Costs and Benefits of Providing Health Savings and Savings Loans

RCPB's Experience in Burkina Faso

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By Myka Reinsch and Frédéric Ruaz[1] | June 2010

Focusing on the impact of health protection products on the Réseau des Caisses Populaires du Burkina (RCPB), this paper explores the hypothesis that microfinance institutions (MFIs) can feasibly offer health-related services that "pay for themselves" via a combination of financial revenues and nonfinancial benefits that indirectly improve the MFI's financial position.

We examine the costs and benefits of offering an integrated microfinance and health protection package comprised of health savings and health loans. We find that:

- RCPB had nearly US$55,000 in health savings on deposit by December 2009 across 12,099 accounts (about $4.50 per account).
- The health savings and loan package earned about $5,100 in revenues during the year from June 2008–May 2009, primarily through on-lending of health savings as regular microenterprise loans.
- RCPB spent approximately $5,200 in direct, marginal costs (primarily training and marketing) to offer the health savings and loan package in 2008–2009, the second year of its operation.
- Health savings and loans thus cost the MFI about $100 in net direct costs, and trends indicate that it will break even— in terms of direct costs—during its third year of operation.
- When allocating a proportion of branch and management staff time to the package, in addition to direct costs, RCPB realized a net loss of more than $15,000 over the course of that year.

Exploring anecdotal reports from RCPB staff that the health savings and loan package leads to enhanced client growth, client retention, client financial security and client capacity to save, we show that if even a moderate level of client growth (5 percent of client growth in one region) could be attributed to these health protection products, this would constitute an additional value of nearly $3,000 over one year to RCPB— thereby making the package profitable in direct cost terms during the period from June 2008 through May 2009.

[1] Freedom from Hunger would like to gratefully acknowledge Kate Druschell Griffin for her technical review of and feedback on this paper.

We conclude that:

- The combination of health savings and health loans can provide a net financial benefit to an MFI when considering only out-of-pocket costs, assuming that the MFI is already operating on a financially self-sustaining basis and has solid experience with regular savings, and that health savings deposits are also on-lent as regular microenterprise loans.
- The health savings and health loan package is probably not viable on a purely financial basis when taking into account allocations of existing branch and management staff time.
- The health savings product increases both branch liquidity and client satisfaction, leading to financial and nonfinancial benefits for the MFI.
- The health loan product, carrying a lower interest rate than RCPB's microenterprise loans, is not profitable by itself, but may be cost-neutral; and when linked to health savings, this creates a powerful incentive for clients to set aside savings for health.
- RCPB leadership is satisfied with and plans to expand this health protection package because it views health savings and loans as a high-value service for clients that contributes to the MFI's social mission while also covering its own marginal costs, or better, over the longer term.

Further research is needed on the costs and benefits of similar health interventions coupled with microfinance in order to fully substantiate our hypothesis. However, as RCPB begins significant expansion of these services, and as other MFIs consider adopting practical, high-impact and cost-effective health-related strategies, these data on the design, costs, revenues and potential other benefits of such services provide promising evidence and a useful reference point in the budding area of integrated microfinance and health.

Introduction

Purpose

This paper documents the costs and benefits associated with RCPB's delivery of health savings and health loans developed and pilot-tested in Northern Burkina Faso as part of the Microfinance and Health Protection (MAHP) initiative in partnership with Freedom from Hunger from 2006 through 2009. The MAHP initiative set out to identify and test health-related services that could be practically and sustainably offered by microfinance institutions. Configuration and operation of the services were honed by RCPB and Freedom from Hunger over the course of the four-year initiative, and research was conducted to determine the impacts of RCPB's "MAHP package" on both the clients (in terms of health and financial well-being) and on the microfinance institution itself (in terms of the expenses, revenues and other nonfinancial benefits and costs to RCPB). This paper is primarily concerned with the impacts of RCPB's health savings and loans on the MFI itself.

MFI Background

The Réseau des Caisses Populaires du Burkina (RCPB), a federation of credit union networks, is the largest MFI in Burkina Faso. RCPB's mission is to improve the living conditions of its members and the greater community by applying principles of solidarity and individual and collective responsibility. RCPB mobilizes savings, offers a range of profitable credit products, promotes appropriate and accessible financial services for all, and is committed to democratic administration and management. RCPB was Freedom from Hunger's first *Credit with Education* partner in West Africa, and RCPB's *Credit with Education* portfolio continues to be the largest and strongest in the region. RCPB leadership maintains a serious commitment to product innovation, resulting in ongoing market research, experimentation and product development, and a growing range of

products and services. RCPB recognizes that financial services alone cannot alleviate poverty. By participating in the MAHP initiative, RCPB sought to better accomplish its mission of improving the living conditions of clients and their communities, while protecting its own financial sustainability and longevity as a MFI.

FIGURE 1: RCPB INSTITUTIONAL DATA AS OF DECEMBER 2009*

MFI-wide	
Year MFI established	1992
Number of active borrowers	111,005 (25% women)
Outstanding loan portfolio ($)	110,794,596
Number of active savers	671,909
Total savings deposits ($)	117,758,839
Portfolio-at-risk (PAR-30)	8.55%
Operational self-sufficiency	144%
Health Protection Services	
Year started *Credit with Education*	1993
Number of *Credit with Education* clients	96,415
Number of health savings accounts	12,099
Health savings deposits ($)	54,593
Number of outstanding health loans	23
Outstanding health loan portfolio ($)	3,465

** Data as of December 31, 2009 as provided by RCPB*

** All monetary figures are in USD*

RCPB's Health Protection Package

In a Nutshell

- RCPB offers a voluntary health savings product whereby clients agree to deposit a set, minimum amount (at least US$1)[2] per month into a special account devoted only to health expenses. During the first six months after opening the account (or until a minimum of $20 is accumulated, whichever comes first), the client may not access these funds. After the six-month capitalization period, clients may withdraw health savings only on presentation of health expense proof (such as a receipt or a doctor's order specifying cost of treatment).
- The health savings do not earn interest, but possession of an active account that has exceeded the capitalization period entitles clients to apply for a health loan in the case of a verifiable, major health cost for the client or any family member. Health loans are offered at lower interest than RCPB's microenterprise loans and carry more flexible repayment terms. With this package, RCPB clients are better positioned to have the small funds needed to address everyday health expenses before they become more serious, and to access affordable credit to pay for treatment when their health savings do not suffice.
- RCPB also offers health education to its group-based *Credit with Education* clients. In addition to disease-specific prevention and treatment, RCPB's health education includes sessions on financial planning to

[2] The exchange rate used throughout this report (unless otherwise noted) is US$1 = FCFA 470 (as of December 2009).

confront common health expenses and the rational use of locally available health services. Because this education was offered only to a small subset of the MAHP clients, the current analysis and paper focus on the health savings and health loan package in particular.

