutrition					
<i>Knowledge</i>					
Percentage who knew how soon after birth a child should be breastfed (answered “immediately” or “within 1 hour”)	71%	240	98% ^{†††}	62	
Percentage who knew a child should be exclusively breastfed for 6 months	75%	240	92% [†]	62	
Percentage who knew one should add oil, protein or vegetables to first foods for baby in order to make them more nutritious	86%	230	97% ^{†††}	62	
<i>Behavior</i>					
Among women who have or care for child 12 months of age or younger, percentage whose child or child in their care was breastfed immediately or within 1 hour of birth	61%	98	96% ^{†††}	57	23.7% ²
Percentage who reported introducing complementary foods into a child’s diet at age 6 months or older	39%	106	55% ^{†††}	48	56% ³
Antenatal and Neonatal Care					
<i>Knowledge</i>					
Percentage who knew a woman should visit a medical professional at least 3 times during pregnancy	95%	172	96%	101	
Percentage who knew that women should take 90–100 IFA tablets during pregnancy	89%	126	89%	90	
Percentage who knew immediately after a baby is born, the baby should be dried and wrapped	54%	151	77% ^{††}	60	
<i>Behavior</i>					
Percentage who were pregnant or had been pregnant in prior 18 months that visited a medical professional at least 3 times	85%	39	86%	99	62% ⁴
Percentage who were pregnant or had been pregnant in the prior 18 months who received 2 or more tetanus shots during current or last pregnancy	95%	38	94%	98	
Percentage who delivered a child at home in the past 12 months and reported drying and wrapping the baby immediately after birth	89%	103	93%	28	
Acute Respiratory Illnesses					
<i>Knowledge</i>					
Percentage who could name at least 1 danger sign if the child has a cough that tells you that you should take your child for medical care	94%	185	89%	157	
<i>Behavior</i>					
Percentage who had an ill child with a cough in prior 2 weeks who sought advice or medical treatment when child had trouble breathing or was fast-breathing	88%	57	96%	24	74% ⁵

*Significant difference between pre-test cohort and post-test cohort: † p ≤ 0.05, †† p ≤ 0.01, ††† p ≤ 0.001

¹ All indicators for West Bengal are taken from the National Institute for Population Sciences, National Family Health Survey 2005–2006. <<http://www.nfhsindia.org/pdf/West%20Bengal.pdf>> (June 3, 2010)

² Comparable indicator is available for children under three years who were breastfed within one hour.

³ Comparable indicator is available for children ages six to nine months who are consuming solid or semi-solid food and breastmilk.

⁴ Comparable indicator is available for mothers who had at least three antenatal care visits for their last births, for births in the last three years.

⁵ Comparable indicator is available for children under three with acute respiratory infection or fever in the last two weeks taken to a health facility.

Table 3: Bandhan Health Education Outcomes (continued)

Characteristic	Pre-Test* Averages	N	Post- Test* Averages	N	Comparable West Bengal ⁶ Average
Diarrhea, Sanitation and Safe Water					
<i>Behavior</i>					
Percentage who used soap in the last week when washing their hands		240		180	
Sometimes	42%		59% ^{††}		
Usually	39%		27%		
Always	17%		10%		
Percentage with a child in their household or care who had diarrhea in the last 3 months who treated that child with ORS	60%	10	88% [†]	42	44% ⁷
Percentage who treated child in their household or care with special liquids at home (such as coconut water, lentil water or rice water)	30%	10	69% [†]	42	
Percentage who gave their child with diarrhea less than usual to drink	40%	10	60% ^{†††}	42	
Dissemination of Advice in Past 3 Months					
Percentage who gave advice on breastfeeding and malnutrition	13%	240	44% ^{†††}	62	
Percentage who gave advice on antenatal care	16%	173	26% ^{††}	101	
Percentage who gave advice on neonatal care	10%	240	25% ^{††}	60	
Percentage who gave advice on how to treat coughs, colds or other respiratory illnesses of a young child	17%	185	36% ^{††}	157	
Percentage who gave advice on how to treat diarrhea	10%	240	42% ^{†††}	170	

*Significant difference between pre-test cohort and post-test cohort: † $p \leq 0.05$, †† $p \leq 0.01$, ††† $p \leq 0.001$

SS Reinforcement of Messages and Referral Services

The messages from the education may have been reinforced through the close-knit relationship of the SS to the communities. Over 40 percent of the post-test respondents bought ORS from an SS to treat diarrhea. Varying percentages of women surveyed received referral services on the related topics from their SS (see Table 4). Over 80 percent of women with a child with diarrhea received a referral for a medical practitioner from the SS. Out of 78 Bandhan respondents who said they had a child in the past 12 months, 40 percent of them received a visit by SS within 48 hours of giving birth. Comparable national data for West Bengal⁸ suggest that SS were visiting mothers within 48 hours of birth at similar levels of healthcare providers. For West Bengal 2005–06 NFHS data, 39 percent of women who gave birth in the last three years had postnatal care provided by a healthcare provider within two days of delivery of their last birth. While this is not necessarily part of the duties of the SS, it demonstrates the motivation and attentiveness of the SS for the clients in her area.

