



Photo by Todd Shapera

The Development of Community-Based Health Insurance in Rwanda: Experiences and Lessons

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

Community-based health insurance (CBHI) is much debated as a way of tackling the challenge of providing access to health care for the poor in developing countries without worsening their economic situation. **Proponents** argue that CBHI schemes can be effective for reaching a large number of poor people who would otherwise have no financial protection against the cost of illness, especially in countries where national insurance schemes do not exist and/or where public health care funding is insufficient. Also, the poor can be involved in decision-making. **Opponents** argue that the risk pool is often too small, that adverse selection problems arise, that the schemes are heavily dependent on subsidies, that

financial and managerial difficulties arise, and that the overall sustainability is not assured.¹

Rwanda has developed a successful national CBHI scheme known as *mutuelles de santé* that has overcome many obstacles. Coverage is high, communities are involved, risks are pooled, and adverse selection is minimized. Despite many challenges, such as limited management capacity and dependence on government (and donors) for subsidies, the CBHI scheme has greatly increased access to care and has contributed to much-improved health results. The Rwandan CBHI scheme is best described as a national community-based health insurance program. More than a decade of implementation and refinement of CBHI in Rwanda has provided an ideal learning environment to draw lessons that may also benefit other countries.

SCHEME DEVELOPMENT

The Government of Rwanda started the CBHI scheme in 1999 in response to the widespread inability of individuals to pay user fees at health facilities and a resulting low utilization of services and poor health indicators. It started with pilots in 3 districts, and other districts soon decided to establish their own schemes. By 2005, CBHI schemes existed in 354 of the 366 health centers (96 percent) and

their communities. In 2006, a national policy was implemented, the CBHI schemes were standardized, and free premiums for the poor were formally put in place. Membership reportedly increased from less than 7 percent of people without other insurance in 2003, to 74 percent in 2013.²

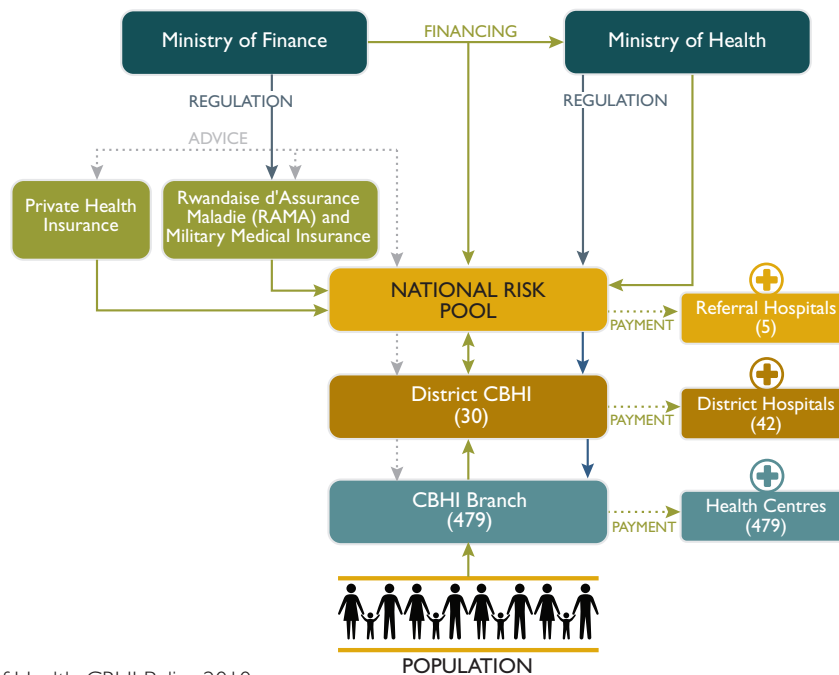
There are many reasons for the successful development of CBHI during this time, including:

- A broad level of awareness of poverty, health needs, and problems of access to health care;
- Community solidarity and mutual aid values that are embedded in Rwandan culture;
- Influence and support of civil society, with key roles played by religious leaders;
- Leadership of national and local government, which encouraged, facilitated, and monitored the process and developed and issued policies and laws;
- Key role of the Ministry of Health (MOH) as policy initiator and champion, which often participated in official launches of the schemes and stressed the importance of CBHI in the fight against poverty;
- Ministry of Finance funding to cover premiums for the poor

1. Adverse selection results when high-risk or sick individuals are more likely to buy health insurance than the low-risk or healthy individuals. This is especially the case under partially-enrolled households.