RCPB's Role

- RCPB informs clients of the health savings and health loan package via face-to-face client-cashier interaction at the branch, nonformal education sessions for *Credit with Education* clients in their communities, community promotion events with temporary marketers, and posters and brochures at branches.
- RCPB branch staff members open new health savings accounts, conduct automatic monthly transfers from checking or regular savings accounts into health savings according to client requests, and verify health documents before disbursing health savings funds to clients.
- RCPB staff review and provide a decision on health loan applications, set repayment terms, disburse health loan funds, follow up with clients to verify loan use, check health status, reinforce repayment plan and process loan repayments.
- Health savings and loans are also integrated into RCPB's overall supervision, monitoring and internal control processes.

Value Proposition

- Health savings provide RCPB clients with another reason to save at RCPB, which results in additional savings mobilization for the MFI. Since these funds are interest-free for RCPB, they provide an efficient source of more on-lending revenue.
- The six-month health savings capitalization period (when the funds may not be withdrawn) supplies a relatively stable pool of funds for the RCPB branches, at least in the early months and years of the product.
- The health loan is offered at a 6 percent annual flat interest rate,[3] which—although lower than RCPB's regular loans—can cover the cost of administering the loans, especially given the 0 percent source-of-funds cost to RCPB. The health loan helps RCPB deter use of microenterprise loans, business assets or expensive moneylenders for unproductive use to address health issues—thereby protecting their repayment capacity for existing RCPB loans.[4]

Roll-out Timing and Locations

- The MAHP package was pilot-tested in one region, in RCPB's Ouahigouya, Gourcy and Yako branches, from 2007–2009.
- Health savings were available and began to be promoted in May 2007, with the first accounts opened in June 2007. As of December 2009, RCPB counted 12,099 active health savings accounts, which represented about 3 percent of clients (savers) in the branches at which the product was offered, around 11 percent of the MFI's total number of active borrowers, and about 2 percent of the MFI's total number of active savers.
- Due to the six-month capitalization requirement, the first health loan was not disbursed until late November 2007. As of December 2009, RCPB had made a cumulative total of 84 health loans. The health loan portfolio thus constituted a very small proportion of the MFI's overall number and volume of loans.

[3] Like RCPB's other loans, the interest rate on health loans is charged on a flat basis and applied to the original loan amount regardless of term. Thus, whether the health loan is for 6, 9 or 12 months, the interest paid is 6 percent of the principal amount.

[4] Note that RCPB opted to provide health loans at a reduced interest rate out of a concern for its social mission and a conviction that their operating expense could be feasibly covered in marginal cost terms. Given the risky nature of these unproductive loans, an MFI could well justify charging higher interest, which would contribute somewhat to overall profitability of the package.

Methodology

The data presented in this report were compiled using a combination of activity-based costing, allocation costing and calculations to estimate interest revenues and fees. We emphasize the cost of operating and growing the services, although we touch on the upfront investment required to develop and launch them. Data were supplied by RCPB headquarters and the regional office overseeing the pilot-test branches and were also collected through in-depth discussions with branch directors and other staff, as well as via field visits to clients over the course of the pilot-test from 2007 through 2009. We interviewed well over 50 clients and surveyed more than 70 clients. The majority of the data presented and used as a basis for projections is from June 2008–May 2009—beginning about 12 months after the launch of health savings and seven months after the first health loan.

Note that the number of health savings beneficiaries is likely to be underestimated—by as much as 18 percent—due to un-computerized record-keeping in some branches and the fact that client groups comprised of 12–25 women are considered a single "member" in branch records. Moreover, health savings deposits were smaller than about 15 percent of clients intended during this period due to a computer software issue at RCPB that indicated client-requested automatic transfers from current accounts to health savings accounts did not actually occur. We preferred to err on the conservative side rather than the reverse, but it should be noted that as a result, both growth and profitability of these products may actually be somewhat higher than presented here.

A true cost-benefit analysis, though, goes beyond the crunching of financial data and profit to examine indirect and nonfinancial costs and benefits that can be quantitatively estimated and rolled into the analysis of financial gain or loss. An analysis of the direct costs and benefits of health savings and loans is relatively straightforward; but we also sought indirect impacts that might not be captured in the financials but that could ultimately enhance RCPB's business bottom line. Our hypothesis was that by incorporating health protection services into its service offerings, RCPB would attract and retain more clients, and would serve clients whose improved health and decreased spending on serious health events would translate eventually into less time away from work to treat illness, higher saving deposits and stronger microenterprises requiring larger loans. By the same token, we wanted to look closely at how health savings and loans could cannibalize other RCPB products, thereby neutralizing the direct financial benefits to the MFI.

In order to address these questions of indirect costs and benefits, we collected some basic longitudinal branch data as well as client-level impact data both in the three original pilot-test branches and in three branches that were deemed similar (in rural/urban locations, longevity, number of clients and operations) but did not offer health savings and loans. We then combed and compared this data—focusing on ratios and rates of change rather than nominal data, to normalize the inevitable differences across the branches—for any meaningful trends. Was the drop-out rate lower or new-client growth rate higher in MAHP areas? Was the savings rate higher? Were there fewer late payments on business loans? Disappointingly, though perhaps not surprisingly, these comparison data revealed no discernible, meaningful trends beyond a suggestion that MAHP branches may have had slightly higher client growth (see Appendix 1).

As with many MFIs, precise data on costs and benefits was difficult to produce and reconcile. The data presented in this report represents RCPB's and Freedom from Hunger's best estimates and are intended to provide a general picture of what is entailed in offering such services in the context of a West African credit union network.