⁶ See footnote 1.

⁷ Comparable indicator is available for children under three with diarrhea in the last two weeks.

⁸ See footnote 1.

Table 4: SS Referrals, Purchases and Visits; Advice on Key Topics

Characteristic	Post-Test Averages	N
<i>Referrals, Purchases and Visits from SS</i>		
Respondents claiming to have a child in their household or care with diarrhea sometime in the past 3 months who received a referral	81%	52
Respondents who purchased ORS from SS to treat diarrhea for herself or someone in her household	41%	180
Respondents with a child 12 months or younger who received a referral for herself or someone in her household regarding breastfeeding or malnutrition	14%	78
Respondents who were pregnant or pregnant within the prior 18 months who received a referral for herself or someone in her household for issues related to pregnancy	36%	121
Respondents who gave birth during the past 12 months and were visited by an SS within 48 hours of birth	40%	78
<i>Advice from SS</i>		
Respondents with a child or cares for a child 12 months or younger who received advice regarding breastfeeding or malnutrition	77%	78
Respondents who were pregnant or pregnant in the prior 18 months who received advice on antenatal care	88%	120
Respondents who received advice regarding neonatal care	77%	81
Respondents who received advice regarding coughs, colds and other respiratory illnesses	80%	180
Respondents who received advice regarding diarrhea or hand-washing	90%	179

The figures in Table 4 also demonstrate the proactive behavior of the SS in giving advice. For each of the five health topics covered in the survey, nearly 80–90 percent of women surveyed received follow-up advice. The SS were clearly frequently discussing health topics outside of the forums.

SS Outcomes Study

Methodology

In June 2009, in-depth qualitative studies with active and exited SS were conducted by the research firm GfK Mode with guidance from Freedom from Hunger. The studies included individual interviews with a sample of 35 active SS and seven exited SS; nine FGDs were also conducted with active SS. The active SS participating in the interviews and FGDs constituted about one-third of the total SS from the three pilot branches, while the seven exited SS constituted 100 percent of all exited SS at that point in the program. The SS who participated in the surveys and attended the FGDs were selected based on availability and willingness. The interviews and FGDs were completed across all three pilot areas of Bagnan, Shyampur and Birshibpur at the monthly administrative SS meetings.

The individual interviews for active SS were comprised of about 40 questions covering topics such as advantages and disadvantages of program participation, sales and earnings, and effectiveness of the education and referrals. The interviews for exited SS included the same questions as those for active SS, as well as questions about their reasons for exiting the program. The FGD questions focused on demand for the products offered, reception of SS program by the communities, relevancy of the education topics and satisfaction with program participation. The data from the individual interviews and FGDs were analyzed using a frequency matrix to tally the most common responses for each question. Responses of active SS and exited SS were analyzed separately, but the results have been summarized together.

Key Results

Value to Bandhan Clients: Knowledge

SS qualitative interviews supported many of the positive outcomes found in the quantitative client outcomes survey. SS themselves felt that people's behavior had changed after learning about health topics—particularly on pregnancy, childcare and sanitation/cleanliness. They emphasized that most villagers have begun to be very communicative of the topics with each other and were eager to learn more. SS are able to reinforce the key messages, but feel that they could use further training and medical skills as they are being perceived as “doctor-didis [sisters].”

I have attended Bandhan's health education sessions. The group discusses health awareness and diseases such as diarrhea. I have learned about childcare, pregnancy and medicines. In the sessions, more awareness is generated about health and hygiene. I have learned to wash my hands before meals and to keep food covered.

—Mongala Samanta

Convenience

According to the SS, clients appreciate their availability in the village and clients are reassured that they can consult them at all hours and have immediate access to a reliable source for high-quality medicine. SS provide the convenience of a multi-functional service in which they can recommend medicines, give information on proper dosage and side effects, and advise how to store them. The SS also believe that in general, they provide more convenient quantities of medicines than clinics or stores—clients may get only a single pill at the clinic or an entire bottle from the store. Additionally, they encourage members to visit the appropriate healthcare provider in emergency cases.

Trust

One of the recurring themes that emerged from the study was the importance of the personal relationship developed between SS and Bandhan members. Members saw the SS as an intimate resource and trusted the SS to refer them or their family members to a healthcare provider when sick. The SS would also provide access to medicines on credit until the member could pay, which showed trust on the side of the SS but also served as a benefit that members may not have if paying for medicines at a clinic or pharmacy. Particularly in areas relating to maternal health, the private and familial relationship facilitate improved access to birth control. Anecdotally, an SS mentioned that in particular, women from Muslim communities appreciated the ability to purchase contraceptive medicines on their own in private.

