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Developing Next Generation Health Financing Instruments for Households: Drawing on Lessons Learned

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"If there is a big illness in the family, then a lot of money is spent. If there is no money in the house, [a woman] has to suffer a lot while collecting money. They have to spend their days without eating."

– Savings Group Member

Abstract: Health shocks are the most prominent idiosyncratic shocks and stresses that low-income households face. Demand for health financing support is often higher than any other financial risk management solution, and demand far exceeds the supply. An improved and expanded choice of health financing options is needed to ensure low-income households have financial instruments to anticipate, respond to, and recover from health events without resulting in increased vulnerability and poverty traps. This will require patient and long-term investments from donors, investors, governments, health service actors and the financial services sector and will require thinking about health financing through an ecosystem lens, where demand generation for and supply of health services and health financing should be designed to intersect.

Grameen Foundation

Grameen Foundation USA is a global nonprofit organization that helps the world's poorest people achieve their full potential by providing access to essential financial and agricultural information and services that can transform their lives. In 2016, Grameen Foundation and the global non-profit Freedom from Hunger joined forces under the banner of Grameen Foundation. The integration of the two organizations brings together Grameen Foundation's expertise in digital innovation to end poverty and Freedom from Hunger's rich experience providing the world's poorest women with self-help tools to reduce hunger and poverty. Grameen Foundation is headquartered in Washington, D.C., with offices in the U.S., Asia, Africa, and Latin America. For more information, please visit www.grameenfoundation.org or follow us on Twitter: @GrameenFdn.

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Executive Summary

Health shocks are the most prominent idiosyncratic shocks and stresses that low-income households face, particularly when they affect primary income earners as health costs are compounded by loss of income. While government and developmental assistance funding for health has increased over the past two decades and is expected to continue increasing into the future, out-of-pocket health expenses are projected to remain high for low-income countries. Despite the availability of national health insurance schemes and free primary health care in some low-income countries, out-of-pocket health expenses are still often catastrophic for low-income households.

The demand for health financing support is often higher than any other financial risk management solution, and demand far exceeds the supply. Financial service providers therefore have an opportunity to round out a health financing portfolio.

Through experience, supplemented with other research, Grameen Foundation USA ("Grameen") offers the following top ten lessons for designing effective health financing products:

1. **Understand the types and related amounts of out-of-pocket health expenses.** Outpatient and indirect costs, such as for travel, accommodations, and on-going care can be more catastrophic for low-income households than in-patient, hospitalization costs due to frequency of health events.
2. **Red tape has to be extremely minimal.** While often well-intentioned, paper work and validation of health events can be significant barriers to prompt and effective use of financial tools meant to manage risk.
3. **Designs have to compete with (and exceed benefits of) borrowing from friends and family and other informal lenders, such as moneylenders.** While not always preferable, low-income households often resort to borrowing for health costs from friends, family, and moneylenders (when liquidity of family and friends is not sufficient), due to easy access to funds and flexible repayment options when borrowing.
4. **Privacy matters.** People value keeping their health matters private; products that build in privacy protections are needed.
5. **Consider the decision-making power as well as the capacity of women to meet healthcare expenditures.** While women are often noted for their preferences and roles for prioritizing health needs, this does not always translate to women actually deciding whether or how the household financially meets a health cost.
6. **Design for a financial portfolio approach, but be careful with bundling.** Households use and value multiple financial instruments to help manage their household finances. Existing health financing instruments do not (and perhaps cannot) meet all health costs effectively. Multiple instruments are needed. While bundling financing options, such as micro-insurance with microenterprise credit, seems like a win-win for clients and financial service providers, clients may prefer to lose their

financial access altogether than to pay for an obligatory product. The portfolio of services needs to balance the high frequency, low impact health expenses (that savings, person-to-person payments can cover) with the low frequency, high impact health expenses (that insurance and loans can cover).

7. **Timing matters.** It is not always the cost, but the timing of a health event or health cost that matters. The timing of insurance premiums, for example, can be the biggest barrier to insurance enrollment due to irregularly of income streams.
8. **Demand for and supply of quality health services have to intersect.** The success of health financing options is highly related to the availability, quality, and satisfaction with health care. If local health services are not demanded, then neither will be health financing products. This requires intentional and long-term partnership approaches between the health and financial sectors.
9. **Health financing products need to provide health care for the family.** While income-earners should surely be covered due to the income loss experienced when ill, entire families should be covered as well, particularly since children are often the ones requiring the most health care.
10. **Consider how health emergencies "compete" with other possible emergencies.** Health shocks are one among many shocks low-income households can face and are a constant reality. Any unplanned expense can be experienced like a shock; products should be designed with that in mind.

The market is littered with successes and failures of attempts to provide low-income households with financial tools they can use to plan for, respond to, and recover from health costs, whether they be small or catastrophic. With the growing emergence of digital technologies, digital financial services hold much promise for overcoming some of the long-standing challenges to effective use of financial services designed for health. However, a digital ecosystem is needed to ensure health services and patient needs can intersect. For example, a digital ecosystem has to exist where health providers can accept digital payments from a digitally-enabled patient. Some of these efforts to 'lay the digital rails' require patience, time, and long-term commitments of many actors.

New innovative health financing products and research are needed. To this end, these experiences and the evidence raise key questions for the field:

1. Would clients—and financial service providers—be better off through the use of emergency financing products instead of products designed only for health?
2. How can health financing products be designed in a way to better capture the intra-household dynamics that influence how households decide to seek and pay for treatment?
3. Given the importance of the intersection between the supply and demand for health services, how can health financing tools be designed or calibrated to respond to rural areas that lack health services and that have a sound business case for the financial and health service providers?

Regardless of the answers to these three questions or the mechanisms through which health financing products are delivered (traditional versus digital), it is critical that low-income populations have improved and expanded choice of health financing options. Ensuring this choice will require patient and long-term investments from donors, investors, governments, the health and financial services sectors as well as thinking about health financing through an ecosystem lens, where demand generation for and supply of health services and health financing should be designed to intersect.

With these lessons, the financial and health services sectors are positioned to develop a new generation of health financing options that can ensure low-income households have financial options to anticipate, respond to, and recover from health events without resulting in increased vulnerability and poverty traps.

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Acronyms

CBHI	Community-based Health Insurance
DFS	Digital Financial Services
FSP	Financial Service Provider
GNI	Gross National Income
HH	Household
HMHB	Healthy Mothers Healthy Babies
HMI	Health microinsurance
ILO	International Labor Organization
INR	Indian Rupee
MAHP	Microfinance and Health Protection
MFI	Microfinance Institution
SDG	Sustainable Development Goals
SHG	Self-Help Group
UHC	Universal Health Coverage
USD	United States Dollar

Background

Sustainable Development Goal (SDG) 3 focuses on *Ensuring Healthy Lives and Well-being for All at All Ages*. A target within SDG 3 is universal health coverage (UHC), which includes a dimension of financial protection.[1] UHC is technically achieved when everyone has access to quality health care without experiencing financial hardship. Governments have long recognized that out-of-pocket health expenses as a portion of a household's budget can be catastrophic[a], particularly for low-income households, and result in households choosing between health and other essential needs such as food or education.[2] While government and developmental assistance funding for health has increased over the past two decades and is expected to continue increasing into the future, out-of-pocket expenses are projected to remain high for low-income countries.[3] In Africa, for example, it is estimated that out-of-pocket expenses account for 35 percent of total health expenditures in the region, with more than three-quarters of African nations spending more than twenty percent on out-of-pocket health expenses. Health insurance coverage remains very low and contributes only seven percent of health expenditure.[4]

Health shocks are the most prominent idiosyncratic shocks and stresses that low-income households face, particularly when they affect primary income earners as health costs are compounded by loss of income.[5] Research conducted by the International Labor Organization (ILO) shows the demand for health financing support is often higher than any other financial risk management solution, and demand far exceeds the supply.[6]

Recent research documented how well-designed financial services can help low-income households build economic resilience and reduce the vulnerabilities that they experience regarding shocks, such as climate, health, or political shocks.[7]

This paper aims to outline the lessons learned by Grameen Foundation, supplemented by other research, on how financial services can be better designed to respond to health expenditures of low-income households.

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a Catastrophic health expenses are considered as those that are greater than 10 percent of total household expenditure or income.

Microenterprise credit is not an effective tool for covering health costs and improving health.

The original hypothesis for the provision of micro-entrepreneurship credit was that it would provide households with increased income, resulting in increased investment in health and improved health outcomes; this has yet to be validated through research[8], even when microenterprise credit has been bundled with health education[9]. While microenterprise credit, void of other alternatives, has been found to be actively used by low-income households to meet health expenses[10], it is not an effective means to manage risks, due to loan sizes, eligibility, and unsuitability to address a household's short-term need for cash[11].

Health microinsurance is not always available and does not cover all health expenses; remaining out-of-pocket expenses can still be catastrophic for low-income households.