ANALYSIS: RCPB Health Savings and Health Loans

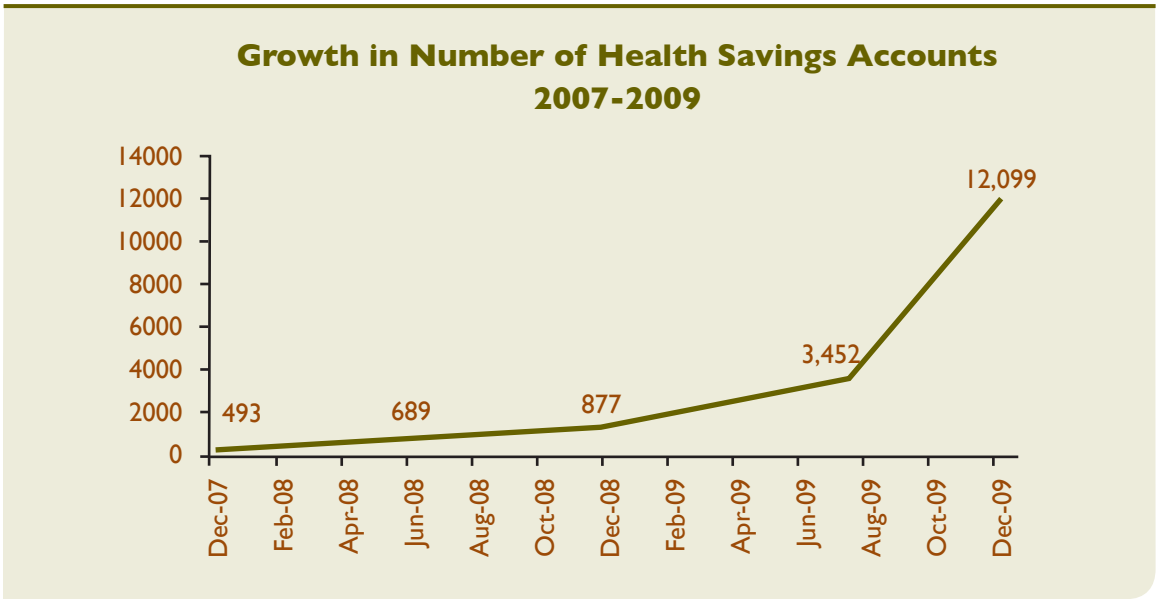
Health Savings Take-up

Health savings accounts are the main driver of both costs and benefits of RCPB's health protection package. The number of health savings clients grew slowly during its first two years and then rapidly expanded in 2009. Initial slow growth was attributable to insufficient staff training and exposure, as well as weak promotion of the products to clients. Growth in the third year was due to (a) geographic expansion of the area in which the products were offered; (b) more intensive staff training resulting in better-informed personnel who are more actively promoting the products; and (c) the occasional use of temporary "marketers" who earn a fee based on the number of health savings accounts opened.

Client satisfaction with the products, as gleaned through extensive interviews, has been almost unanimously very positive. Clients who held a health savings account were highly satisfied. Points of dissatisfaction were mainly regarding the difficulty of access for rural group-based clients and occasional misunderstanding and subsequent frustration with the proof required to access health savings funds. Interviews with clients who had not opened a health savings account revealed almost universally that they simply were not aware of the product or did not understand that they were eligible. Once they learned of it, most said that they planned to start a health savings account immediately. Studies of potential product cannibalization in the summer of 2008 and again in 2009 showed no negative impact on RCPB's regular savings accounts after the introduction of health savings; in fact, many clients with both types of savings were depositing more in their regular savings and intended to increase their savings further in the months to come.[5] Based on experience and evidence to date, RCPB believes that a 25 percent or better take-up rate is feasible over the medium term.

Figure 2 shows the growth of health savings and health loans during the first two-and-a-half years of their operation. Having achieved 7 percent take-up by mid-2009,[6] RCPB aims to have at least 25 percent of clients in the initial pilot region holding active health savings accounts by 2011.

FIGURE 2: GROWTH IN HEALTH SAVINGS ACCOUNTS AND HEALTH LOANS 2007-2009



[5] Our data and methodology did not allow us to determine whether this is a reflection of the nature of health savings clients before take-up or in some way a result of the health savings; in other words, it could be that clients who opt to participate in health savings already have a strong penchant toward saving and greater capacity to do so.

[6] That is, about 7% of clients in branches offering health savings had actually opened a health savings account.

FIGURE 2: GROWTH IN HEALTH SAVINGS ACCOUNTS AND HEALTH LOANS 2007-2009 (*CONT.*)

	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09
Number Health Savings Accounts	493	689	877	3,452	12,099
Total Number of Clients with Access to Health Savings	24,039	25,720	27,042	48,526	479,459
Health Savings Take-up Rate	2%	3%	3%	7%	3%
Cumulative Number of Health Loans	1	14	28	61	84

Revenues

We will begin by analyzing the revenues earned through both health loans and health savings.

Health Loans

RCPB's health loans carry a 6 percent flat rate of interest regardless of loan term, for up to a maximum 12-month term, with two or more periodic payments, depending on the case. Revenues from health loans are thus fairly straightforward, even if the portfolio volume is small. Figure 3 presents a view of revenues earned on health loans in the year from June 2008 through May 2009. Note that for simplicity's sake, this model recognizes the full 6 percent interest in the month in which the health loan was made.

> *"When you have an [health savings] account, you can have a [health] loan too."*
>
> –RCPB client, asked why he opened a health savings account

> *"Having health savings and access to a health loan has afforded one client "assurance, a calm conscience, and I have been able to reorganize my life expenses."*
>
> –RCPB client

The average health loan was about $207, and total revenue on 37 loans over the course of the year was about $533. This comes to about $44 in health loan revenues per month, or $1.20 per month per health loan. We use this calculation later in projecting revenues associated with health loans and health savings. Portfolio-at-risk has generally remained low, at 0 percent through December 2008, then 3 percent in June 2009, and rising to a temporary high of 6 percent in November 2009 (as of December 2009, the PAR had returned to 0 percent, where it remained as of June 2010). Clearly, though, health loans are not a major source of revenue in and of themselves.