Value to SS: Enhanced Status in Community

Overwhelmingly, the SS enjoyed participating in the program and felt successful—they cited “honor and respect” as their primary reward for their role. The SS position gave them a separate and esteemed identity within the community. Sales during this pilot phase provided an insignificant source of income to the SS, but the gains in knowledge and newfound respect from community members and leaders provided the motivation to remain active. A separate cost-benefit analysis of the SS product distribution component suggests that, at least early in the program, the average SS earned less than US\$1 per month in net profits. Some SS became savvier with sales later in the program, but detailed information to verify a wider sales-earning range was unavailable.

Despite the low economic returns, active and exited SS are enthusiastic about the program and would recommend the program to others. Some did mention the caveat that a woman entering the program needs to have the time for the job—the average amount of time required per week ranged from one to three hours for most, with more than three hours for some depending on the number

of home visits. Sometimes people came to the home of an SS seeking medicine at inconvenient times for the SS as well.

Products

According to the SS, the most popular products are paracetamol, Diavol (antacids) and sanitary napkins (produced by Bandhan), which resolve common health issues in the community. Interestingly, some products sold by SS were offered free in clinics, but clients were willing to pay for the reliability and quality of SS products, as well as for the convenience of purchasing them within close proximity to their home and during late or early hours of the day. Additionally, the SS took the time to give customers information on the products at the time of sale, a practice not always possible at busy health centers or pharmacies. Some products face low sales because of their high cost; de-worming tablets were challenging to sell not only because of the high cost, but because they need to be taken by all family members at the same time. The sanitary napkins available are produced by a small enterprise formed by very poor women in a self-help-group of Bandhan's "ultra-poor program" and may have some limitations on quality as compared to more expensive commercial brands, and therefore also experience lower sales. SS workers stated the requests from community members for other products to add to their kit: cough medicines, nausea medicine, vitamins, phenyl for sanitation, antiseptics, soaps, anti-itch creams and even hair removers.

Challenges

Exited SS expressed in interviews that their primary reasons for leaving were personal issues at home. These reasons included pregnancy, illness, family responsibilities, and moving away from the community. Some SS also cited frustration with field visits; they mentioned they did not get enough respect from villagers or that community members simply preferred buying from competing pharmacies in their areas. Additionally, the SS would have appreciated some kind of public recognition from the doctors or hospitals for the referral services they were providing.

While SS communicated very few challenges or disadvantages, they recommended that the time commitment required for the position be cleared by the SS with her family members to prevent future complications. However, SS who dropped out of the program represent a very small percentage of the group; after two years of operations, only 7 out of 90 SS left the program. Despite a few frustrations, this low drop-out rate is consistent with the overall high level of satisfaction expressed by the SS.

Community Outcomes Study

Methodology

In December 2008, GfK Mode moderated ten FGDs to understand more about the client perceptions and satisfaction with the HCO education and SS program. Eight to ten Bandhan clients from Bagnan, Birshibpur and Shyampur were randomly selected at the end of the hour-long health education forum and assembled into groups. While selection was primarily random, it was also based somewhat on availability and willingness. The FGDs were moderated by GfK Mode with guidance from Freedom from Hunger on topics and questions to be covered. The sessions were recorded and analyzed to assess the most frequent response for the major themes.

Key Results

Health Forums: Client Satisfaction

Overall, members participated enthusiastically in the health education program—all clients were aware of the Health Forums and most of those who attended were satisfied with the content and delivery. Members looked forward to the meetings and were happy with the new knowledge they had gained on simple everyday health care and hygiene-related practices. Most members shared the knowledge they had gained with other members of their community. There was some suggestion that the frequency of the forum (once a month) be increased. While the participants had joined Bandhan for the business loans, they felt that the Health Forums had and could attract new members to join Bandhan. They expressed a high degree of loyalty to Bandhan with some even suggesting they would take out unnecessary loans in order to continue to be a Bandhan client and thus continue attending forums.

Those who expressed dissatisfaction during the FGDs actually voiced specific issues with the health loan process. However, since the FGD questions focused on the health forums and SS program, further information on this dissatisfaction was not collected.

Knowledge and Behavior Changes

Members mentioned that they are observing and practicing what they learned at the forums—that they found the messages to be simple and effective and all had gained new insight into better health practices. Across nearly all FGDs, the women emphasized that they gained the most new knowledge on neonatal care, especially on the benefits of breastfeeding. Most women also cited sessions on increased ORS use for treating diarrhea and diarrhea prevention as especially informative. Many groups also suggested that the increased discussion about better health practices that had taken place in their communities occurred because of the forums. Overall, the health education program appears to be making a significant impact in terms of introducing new and better lifestyle and hygiene habits, increased sharing of health problems, and seeking of solutions among fellow members.

