



Photo by Todd Shapera

Improving the Financial Management of Rwanda's Community-Based Health Insurance Scheme

With support from The Rockefeller Foundation's Transforming Health Systems initiative, Management Sciences for Health (MSH) collaborated with University of Rwanda's College of Medicine and Health Sciences School of Public Health (UR-CMHS-SPH) and the Government of Rwanda's Ministry of Health (MOH) between May 2012 and July 2015 to assist Rwanda's national Community-Based Health Insurance (CBHI) program.

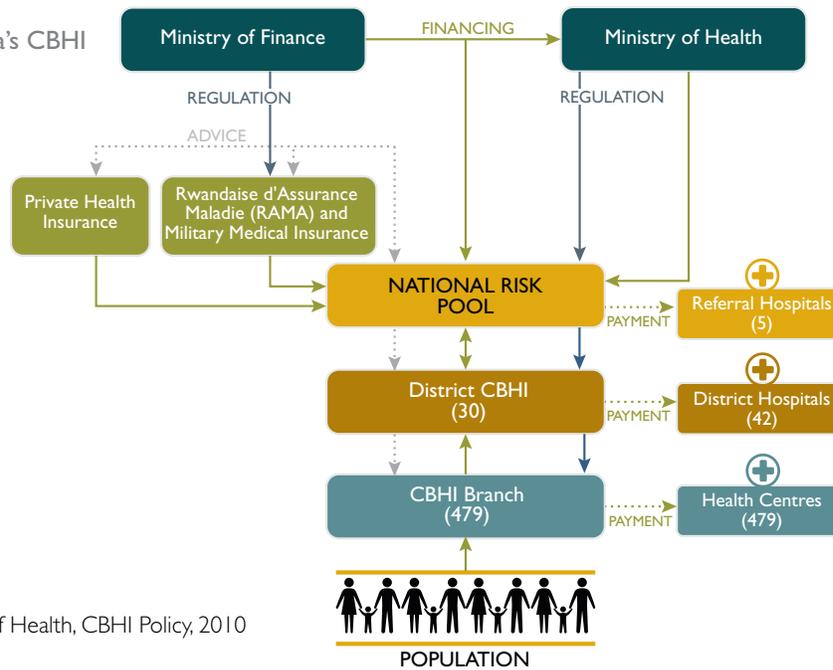
The project had three components:

- Examine the effect of the CBHI program on access and equity, especially on the use of health services and household financial protection;
- Document the history of the CBHI program and identify key lessons learned in its development and implementation; and
- Strengthen CBHI financial management by developing a financial management tool.

CONTEXT

Launched in 1999, Community-Based Health Insurance (CBHI) in Rwanda reached extensive coverage for health care services in a little more than a decade. Commonly known as *mutuelles de santé*, CBHI was developed by the Government of Rwanda in response to a critical drop in health service utilization after the reintroduction of user fees in 1996. CBHI covered 7 percent of the population not covered by other insurance in 2003 and dramatically increased access to health services, covering over 70 percent of that population for services at public health centers and district and referral hospitals in 2013. As Rwanda approaches universal coverage, the scheme still has challenges such as increasing membership so all Rwandans are covered, and addressing the affordability of premiums and the need for subsidies. Financial viability and strong management systems are essential components for the scheme to operate successfully and sustainably.

Figure 1.
The structure of Rwanda's CBHI



Source: Rwandan Ministry of Health, CBHI Policy, 2010

CBHI STRUCTURE

The structure of CBHI is based on a partnership between the national and local governments and the communities. One critical element of Rwanda's CBHI structure is the involvement of, and linkages between, each level of the health system (see Figure 1 above).¹ At the national level, there is a dedicated technical CBHI support unit, *Cellule Technique d'Appui aux Mutuelles de Santé (CTAMS)*, at the Ministry of Health that provides support for the development of CBHI, facilitates experience-sharing among districts, and assists with the development of policies and strategies. Each of the 30 districts has a legally-formed *mutuelle* which covers the members who live in the district. Within each district there are several branches, with each one covering a health center and the communities that it serves. The branches are responsible for management, mobilizing enrollment, collecting premiums, and paying health center invoices.

Risks are pooled at different levels: Branch, District and National (see figure above). Since portions of the premiums are pooled at higher levels and people can access all levels of care, CBHI can best be described as a national community-based health insurance system. Premiums are received at the community level, and the revenue is used to reimburse public health centers for services rendered.