FIGURE 3: HEALTH LOAN REVENUE JUNE 2008 - MAY 2009

Health Loan Data June 2008-May 2009	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Total	Average
Cumulative number of health loans	13	17	20	24	26	27	32	36	37	40	45	49	49	
Number of new health loans	1	4	3	4	2	1	5	4	1	3	5	4	37	6
Number of outstanding health loans	8	12	12	13	14	15	19	22	16	13	18	20		15
Cumulative health loan volume ($)	2,883	3,553	4,064	4,809	5,394	5,543	6,564	7,234	7,447	8,032	9,643	10,238	10,238	
Change in health loan volume ($)	222	670	511	745	585	149	1,021	670	213	585	1,611	596	7,577	
Interest revenue ($)	13	40	31	45	35	9	61	40	13	35	97	36	455	
Fee revenue ($)	2	9	6	9	4	2	11	9	2	6	11	9	79	
Total health loan revenues ($)	**15**	**49**	**37**	**53**	**39**	**11**	**72**	**49**	**15**	**41**	**107**	**44**	**533**	**44**
Average health loan size ($)	222	209	203	200	207	205	205	201	201	201	214	209		207

Health Savings

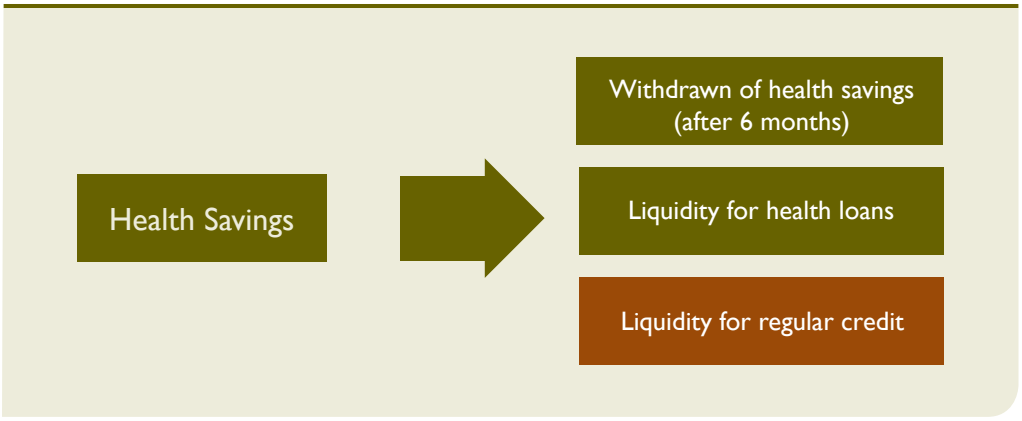
Health savings accounts contribute important liquidity to RCPB branches. Health savings accounts are blocked for the first six months, and RCPB does not pay interest on health savings. Rather, the benefit to clients is access to a low-interest health loan in the case of need. Not only does the six-month capitalization period thus enhance branch liquidity, but even once clients are able to withdraw their savings, data show that only 13 percent is withdrawn on average (accounting for seasonal fluctuations).[7]

Health savings' contribution to branch liquidity makes it a very appealing product to RCPB branch directors. Other blocked savings products have not been popular, and when it comes to regular savings accounts, in the words of one branch manager, "some clients save money in the morning and withdraw it in the afternoon." Health savings, on the other hand, has been enthusiastically received. With this reception and the cost of commercial funds available to RCPB for on-lending at 8 to 9 percent as ofmid-2009, a relatively stable source of 0 percent interest funds is very attractive indeed to the MFI.

Health savings' contribution to branch liquidity makes it a very appealing product to RCPB branch directors.

RCPB uses health savings deposits to provide health loans (at a flat rate of 6 percent for up to a 12-month term), as well as regular microenterprise, mortgage and education loans (at a flat annual rate ranging from 9.75 to 19.5 percent, with 80 percent of loans made at 9.75 percent and 20 percent made at 19.5 percent for a blended flat, annual rate of about 12 percent). (See Figure 4)

FIGURE 4: MFI'S USE OF HEALTH SAVINGS LIQUIDITY



[7] Note that at the end of each year, clients are entitled to withdraw up to one-half of their unused health savings for any purpose. They are then expected to continue saving for health on a monthly basis. There is limited experience to date with health savings accounts reaching and continuing beyond the one-year, and especially the two-year point. As such, we are not confident about predictions regarding the amount of health savings that will remain on deposit after the point when clients are permitted to withdraw up to half. More time and analysis are needed to accurately project deposits and resulting profitability beyond the two-year point.

In the revenue model in Figure 6, we assume for simplicity that the available health savings (after withdrawals) go first to fund health loans, and then to fund other loans. Since most RCPB branches do not have excess liquidity, but place the maximum amount of their savings in client loans and turn first to the relatively stable health savings funds, we also assume that all of the available health savings funds are used for on-lending.[8] Note that the revenue in the first month (June 2008) is estimated due to data limitations. "Unplaced health savings" refers to the health savings deposits available to be on-lent, following new deposits, withdrawals, on-lending in the previous month(s) and loan payments received. Lacking detailed data for prior months, we estimated that approximately $6,840 of the cumulative health savings as of June 2008 was available for on-lending that month. Although based on a detailed simulation of health savings revenues from the product's inception, it must be underscored that this June 2008 assumption does have an important bearing on the overall profitability analyses that follows.[9]

[8] Note that this may overstate to some extent the potential value of the on-lent health savings, which in practice may not be lent out in full and immediately.

[9] For additional clarification: note that health savings deposits were collected beginning in spring 2007 and began to be on-lent at that same time. As health savings deposits accumulated (and were partially withdrawn) from month to month, additional on-lending occurred, so that the additional available amount for on-lending varied from month to month. If we were to assume that as of June 2008, all of the $17,000 in health savings deposits were available for on-lending in that month, the resulting profitability would be unrealistically high. Therefore, although more than $17,000 in health savings was on deposit at that time, we conducted a retroactive simulation to obtain the probable amount of health savings that was available to be placed anew as of June 2008.

FIGURE 5: HEALTH SAVINGS DEPOSITS AND WITHDRAWALS OVER 15 MONTHS*

Health Savings Data, March 2008–May 2009	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Health saving (beginning of the month)	10,439	13,179	14,923	15,664	17,173	17,380	18,681	17,236	18,035	17,117
Deposits	5,305	3,723	2,274	2,565	2,241	3,239	1,903	2,897	491	3,670
Withdrawals	2,565	1,979	1,533	1,056	2,034	1,937	3,349	2,098	1,409	2,125
Health saving (end of the month)	13,179	14,923	15,664	17,173	17,380	18,681	17,236	18,035	17,117	18,662
Percentage change in health savings	26%	13%	5%	10%	1%	7%	-8%	5%	-5%	9%
Average health savings balance	22	24	25	25	22	23	20	21	20	21
Monthly deposit per client	8.84	5.97	3.59	3.72	2.80	3.94	2.26	3.32	0.56	4.19
Monthly net deposit (deposit + withdrawal) per client	**4.57**	**2.79**	**1.17**	**2.19**	**0.26**	**1.58**	**(1.71)**	**0.91**	**(1.05)**	**1.76**
Withdrawals as percentage of beginning savings	25%	15%	10%	7%	12%	11%	18%	12%	8%	12%