Products

While the respondents were mostly satisfied with the selection of products available, there were a few suggestions for improvement. Requests for additional health products mentioned during the FGDs included cough/cold medicines, asthma inhalers, vaccines, blood pressure monitors, and medicines for bloody dysentery. It was mentioned that purchasing sanitary napkins became problematic because women didn't have a proper place in which to dispose of them. Views on pricing were inconsistent; some women felt the prices were higher than market and others felt the prices were under-market. The high quality of the products was noted across many group discussions.

Swastha Sahayikas (SS)

The groups were unanimous in expressing satisfaction with the performance of their SS. All groups had utilized the SS for referral services and felt confident in going to the SS for help and advice. There was obvious deep respect for the SS and the services she provided; several mentioned that their SS had personally escorted them to hospitals. The convenience and 24-hour availability of the SS were appreciated by many members. In the discussions it was clear that the SS emerges as an influential and valued health resource in the community.

Impact Stories

Methodology

In June 2009, the research firm collected 42 Client Impact Stories with current and new clients in the three pilot branch areas. Compared to the other surveys in this project based on perceptions of Bandhan MAHP program components, the Client Impact Stories are a gathering of information which provides a more holistic life scenario of a Bandhan client participating in the MAHP program. The purpose of the impact story is to better understand their hopes and aspirations for themselves and their families, their major challenges, their general health and business practices, their decision-making power, and how Bandhan has played a role in their lives. Fourteen clients were interviewed in each of the three pilot areas. Seven in each area were new clients (clients for six months or less or in their first loan cycle); seven were mature clients (clients for six months or more; or in at least their second loan cycle). Freedom from Hunger wrote the survey guide, and GfK Mode moderated the conversations that were recorded and summarized into life stories.

Key Results

The stories of the women are a reminder that while certain characteristics can be used to describe a community, the individual women who form these communities are unique and complex individuals with a myriad of challenges and capacities. The women are balancing the responsibilities of feeding and caring for all members of their household, supporting their children's education, and running their own businesses. While women are overwhelmingly optimistic about their families' future, difficulties such as financial instability, migratory spouses, illness and death are common threads throughout the stories.

Achieving a "Good Life"

The most prominent concerns for the clients in achieving a "good life" are their children's education and their daughters' marriages. Most of the women are better educated than their mothers were, and many cited their ability to pay their children's tuition as an extremely high priority. Those who feel they cannot achieve the "good life" often ascribe it to recent health crises in their families, including, for several women, the death of their husbands. Any other crisis that cripples a family financially, such as the loss of the fishing boat in a storm, is also cited as a barrier to the good life.

Good Health and Food Security

Good health for the clients predominantly means being free of disease as well as eating a varied diet. Eating healthily is consistently defined as being able to afford meat or fish several times a week in addition to the standard rice and vegetables. Several clients reported that their diet has substantially improved since taking out a loan with Bandhan, either in number of meals per day or in the variety of food that they can afford, or both.

Health Challenges

Unexpected health shocks are a typical threat to financial stability. Stories often reflect personal and financial setbacks due to illnesses. A common "shock" for clients was their husbands suffering a health crisis and/or his being unable to bring in a sufficient income to support the family. At times, the client herself or a child suffered a health crisis as well that led to a costly medical bill. Health crises cited by the women included strokes, cancer, diarrhea, mental disorders and injuries suffered while laboring or traveling.

Impact of Bandhan

One striking characteristic across all the stories is the catalytic role played by Bandhan in fostering entrepreneurship among the women. Many of the clients took out their first loan with Bandhan to start a new business; others used it to expand a pre-existing business. Both types of clients consistently reported success in their endeavors. Women started tailoring, embroidery, dairy and tea businesses. They invested and grew their businesses with subsequent loans, providing a source of financial stability as well as a sense of personal empowerment through more say in their homes and more respect in their communities. Some specific measures of increased well-being that the clients have achieved through their business investments include installing electricity in the home, purchasing gifts for daughters or grandchildren, purchasing land, rebuilding the home, hiring their own employees, wearing better clothing, owning a TV, eating more nutritious and much more varied food, and sending children to boarding school or college.

His (my husband's) income was very small. It was very difficult for him to run a household. He could not meet our basic needs. He never wanted me to work and earn for the family. But after his death, I started learning everything and it has improved our life ... I'm giving money to others as salaried employees—this is a dream come true for me. I lost my husband, but simultaneously, I got Bandhan—a friend, guardian, and above all, my source of income.

—Jahanara Begum

A Better Future

Without exception, the clients feel women today (most notably rural women) are in a better situation than women in the past. They are more educated, self-sufficient, self-aware and financially secure.

Health Loan-Use Study

Methodology

In December 2008, the research firm conducted 65 individual qualitative interviews with women who had taken out a health loan from Bandhan. Using a set of guidelines provided by Freedom from Hunger, qualitative investigators from the research firm moderated and recorded in-depth conversations about the satisfaction, relevance and usage of the health loan. Respondents were randomly selected amongst those who had taken out a health loan from the three pilot branches. Interviews were transcribed and analyzed for relevant themes. A frequency matrix tracked the most common answers for these primary topics. Responses have been tallied as a percentage of respondents who answered that particular question.

