

REPUBLIC OF RWANDA



MINISTRY OF HEALTH

Comprehensive Evaluation of the Community Health Program in Rwanda

EXECUTIVE SUMMARY

December 2016



1. OBJECT OF THE EVALUATION

Rwanda has achieved remarkable progress in improving maternal and child health outcomes in the past decades. According to recent estimates, the under-5 mortality rate has declined from 152 per 1,000 live births in 2005 (RDHS 2005) to 50 per 1,000 live births in 2014-15 (RDHS 2014-15); the neonatal mortality rate has also reduced from 37 per 1,000 live births to 20 per 1,000 live births. The maternal mortality ratio (MMR) has also successfully reduced: MMR was estimated at 750 per 100,000 live births in 2005, and at 210 per 1,000 live births in 2014-15 (RDHS 2014-15). Thus, **Rwanda has met MDG 4 and 5 targets.**

Rwanda started its Community Health Program in 1995, soon after the genocide against the Tutsi. The number of CHWs was about 12,000. At that time, there was no policy, strategy or operational guidelines on how the CHP should be implemented. Initially, CHWs focused on health education and facilitated health campaigns; with time, their role evolved into a more comprehensive community-led initiative.

From 2005, there was sustained capacity building of the CHWs and by 2011, the number of CHWs had grown to 60,000. In May 2012, the Ministry of Health and Ministry of Local Government (MINALOC) decided to remove the CHWs in-charge of Social Affairs in all the villages. The number of CHWs was therefore reduced from 60,000 to approximately 45,000¹.

Nowadays, each village of Rwanda is meant to have 3 CHWs.

One CHW, named *Assistante Maternelle de Santé* (ASM), is in charge of maternal and newborn health and the other two CHWs consists in a *Binôme*. The Binôme is a pair of a male and female CHWs who are multi-disciplinary, polyvalent health agents. CHWs are volunteers, and receive monetary incentives based on performance.

The Rwanda **Community Health Policy**, issued in 2008 and subsequently updated in 2015, provides the orientation for the implementation of community health activities nationwide, and presents a vision of “*holistic community health care services so as to guarantee the well-being of the entire population of Rwanda*”².

The **National Community Health Strategic Plan (CHSP)** (2013-2018) describes in detail the program design, coordination mechanisms, the package of services to be delivered at community level, and proposes a logical framework for monitoring the plan. It also attempts to present an estimate of the program costs for the period 2013-2018.

The package of services offered by AMSs and *Binômes* includes: health promotion and prevention; integrated community case management of childhood illness; maternal and newborn health; identification of TB suspects and referral and community TB DOTs; community based distribution of family planning; nutrition. In 2015, treatment of malaria in adults was included in the package of services offered by CHWs.

2. EVALUATION PURPOSE, OBJECTIVES AND SCOPE

After 20 years of CHP implementation, the MoH in partnership with UNICEF has commissioned an independent evaluation of the CHP program, to guide the MoH on how to use CHWs most effectively to achieve national health goals, contributing to the achievement of post-2015 global sustainable development goals (SDGs).

In January 2016, CMNH at LSTM was contracted to perform the evaluation of the CHP in Rwanda.

¹ Rwanda Ministry of Health, 2015. *National Community Health Policy*. Kigali, Rwanda.

² Rwanda Community Health Policy. Ministry of Health. 2015

The evaluation started in January 2016, and has been completed in December 2016.

The terms of reference, deliverables and timelines for the Independent Evaluation were designed and approved at inception by the Steering Committee and stipulated through a Service Contract between UNICEF and LSTM (N. 43191618).

The **purpose** of the proposed mixed-methods evaluation, as per its Terms of Reference, is to document the Rwanda CHP, assessing programmatic achievements and constraints by reviewing the existing conceptual framework and overall system, including financial support, human resources, management structure, supervision mechanism and governance.

The **objective** of the evaluation is to understand **whether the CHW program has achieved its intended objectives**, thus contributing to the overarching objectives defined in the Health Sector Strategic Plan III (HSSP III) of improving the health status of the population by “*Ensuring universal accessibility of quality health services for all Rwandans*”³.