The revenue from premiums is divided, with 55 percent used to cover health center claims and 45 percent sent to the district to cover hospital claims. Of that 45 percent,

10 percent is sent to the national level to cover referral hospital claims and the rest is used to reimburse district hospital claims. Members are classified into three categories based on economic status, using the *ubudehe* process.² For Category 1 members (the poorest) the Government of Rwanda, with assistance from development partners, pays the premiums. Fixed copayments are collected from Category 2 and 3 members at the health centers and these are paid to the CBHI scheme to cover administrative costs. Hospital copayments are also collected from Category 2 and 3 members as a fixed percentage of each patient bill and this revenue is retained by the hospitals. The health centers and hospitals are reimbursed on a fee-for-service basis using itemized billing; these bills are submitted monthly to the CBHI scheme and are audited before payment.

STRENGTHENING FINANCIAL MANAGEMENT OF CBHI

An important aspect of community-based health insurance is good financial management. This is required to ensure that revenue and expenses can be accurately projected, that performance and financial viability are reported, and that mismanagement and fraud can be quickly detected. Even though the scheme has been very successful in terms of attracting members and improving health status,

1. Republic of Rwanda, Ministry of Health. *Rwanda Community-based Health Insurance Policy*. Kigali: April, 2010.

2. *Ubudehe* is a process at the village-level for community decision-making. *Ubudehe* incorporates a "poverty-mapping" process, which has a systematic methodology and allocates each household to one of six ordinal income and poverty-related categories differentiated by well-defined qualitative criteria. CBHI membership premiums and copayments are based on ability-to-pay following their *ubudehe* categories.

“We have used the results of the tool to project and see [the] bill payment situation. We have also used [it] to influence decision-making by avoiding overbilling, limiting [the] running costs of the branch, improve sensitization, and give reports [that are] well done.”

—CBHI District-level Director

the government has been aware of financial management weaknesses. These challenges included:

- The CBHI scheme was struggling to pay health care bills at some health centers, mainly because membership was falling and premiums and subsidies were not enough to reimburse health center bills.
- CBHI managers were unable to accurately predict or report premium income and health care service reimbursements.
- CBHI administrative costs were high (amounting to as much as 18 to 23 percent of total revenue at the branch and district levels) due to the high costs of processing and auditing claims.³
- Overbilling and over-prescription by providers was a problem at some facilities, resulting in higher CBHI costs than expected.
- Delays in reimbursement to facilities meant that they were sometimes short of funds which, reportedly, resulted in poor quality of care, such as shortages of medicines.
- A lack of an effective financial reporting system impeded the ability of national CBHI managers to collect reports, review financial performance, and project future revenues and costs.

BUILDING A FINANCIAL MANAGEMENT TOOL

MSH and the MOH considered these challenges and agreed on the need to improve financial planning and reporting. This resulted in MSH developing a simple, user-friendly, Excel-based financial management tool. To ensure that the tool was appropriate and effective, MSH worked closely with CTAMS during the development, testing, training, and, in July 2013, the roll-out of the tool.

KEY FEATURES OF THE TOOL

The CBHI Financial Management Tool enables CBHI managers and accountants at the district level to quickly prepare financial reports, analyze financial performance, and project the impact of potential changes (such as in membership levels, premiums, administrative costs, expected utilization levels, and health center reimbursement rates and mechanisms) on future revenue and costs (see Figure 2 below). Although the tool was originally developed to model and project finances,⁴ it was soon realized that it could also provide a fast and effective way to report actual and historical financial performance to higher CBHI management levels. With this added function, the tool can:

- Project whether future CBHI revenue will cover reimbursement for health services provided and administrative costs;

Figure 2. Snapshot from Financial Management Tool showing difference in health care premiums and reimbursements (in Rwandan Francs) across Gicumbi District in Northern Province