Key Results

Financial Strain of Healthcare Expenses

Over 75 percent of the women interviewed were running their own businesses. While Bandhan's usual loans are intended for investment in productive businesses, practical realities are such that 48 percent of the clients interviewed reported they had previously used their Bandhan business loans for medical expenses, and 55 percent indicated that they would likely do so in the future. Health care and medicines were one of the most frequently cited recurring monthly expenses mentioned for the household. The cost of health is a significant burden for clients and a constraint on other household expenses; 62 percent had purposely not bought something they needed in order to use the money for an anticipated medical expense.

Availability of Health Loan

The opportunity to take out additional loans to meet health expenses was immensely helpful and respondents expressed their gratitude for the assistance. Eighty-four percent said they were relieved that they could access the health loan to cover their expenses. For a significant number of women (40 percent), the medical expenses would have required them to go to a moneylender and pay much higher interest rates. Others (40 percent) would turn to family and friends, but many found this option unappealing; they said that they didn't like to borrow from family and friends because they were embarrassed and felt they would lose their "prestige."

Believe in me, I told them. Then they gave me the loan.
—Tagori Rana

Generally, respondents also appreciated the lower interest rate, which they found easy to pay. Eighty-one percent thought the interest rate was low and 7 percent thought the interest rate was normal. For only a small number of women, the loan was another added stress to their usual expenses; they were not especially interested in the lower interest rate.

Access

Fifty-seven percent of the respondents had ever postponed medical care for lack of money. This included postponement of serious treatments such as TB treatment and operations. Some respondents (33%) expressed that they would have waited to seek medical treatment until they had enough money. Clients appreciated the efficiency by which they could access immediate funds and claimed that the loans enabled the clients to seek treatment sooner than they would have without the loan. Many claimed using savings or borrowing money from family and friends to cover health care costs in the past. The primary use of the health loan was on the client; 47 percent used the health loan for their own treatment. See Tables 5 and 6 for a comparison of these and other indicators from the health loan survey.

Table 5: Healthcare Financing Concerns of Respondents

Indicators	Outcomes
Had ever postponed their medical care for lack of money (n=53)	57%
Purposely not bought something (in the past) they needed in order to use money for an anticipated medical expense (n=40)	62%
Would have waited to seek medical treatment until they had enough money if did not have health loan (n=39)	33%
Had ever used business loan money for health expenses (n=44)	48%
Would likely use business loan money for health expenses in the future (n=48)	52%

Health Loan Shortfalls

While 62 percent of the respondents felt that they were able to afford other things they needed since they had the health loan, most women felt the health loan fell short of the required amount and the balance still had to be raised from another source. Supporting research suggests that, on average, the loan covers approximately 50 percent of the medical expense. Despite this seemingly low average, the women are grateful for this partial assistance. Expenses are generally covered through multiple sources of funding—some without any interest. The health loan allows clients to patch together funds from their interest-free resources while minimizing their reliance on high-interest ones. In some cases, while the health loan does not cover the entire medical expense, it does help to repay a loan taken from moneylenders or relatives. In the event of major illnesses, clients sometimes still pay part of their expenses from their business loan.

Overall Satisfaction

Ninety-eight percent of the respondents would recommend the health loan to another person, and 80 percent would take one out again. They describe the loan as a positive part of their Bandhan experience. The health loan is not large enough to be the primary reason they stay with Bandhan, however; the respondents cite other factors, such as the business loan, community participation and the quick turnover of loans as reasons why they enjoy being Bandhan members.

Table 6: Health Loan Study Outcomes Overview

Indicators	Outcomes
Flat interest rate on a Bandhan health loan	10%
Flat interest rate on a Bandhan general business loan	12.5%
Respondents who thought the health loan interest rate was low (n=43)	81%
Estimated average amount of the medical expense that the loan covers*	50%
Respondents who claimed they were relieved that they could access the health loan to cover their expenses (n=45)	84%
Respondents who used the health loan for their own treatment (versus for family member) (n=57)	47%
Respondents who felt that they were able to afford other things they needed since they had the health loan (n=29)	62%
Respondents who took out a health loan and would take one out again (n=55)	80%
Respondents who would recommend the health loan to another person (n=47)	98%

*Based on 57 informal interviews from health loan recipients from the three pilot branches, July 2008.

Competitor's Analysis

Methodology

In July 2009, the regional MAHP manager for Bandhan conducted a desk study assessing various aspects of Bandhan's competitive position against three other primary microfinance organizations in West Bengal: Sarala Women Welfare Society, Kotalipara Development Society, and Bagnan Mahila Bikash Cooperative Credit Society. The assessment consisted of a matrix that compared information across all four organizations on the eight P's: product, price, promotion, place, positioning, physical evidence, people and process. Data was collected from online and print publication research as well as interviews with microfinance specialists. The information was analyzed by Freedom from Hunger staff.