Health Savings Data, March 2008–May 2009	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Average
Health saving (beginning of the month)	18,662	21,988	26,659	29,432	33,369	19,329
Deposits	4,591	8,579	6,587	7,670	7,718	4,230
Withdrawals	1,264	3,909	3,814	3,733	3,209	2,401
Health saving (end of the month)	21,988	26,659	29,432	33,369	37,879	21,158
Percentage change in health savings	18%	21%	10%	13%	14%	9%
Average health savings balance	25	24	18	17	18	22
Monthly deposit per client	5.23	9.57	5.98	4.62	3.90	4.57
Monthly net deposit (deposit + withdrawal) per client	**3.79**	**5.21**	**2.52**	**2.37**	**2.28**	**1.91**
Withdrawals as percentage of beginning savings	7%	18%	14%	13%	10%	13%

** All monetary figures are in USD*

FIGURE 6: HEALTH SAVINGS REVENUE MAY 2008-MAY 2009*

Revenue From Health Savings	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Total health savings - withdrawals	15,664	17,173	17,380	18,681	17,236	18,035	17,117	18,662
Unplaced health savings		6,840	207	1,302	(1,446)	799	(918)	1,545
Health saving - health loan	13,003	3,957	(463)	791	(2,190)	214	(1,067)	524
Liquidity from health loan reimbursement (month + 1)	1,051	1,241		92		96		77
Available liquidity	14,054	5,198	0	883	0	310	0	601
Liquidity from regular loan reimbursement (month + 1)	1,136	420		71		25		49
Total available liquidity	15,190	5,618	0	1,303	0	801	0	1,117
Interest from regular loans with on-lent health savings	1,777	657	0	152	0	94	0	131
Fees on regular loans	86	31	0	7		4	0	6
Total revenue	1,863	688	0	159	0	98	0	137

Revenue From Health Savings	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Total
Total health savings - withdrawals	21,988	26,659	29,432	33,369	37,879	
Unplaced health savings	3,327	4,670	2,773	3,938	4,509	27,546
Health saving - health loan	2,656	4,458	2,188	2,327	3,913	
Liquidity from health loan reimbursement (month + 1)	324	776	1,017	1,228	1,607	
Available liquidity	2,980	5,234	3,205	3,555	5,521	
Liquidity from regular loan reimbursement (month + 1)	289	713	972	1,259	1,705	
Total available liquidity	3,545	6,088	4,772	6,094	9,318	
Interest from regular loans with on-lent health savings	415	712	558	713	1,090	4,377
Fees on regular loans	20	34	27	34	53	211
Total revenue	**435**	**746**	**585**	**747**	**1,143**	**4,588**

** All monetary figures are in USD*

The model presented in Figure 6 also assumes the following:

- All health savings deposits are immediately and fully lent by RCPB for health loans or regular loans.
- All the loans entail monthly repayments, and all repayments are immediately used to make new loans. Consequently, RCPB is able to lend much more than the MFI has collected. RCPB's risk in doing so is partially mitigated by the fact that new health savings accounts are blocked for six months.

The revenue from on-lent health savings deposits is not insignificant. RCPB's yield on the health savings portfolio amounted to about 17 percent from June 2008–May 2009 ($4,588 in total revenue/$27,546 in total health savings available to place between June 2008 and May 2009).

Figure 7 demonstrates how this can occur. It shows that 100 francs collected every month and immediately on-lent would allow a bank to lend 4.2 times after eight months and 13 times more after one year, owing to the monthly reimbursement (and assuming a PAR of 3 percent).

FIGURE 7: DEMONSTRATION OF COMPOUNDING LIQUIDITY*

Month	1	2	3	4	5	6	7	8	9	10	11	12
Saving amount	100	100	100	100	100	100	100	100	100	100	100	100
Liquidity for loan	100	108.08	124.90	151.82	191.01	245.64	320.12	420.48	554.83	743.03	972.56	1289.71
Reimbursement	8.08	8.74	10.10	12.27	15.44	18.86	25.88	33.99	44.85	59.33	78.62	104.25

** All figures in FCFA*

Total combined revenues of $5,121 ($44 from health loans and $4,588 from health savings) seem low compared to the cost of administering these products (as discussed in the following section on Expenses). However, client growth was slow during the period analyzed, and the health savings and loan package takes time to become profitable.

Expenses

Next, we look at the expenses involved to bring in the revenues associated with health savings and health loans.

Initial Investment

In 2006–2007, RCPB spent a total of between $50,000 and $60,000 in upfront investment costs to develop and launch health loans, health savings and new health education and promotion. This estimate of investment costs includes RCPB's capital investment, leadership and management time, local training and marketing costs.[10] In addition, Freedom from Hunger provided RCPB with technical assistance valued at about $130,000 over a period of two-and-a-half years (the development and pilot phase); this technical assistance investment was relatively higher than might be needed by another MFI seeking to implement similar products in the future, in part because this was a novel innovation started from scratch without the benefit of experience.

[10] We include in this marketing cost the $13,000 spent on promotional posters and brochures, which is mentioned later in this report and has been omitted from the cash-flow analysis.

Operating Costs for Health Savings and Loans

Figure 8 includes detailed expenses associated with administering these products.

Because RCPB simply integrated health savings and health loans into its regular service offerings and processes, these products have not entailed specialized staff or any new hires, apart from the occasional use of temporary "marketers" (discussed later). And although tasks—such as the automatic transfer of health savings from current accounts or regular savings accounts, verification of health documents or receipts prior to health savings withdrawals, health loan applications and monitoring—do require some time and effort, these are similar to employees' management and processing of other products (e.g., verification of education savings' use before disbursement) and have been rolled into the existing workload.

> Three branch directors and one regional director asserted that *"Neither health savings nor health loans have created extra work for staff," and "The health savings does not present more challenges or difficulties than other products at RCPB."*

Branch staff time to manage health savings and health loans was allocated based on the number of clients served. While it would be meaningful to analyze and assign costs of managing the health savings and health loan products based on deposits, withdrawals and payments, such detailed data was not available or not reliable enough. We also considered allocating on the basis of portfolio size but concluded that the size of savings, loans and payments does not affect staff workload and that this would be a less conservative measure due to the relatively small proportion of health savings and health loans at the time of analysis.