2. The membership target populations used by the districts have reportedly been the estimated total population less the estimated number of people insured under other schemes.

Figure 1.
The structure of Rwanda's CBHI



Source: Rwandan Ministry of Health, CBHI Policy, 2010



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In 2012–13, the annual per capita health care utilization rate for CBHI members was 1.23 visits at the health center level and 0.18 at the district hospital level. In total, these increased significantly from the 0.25 visits per capita recorded in 1999 and are higher than the WHO recommended average of 1.0 visit per capita.

- ▶ Local government working with the *Banque Populaire Rwanda* to provide soft loans to help pay premiums;
- ▶ Donors who facilitated pilot schemes and provided support and technical assistance through technical working groups organized and led by the MOH;
- ▶ A heavy emphasis on informing and educating people, many of whom believed that insurance is only for those who are ill, through messages from all levels of government and different media approaches;
- ▶ Free premiums for indigents—paid by the government (with donor support).

In 2011–12, new premium structures based on household socioeconomic categories were implemented to create more equity; wealthier members paid higher premiums than poorer members (as opposed to the previous premiums which were the same for everybody). This also helped to generate more revenue for the scheme, since it was previously heavily subsidized. In addition, several policy decisions were made to strengthen the management capacity, expand the benefit package and to improve sustainability of the CBHI scheme. While the impact of introducing the new premium structure is not clear, the 2013 CBHI household survey indicated that some households felt that the current premiums and copayments were unaffordable.

SCHEME STRUCTURE, MANAGEMENT, AND FINANCING³

CBHI is a national scheme but is highly decentralized and structured around each of the 30 districts (see Figure 1, left). The central governing of the CBHI is managed by the MOH, which is responsible for the stewardship of the program and overall policy development. Each district CBHI is a legal body and has branches based at the health centers, 479 in total. In addition to the CBHI scheme, there are schemes for civil servants and military personnel that cover about 6 percent of the population, plus private commercial health insurance for a very small portion of the population. Membership of a health insurance scheme is obligatory but this is not always legally enforced.

The CBHI scheme is managed by voluntary committees established at the community, health center, and district levels. At the national level, it is coordinated and supported by a dedicated CBHI support unit with government staff under the MOH.

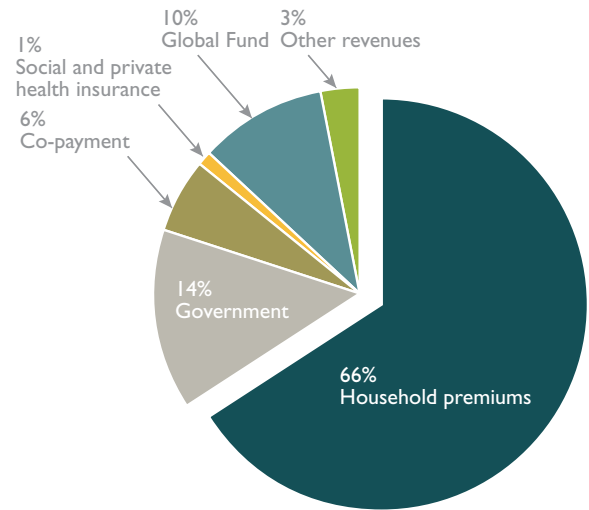
Beneficiaries are entitled to the packages of services defined by the MOH and provided at public health facilities: health centers, district and tertiary hospitals. This excludes

3. At the time of writing, the management of the scheme was being prepared for transfer from the MOH to the Rwanda Social Security Board (RSSB). The report covers the period when it was under the MOH.



Photo by Todd Shapera

Figure 2.
CBHI sources of revenue, 2012–2013



Source: MOH annual report, 2012–2013

the 10 percent of the country's health care facilities that are private and for-profit. Beneficiaries can use facilities out of their catchment areas in the case of emergency, but must be referred to use hospital services.