Key Results

The three competitors, Sarala Women Welfare Society, Kotalipara Development Society, and Bagnan Mahila Bikash Cooperative Credit Society, primarily gave business loans at a higher interest rate than Bandhan (15 percent for the three vs. 12.5 percent for Bandhan, as of July 2009). Bandhan also had a lower security-deposit requirement (5 percent) compared to most of the competitors' requirement of 10 percent. Bandhan may afford to offer these low-interest and security-deposit rates because of its size; at the time of the study, Bandhan had approximately 1.5 million borrowers across India, whereas Kotalipara had less than 100,000 and Sarala had barely 50,000 borrowers (no data on borrowers for Bagnan Mahila). Although these organizations are much smaller than Bandhan, they were deemed as appropriate comparisons for this desk study. Bandhan clearly has a large and prominent presence in West Bengal.

The main finding, in terms of the MAHP project, was that Bandhan is the only MFI in the area offering health financing. The other three all offer health services, such as primary health care, a pharmacy, a sanitary latrine program, blood donation camps and disease control program through government linkages. However, the HCO health education program and SS product distribution programs are unique services offered to Bandhan clients.

Enabling Environment

Methodology

The enabling environment study gathers information regarding factors that enabled or dampened the progress of Bandhan's MAHP pilot program. Data was collected and compiled in July 2009 by the regional MAHP Manager through a desk study and interviews with microfinance specialists in West Bengal.

Key Results

Investment in microfinance in India increased dramatically during 2008–2009. This factor probably played a key role in Bandhan's ability to rapidly increase in size and geographic stretch during the project period. Bandhan was serving 1.54 million borrowers at the time of the study in June 2009, which is an increase of about 1 million borrowers from the beginning of the project in June 2007. Bandhan also maintains a repayment rate of 99.95 percent across its operations in 765 branches among 11 states in India. It is clear that this remarkable growth in its financial services did not hinder the implementation of the MAHP program, and we can probably assume that it provided a stable atmosphere for this pilot.

During the three years of product rollout during the MAHP project, Bandhan received a license to transform into an NBFC (non-banking financial company), a regulated for-profit entity. This has been an important internal change for Bandhan, resulting in transfer of the assets and staff of microfinance from the Society (name for the not-for-profit entity) to NBFC, leaving the social components such as MAHP, the asset transfer program and education program, etc., in the Society. Following the reorganization, Bandhan is continuing to operate and expand their health program through the Society. Ultimately, having chosen a parallel education model instead of the more common unified education model (offering education sessions during credit meetings instead of in separate forums), might have been beneficial to the stability of the MAHP program at Bandhan. The project had separate staff who would not be tasked with balancing both the revenue growth goals and the social purposes.

Following the scale-up to more than 100 branches, Bandhan decided to de-link the health loan component with MAHP and considered it to be an integral part of the financial processes of the MFI. The for-profit status of the MFI may have had some limiting influence on the total size of the health loan portfolio (relative to Bandhan's overall portfolio) in order to minimize possible investor concerns about the risk associated with the health loans.

As there was no apparent precedent for an MFI selling health products to the community in West Bengal, there was some initial resistance from local government officials at the start of the project. This was resolved after Bandhan discussed the issue with the Drug Control department and found legal backing through a clause stating that any person trained in government-recognized OTC health

products can sell in a community of at least 1,000 families in which accessibility to such drugs is otherwise difficult.

There wasn't any significant enabling or disabling factor that actually affected the MAHP project of Bandhan to the extent that the MFI had to strategize either to take opportunity or to mitigate the challenges. The substantial growth in Bandhan's financial portfolio will not be a distraction or disabling factor for continuing the rollout of the other MAHP innovations.

ANALYSIS

The discussion section synthesizes key results from the client-level and institutional assessment research activities in order to provide a more holistic understanding of the performance and reception of these health protection products. Although the research designs and data-collection methods vary in rigor, the outcomes are spoken of in general terms as indications of program performance. As mentioned before, we are cautious not to overstate the meaning of the data but attempt to use it to provide insight into understanding how the clients use the products and their general satisfaction with them.

Health Education Forums

The most striking results regarding the health education forums came from the Client Outcomes quantitative survey. The survey captured various indications of knowledge and behavior change regarding the education sessions and the adjoining SS program. The education forums initially delivered messages on various health topics, and the SS reinforced these messages when making visits to the homes of Bandhan clients. It cannot be determined whether one aspect of the program had a greater effect on the outcomes than the other, or what messages the SS may have been delivering at the homes of clients. For that reason, the analysis has primarily been limited to focusing on the participants who attended the relevant education forums for the specific knowledge and behavior indicators. Even though the study design cannot clearly attribute the results to the program, it is quite encouraging to have evidence that for many of the knowledge indicators and more than half of the behavior indicators, there was a positive, significant change observed from the post-test group when compared to the pre-test group. These results are especially notable considering that they are from the first year that Bandhan has administered this program.