CBHI FINANCIAL MODELING TOOL : DISTRICT ANALYSIS - SUMMARY REPORT				
Data Entry from July / Juillet 2011 to December / Decembre 2011				
District: Gicumbi				
TOTAL FOR DISTRICT (SECTIONS + DISTRICT CBHI)				
Actual Data (6 months)	Expected Data - Actual Period (6 months)	Projected Data - Remaining Period (6 months)	Full year Projection	
July / Juillet 2011 to December / Decembre 2011	July / Juillet 2011 to December / Decembre 2011	December / Decembre 2011 to June / Juin 2012	July / Juillet 2011 to June / Juin 2012	
Premiums available in account to pay reimbursements	122,965,260	129,051,497	39,455,522	168,507,019
Total Cost of Reimbursements	100,896,420	65,027,746	82,649,174	147,676,920
Difference [Premiums - Reimbursements]	22,068,840	64,023,751		20,830,099
Amount available in common account to pay CBHI Section costs	18,232,425			10,780,087
Total CBHI Section Salary and Operating Costs	12,504,000			24,600,000
Difference	5,728,425			- 13,819,913

3. Republic of Rwanda, Ministry of Health. *Health Financing Unit Report*. Kigali: 2013.

4. It was first called the Financial Modeling Tool.

“[The Financial Management Tool] permits assessing the current sustainability of Mutuelle de Santé by determining the maximum capacity of services that could be provided within the constraint of expected membership levels and current premiums.”

—Josephine Nyinawankusi, MOH

- Record and report performance such as enrollment figures, premium revenue, healthcare reimbursements and administrative costs, particularly to CTAMS and other higher-level managers so they can compile national reports quickly and easily;
- Predict and monitor payments to facilities for health services and CBHI administrative costs;
- Provide early warning to CTAMS if there is a possibility that expenditures will exceed revenues and provide evidence for requests for government financial assistance;
- Help model and review the current and longer-term sustainability of the CBHI scheme;
- Identify and highlight areas where financial performance is weak or unusual, for possible investigation and audit.

Data is entered at the branch and district levels and comprises national and district-level assumptions and actual income, expenditure, and utilization data for each branch and district.⁵ Actual and projection data should be entered monthly or quarterly. Based on the amount of available data and assumptions, the tool will automatically project utilization and expenditure for the remaining months in the CBHI cycle. The data can be accessed on the web which makes it easy for CTAMS to review reports and compile aggregated reports.

IMPACT OF THE FINANCIAL MANAGEMENT TOOL

The MOH and MSH tested and validated the Financial Management Tool in the field, developed a user guide, and provided hands-on training to 30 district accountants and 438 CBHI branch accountants.

Branch and District Levels

As part of recent evaluation interviews, district level users reported that the Financial Management Tool has helped with decision-making by identifying overbilling at the CBHI branch levels, improving report generation, controlling operational costs, improving supervision, and helping to track CBHI financial reserves at the branch level. This has enabled significant improvements in CBHI management during the last two years.

5. It is important to note that this is not an actuarial tool since the estimation of services and related costs are based on service utilization rates and do not take into account information such as demographics and incidence/prevalence rates.

National Level

Interviews with the national-level CTAMS team also indicated their satisfaction with the tool. They used it to consolidate data for all 30 districts. The data were then aggregated and analyzed at the national level, and used to help generate annual reports on membership and finances. By comparing the net income from premiums with the total expenditures on services and administration, administrators could determine whether a district was operating at a loss or a profit. Prior to the use of this tool, it was difficult to gather data from all branches and districts, and reports did not all contain accurate enrollment figures or CBHI revenues and expenditures. In fact, reportedly, accurate national figures for membership only became possible once the tool was introduced. The data from the Financial Management Tool were used in the CBHI annual financial report for 2013.

A good financial management tool can be helpful in discovering cases of fraud and misreporting, which have, in fact, occurred in some districts. However, such a tool must be used properly, reports must be submitted to CBHI managers promptly, and anomalies must be investigated.

CONCLUSION

The CBHI Financial Management Tool permits easy and comprehensive data collection, analysis, and reporting of information. Its use has improved CBHI management and has the potential to improve health service delivery by helping to ensure that financial resources are available to cover the cost of services. The tool has been used less often to project revenues and expenditures, but this will be important in the future. This is a crucial step, because while utilization is fairly low at an average of 0.98 outpatient visits per capita, as the utilization increases, claims and costs will rise and the financial viability of the scheme will come under more pressure.⁶

The tool has been extremely helpful for the CBHI scheme at all levels in Rwanda. Poor financial management and control are a major challenge for CBHI schemes in many developing countries. Such tools are essential for good reporting, financial planning and management, as they cover needs that traditional accounting systems cannot always meet. ■

6. Republic of Rwanda, Ministry of Health. *Annual Report : Community Based Health Insurance*. Kigali: 2012.