Members are divided into three categories based on their economic situation. For Category 1 members, the poorest group comprising 27 percent of members,⁴ the premium per person is RWF 2,000 (USD 2.99)⁵ per year; but that premium is paid by the government. Category 2 members, the middle group, comprising around 70 percent of members, pay RWF 3,000 (USD 4.35) per person per year. Category 3 members, the better off group, comprising around 3 percent of members, pay RWF 7,000 (USD 10.34) per person per year.⁶ The contribution is made at the individual level, but the whole family is enrolled. Payment is due at the beginning of the Rwandan fiscal year spanning July–June and covers membership during the entire year. If a person joins in the first month (July) there is no waiting period. However, a one month waiting period is applied to those who join after that month.

4. 2012–13 figures

5. Using 2010 exchange rates

6. Although these amounts appear to be small, in the rural areas many people live in a subsistence economy which is not cash-based. People's ability to pay is based partly on their ability to sell something else and paying the premium or copayment can be a struggle for many.

A flat copayment fee (RWF 200) per visit to the health center is collected by the CBHI unit and is intended to cover CBHI administration costs. A copayment of 10 percent of the total hospital bill is collected from the patient and retained by the hospital.

REVENUE AND EXPENDITURE

The scheme's revenue depends heavily on premiums. Based on 2012–13 data (when membership was 74 percent of the population), CBHI was predominantly funded by member premiums (66 percent), followed by the government (14 percent, which covered contributions for indigent members, payment of referral hospital bills, and other support to CBHI running costs), and the Global Fund (10 percent) (see Figure 2, above). Patient copayments came to 6 percent of total revenue.⁷ Other insurance companies have been mandated to provide 1 percent of their income to CBHI since 2008.⁸ However, this only amounts to 1 percent of total CBHI revenue. Most of the premium revenue comes from Category 2 members because Category 3 members are few in number and the premiums for Category 1 members are paid by the government.

7. This is presumably only from health center copayments since hospital copayments are retained by the hospital.

8. Government of Rwanda. Law N° 62/2007 of 30/12/2007. 2008.



Photo by Todd Shapera

The 2013 survey and key informant interviews indicated that all categories of members feel that CBHI resulted in lower health care costs and better access to medicines.

The revenue from premiums is split, with 55 percent retained at the health center level for 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. Health center copayments are intended to cover the CBHI scheme running costs. Premium revenues vary across branches and districts in line with variations in membership numbers and the socioeconomic level of the population.

Based on data from 2012–13,⁹ the main CBHI expenditure is for health care costs (82 percent), of which 38 percent goes to district hospitals, 29 percent to health centers, and 15 percent to referral hospitals. CBHI management costs are 18 percent of total costs.¹⁰

9. Rwanda Ministry of Health. Annual Report : Community Based Health Insurance. 2012.

10. These figures presumably exclude hospital copayments made by patients.

IMPACT OF CBHI ON ACCESS TO CARE AND EQUITY

A household survey conducted in 2013 indicated that CBHI covers most health needs for most members (78 percent), including access to medicines.¹¹ Most members do not have to delay seeking care when needed. Key informant interviews conducted among those who were involved in the development and implementation of the CBHI policy support this finding.

In 2012–13, the annual per capita utilization rate for CBHI members was 1.23 visits at the health center level and 0.18 at the district hospital level.¹² In total these increased significantly from the 0.25 visits per capita recorded in 1999 and are higher than the WHO recommended average of 1.0. It is important to note, however, that the combination of performance-based financing with CBHI may have increased utilization and quality of services such as antenatal care and deliveries. The 2013 survey and key informant interviews also indicated that all categories of members feel that CBHI resulted in lower health care costs and better access to medicines. The results of the 2013 survey

11. University of Rwanda-College of Medicine and Health Sciences-School of Public Health. November 2014. Household survey of Community Based Health Insurance (CBHI) enrolees and uninsured households in Rwanda conducted in 2013.