Other than the upfront investment costs mentioned above, the time of RCPB regional and national leadership has been minimal and occasional; the monthly estimates found in Figure 8 are based on reported management costs in 2008 and 2009. Since 2008, costs included significant time spent by leadership to analyze the pilot-test, make and communicate adjustments and recalibrate in preparation for broader scale-up, we assume that these will decline as the products mature.

Marketing material expenses are based on 2008 reported expenditure of $2,000. We excluded a one-time marketing expense of $13,000—made in conjunction with the Gates-funded initiative to experiment with posters and brochures. Since this approach was abandoned for future marketing, we deemed it an outlier for the purposes of this cash-flow analysis.

Training and "Other" are based on reported expenses in 2008 and 2009 and spread evenly over the appropriate months. It is assumed that as RCPB continues to expand the health savings and health loan package, there will be occasional ongoing "refresher" trainings in existing areas, along with greater expense in new areas to enable growth.

Building-related overhead expenses are not included. RCPB owns most of its branch offices, and data on related costs were not readily available. Thus, overhead costs are slightly underestimated.

Monthly expenses come to an average of $1,742 per month and $20,909 for the year. Of these expenses, $15,679 are allocated expenses—based on estimates of the time that existing staff spent on these products—while $5,231 are direct expenses that were incurred "out of pocket" by RCPB in order to operate these new products. We talk more about this distinction below.

The Bottom Line

RCPB's health savings and health loan package had not achieved break-even at the end of May 2009. We analyzed the net profit (or loss) of the package both in terms of direct costs—the additional amount the RCPB spends to offer the products—and total costs (which includes an allocation of existing staff costs to account for the estimated time spent in administering the health protection products). In terms of direct costs only, the package began earning positive revenue in January 2009, cost RCPB a cumulative $109 by the end of the period, and was on track to break even by the end of calendar year 2009. Accounting for direct as well as allocated expenses, the health package was still costing nearly $1,000 at the end of the 12-month period analyzed, and RCPB had an accumulated loss over the period of $15,788.[11]

[11] This loss excludes temporary grant funds received from Freedom from Hunger in conjunction with the Microfinance and Health Protection initiative in order to defray the costs of "innovation." These funds actually covered RCPB's losses for the period.

FIGURE 8: HEALTH LOAN AND SAVINGS REVENUE AND EXPENSE JUNE 2008 - MAY 2009*

Revenues	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Total
Health loan revenue	15	49	37	53	39	11	72	49	15	41	107	44	533
Health savings revenue	688	(6)	159	(76)	98	(68)	137	435	746	585	747	1,143	4,588
Total Revenues	**704**	**43**	**196**	**(23)**	**137**	**(57)**	**209**	**484**	**761**	**627**	**854**	**1,187**	**5,588**
Expenses													
Direct Costs													
Training	257	257	257	257	257	257	257	257	257	257	257	257	3,090
Marketing	167	167	167	167	167	167	167	167	167	167	167	167	2,000
Other	12	12	12	12	12	12	12	12	12	12	12	12	141
Total Direct Costs	**436**	**436**	**436**	**436**	**436**	**436**	**436**	**436**	**436**	**436**	**436**	**436**	**5,231**
Allocated Costs													
Branch Staff	689	879	846	813	827	821	819	843	915	1,327	1,553	1,597	11,929
Oversite	522	522	522	522	522	522	522	19	19	19	19	19	3,750
Total Allocated Costs	**1,211**	**1,401**	**1,368**	**1,335**	**1,349**	**1,343**	**1,341**	**862**	**934**	**1,346**	**1,572**	**1,616**	**15,679**
Net Income–Direct and Allocated	**1,647**	**1,837**	**1,804**	**1,771**	**1,785**	**1,779**	**1,777**	**1,298**	**1,370**	**1,782**	**2,008**	**2,052**	**20,909**
Net Income (Loss)–Direct Costs Only	**268**	**(393)**	**(239)**	**(459)**	**(299)**	**(493)**	**(227)**	**48**	**325**	**191**	**418**	**752**	**(109)**
Net Incomw (Loss)–Total Costs	**(943)**	**(1,794)**	**(1,607)**	**(1,794)**	**(1,648)**	**(1,836)**	**(1,568)**	**(814)**	**(609)**	**(1,155)**	**(1,154)**	**(864)**	**(15,788)**

** All monetary figures are in USD*

In an effort to detect any costs related to the cannibalization of existing regular savings at RCPB, clients were surveyed regarding their regular savings habits. Eighty-six percent of those interviewed who held a health savings account said that they plan to increase their regular saving an average of $4.50 per month. By comparison, 62 percent of clients without health savings said they planned to increase their saving in the near term. Moreover, 40 percent of the health savings clients said they have already increased the amount they deposit into health savings each month. Thus, it does not appear from data currently available that the health savings has had a negative impact on RCPB's other savings products.

The profitability of the health savings and health loan package depends greatly on client longevity. Newer clients have not yet saved enough money to cover the costs of administering the health savings, although their savings is blocked and thus more stable. The longer a client saves, the more RCPB can on-lend the health savings and earn income. The faster RCPB brings in new health savings clients, the less profitable the service package initially appears. To provide a finer grain of profitability analysis and projections that account for client longevity, we also examined the deposits and revenues on a per client basis.

In Figure 9, we examine the deposits and revenues from a single health savings client. We show that in terms of direct costs only, the average client becomes profitable in the tenth month, and that RCPB earns over $.40 per health savings client per month after one year. When considering the overall cost, including allocated staff time, the average client is not profitable for RCPB even after 24 months. We did not project beyond 24 months due to lack of data on how much health savings clients are likely to keep on deposit; we would not expect health savings deposits to continue growing after that time (since clients may and probably would withdraw half after the first year), and thus financial breakeven in terms of total costs, including the products' contribution to existing staff expenses, might never be achieved.