This evaluation has focused on CHWs, who are selected, trained and deployed by the MoH to deliver a defined set of tasks at community level. CHWs are the central element of the Community Health Policy and of the Community Health Strategic Plan of the MoH. The evaluation has been designed to assess the program nationwide; therefore, the evaluation questions have been addressed at a national level.

The deliverables produced through the evaluation:

- **Inception report:** comprehensive report, including annexes and tools, reviewed and approved by the Steering Committee.
- **CHP Theory of Change:** program ToC, including a detailed description of key assumptions along the proposed ToC.
- **Survey of HCs and CHWs:** full survey report, approved by NISR, inclusive all data collection tools and of data sets.
- **Qualitative Evaluation report:** a full report presenting the key findings emerging from the analysis of KIIs and FGDs.
- **Articles:** outlines of four articles are produced and submitted to the MoH, to be considered for later submission and publication in open access journals.
- **Final evaluation report:** a final evaluation report, validated and approved, and comprising relevant annexes, a stand-alone executive summary and a stand-alone keynote presentation.
- **A final dissemination event:** to present the results of the evaluation to relevant authorities and to other stakeholders, and to discuss the key recommendations identified by the evaluation team

³ Government of Rwanda, Ministry of Health. Third Health Sector Strategic Plan July 2012-June 2018

3. EVALUATION METHODOLOGY

In line with the Organisation for Economic Cooperation and Development (OECD)/ Development Assistance Committee (DAC) criteria for international development evaluations⁴, the study provides an independent assessment of the CHP in Rwanda against the following criteria: relevance, impact, effectiveness, efficiency and sustainability.

A set of evaluation questions were proposed by the MoH and UNICEF via initial ToRs, against these criteria. In light of the findings and recommendations of the Evaluability Assessment performed at inception, a theory-based approach was envisaged as the most suitable method to address the evaluation questions. Rather than addressing the traditional question “*To what extent can a specific net impact be attributed to the intervention?*” a theory based evaluation aims at addressing the question of “*whether the intervention has made a difference*”. In particular, *contribution analysis*⁵ is an analytical approach suited for studies that examine **whether a programme or policy has contributed to achieving certain results and impacts**.

The principles of *contribution analysis* were used as the underlying, guiding methods used to approach this evaluation.

In summary, **the evaluation relied primarily on the design of a Theory of Change (ToC), and on the exercise of testing key assumptions of the ToC via various methods of data collection and analysis**.

Underlying this overarching evaluation approach, various specific analytical methods were identified to address the specific evaluation questions.

In particular, methods of data collection and analysis have included:

- A cross sectional survey of health facilities (n=80) and of community health workers (n=400), aimed at assessing key features of the CHP including: Socio-demographic background of CHWs; Recruitment; Training; Scope of practice and service delivery; Workload; Supervision and coordination; Recording and reporting activities; Equipment and supplies; Referral; Motivation.
- Key informant interviews (KIIs) and Focus Group Discussions (FGDs) were conducted to collect the views and perspectives of stakeholders at various levels of the community health system. KIIs (n=56) were undertaken with different levels of the system: national policy makers and stakeholders, directors and managers of health services at local/district level, health workers, and supervisors from the community level. FGDs were conducted with three categories of participants: female community members, male community members and CHWs.
- Rwanda routine data collected via the health information system were accessed thanks to a Data Confidentiality Agreement signed between the Ministry of Health and LSTM. Data used for the evaluation included routine indicators from HMIS, SISCOM, and RapidSMS.

⁴ Guidelines developed by the OECD/DAC Network for Development Evaluation (OECD/DAC 2010)

⁵ Mayne, J. 2001. Addressing attribution through contribution analysis: using performance measures sensibly. Canadian Journal of Program Evaluation 16: 1-24

- Literature and reports available in Rwanda and internationally were extensively used to design the evaluation framework during the inception phase, and then to triangulate and validate findings during the stages of data analysis and synthesis against identified lines of enquiry.

4. FINDINGS AND CONCLUSIONS

The key findings of the evaluation are summarized below, per evaluation criteria.