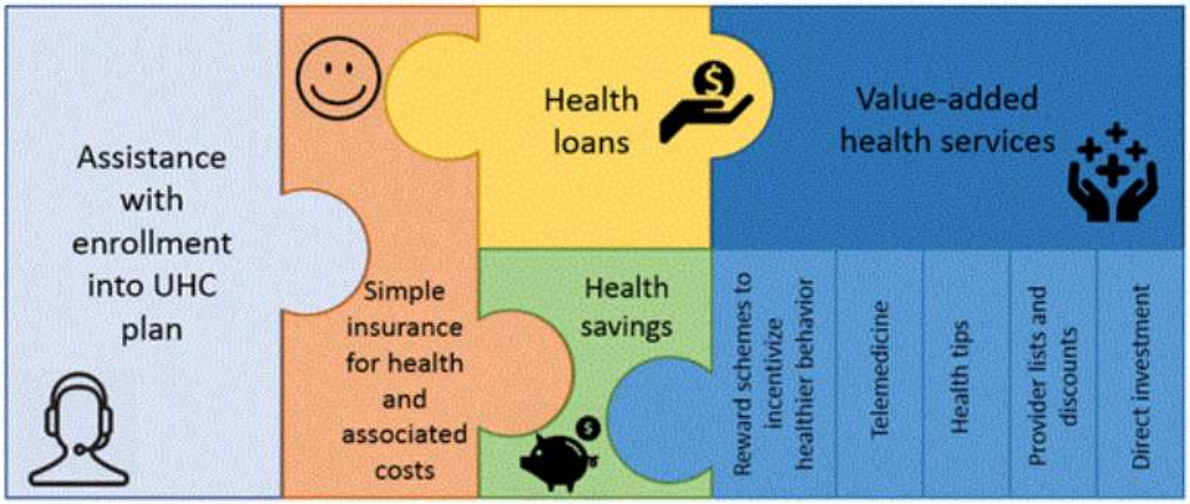
Microinsurance is one of the most obvious financial tools that households can use to anticipate and respond to high-cost health shocks, and most traditional and mobile microinsurance schemes cover hospitalization or in-patient costs.[12-13] However, low-income households have been found to have low perceived value of hospitalization products, even though they are the most widely available.[14] Berman *et al* found in India that low-income households were three times more likely to fall into poverty as a result of outpatient expenditures than due to hospitalization.[15] Pott and Holtz also found that outpatient expenditures are ten times more burdensome for poor households than hospitalization expenses over a ten-year time frame.[16] Women's World Banking in their research on health microinsurance found that "indirect" health expenses, such as loss of income, transportation, special food and bribes paid at the hospital can account for 70 percent of total treatment expenses.[17] Magnoni *et al* found in one study that insurance only covered 25 percent of the total out-of-pocket expenditures, as indirect costs such as transportation and lost income were not costs covered by the insurance scheme.[18] However, products such as hospital cash insurance products, which provide a cash payout in the event of a hospital stay, are designed to cover indirect expenses. MicroEnsure, a microinsurance provider, indicated as of 2017, hospital cash insurance products had been successful in reaching 63 million enrolled customers across 11 countries in 4 years time.[19]

In addition to or in absence of health microinsurance, other health financing products, such as savings and loans, are needed.

There have been a few efforts made to capture how other financial tools, such as health loans and savings, can be used to help households anticipate and respond to health costs. One of the most cited studies, conducted by Dupas and Robinson, found that when low-income households are offered variations in commitment devices to help them save for health, they

do indeed actively use and appreciate these tools.[20] Two literature reviews developed in 2012[21] and 2017[22] captured the latest research on integrated microfinance and health programs, of which health financing was one of several interventions used by microfinance institutions to address client health concerns. The ILO also recently summarized lessons to-date regarding the design, use, and documented benefits of how health financing instruments contribute to a household's ability to anticipate, respond, and recover from health events. [23] Even as UHC gains traction globally and there are advances with mobile health microinsurance, financial service providers (FSPs) can play an important role in helping households address the out-of-pocket expenses that UHC programs and microinsurance products do not cover, which often include travel, food, accommodations, medicine, among others.[24] The following graphic developed by Morgan and Churchill of the ILO depicts the vision of how FSPs help build upon and fill the potential gaps of UHC:

Figure 1: Full Package of Health Interventions for FSPs



Source: Morgan and Churchill, 2018; https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/genericdocument/wcms_633702.pdf

New designs of and delivery mechanisms for health financing products can draw on critical lessons learned.

For the past 15 years, Grameen has been a significant contributor to the development of financial tools for health. While the majority of this work has occurred outside of a digital ecosystem, early lessons on how to help households anticipate, respond to and recover from health expenses suggest that digital health financing tools can be designed to help households to better respond to how they perceive health expenses: as an emergency that requires fast response times. One might argue that some health events can be anticipated, such as the birth of a child, but Grameen's experience has demonstrated that any expenditure that cannot be met with current income is experienced as an emergency or

household shock.[25] Research by Gennetian and Shafir shows that households living in poverty have very little "slack"; even anticipated events are experienced as any other unexpected expense or emergency.[26] Jones and Gong found in a study in Kenya that education expenses were experienced as a shock, in the same way as the illness of a child.[27]

Grameen's early experiences in developing formal health savings and loans, informal health savings products with savings groups, and linking microfinance clients or clinic patients to health microinsurance across the globe (namely Ecuador, Bolivia, Burkina Faso, Benin, India, the Philippines, and Kenya) have resulted in the following lessons that can help inform future product designs:

1. **Understand the types and related amounts of out-of-pocket health expenses.** Even when there are strong assumptions that primary healthcare is free or that households are covered by a national health insurance scheme or other health insurance schemes, such as those that cover hospitalization, it is important to understand the direct and indirect out-of-pocket expenses that people can incur. Also, even when there are strong free public healthcare options, households can also have preferences for private health care or traditional healthcare due to trust, availability, and affordability.

    - Freedom from Hunger[b], with funding from the Bill and Melinda Gates Foundation outlined the types of health expenses that most households face, and noted what expenses health loans[28] were best designed to cover (such as large medical expenses—surgery, hospitalization, serious illness) or health savings[29] were best designed to cover (such as for office visits, medicine, transport). In an ideal world, loans specifically designed for health purposes would not be needed or promoted: people would have enough savings to seek and pay for preventive and primary care on their own and/or would have private health insurance and/or national health programs that could cover more serious and costly treatment. However, the reality is that most of the poor do not have access to affordable healthcare and financing options. In most low-income countries, poor families pay a high proportion—about thirty percent in many African countries—

b Grameen Foundation and Freedom from Hunger merged into one organization in 2016. Health financing efforts clearly completed prior to the merger will be referenced as work completed by Freedom from Hunger; nevertheless, this body of work informs Grameen's continued work in this area.

of their health costs directly to health providers out of their own pockets[30] and use their microenterprise loan proceeds to cover health expenses[31].

- In India, using a series of health diaries, Grameen found that even when low-income women received free pre-natal care and were guaranteed a government payment to cover the costs of an institutional birth, there were significant out-of-pocket expenses that could be catastrophic, such as purchasing prenatal vitamins, medicines, bed fees, and fees for birthing attendants.[32] Also, women faced challenges in accessing these government incentive payments after the birth of their child, with some women needing to return to the health center multiple times to inquire about their payment. Some women never received their payment at all. Figure 2 below shows the general health costs incurred by households in India. Direct health costs are those such as paying for doctor fees, medicine, exams. Indirect costs are those such as travel, food, accommodations needed during visits to the doctor. Average direct costs were estimated across nine surveys at 1,401 Indian Rupees (INR; ~$20.00 USD)[c], indirect costs at 324 INR (~$5.00 USD), totaling 1,725 INR (~$25.00 USD) per health event. On average, approximately a third of households felt the health costs they incurred were a significant burden. Total health costs ranged from an average of 1,000 INR to over 2,500 INR in the three weeks prior to the survey. During surveys 8-9, there significant flooding occurred in the surveyed villages. Health costs dropped, but when they were incurred, they were considered a significant burden. This is consistent with other research on health costs that shows when a household is under significant financial strain, they will not seek health care and will in fact delay treatment. [33] This likely explains the steep increase in costs again by the final survey, when the short-term financial implications of the flood had passed.

  Also in India, women reported duplicating public healthcare services with private healthcare for pre-natal check-ups and exams due to a stronger trust of private healthcare providers; conversely, some reported preferring quacks or traditional medicine to formal healthcare due to the close proximity, availability, and affordability of the services. These preferences for health care can determine the attractiveness of health financing products if the designs do or do not respond to these preferences.