FIGURE 9: HEALTH PACKAGE PROFITABILITY BY CLIENT*

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Cumulative health savings deposits	4.25	8.49	12.74	16.99	21.23	25.48	29.73	33.97	38.22	42.47	46.71	50.96
Available health savings liquidity	4.25	8.49	12.74	16.99	21.23	25.48	26.27	30.02	33.78	37.53	41.28	45.03
Capital in health loans	1.14	2.28	3.42	4.55	5.69	6.83	7.04	8.05	9.05	10.06	11.07	12.07
Interest revenue on health loans	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06
Fee revenue on health loans	0.01	0.02	0.04	0.05	0.06	0.07	0.07	0.08	0.09	0.10	0.11	0.12
Capital in regular loans	3.11	6.22	9.33	12.43	15.54	18.65	19.23	21.98	24.72	27.47	30.22	32.96
Interest revenue on regular loans	0.03	0.06	0.09	0.12	0.15	0.18	0.19	0.21	0.24	0.27	0.29	0.32
Fee revenue on regular loans	0.02	0.04	0.05	0.07	0.09	0.11	0.11	0.13	0.14	0.16	0.17	0.19
TOTAL REVENUES	**0.07**	**0.13**	**0.20**	**0.26**	**0.33**	**0.39**	**0.40**	**0.46**	**0.52**	**0.58**	**0.64**	**0.69**
DIRECT COSTS ONLY												
Cost per client	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	**0.32**
Net income per client–direct only	**(0.25)**	**(0.18)**	**(0.12)**	**(0.05)**	**0.01**	**0.08**	**0.09**	**0.15**	**0.20**	**0.26**	**0.32**	**0.38**
Cumulative profit (loss)	(0.25)	(0.43)	(0.55)	(0.61)	(0.60)	(0.52)	(0.43)	(0.28)	(0.08)	0.18	0.50	0.88
TOTAL COSTS-including allocated												
Cost per client	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Net income per client-total costs	**(1.09)**	**(1.03)**	**(0.96)**	**(0.89)**	**(0.83)**	**(0.76)**	**(0.75)**	**(0.69)**	**(0.64)**	**(0.58)**	**(0.52)**	**(0.46)**
Cumulative profit (loss)	(1.09)	(2.12)	(3.08)	(3.97)	(4.80)	(5.56)	(6.32)	(7.01)	(7.65)	(8.22)	(8.75)	(9.21)

** All monetary figures are in USD*

FIGURE 9: HEALTH PACKAGE PROFITABILITY BY CLIENT (continued)

	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24
Cumulative health savings deposits	55.21	59.45	63.70	67.95	72.19	76.44	80.69	84.93	89.18	93.43	97.68	101.92
Available health savings liquidity	48.79	52.54	56.29	60.05	63.80	67.55	71.30	75.06	78.81	82.56	86.32	90.07
Capital in health loans	13.08	14.08	15.09	16.10	17.10	18.11	19.11	20.12	21.13	22.13	23.14	24.14
Interest revenue on health loans	0.07	0.07	0.08	0.08	0.09	0.09	0.10	0.10	0.11	0.11	0.12	0.12
Fee revenue on health loans	0.13	0.14	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25
Capital in regular loans	35.71	38.46	41.20	43.95	46.70	49.44	52.19	54.94	57.68	60.43	63.18	65.93
Interest revenue on regular loans	0.35	0.37	0.40	0.43	0.46	0.48	0.51	0.54	0.56	0.59	0.62	0.64
Fee revenue on regular loans	0.20	0.22	0.23	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.38
TOTAL REVENUES	**0.75**	**0.81**	**0.87**	**0.92**	**0.98**	**1.04**	**1.10**	**1.16**	**1.21**	**1.27**	**1.33**	**1.39**
DIRECT COSTS ONLY												
Cost per client	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Net income per client–direct only	**0.44**	**0.49**	**0.55**	**0.61**	**0.67**	**0.72**	**0.78**	**0.84**	**0.90**	**0.96**	**1.01**	**1.07**
Cumulative profit (loss)	**1.32**	**1.81**	**2.36**	**2.97**	**3.64**	**4.36**	**5.14**	**5.98**	**6.88**	**7.84**	**8.85**	**9.92**
TOTAL COSTS-including allocated												
Cost per client	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Net income per client-total costs	**(0.41)**	**(0.35)**	**(0.29)**	**(0.23)**	**(0.17)**	**(0.12)**	**(0.06)**	**(0.00)**	**0.06**	**0.11**	**0.17**	**0.23**
Cumulative profit (loss)	**(9.61)**	**(9.96)**	**(10.25)**	**(10.48)**	**(10.66)**	**(10.77)**	**(10.83)**	**(10.83)**	**(10.77)**	**(10.66)**	**(10.49)**	**(10.26)**

** All monetary figures are in USD*

Additional Benefits

Next, we analyze other benefits that may ultimately offset the net cost of offering this package.

New Clients Attracted by Health Package

Data suggest that health savings may attract clients who would not otherwise become members of RCPB. In addition to the revenue that these clients generate through health savings and occasionally through health loans, the health savings enhance revenues from RCPB's other services, which potentially offset to some degree the cost of providing the health savings and health loan package.

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

During interviews, several clients stated that they came to RCPB in order to benefit from health savings. The directors of two pilot branches, at Ouahigouya and Yako, corroborated this and said that some clients were coming over from a competing bank in order to have access to health savings and health loans. In March, the Ouahigouya branch counted six new clients who opened both a health savings account and the required current account (compared to 124 new clients in all), and the Yako branch estimated that "eight to ten" new clients had opened both health savings and current accounts simultaneously (compared to 145 new clients in all). Although this does not prove causality (i.e., that people became RCPB members and opened a current account in order to gain access to a health savings account), considering the 1,359 new clients in the area during the period, potentially 65 of them came to RCPB for the health savings (Figure 10).

FIGURE 10: NEW CLIENTS WHO SIMULTANEOUSLY OPENED A HEALTH SAVINGS ACCOUNT AS A PROPORTION OF TOTAL NEW CLIENTS (IN ONE REGION)

	New Health Savings Accounts	New Savings Accounts	Health Savings as % of Total New Accounts
New clients, Yako, Burkina Faso	8	145	5.52%
New Clients, Ouahigouya, Burkina Faso	6	124	4.14%
Total new clients in MAHP area	**65**	**1359**	**4.83%**

An examination of comparative data between the pilot branches and three comparable branches in an effort to test this anecdotal assertion was inconclusive on the whole (see Annex 1 for sample data), although client growth appeared on average to be 6 percent higher in branches offering health savings and loans than in branches not offering the MAHP package. This provides an additional reference point for the potential impact that health savings and loans have on client growth at RCPB.