A reminder of the positive outcomes presented in the Key Results section is a list of the most compelling results. **A statistically significant higher number of respondents in the post-test group than in the pre-test group** knew the following pieces of information or displayed the following behaviors:

- Knew a child should be breastfed immediately or within one hour after birth.
- Reported their child or a child in their care, 12 months or younger in age, was breastfed immediately or within one hour of birth.
- Knew a child should be exclusively breastfed for six months.
- Knew they should add oil, protein or vegetables to the first foods given to their babies to make the foods more nutritious.
- Reported introducing complementary foods into a child's diet at age six months or older (post-test outcome climbed to level of West Bengal state average).

- Knew a child should be dried and wrapped immediately after birth.
- Treated a child in their household or in their care who had diarrhea with ORS.
- Treated a child in their household or in their care who had diarrhea with appropriate special liquids at home, such as coconut water, lentil water or rice water.
- Gave advice to others on breastfeeding and malnutrition, antenatal and neonatal care, acute respiratory illnesses and/or how to treat diarrhea.

While the outcomes captured in the research indicate the effectiveness of the education and SS program, it should be remembered that improvements could be made to some education topics to achieve stronger results. No meaningful improvements were made in reported incidents of hand-washing (with or without soap), and although the data was unclear, improvements could likely be made in areas of iron tablet supplementation and administering proper amounts of food to young children. For some, knowledge and behaviors regarding antenatal care and acute respiratory illnesses, the pre-test knowledge was already remarkably high and there was little room to detect positive changes, particularly with small samples. In some cases, the pre-test sample behaviors are visibly much higher than state-level averages, such as breastfeeding within one hour of birth and visiting a medical professional at least three times during pregnancy. The high levels of pre-test knowledge could suggest some selection bias in the types of participants who actually attend the health forums (since not all Bandhan clients are required to attend)—perhaps the education is not attracting the women most in need of the education within these communities. Alternatively, it could be that being a part of Bandhan has already given them exposure to other types of health education.

While there were typically either positive or non-significant “neutral” results, more importantly are the results in which negative significant changes were detected. A majority of respondents are reporting that they give their child “less to drink” when they have diarrhea—which is essentially a life-threatening act. Although it may be quite challenging to change this behavior in mothers, it is important to continue to reinforce the message of giving a child more to drink and perhaps be creative about finding effective ways of doing so.

Although these outcomes are encouraging, it is important to remember that the Client Outcomes study design, just as with the study designs used for all of the research activities presented here, cannot establish a causal link between the provision of a health protection program and the subsequent changes in client knowledge, attitudes, and especially behavior. The pre- and post-test clients are comparable, but were not randomly assigned and thus likely include differences that are unmeasured that may contribute to the outcomes reported. The information captured in the survey was self-reported by participants, without outside verification, and there could be some variability in the way the data was collected in between the pre- and post-test. Additionally, none of the studies controlled for the bias of self-selection in participants who join microfinance programs or attend health forums. For the health loan and SS surveys, and the community and SS FGDs, participating respondents were chosen on the basis of availability and willingness, not purely by random. Thus, the results may not be clearly generalized to women who do not participate in microfinance programs, health forums, or are willing to participate in research activities.

Regarding results from other research activities assessing aspects of the health forums, the Client Outcomes FGDs revealed that the members clearly enjoy participating in the health education program. They are happy with the new knowledge they have gained, they share the knowledge with other members of their community and they are eager to learn more. Of all the Bandhan MAHP

innovations, the health forum appears to be the most widely appreciated and enjoyed component of the various health products. Although clients expressed appreciation and value for the SS and health loan programs, the education program seemed more uniquely advantageous to clients. This may be because of a lack of health education, or lack of health education presented in this type of forum in the community. Clients also felt that this add-on service would do the most to attract new clients to Bandhan.

Clients especially appreciated the knowledge gained on neonatal care, in particular on breastfeeding. This qualitative feedback is consistent with the positive impacts observed concerning breastfeeding knowledge and behavior suggested by the quantitative data. In the FGDs, Bandhan members claimed they are practicing what they learn from the forums, and from some of the results of the Client Outcomes survey, we have reason to believe that is true.

Additionally, Bandhan's split into the NBFC and Society during the project lifetime did not disrupt the administration of the education forums, and in fact, the program was scaled to new areas during and subsequent to the reorganization. Additionally, this is a unique health program compared to what other MFIs in the area offer and, according to anecdotal evidence, may be a specific reason for a Bandhan client to stay engaged with the organization.