12. Republic of Rwanda. Ministry of Health. Annual Report : Community Based Health Insurance. Kigali. 2012.

Table I.
Progress on maternal and child health indicators, 2000–2015
(Demographic and Health Surveys)

Maternal and Child health indicator	DHS 2000	DHS 2005	DHS 2010	DHS 2014-15
Neonatal mortality rate (per 1000 births)	44	37	27	20
Infant mortality rate (per 1000 births)	107	86	50	32
Under five mortality (per 1000 births)	196	152	76	50
% of children 12-23 months fully vaccinated	75	80	90	93
Maternal mortality ratio	1071	750	476	210
% of births attended by skilled health personnel	27	28	69	91
Antenatal care coverage (at least 1 visit)	92	94	98	99
Unmet need for family planning	36	39	21	19
Women 15-49 using modern contraceptive methods	6	10	45	48
Contraceptive prevalence rate	-	17	52	53

also showed that very few persons had catastrophic health care costs.

The growth of CBHI, along with reproductive health, immunization, malaria, TB and HIV/AIDS, performance-based financing, community health and quality assurance programs, have significantly contributed to dramatic improvements in key health indicators (See Table I).

CHALLENGES

Despite the impressive success of the scheme in terms of expansion and coverage of the beneficiary population, CBHI is now at a turning point in its evolution where the government is working on strategies to ensure its long term sustainability including financial viability. The recent government decision to move CBHI management from the MOH to RSSB is a major step towards its sustainable development.¹³

LESSONS

Although Rwanda is unique in several ways, the lessons learned are relevant to most countries, poor or wealthy. These are summarized below.

Length of time needed. It takes time to build a successful CBHI scheme and it is necessary to identify and address issues and challenges that will occur over time. The need

for strong political and popular support and commitment will continue for as long as the scheme exists.

Role of government. Strong and consistent government, political and operational leadership, and support are needed from the highest levels down to local levels, especially in the early stages. This includes having an integrated approach and cooperation across national governmental departments and between national and local governments under the leadership of the Presidency. The creation of a separate management government management unit is important.

Communities and NGOs. Strong demand and support from communities and related organizations is essential. Building on a culture of working together, such as mutual help systems and solidarity, is important.

Partners. Important support can be provided by development partners over the course of the design and implementation but it is necessary that this be initiated, designed, coordinated, and managed by the government to ensure that it is well integrated. Such support can be both in the form of technical assistance and financing.

Sensitization. It is essential to have strong, coordinated, and continuous efforts to inform and educate people on the role and importance of social health insurance.

Research. Research is a valuable and necessary element of designing and developing a CBHI program. Key areas include gathering and analyzing data before, during, and after pilots. Periodic operations research is essential, espe-

13. Resolutions 31 of the 11th leadership retreat of March 08-10, 2014 and Cabinet meeting decisions of 28.03.2014

While there are limitations on how much members can pay, it is important to eventually have one pool for all citizens so that the better-off can subsidize the less well-off. It is also essential to apply principles of cost-effectiveness and efficiency, both for the operation of the scheme but also for the health services that the scheme is helping to fund.

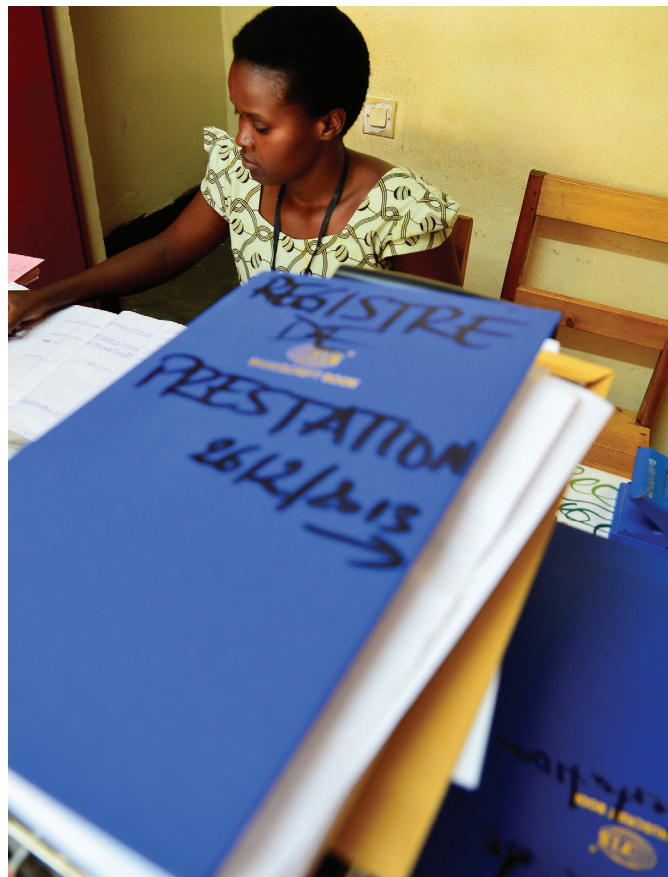


Photo by Todd Shapera

cially prior to any changes in the scheme, such as increases in premiums. This should include surveys of members and non-members. Particular focus should be made on getting member reactions to such changes and interviewing non-members.