Since all RCPB clients are required to hold a current (regular savings) account with a minimum balance of nearly $7 and monthly fees of $.40, there is revenue associated with the opening of new current accounts. Taking the average regular savings deposits per client across RCPB ($175), the average loan size ($998), the blended average annual interest rate on loans of 12 percent, and the fact that 17 percent of RCPB's savers

are also active borrowers, we calculate the average earnings per RCPB client and derive an annual per-client value to RCPB of about $46. Multiplied by the estimated 5 percent of clients in one area who may have joined RCPB for the health savings and loan products, RCPB may have gained almost $3,000 in additional revenue because of its health protection products. (See figure 11.)[12]

FIGURE 11: THE VALUE OF NEW CLIENTS

Value of New Clients Who Join RCPB Because of Health Savings*/**	
Average regular savings deposits	$175
Average loan size	$998
Average annual interest rate on loans	12%
Number of active borrowers	111,005
Number of active savers	671,909
Percentage of savers who are also borrowers	17%
Annual interest earned on average loan	$120
Interest earned on on-lent savings	$21
Fees on current account (annual total)	$5
Annual average earnings per client	$46
New clients coming for health savings (two branches)	14
Estimated new clients coming for health savings (entire region)	65
Estimated percentage of new clients due to health savings	5%
Value of new clients due to health savings (estimated for region June 2008-May 2009)	$2,963

** Based on December 2009 data*

*** All monetary figures are in USD*

This theoretical value brought about through the health package attracting new clients would mean a net positive income of $2,850 for the package when considering only direct expenses, and a net loss of $12,800, including allocated costs.

Client-level Outcomes

Two other outcomes that may ultimately have an indirect impact on RCPB's profitability appear to be occurring at the client level: (a) clients' health-seeking behavior and (b) clients' perception of their own financial status.

a. Clients' health-seeking behavior[13]

- Twenty-four percent of health savings clients and 9 percent of non-health savings clients sought preventive health care within the last 30 days (significance $p<0.01$).
- Following an analysis to control for urban/rural clients, the probability that a non-health savings client sought preventive care was 72 percent less than the health savings clients (significance $p<0.0046$).

[12] All numbers and estimates in this section are based on December 2009 data.

[13] This data is based on independent impact research conducted by Freedom from Hunger and IREEP via client interviews in 2009. See Microfinance and Health Protection Research Summary Report: RCPB, Freedom from Hunger 2010.

It makes sense that people with funds set aside and readily available for health purposes would be more likely to access preventive care. Because they are in fact doing so, RCPB may begin to see healthier clients and lower spending on health in the medium to long term as clients and their families address health problems earlier, before they become serious and costly.

b. Clients' perception of their financial status

- 100 percent of health savings clients (n=35) and 85 percent of non-health savings clients (n=34) described their current economic situation today as "the same" or "better" than before.
- 86 percent of health savings clients and 62 percent of non-health savings clients plan to increase their regular savings in the next six months.

This real or perceived improvement in general financial status and intention to save more are positive signs and reinforce the qualitative comments heard from clients that having dedicated health savings and the ability to access a health loan makes them feel more secure and in control. Improved financial status and increased savings both translate into not only social but also financial gains for the MFI.

Conclusion

RCPB and Freedom from Hunger set out to learn whether an MFI could develop and offer health-related services that would enhance its microfinance offerings, have a positive social impact on clients, and ultimately enhance the financial bottom line of the MFI itself. We found that RCPB's package of health savings and health loans can be offered sustainably and eventually at a slight profit, when considering only direct costs. If staff convictions are correct that these services enhance client growth—even on a very small scale—then these services actually produce a net financial benefit for the MFI. When taking into account allocated staff costs, however, the package does not pay for itself, even considering some of the indirect financial impacts.

RCPB leadership focuses on the direct, marginal cost of offering these value-added services and is highly satisfied with the results. Over the course of 2010 and 2011, RCPB intends to substantially scale up the number of branches offering health savings and health loans, as well as the promotion of these products to achieve a take-up rate of about 25 percent of its overall clientele within a few years.

We hope that the data provided in this paper will serve to inform and inspire other MFIs to explore practical and cost-effective ways of addressing the critical link between poverty and ill health—not only with the aim of better achieving their social missions and meeting the criteria of many social investors, but also with the growing conviction that by addressing this need and improving the health of their clients, they can in turn enhance the health of their own income statements.

"We see our existing microfinance operations and infrastructure as a platform from which these additional services can be sustainably offered. These services go a long way to addressing the needs of our clients and helping them overcome poverty, and if they can be offered at low or no marginal cost to our MFI, then that is a double win."

–Daouda Sawagodo, General Directorof RCPB

Additional research is needed on the costs and benefits of providing such integrated microfinance and health services. As RCPB and the other "MAHP" MFIs move beyond the pilot phase and work to scale up their health protection services, and as other MFIs implement and scale up such services, Freedom from Hunger hopes to conduct and read further research on the value that these complementary services carry for the MFIs and their achievement of financial sustainability.

Appendix 1: Sample of Comparative Data at RCPB

Examining Differences in Performance Between Branches Offering Health Protection Products ("MAHP") and Branches Not Yet Offering Them (Non MAHP")

The data collected did not show discernible differences or trends among the most common performance measures. Because we were unable to obtain consistent data disaggregated by branch, we could not use statistical software to conduct deeper analyses of inherent trends. The following is a sample of the data, analyzed in terms of change from the previous period among three branches (credit unions) offering health savings and health loans, and three branches not offering these products. The data show significant upward and downward swings in client growth, dropout, savings and loan volume and portfolio-at-risk, across all branches and over time. The only measure that shows some degree of consistency is the change in number of clients, which appears higher in MAHP areas than in non MAHP areas in almost every period. Further data over a longer period of time would be needed, however, to draw any firm conclusions.

	Jan-Dec 2006		Dec 2006-Dec 2007		Dec 2007-Dec 2008		Dec 2008-May 2009	
	MAHP	Non MAHP	MAHP	Non MAHP	MAHP	Non MAHP	MAHP	Non MAHP
Change in # of clients	13%	-1%	19%	10%	14%	14%	6%	4%
Change in # dropouts	NA	100%	189%	-33%	-65%	-25%	18%	2400%
Change in average savings	5%	-3%	6%	10%	-4%	-3%	4%	3%
Change in average loan size	12%	69%	16%	-14%	9%	9%	-13%	-14%
Change in PAR-30	-78%	-4%	8%	48%	76%	-59%	3%	234%