Health Product Distributors (SS program)

The SS program proved to provide value to Bandhan clients and their families, as well as being a source of pride and satisfaction to the SS herself. The clients appreciate the availability of trusted medicines, personal consultations in convenient locations and referrals at all hours. Clients have developed intimate relationships with the SS and feel confident approaching her about personal issues such as birth control. The SS have gained enough pride and prestige from their status that low profit margins from health product sales do not deter them from joining and maintaining their participation in the program; the prestige gained within their community compensates for the low earnings. Being an SS is not uncomplicated, though, as she needs to have time and flexibility in her schedules since personal conflicts can cause her to drop out of the program. Despite some challenges, there is much motivation to continue participating in the program and they highly recommend it to others. The SS have even expressed the desire for additional training and knowledge to better serve their communities.

In addition to the positive outcomes on knowledge and behavior indicators captured in the Client Outcomes survey, there were also important observations made about the performance of the SS program. Although we cannot detect to what degree, the success of the education appears to have been augmented through the reinforcement of messages and referral services by the SS. To review, a few highlights have been listed here:

- Out of the Bandhan respondents who said they had a child in the past 12 months (78), 40 percent of them received a visit by an SS within 48 hours of giving birth (an average similar to the postnatal care received by women from traditional healthcare workers in West Bengal).
- Over 40 percent of the post-test respondents bought ORS from an SS to treat diarrhea.
- Over 80 percent of women with a child in their household or care with diarrhea received a referral for a medial practitioner from the SS.

- About 80–90 percent of women surveyed received follow-up advice on breastfeeding, malnutrition, antenatal and neonatal care, acute respiratory illnesses, diarrhea and hand-washing.

There were no “pre-test” results to compare the data points on referrals, products purchased and visits, but since the “post-test” results were taken relatively early in the program, these outcomes are impressive. The data indicates that SS have been able to establish themselves in the communities within a short time to provide easier access to care and relevant health information.

Bandhan’s transformation of its MFI operations and portfolio into a regulated NBFC and the creation of the Society during the initiative enabled Bandhan to re-organize financial activities and development activities into two entities and to align their activities according to their respective missions, and did not affect outcomes observed during the initiative. The health program is unique from those offered by other MFIs in the area and adds to a potential competitive advantage. A proper training program helped Bandhan overcome the initial resistance from local government officials in selling health products in the community and has likely contributed to a supportive relationship.

Health Loans

Overall, Bandhan clients who had taken out a health loan greatly appreciated access to the money and felt gratitude for its assistance. The cost of healthcare services is a significant and recurring constraint on other household expenses and many clients either use business loan money or purposely postpone other needed items in order to pay for medical costs. Access to the loan decreases the amount they must find or borrow from other sources, and most felt the interest rate was sufficiently low. Clients appreciated the efficiency by which they could access immediate funds and expressed that the loans enabled them to seek treatment for themselves sooner. An impressive 98 percent of the respondents would recommend the loan to another member.

Although members are thankful for the health loan, the limited amount of the loan remains a challenge. A sample of members showed that the loan only covered about 50 percent of the cost of the medical expense and members are faced with patching together the remaining funds from other sources. Although the interest rate on the loan may make borrowing this sum cheaper than obtaining it through other lenders, members wish that the margin covered was larger. At the time of the study, Bandhan was the only MFI in the area offering any health financing of this kind.

CONCLUSION

It is clear from the results of the research that Bandhan has executed a highly successful pilot program of health protection products. Evidence of positive changes in important maternal and child health knowledge and behaviors as well as high levels of client satisfaction indicate that the health education and SS programs are effective and well-received. The presence of SS has not only provided an easily accessible health resource for much-needed health products and information, but has provided empowering roles in the community for the women who serve as SS. Bandhan clients expressed a great appreciation for access to the health loan, as well as a desire for increased loan sizes, since additional funds at a low interest rate would help them further cover healthcare costs.

These products are popular and add to general client satisfaction of Bandhan, which likely adds to client loyalty towards the institution as a whole.

Bandhan could see the success and popularity of the program far before the end of the pilot, and extended the health education and SS programs to seven other branches in addition to the original three by 2009. Including all ten branches, almost 300 SS have been trained as of December 2009. Bandhan continues to experiment with the most operationally effective way to deliver the education without losing quality. Management also decided to extend health loans to all branches that have been operating for at least two years. As of December 2009, health loans were offered in over 200 branches, and will eventually be offered in all branches when each has reached maturity.

Bandhan can continue to scale these programs, and can continue to face challenges to hopefully expand the health loan program, all at a low cost. According to a cost-benefit analysis, Bandhan incurred \$28,000 in total net costs in 2009 to serve more than 16,000 clients across five branches, or about \$1.73 per client in total annual net costs. The health forums, SS programs, and health loans also add to the competitive advantage of Bandhan in the West Bengal MFI market, and potentially in other states of its operations across India. The products can attract additional clients to Bandhan and can encourage current clients to remain as members. The Bandhan health innovations stand out as impressive examples for other microfinance organizations to adopt as effective health protection programs.