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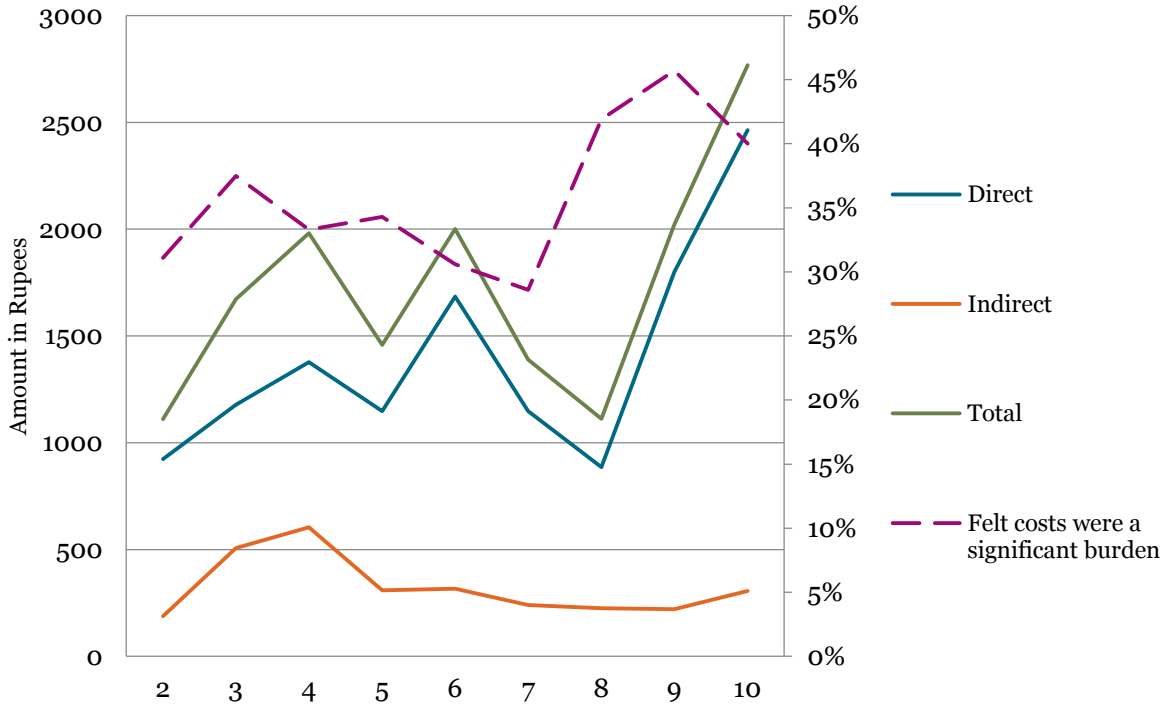
c As of July 2019, 68.5 INR = 1 USD; http://www.xe.com

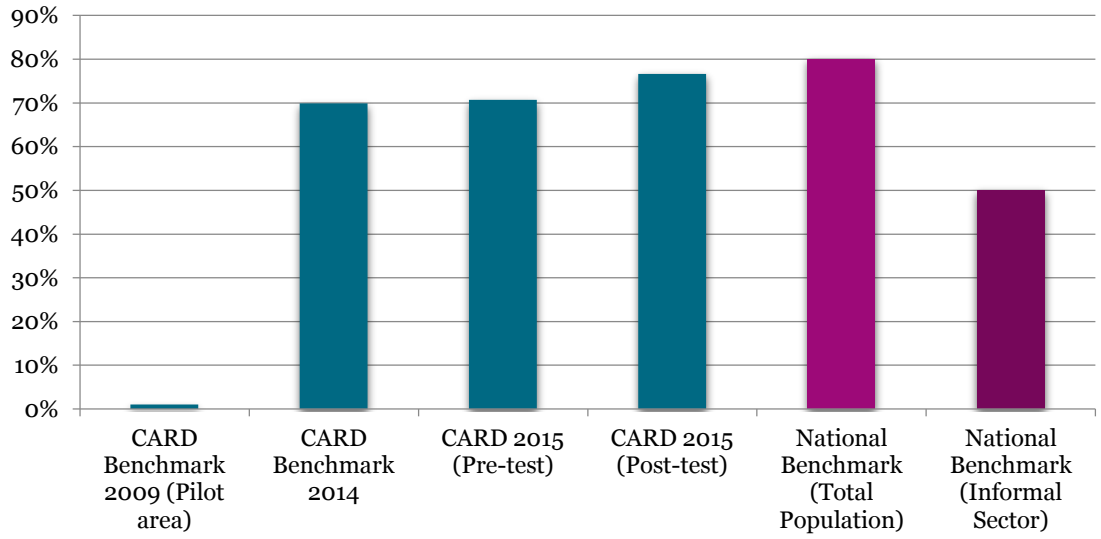
Figure 2: Health Costs and Reported Cost Burden



Source: Bardsley AB, Gray B. 2018. https://grameenfoundation.org/resource/breakthroughs-affordable-health-care-what-%E2%80%98health-diaries%E2%80%99-tell-us-about-managing-health

- In the Philippines, where people have access to PhilHealth, the national health insurance scheme, the premium payment can be prohibitive for low-income households or those working in the informal sector. CARD MRI designed a health loan to help households cover the premium cost which allowed households to pay out the cost of the premium over time. CARD MRI also assisted their clients in completing and submitting the required paper work. As a result, CARD increased uptake of PhilHealth among its clients, resulting in client enrollment exceeding the national average for enrollment of the informal sector.[34] See figure 3 comparing enrollment rates.

Figure 3: PhilHealth Enrollment Comparisons



Source: Gray *et al*, 2016 ; https://www.freedomfromhunger.org/kalinga-kay-inay-healthy-mothers-healthy-babies-program-evaluation

2. Red tape has to be extremely minimal. Good intentions to ensure health financing tools were used only for health have created onerous and time-consuming tasks for the client. For example, for FSPs that wanted to give lower interest rates for health loans, they also wanted to ensure the loans were only used for health. Also, to help clients earmark savings only for health, hard commitments were put in place to ensure the funds could only be used for health. These requirements resulted in barriers to effective use of the products, unless the health expenses were scheduled and anticipated, such as for a planned surgery or procedure.

    - In Burkina Faso, when assessing the use of a health savings and loan product designed with a local credit union, Freedom from Hunger found that withdrawing money from a health savings account required the leadership committee, which typically consists of the three group members of a village bank, to request permission from their husbands to travel to a local branch.[35] Despite the fact that the village banks had already broken down barriers to women's mobility resulting in women being allowed to meet outside of their homes as well as access and use savings and credit provided by the credit union, women indicated they had to *"wait for the right time to ask their husband, basically when he is in a good mood, to leave the home"* to make withdrawals from the health savings account on behalf of the group. This was one factor contributing to the low use of this product.

- In Bolivia[36], Ecuador and Mexico[d], early health loans designed for women village bank members required receipts and treatment plans to qualify for the loan. For some, the proceeds of the loan were paid directly to the healthcare provider, resulting in a "cashless system" for the clients until clients repaid the loan during their regularly-scheduled meetings. For others, due to the lag time between the incurred health cost, which may have been incurred outside the FSP's business hours, and the loan approval, the loan came more in the form of a reimbursement. Both loan designs resulted in low uptake given the paperwork needs, time needed for loan approval and disbursal of the loan.

  It was discovered in Bolivia that the health loan was competing with a fairly popular loan called the *credito oportuno*, or opportunity credit, which made it more challenging to detect the effects of the health loan. Many of the clients requested the *credito oportuno*—a smaller loan with a higher interest rate—because it was a more flexible and could also be used for general consumption. While the *credito oportuno* competed with the health loan product, it also complemented the health loan because those who did not need a large health loan could take the *credito oportuno* and use it for less costly medical needs (such as paying for services at FSP-organized health fairs, seeking out follow-up exams, etc.).

- Gennetian and Shafir's research also confirms the challenge of creating too many steps in a process to receive and use a product.[37] See Box 1 below. These complicated steps can raise ethical questions when working with illiterate and low-income populations if the steps unfairly disadvantage a person from using the product.

Box 1: Mental Bandwidth and Cognitive Demands

"Well-intentioned programs often introduce features that impose regressive taxes on people's cognitive capacity, on their mental bandwidth available for juggling daily routines. There are reasons for these design features, including the verification of eligibility criteria (that often impose

d References to work in Ecuador and Mexico do not have corresponding public documents due to being consultancies.

bureaucratic and administrative hurdles), eligibility cliffs, and recertification processes intended to minimize windfall and maximize efficient allocation of limited resources to target populations. These same features, however, can impose cognitive demands and present an impediment that offsets any presumed cost-benefit analysis. This implies that even small costs, such as asking individuals to front $1 for their otherwise subsidized metro card, can entail trade-off thinking, as well as planning, remembering, and implementing needs, and may present a sufficient obstacle to using the card to get to work."