Relevance

- The CHP is highly consistent with national policies and plans.
The evaluation notes that there is a very high relevance of the CHP approach to national development policies and plans, including Vision 2020, the manifesto for Rwanda transformation, and the Health Sector Strategic Plan III. In addition, the CHP was openly aligned with the Millennium Development Goals (MDGs) and its design was linked to achieving MGDs targets. More recently, Rwanda has started an internal policy dialogue on how to best address the challenges posed by the new paradigm of Sustainable Development Goals.
- There are some gaps in the internal consistency and completeness of documents regulating the CHP.
The documentation regulating the CHP is extensive and complete at all levels, from policies to guidelines, protocols and manuals. Some inconsistencies and some gaps amongst the various documents are observed, which can be largely attributed to fact that a lot of program features have evolved over time and related documentation has not been updated accordingly.
With regard to CHP design, the evaluation found that the logical framework underpinning the program presents significant issues with regard to its logic and structure, and to the clarity and adequateness of indicators and related targets.
The evaluation could not find any evidence of systematic use of the CHP logical framework as a strategic or management tool, at any level of the system.
- The CHP is highly relevant to the current country epidemiological profile.
The package of services offered by CHWs to communities is highly relevant to the epidemiological profile of Rwanda, in that it is designed to tackle the most common causes of morbidity and mortality, i.e. malaria; acute respiratory infections; diarrheal diseases; tuberculosis; HIV/AIDs; and complications related to pregnancy and childbirth.
It is also noted that, given population ageing, urbanization and the consequent increase burden of non-communicable diseases, prospectively the current profile of CHWs may not be suited to address population needs in the long term.
- CHWs are highly valued by the communities that they serve, particularly in remote areas.
Community value their CHWs, particularly in remote areas where access to services is difficult. CHWs are considered of undoubted importance within the community, not only as health volunteers but also as agents of change and catalysts for community participation.
- Trust and respect are key determinants of the use of CHWs.
Clients express clearly that besides the quality and availability of care provided by CHWs, there are important parameters of satisfaction that will determine their choice of the CHWs as preferred provider (or not). These

include: appropriate behaviour within the community; respect for the clients; trust; confidentiality in dealing with patients' information.

- Community value health promotion and preventive services.
The findings of our qualitative research highlight that for community members the key, fundamental role of CHWs is that of providing health promotion and prevention activities, and of connecting the community to their health facilities. While the availability of some curative services at community level is seen as an asset for the community, the preferred choice in case of (serious) illness remains the health facility care provider.

Effectiveness

- The CHP is successful in delivering a set of essential interventions at scale
There is evidence that the CHP delivers a minimum defined package of interventions at scale; and that service delivery is ensured steadily over time and consistently across different locations. The evaluation reported that in 2015 alone, CHWs assessed more than 900,000 sick children, treating more than 420,000 cases of malaria, diarrhea or respiratory infections in children; screened 1.1 ML children for malnutrition; supported 175,000 pregnant women throughout pregnancy and until childbirth, and provided community based family planning services regularly, to more than 600,000 clients.
- The CHP addresses a significant portion of the overall demand, for selected services
Not only the CHP is effective in ensuring that a minimum package of interventions is offered to communities on a regular basis, but also and as a consequence, a significant portion of the demand for services – at least for some services – is absorbed at community level. In particular, available survey data from Rwanda indicate that 25% of the overall demand for family planning services in country is met by CHWs; and that more than 10% of the cases of diarrhea, malaria or pneumonia are assessed, diagnosed and treated by CHWs. Secondary data and reports from Rwanda suggest that 20% of the notified cases of TB in Rwanda were supported by CHWs at community level via TB DOTs treatment, in 2015.
- There are various operational constraints and barriers alongside the key components (activities) of the CHP
Key findings related to barriers and enablers to CHWs performance are:
 - *Recruitment and retention*: an assessment of the current structure of the CHWs' population shows that approximately 25% of CHWs are above 50 years of age. Prospectively, this may imply that in the coming years attrition – currently estimated at 6-10% - may increase because of an ageing CHWs population.
 - *Training*: self-reported information on training from our cross sectional survey of CHWs indicates that the coverage of training on specific packages is suboptimal, for both ASMs and binomes. Of particular note, the fact that only 31% of CHWs report to have received training on health promotion; 44% on tuberculosis; 52% on family planning. Training coverage is higher for the most consolidated programs: 75% of binomes reported to be trained in iCCM and 80% of ASMs in maternal and newborn health.
 - *Equipment and supplies*: as per guidelines, CHWs are supposed to receive a minimum set of equipment soon after deployment, which is essential to perform their functions. Data from the LSTM survey highlight that the availability of essential equipment is insufficient. Examples of relevance include the low availability of chargers for phones (34%); flashlights (7%); storage boxes for medicines (52%). It is opinion of the evaluators that a clear replacement policy defining accountabilities and frequency of the replacement of equipment may be of support in addressing this issue.