Policies, regulations, plans and reports. Governments must develop clear policies, regulations, and guidelines that provide standard instructions and guidance for all those involved in a CBHI scheme.

Performance-based financing. Performance-based financing is an important complement to a CBHI scheme, providing incentives to improve service provision. While CBHI helps to create access and increase demand, performance-based financing helps to improve supply of these services.

Premiums. Premiums must be set very carefully, not just initially but also when policy changes are being considered, and must take into account the willingness and ability to pay of prospective members. Stratification of premiums according to ability to pay is good for equity but, especially in the early stages, simplicity of structure is important. Systems for exempting the poor must be reviewed regularly to ensure they are working.

Copayments. Copayments must not be so high that they discourage necessary use. Similar for premiums, systems for exempting the poor must be reviewed regularly to ensure

they are working. Copayments should be flat or capped—having a hospital copayment as a percentage of the total bill with no cap can result in a charge that a patient may not be able to afford. This is especially necessary if the copayment is collected and retained by the facility and is not recorded in the records of the CBHI scheme because the scheme is less likely to monitor it.

Access to health care. Care must be taken to ensure that the full package of services is available to the members and that the quality of care is satisfactory.

Risk management. The scheme must have ways to control **adverse selection**. These include encouraging or ensuring whole family membership, waiting periods for new members before they can use the services, and sensitization of people who feel that do not need to join because there is a low chance of them falling ill. However, if the goal is to have 100 percent membership, the use of a waiting period may be irrelevant. It is also important to use copayments to try to prevent **moral hazard**¹⁴ although, as noted above, care must be used with the design, and it should be recognized that this cannot be achieved for members who were exempt from copayments. The use of a referral system helps in terms of hospital visits. Both of these risks should be subject to regular review.

14. Moral hazard is the tendency to change behavior when the cost of that behavior will be borne by others, for example limiting the motivation to undergo preventative measures among insured persons when curative services are included in the benefits package.

It is important to reflect that the goals of maximizing health revenue and maximizing participation in community-based health insurance within a developing country are generally mutually exclusive; ensuring access to health care for all citizens, as is Rwanda's goal, is, and should remain the priority.

Provider payments and incentives. Using a capitation basis for paying for health center services would remove the risk of over-billing and will reduce scheme administrative costs. Using some form of bundling of services, such as case-based payments, will help to achieve the same outcomes at the hospital level. However, a strong system to monitor the quality of care is of paramount importance.

Financial management. Proper financial management systems are absolutely critical. Insurance scheme funding is often subject to fraud and mismanagement because premium funding is often not paid out immediately and expenditures are not directly related to income. Good reporting systems that reconcile premiums with membership figures and provide comparable information on claims are essential.

Financial solvency and sustainability. In any developing country, it is not likely that a scheme which includes the informal sector and the poor will be self-financing. Subsidies from the Government and support from donors is likely. However, these should be carefully planned so as not

to create too much dependency. While there are limitations on how much members can pay, it is important to eventually have one pool for all citizens so that the better-off can subsidize the less well-off. It is also essential to apply principles of cost-effectiveness and efficiency, both for the operation of the scheme but also for the health services that the scheme is helping to fund.

CONCLUSIONS

Rwanda's CBHI scheme has been highly successful in providing coverage for the informal sector, increasing utilization and improving health results, while greatly reducing the impact of out-of-pocket costs on individual well-being. The government is now working on strategies to ensure its long-term sustainability. However, it is important to reflect that the goals of maximizing health revenue and maximizing participation in community-based health insurance within a developing country are generally mutually exclusive; ensuring access to health care for all citizens, as is Rwanda's goal, is, and should remain the priority. ■