- Gennetian & Shafir

- Lagarde *et al* found in a study assessing six cash transfer programs and their impact on improving uptake of health interventions in low and middle-income countries that demand-side strategies, such as conditional cash transfer programs, can only go so far if the supply of health services remains inadequate.[38] While cash transfer programs that mandated use of preventive healthcare services as a condition for receiving the transfer increased use of health services and improved the adoption of preventive behaviors, the impact on health status (such as on improved morbidity) was not always consistent across the studies. The study remarked that if there was little improvement in health status, clients would start to see the required preventive healthcare visits as a waste of their time.

3. Designs have to compete with (and exceed benefits of) borrowing from friends and family and other informal lenders, such as moneylenders. While not always preferable, low-income households often resort to borrowing for health from friends and family[39], and moneylenders (when liquidity of family and friends is not sufficient), due to easy access to funds and flexible repayment options when borrowing.

   - The 2017 Global Findex survey asked respondents whether it would be possible to come up with an amount equal to 1/20th of gross national income (GNI) per capita in local currency within the next month.[40] It also asked what their main source of funding would be. In high-income economies, 75 percent of households were likely to indicate they could raise emergency funds and they would most likely use savings to cover the cost. In low-income economies, only 50 percent felt they could come up with the emergency funds and cited they would turn to family or friends or use money from working. Unlike high-income economies where women were as likely as men to indicate they could come up with the emergency funds, women in developing economies were 11 percentage-points less likely than men to say this.

- Grameen has also found in its research that households are very likely to rely on friends and family for covering an emergency expense in Benin[41], Burkina Faso[42], and India[43]; however, because women in these countries were also members of savings groups or village banks, they were more or equally likely to rely on savings or loans from their groups to cover these expenses or from money earned through working. In Ecuador, marked use of *chulqueros* or moneylenders was also noted. In Burkina Faso, when women had access to the health savings and loan product, they often resorted to borrowing from friends and family because their access to the health savings and loan funds could only be used during business hours. They also saw these loans as less risky and cheaper (as interest might not be charged due to the close relations). Therefore, they still had to use typical coping mechanisms, and in some cases resorted to negative coping mechanisms, such as reducing food consumption, to cover health expenses. This negated the real perceived benefit of having set money aside for health. Thus, the commitment devices were "too hard" to be useful in a time of need. Similarly in India, the use of the health savings fund held by the self-help group (SHG) could typically only be accessed when the SHG was meeting. The research suggested that it was only those people who experienced a health event aligned with the timing of the meeting that requested a loan from the SHG to cover the health expense.

4. Privacy matters. While households note their use of family and friends for covering health expenses, it is not necessarily a preference. Seeking funds from other people requires them to explain the need and urgency for the funds, resulting in many people knowing their private health needs. Products that build in privacy protections are needed.

    - In Burkina Faso, Grameen found that while family and friends helping cover health expenses is common, people really would rather keep their health issues private.[44] One of the original, most attractive design features of the health savings and loan product noted by the clients was the feature that allowed them to keep their health matters private; the account helped them avoid having to ask friends and family for financial help. However, the village bank member still had to reveal her reason for requesting a savings account withdrawal or health loan to her group. The client had to inform the leadership committee members of her group, who in turn had to justify to their husbands their own reasons for traveling to assist in making a savings account withdrawal. Thus, privacy was still not fully maintained, even if there were new boundaries for protecting it. For individual health savings and loan account holders, privacy of their health matters was better protected; however, they still had to explain their request to the credit union officers and provide valid receipts and documentation to justify the expenses.

- In India, women in SHGs saved for health in addition to their normal savings and used health loans that were drawn from the group's health savings to respond to health costs.[45] At the end of the savings cycle, women shared out the funds, which captured "interest" through the provision of the health loans and other fees and penalties established by the SHG. While the majority of the 2,000+ SHGs served by Grameen's partner decided to take up the use of the health savings and loan process, only 69 had taken a health loan at the time of final reporting. Despite the low usage of the health loans, one SHG client shared, *"If there is any problem, we can get money immediately to get a health check-up. We have one year to repay. Before health savings, we had to borrow from others and that was shameful. Now we don't have to do that, so we are happy."*[46]

5. Consider the decision-making power as well as the capacity of women to meet healthcare expenditures. Research has shown that money in the hands of women often results in improved education for her children and the health and nutrition of the household[47]; however, women's decision-making power is quite nuanced. Seymour and Peterman through their research indicated that context and measurement matter for understanding individual decision-making power and that those aiming to understand decision-making power need to undertake a careful analysis of men's and women's perceptions of decision-making within the household.[48] The same is needed for understanding women's decision-making power regarding health.

   - In Burkina Faso, while men tended to make most decisions related to financial services and agricultural production, women reported playing a stronger role in decisions made as they related to household shocks.[49] This may be in part to women having access to their savings groups and loans to respond to household shocks.
   - In India, while women reported making many of the health decisions alone or jointly with their spouses, when a health event occurred, women actually reported that their husbands made the final decision as to how they responded to the illness.[50]

     Women were also asked how they were affected differently from men by health crises. The dialogue around these events revealed that the burden on women was often greater than that of men, or just simply different. For example, when asked about major health crises, such as a major illness or death in the family, men were primarily responsible for paying for treatment and funeral expenses. *"Men are more responsible for income-related issues. If there are a large number of illnesses, men have to think more how to get money. Who will get money?"* Women, on the other hand, were responsible for caring for the sick person as well as trying to find money for treatment

when her husband's income was not sufficient to cover the health expenses. Because of her connection to her village bank or savings group, she had the responsibility of seeking out a loan from her group or elsewhere. Box 2 below shares anecdotes of women's experiences in confronting health issues.

Box 2: Anecdotes of how women experience health shocks

"If there is a big illness in the family, then a lot of money is spent. If there is no money in the house, she has to suffer a lot while collecting money. They have to spend their days without eating."

"If there is a major illness in the family and if the men do not meet the financial problems, then the woman will have to borrow from a lender. To get a loan, she has to be insulted by the lender. Or to be physically abused."

"Women work in the household to take care of the sick person. She has to run to collect money from the group."

"To take care of the sick person or take a loan for illness, women work hard to repay the loan. Many women sell their jewelry, land, house to collect the treatment cost."

"If there is any big health issue in the family, then the woman has to take pressure to raise money compared to men because if a man doesn't raise money, when they see a woman, the people give money due to kindness."

- Other research also indicates there are important considerations for women's ability to influence use of health financing. Dror *et al*, in a meta-analysis of community-based health insurance (CHBI), found that four-fifths of the studies conducted on the factors that influence uptake and use of CHBI show a positive association between enrollment and female-headed households.[51] However, in some regions such as Sub-Saharan Africa, three of the nine studies conducted in that region showed a positive association between enrollment and male-headed households. This suggests that the design and the offer of the products has to consider whether products targeted directly to women will be used effectively if she has limited decision-making power at home. Research assessing the impact of cash transfers on women's empowerment[52] or the effectiveness of providing the cash transfer to women or men[53], resulted in mixed findings. Other financial diaries research has also found that women's financial aspirations and behaviors are heavily influenced by social and cultural norms: women face more interruptions in their livelihoods (for example, due to pregnancy and caretaking of children and other household members) than men do; they have gendered financial responsibilities and different priorities, such as being more in charge of children's needs; are more likely to have small business activities to fill gaps in the family's financial needs; and, women's behaviors are more strictly enforced

by society.[54] Moreover, Dupas found in Kenya during a randomized control trial testing interventions to increase uptake and use of insecticide-treated mosquito nets, that there were no major differences in uptake between the genders, but sharing product information to the couple together increased uptake.[55] Rozenkrants[56] conducted research on husband/wife couples and their money and found that "joint decision-making" as it relates to financial decisions tends to favor men's preferences and that financial service providers should provide incentives to couples to engage in financial matters together, and financial tools should have requirements for joint decision-making.

- An important consideration, not only for the use of health financing but also for health services, is that women in developing countries will often postpone meeting their own health needs to meet those of male family members directly involved in earning income.[57] This has implications for the uptake and use of health financing products as well as the type of coverage and type of health services women need. Microfinance institutions that have leveraged regularly scheduled village bank meetings to bring health services directly to the women they serve have been found to be popular. For example, an FSP in Bolivia, leveraged credit meetings and other regularly scheduled events to offer and schedule annual exams, blood pressure and blood tests, and other diagnostic procedures to assist their women in prioritizing their own health needs. Discounted services were organized and health loans were offered for more advanced care needs.[58]

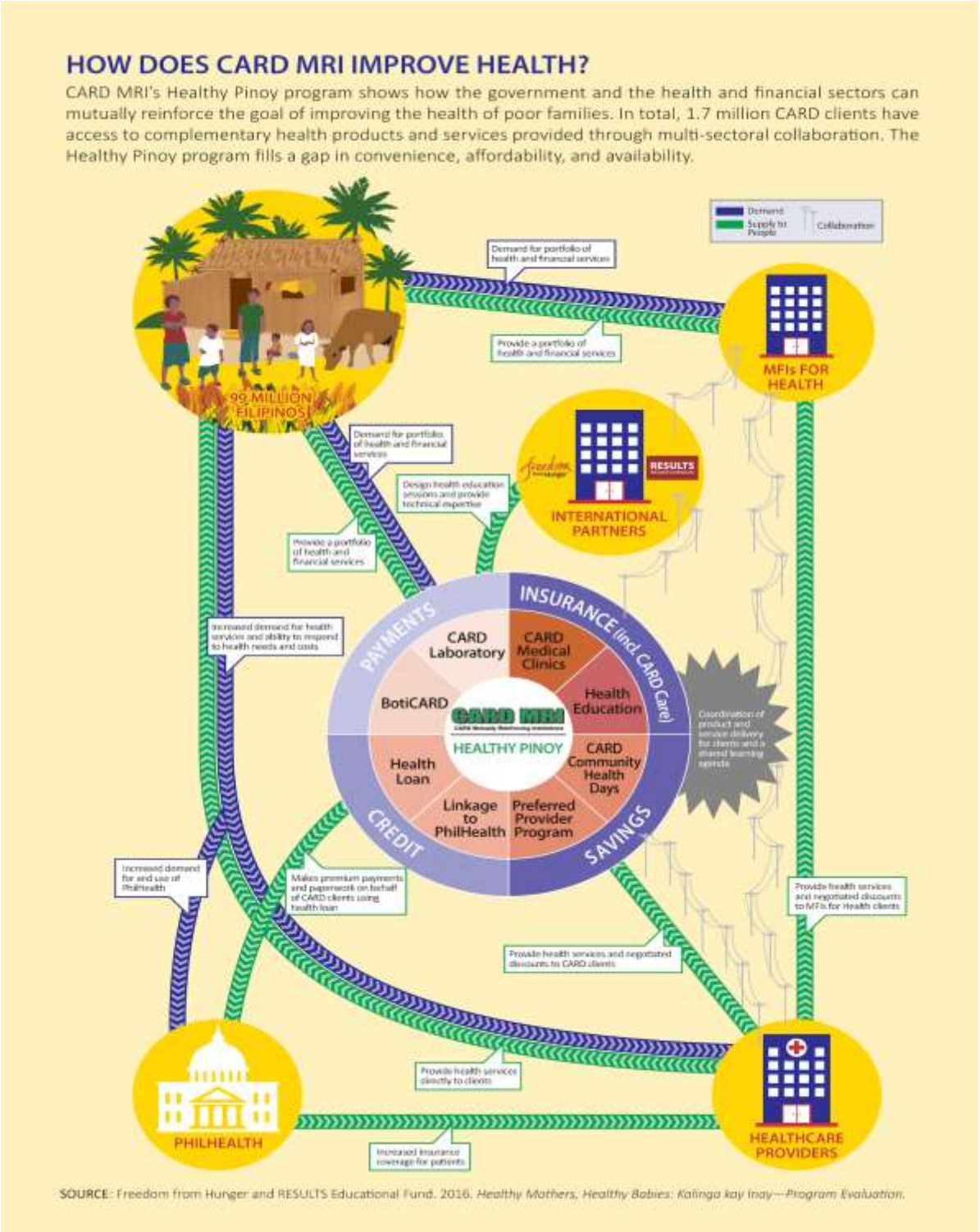
6. Design for a financial portfolio approach, but be careful with bundling. As Figure 1 above suggested and experience shows, households need a portfolio of financial (and non-financial) products to ensure they can cover the different types of expenses they incur when seeking health treatment. Financial diaries research has shown that households already rely on multiple financial tools for household financial management—between 10-20 distinct financial devices in their portfolio—and benefit from them.[59] In practice, any one health financing tool only covers a portion of the costs. The portfolio of services needs to balance the high frequency, low impact health expenses (that savings, person-to-person payments can cover) with the low frequency, high impact health expenses (that insurance and loans can cover).

    - CARD and Grameen have partnered for nearly thirty years on the development of various financial products as well as integrated microfinance programs such as Credit with Education, the Microfinance and Health Protection Initiative (MAHP) and Healthy Mothers Healthy Babies (HMHB). CARD is one of the best examples of an organization that provides a portfolio of financial services but also the supporting services that help drive demand and utility of health services. CARD has coordinated discount medicines and a payment card to use at pharmacies through their BotiCard service; linkages to PhilHealth, the national

health insurance scheme; a health loan that assists their clients in meeting the cost of the PhilHealth insurance premium; and CARD Care which is an insurance product for the member and her/his spouse to cover personal accidents and a daily sickness/accident benefit. Clients also have access to various savings and loan products that they can earmark for different needs. Figure 4 below depicts the ecosystem that CARD MRI has helped develop through partnerships and product development to cover CARD clients' various health needs. The importance of considering how the financial products link to healthcare services is covered further below in section eight.

- Research that Grameen conducted in Burkina Faso to determine the factors that were associated with whether a household saw itself as being resilient found that women who were members of both village banks (credit-led) and savings groups (savings-led) felt more resilient than those who were members of only one type of group. [60]
- In Ecuador and Mexico, Grameen found that when bundling compulsory micro health insurance with microcredit, that clients often were not aware that they were paying for the compulsory insurance; therefore, they were not capable of using the health insurance product. When their awareness grew, this caused some dissatisfaction despite their eagerness to have the loan. Health insurance education helped to increase the use of the health insurance product as it increased awareness of the services available to them. When different types of insurance coverage were combined, such as health with accident-related insurance or basic primary care insurance with cancer insurance, clients appreciated the different needs that were being covered. Moreover, Grameen found that MFI clients did not appreciate maternity or birth insurance products as much as child life insurance and disability or pension insurance of which they voiced much more willingness to pay.

Figure 4: CARD MRI's Health Services and Financing Ecosystem

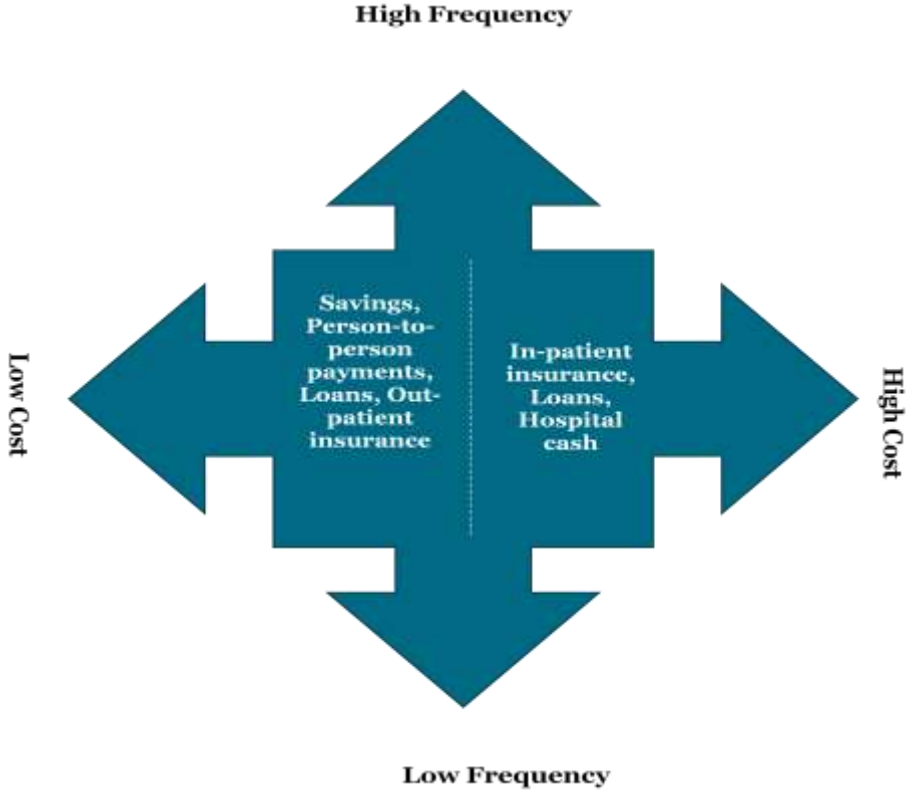


- Grameen partnered with MicroEnsure to develop a product package called Fearless Health that included: access to a hospital cash plan that paid money on behalf of a client for hospitalization costs if they stayed three or more nights; an on-demand health loan that could cover out-of-pocket health expenses at specific outpatient clinics (not related to a hospital stay); and, other complementary services such as medical advice by phone (an SMS service where patients could text questions to a doctor). These services were designed to complement Kenya's national health insurance scheme. This product was eventually discontinued (per MicroEnsure's interview in Morgan and Churchill's paper[61]) due to not finding the right distribution partner for all of the program components. However, MicroEnsure indicated that clients valued the health loan they could access to help cover out-of-pocket expenses not associated with hospitalization. An important lesson noted was the importance of thinking about the long-term sustainability of the product. The focus of only designing the product for poor households may have made the product less attractive to those institutions willing to take it forward given the limited business case. Also, initial marketing of the product was funneled only through users of the clinics, also limiting those who were aware of the health loan.
- Jones and Gong recently assessed how a mobile banking savings account labeled for emergency expenses resulted in increased savings and reductions in transactional sex that served as a coping mechanism for responding to household shocks.[62] The researchers leveraged the use of a new M-PESA account, which in addition to their existing M-PESA account could be used to earmark savings for a special goal. Vulnerable women were encouraged to use this account to save for an emergency. Money could be pulled out of this savings account at any time, resulting in a "soft" commitment device. The researchers tracked the report of childhood illnesses—frequent, smaller shocks-- among the women and how this interacted with report of resorting to transactional sex to cope with shocks.
- Lorenzetti, Leatherman and Flax found that health microinsurance bundled with other health financing tools demonstrated mixed effects across three studies.[63] For example, while bundling health microinsurance with microloans may increase use of health services and have some positive effects (such as reducing child labor), clients can be opposed to compulsory bundling, resulting in a net loss to the use of the health financing tools. Banerjee *et al* in India found that a large fraction of borrowers actually gave up their use of microfinance to avoid purchasing the health insurance that was bundled with the loan.[64]
- Peterson *et al* found a similar challenge.[65] In the design of a voluntary health microinsurance product in Lagos, Nigeria, initial uptake was low. Consequently, the microfinance institution, who served as an agent of the insurance company, began requiring that large-loan clients enroll and pay for the insurance product. The health insurance product experienced decreased enrollment over time, with

the final year of the project resulting in no enrollments. The move from voluntary to mandatory enrollment of the insurance among clients who had the larger loans (smaller-loan clients could voluntarily enroll) caused dissatisfaction among clients. Some clients considered changing to a microfinance provider who still provided credit but not mandated insurance. One client from the study was noted as saying, *"I do not need insurance. They can take my money for now. I will not come back when my loan is paid."*

- But other research conducted by Innovations for Poverty Action in the Philippines testing the impact of microcredit on borrowing, business outcomes, and risk management strategies of micro-entrepreneurs found there were potential trade-offs when households were provided more financial options.[66] Their research found that access to microcredit resulted in households reducing their use of formal insurance, including life, home, fire, property, and car insurance, and increasing their use of informal sources of credit in an emergency, such as family and friends. The study suggested that microcredit improved the ability of households to manage risk by giving them additional options: using credit instead of insurance or savings, and strengthening family and community risk-sharing. A study by Bharadwaj, Jack and Suri in Kenya found that households who used M-Shwari, a digital loan product, experienced improved resilience.[67] Households were 6.3 percentage points less likely to forego expenses due to negative shocks.
- Microinsurance experts often talk about the bundling of insurance products to ensure that low-cost but high-frequency health events (such as colds, malaria, etc.) can be covered at the same time as high-cost but low-frequency events (such as surgery, accidents, etc.). In the same fashion, health financing products should respond to the same need. Figure 5 below paints a simple picture of the types of products that are needed to ensure these needs are met. High frequency/high cost health needs would be those associated with diseases like multiple sclerosis, tuberculosis, or cancer where medications and medical care are both expensive and required on a frequent basis. Low frequency/high cost would be those expenses associated with surgeries, accidents, or child birth. High frequency/low cost and low frequency/low cost would be expenses associated with illnesses that can often be covered by primary care visits like allergies, anemia, colds and flu, malaria, among many others. The dotted line between the two main categories indicates that in some cases, it depends on the nature of the illness as to the type of health financing product that would be required (ex., uncomplicated versus severe malaria).

Figure 5: Types of health costs and associated health financing products



7. Timing matters. It is not always the cost, but the timing of a health event or health cost that matters. The timing of insurance premiums, for example, can be the biggest barrier to insurance enrollment due to the irregularity of income streams.

    - In a randomized trial conducted in Ghana with a microfinance institution, Freedom from Hunger designed health insurance consumer education to be conducted with clients to determine whether this increased enrollment for Ghana's national health insurance scheme.[68] Awareness of the insurance scheme was not found to be a key barrier: convenience of registration and the timing of making the premium payments were more common challenges for enrollment. The research also showed that insurance registration and enrollment status were not closely associated with household income or spending measures. Ofori-Adjei from a study conducted in 2007 regarding health insurance in Ghana also found that individuals who become members of health insurance schemes eventually abandon their memberships because of their inability to make payments on their dues and insurance premiums.[69]
    - van Bastelaer *et al* found that one of the main reasons for low use and discontinuation of the use of an electronic, stored-value card designed to help

pregnant women save for maternal healthcare services at a Nairobi hospital was that those who used the card started saving too late in the pregnancy to accumulate sufficient funds to pay for their childbirth expenses.[70] The card was also only promoted to women who visited the clinic and had already decided they wanted a hospital birth, limiting its access to women who were not planning to give birth in a hospital. Also compounding limited access was that by the time women visited the clinic for their antenatal care, they were often already several months pregnant, resulting in little time to save for the birth of their child.

- Dupas *et al* found in three countries that bank accounts were not highly used due to liquidity constraints.[71] When people most needed the money, the time and cost of traveling to the bank as well as unavailability of funds outside of business hours were disincentives to low-income households. This may explain why health savings lock boxes[72] and mobile savings wallets earmarked for health[73], which provide softer commitments and easier access to funds, have been found to have higher usage and better help households respond to health needs.

8. ## Demand for and supply of quality health services have to intersect.

The success of health financing options is highly related to the availability, quality, and satisfaction with health care. If local health services are not demanded or available, then neither will be health financing products be demanded. The provision of health financing tools has to meet up with health services that are perceived to be of quality and within close proximity. One without the other results in low usage rates of health services overall. This requires intentional and long-term partnership approaches between the health and financial sectors.

- Prior to joining the microcredit movement the late 1980s, Freedom from Hunger concluded that providing health education alone to women would continue to have limited impact so long as women could not financially act on the health advice. Microcredit was seen as the financial instrument that was needed to provide women with the opportunity to generate income, and therefore provide them with the ability to pay for health and nutrition services.[74] Conversely, in the early 2000s, Freedom from Hunger demonstrated that microfinance institutions have an incentive and can provide health services along with their typical financial services.[75] Figure 4 presented earlier on CARD MRI is the perfect example of how some FSPs have chosen to create deliberate linkages or create their own products to ensure a functioning health services and financing ecosystem exists.
- In Jharkhand, India, health diaries research outlined the constraints women faced when seeking health care, such as the time to travel to a formal health provider and the dissatisfaction with the experience once reaching a clinic or treatment center.[76] These constraints resulted in women using quacks, or

untrained doctors, more often than formal healthcare providers. Over half of the women reported that they chose their health provider based on quality (which in this case, "quality" can also be interpreted as basing a decision on the distance to the health provider, not only on whether the services were formal healthcare services). Some pregnant women even duplicated services, using both free government health services and private health providers to ensure proper care.[77] Box 3 shares some of the anecdotes from the women interviewed.

Box 3: Anecdotes from women in Jharkhand regarding quality and proximity of health care

"If we go to this [quack], it costs less money for medical care. He does not go away."

"The [quack] is near our home. Time is lost when traveling to another place, and there are travel costs. We are well treated by the doctor [the quack]."

"The [quack] is available all the time. Medicine cost is very low. I can't go far with the kids all the time, so we come here."

- Between 2011 and 2013, Freedom from Hunger worked with a financial cooperative in Ecuador to develop an integrated microfinance and health strategy, which included health education, health loans that provided up to ten times the amount a client had in savings on deposit ($3,000 maximum and a 24-month term), and linkages to health providers.[78] Between 2013 and 2016, efforts towards improving health financing options for clients continued. The original health loan design proved challenging: the requirements for receipts for the loans from clients and the fact the loans could not be accessed when needed, resulted in very low uptake of the loan. Clients needed access to funds at night and over the weekend. The partner therefore developed a new financial product—a line of credit accessed through a consumer credit card designed for health that could be used at any time, at any health provider in the network. At the start of the project, less than ten medical providers could accept the card. At the end of the project, the point-of-service systems had been expanded to an additional 586 health access points, including health providers, hospitals, ophthalmologists, dentists and three different pharmaceutical chains. This ensured that clients with new-found flexibility and availability of funds could seek health care and cover their expenses whenever the need arose.
- A recent report from Results Educational Fund, Grameen, Freedom from Hunger India Trust and Sa-Dhan in India documented the efforts of the microfinance sector in India to support the health needs of their communities.[79] Out of 60 institutions, 37 of whom belong to a Community of Practice for Health and

Microfinance (COPHAM), 38 organizations provided health education, 13 provided health camps, 16 directly linked their clients to existing health services through a specialized arrangement, 16 provided health loans, and 6 provided health insurance. One organization provided a health savings product. To ensure the women had a place to use their savings, they worked heavily with the local government and health officials to coordinate health services and activities. This work resulted in laying the road map for building an eco-system conducive for their members' using the facilities offered by the government health system.

- The importance of supply and demand for health services is well-documented in other research as well. For example, Pott and Hotz reported in an ILO publication that an increasingly-common reason that is cited for low-enrollment among health microinsurance schemes is the limited availability of outpatient care.[80]
- Saha reported the experience of an MFI in India that launched a microinsurance product with a major insurance company in India in 2007 and had to close down the product in 2008 due to the primary healthcare provider providing sub-standard health treatment.[81]
- A meta-analysis conducted by Dror *et al* on the factors that affect the uptake and use of CBHI found that a person's perception that health services are distant or deficient led to lower enrollment in CBHI.[82]
- Peterson *et al* in Lagos, Nigeria found that microfinance clients that had new access to a health microinsurance product were still hesitant to use the outpatient services covered under the plan due to both cultural norms (such as preferences for traditional healthcare) and the opportunity costs for seeking treatment.[83] Time spent traveling to or waiting for health services resulted in lost income. One healthcare provider was noted as saying, *"The main question is do we understand how clients want to interact with our healthcare delivery system. Can we mimic the traditional healers and chemists and be everywhere in the street, marketplace, and provide evidence-based care? Can we make ourselves [doctors] as accessible as our competitors do?"* A client also noted the desire to have health services closer to their doorstep due to the opportunity costs of leaving their businesses to seek care, "*Having a mobile clinic at the market would be better than insurance. I do not have to just leave my business and go to the hospital."*
- M-TIBA is a digital health financial services product in Kenya developed through a partnership among Safaricom, CarePay, and PharmAccess Foundation.[84] M-TIBA offers: a commitment mobile savings account which provides a capability to receive, send, and spend funds for medical treatment; health insurance for beneficiaries; and health funds and payments management services for donors and clinics. The money spent through M-TIBA has to be spent at M-TIBA's partner clinics and hospitals, serving technically as a hard commitment device for

the use of the funds. While evaluation of impact of this platform on financial and personal health outcomes is underway, a pilot assessment in 2015 found that mothers who used M-TIBA reported they sought health care sooner than they normally would have.[85]

- A review conducted by Ruducha and Jadhav of organizational arrangements in microfinance and health programs identified the importance of multi-sectoral partnerships between the microfinance and health sector.[86] Collaborative partnerships between the sectors were frequently mentioned as critical strategies for enhancing the effectiveness of health systems and for addressing health issues that were too complex, costly, and/or difficult for any one organization to handle on its own.

9. Health financing products need to provide health care for the family. Early experiences in designing health financing products relied on providing coverage for a microfinance client or a patient (depending on the program focus). While income-earners should surely be covered due to the income loss experienced when ill, they desire their families to be covered as well, particularly since children are often the ones requiring the most health care.

    - Early experiences by Grameen in the development of health loans found that limiting the loan to treating the client herself/himself may stop short of achieving the aim of the loan since the serious illness of a child, spouse, or other dependent, can impact a family's finances, future earnings and ability to repay business loans just as much as the client's own illness.[87] Often the challenge is how a client defines family, but some financial service providers have simply addressed this challenge by making the health loan available to all family members of any eligible client without rigorous proof. This relies on the client's assessment of his/her own financial risk in using the loan for a person considered family reducing the need to set up exclusionary rules and an extensive vetting process. While this may work for services such as health loans, this flexibility may not be possible for insurance products.

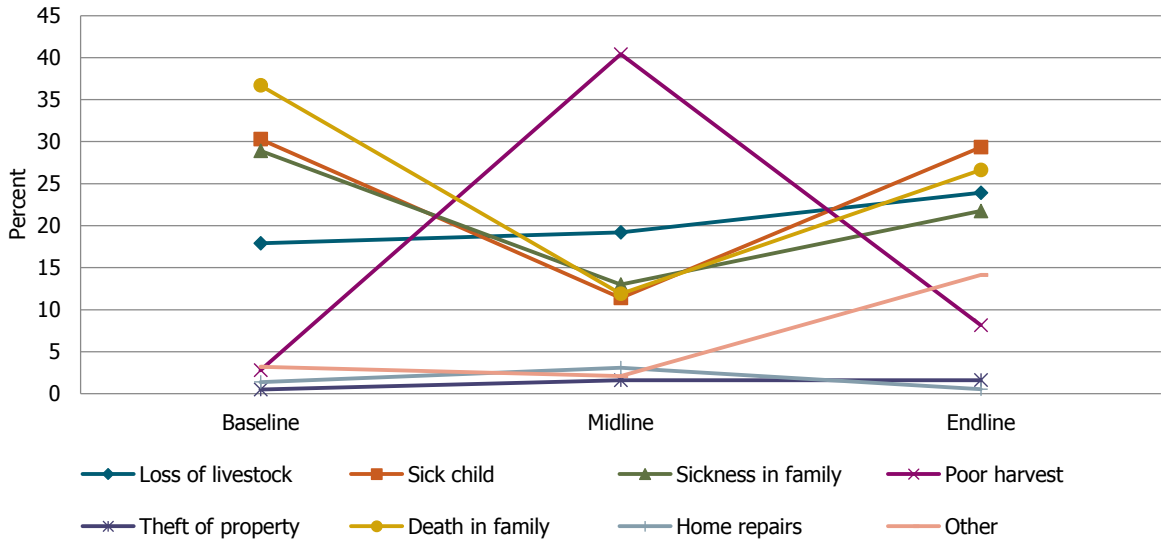
    - Fearless Health[88] found through experience that clients were interested in naming multiple beneficiaries of the insurance product, not just the primary user. The original product included coverage and benefits for the member and one family member, but because of customer feedback, the product was adjusted to accommodate multiple family members. Grameen also found in Ecuador that clients were willing to pay more for household coverage.

10. Consider how health emergencies "compete" with other possible emergencies. Health shocks are one among many shocks a low-income household can face. Any unplanned expense can be experienced like a shock and it is the timing of

the shock that may matter more than the amount of the expense. As indicated earlier regarding the successes of the *credito oportuno* over the health loans, the consumption credit provided more flexibility even though it had a higher interest rate. As the graphic below from Burkina Faso highlights, income shocks and stresses are a constant reality and products should be designed with that in mind.

- In resilience diaries conducted in Burkina Faso in 2014-2015, Grameen found that for any of the household shocks faced by the household, whether they were a death in the family, loss of livestock, illness, or crop loss, the financial instruments used to respond to those shocks depended on what was most available at the time.[89] For example, proceeds for the sale of grain were used most for coping with shocks when grain was most available post-harvest. A more recent study (2018) in Burkina[90] found that while health is a consistently-reported shock, other shocks can be larger at some times, or equally faced, such as a death in the family. Figure 6 below shows the most frequently reported shocks faced by a household between three points of time among women savings group members in Burkina Faso.

Figure 6: Shocks faced by households in Burkina Faso



Source: Crookston B *et al.* 2019. https://grameenfoundation.org/resource/building-resilience-burkina-faso-longitudinal-assessment-results

- Churchill in 2003 raised the question as to whether it is actually necessary to create multiple types of loans versus creating one flexible loan that can be used for many purposes.[91] Some of the reasons that were noted as to why financial institutions do not like providing emergency loans were the perceived credit risks associated with non-productive loans, difficulty of providing these loans within

group-lending methodologies, dissuasion from policymakers, concerns of over-indebtedness, and systems not set up to provide these types of services. It is likely that these continue to be constraints for many financial service providers today.

- In addition to examples related to the provision of health financing products, products assessed for other shocks, such as agricultural losses, demonstrate how households benefit from various financial services that help them plan and respond to shocks, which reduces the likelihood of resorting to negative coping mechanisms. For example, research on providing households with pre-approval for a loan in the case of flooding in Bangladesh[92] found improved household welfare experienced two ways: prior to a shock, households increased risky production (increasing the amount of land dedicated to agricultural cultivation by 15 percent and increasing non-agriculture business investments) and after a shock, they were better able to maintain consumption and assets. This suggests a pre-approved line of credit is both appreciated and utilized to both protect a household in the time of a shock and increase overall agricultural production. However, a study in Sub-Saharan Africa[93] found that offering savings to farmers did not transform their agricultural investments, but these savings in some cases provided farmers with a form of risk protection and helped them smooth consumption over time.
- While there might be ongoing concerns about providing consumer credit, or general emergency credit, research conducted by Karlan and Zinman in the Philippines did not find any evidence of negative effects resulting from the expansion of expensive consumer credit.[94] In fact, they found significant and positive impacts on food consumption, economic self-sufficiency, and positive outlook. However, they did detect some financial stress, which likely stems from the repayment requirements.

Conclusions and the Way Forward

The lessons provided here are a few among many others, such as identifying and providing "catalytic capital"—flexible and sustainable funding to ensure sufficient time is given to product development efforts and scaling, the importance of human-centered design approaches and building of trust.[95]

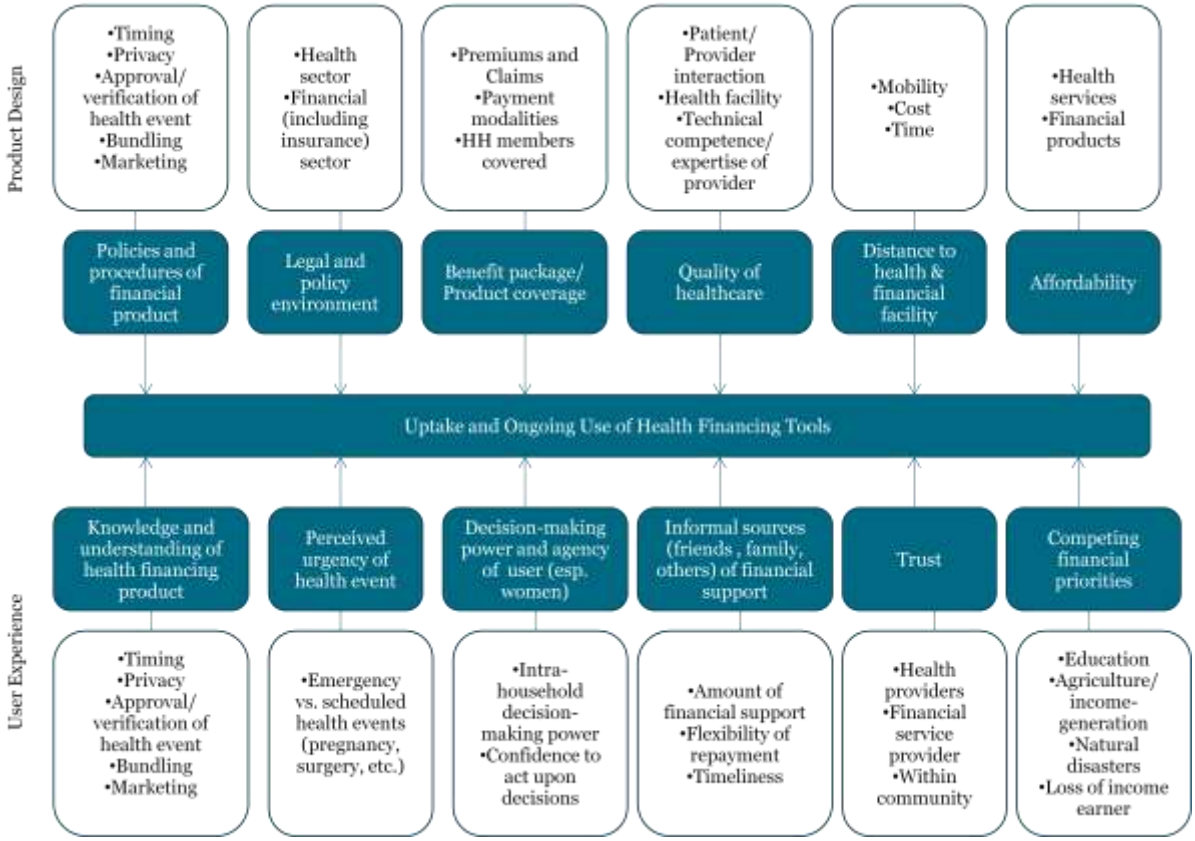
Adapting a framework developed by Dror *et al* for articulating the factors influencing enrollment and use of community-based health insurance, Figure 7 expands upon this to include all health financing products and summarizes the key themes that influence take-up and continued use of health financing products from both a supply of health and financial services perspective as well as from the patient/user experience (demand).

From the perspective of the supply of both health and financial services, the following factors are known to influence active take-up and ongoing usage of health financing products: policies and procedures of how a person accesses and uses the financial product, the legal and policy environment for both health services and financial services, what the health financing product covers and who is covered, the quality of health care that is available, the distance to avail and the affordability of those health services.

From the patient/user experience, the following factors are known to influence active take-up and ongoing use of health services and financing products: knowledge and understanding of the health financing product, perceived urgency of the health event, decision-making power and agency of the user (this is particularly important for women), other informal sources of financial support that are available, trust of both the financial and health provider, and the other competing financial priorities the household might have at the time of a health event.

Due to these factors influencing the take-up and use of health financing products, the market is littered with successes and failures of attempts to provide low-income households with financial tools they can use to plan for, respond to, and recover from health costs, whether they be small or catastrophic. These design factors can be used to develop better performing products.

Figure 7: Factors influencing take-up and drop-out from health financing



Source: Adapted from *Themes and Subthemes Identified in CBHI Uptake and Dropout*. Dror *et al*, 2016.

Digital financial services hold much promise for overcoming some of the long-standing challenges to effective use of health financing products.

With the growing emergence of digital technologies, digital financial services (DFS) have shown to help households overcome access issues due to low mobility, difficulty in accessing money when needed, help households accumulate savings and smooth consumption, and to help women protect their financial assets.[96] Having access to mobile money agent networks, which help extend DFS to the most rural and excluded, further expands those impacts, particularly for women. [97] DFS, can therefore provide some antidote—and a renewed promise—to some of the challenges of providing health financing products to low-income households; however, those designs equally have to account for the lessons learned in providing traditional or non-digital health financing options.

A digital ecosystem is needed to ensure health providers and patient needs can intersect. As previously mentioned, supply of health services and demand from low-income households for those services have to intersect and this is true both for traditional financial services and—and likely even more so—for DFS. A digital ecosystem has to exist where health providers can accept digital payments from a digitally-enabled patient, such as Grameen experienced in Ecuador and Kenya. Some of these efforts to 'lay the digital rails' require patience, time, and long-term commitments of many actors.

New innovative ideas and research are needed. These experiences and the evidence suggest three important emerging lessons that raise key questions for the field:

1. Would both clients—and financial service providers—be better off through the use of emergency financing products instead of products designed only for health? This question was raised in lesson 10 above as an important consideration given low-income households experience even known expenses—such as education fees—as emergencies. Some of the existing experiences of financial service providers designing a pre-approved line of credit are promising in this area.
2. How can health financing products be designed in a way to better capture the intra-household dynamics that are at play in how households decide to seek and pay for treatment? While women may prioritize health, this does not always translate into agency to act on their financial or health-seeking preferences. While most current practices funnel education and products through an individual, are there examples where household approaches to financial products have been tested and found to be successful or superior? This is an area to further explore.
3. Given the important constraint of the supply of health services needing to be met with demand for those services, how can health financing tools be designed or calibrated to respond to rural areas that lack health services and that have a sound business case for the financial and health service providers? There is an expansion of mobile money agent networks that are helping overcome barriers to access to digital financial services, but how can these also be met with health services that are also lacking in rural areas? How can better partnerships or new innovative provision of health services be created to ensure that low-income, rural households can receive quality treatment at a price they can afford, through use of telemedicine or other mobile healthcare services, for example?

Low-income households need an expansion of choice for financing their health needs. Regardless of the answers to these three questions or the mechanisms through which health financing products are delivered (traditional versus DFS), it is critical that low-income populations have improved and expanded choice of health financing

options. No one product can—or perhaps should—be designed to cover all health expenses; this type of product would be too expensive to provide and purchase. Moreover, innovative ideas should not be limited to only specific health financing products, such insurance over loans since contexts and health needs vary and availability of products differ.

Research by Karlan *et al*, noted the constraints that may hinder adoption of savings products and services by low-income households which included transaction costs, lack of trust and regulatory barriers, information and knowledge gaps, social constraints, and behavioral biases. [98] One could argue that these same constraints exist for health financing products. Households likely equally weigh their financing options and financial and health benefits for the household, choosing some products over others due to their preferences. Kast and Pomeranz found in their study that precautionary savings and credit acted as substitutes in providing self-insurance but participants preferred borrowing less when free formal savings accounts were available.[99] They posited that while insurance was designed to provide protection from shocks more effectively than other financial products, insurance products faced significant challenges in claims validation on the provider side and trust of the product and pay-out on the client side. Self-insurance, in form of savings and/or loans, may be more desirable in environments where insurance products are not well-designed, not understood, or not available at all.

Ensuring that low-income households have improved choice of health financing products will require patient and long-term investments from donors, investors, governments, health service actors and providers and the financial services sector. No one organization can provide everything nor can one product cover all health expense needs. However, thoughtful and active engagement of these players could better result in identifying comparative advantages to designing, promoting, and delivering effective health financing options. This necessitates thinking about health financing through an ecosystem lens, where demand generation for and supply of health services and health financing should be designed to intersect.

In conclusion, this lessons-learned document set out to highlight some of the key take-aways from Grameen's and others' years of experience developing both traditional and digital health financial services for low-income populations across the globe. With these lessons, it is hoped that the financial and health sectors are better positioned to develop a new generation of health financing options that are needed to ensure low-income households have financial options to anticipate, respond to, and recover from health events without resulting in increased vulnerability and poverty traps.

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