- *Medicines and medical supplies*: LSTM survey data reveal that most medicines are available at health facility level, whereas the availability is insufficient at community level for a number of essential medicines, including as examples amoxicillin (51%); Coartem (55%); ORS (10%) and misoprostol (0%).
- *Supervision*: supervision is performed at good quality and is highly valued by CHWs as an important enabler to offer quality services. Overall, the in-charges at health facility level have capacity to provide good quality supervision, and guidelines and tools are in place to perform it. The content and duration of supervision is satisfactory. Of note, the insufficient coverage of supervision: 40% of CHWs received regular quarterly supervision from HFs during the 12 months preceding the LSTM survey; and 16% received no supervision at all.
- *Motivation and incentives*: The main reported source of motivation for CHWs is non-financial, and has to do with the willingness to support the community, and with recognition and status within the community. According to the LSTM survey, more than 90% of CHWs would remain in post if the current performance based incentives were stopped. The lack of resources for transportation and the lack of equipment are major sources of demotivation for CHWs.

Efficiency

- Costs of the CHP are in line with evidence available from other countries and from benchmarks.
A recent study supported by Management Science for Health and performed alongside the evaluation provides an estimate of the actual costs of the CHP in Rwanda. At a total 26.1 ML USD in 2014/5, program costs have exceeded the budget estimates produced in 2012 for the program, estimated at approximatively 17 ML per annum.
Yet, the cost of the program, estimated at 745 USD per CHW per year, seems in line with available benchmark information available from other countries.
At the current levels, the CHP would cost on average 2.7 USD per inhabitant per year in Rwanda; this would be more than 10% of the total Government Expenditure on Health, should the entire program cost be met via domestic resources.
- The cost of attrition of CHWs will require more precise estimate as a key determinant of the program sustainability
In light of the attrition rates estimated for the program (6-10%) and with considerations regarding prospective increase of such rate due to ageing CHWs population, estimating the cost of attrition becomes important for the policy maker to assess possible alternative CHWs models. Available data are insufficient to provide accurate projections; the evaluation estimates that the cost of attrition may range from 1.6 to 4.1 ML per year.
- Information on funding sources to the CHP is largely incomplete and will require further assessment
More than 25 donors report to provide support to the CHP. Of those, 3 account for 75% of the total financial support tracked via MSH costing study. It is noted that the tracking exercise *as is* remains an incomplete effort, as it provides evidence on the source of funding only for program directly attributable costs (17 ML USD), and therefore at the moment it does not provide an exhaustive picture about the sources for all the program costs.
- Alone, the profit generated via cooperatives may not a viable, single strategy to sustain the CHP

An assessment was recently commissioned by the Ministry of Health, to review the profitability of the cooperatives of CHWs set in place via CHP, and to explore the level of implementation of the initiative, related barriers, and prospective contribution of cooperatives to the CHP sustainability.

The preliminary report accessed by LSTM shows that at the current estimated levels of profitability, the amount of profit generated via cooperatives is less than 5% of the total CHP costs. A significant shift in the proportion of cooperatives generating profit and in the levels of profitability may theoretically increase the level of support of cooperatives to the CHP to more acceptable levels. Cooperatives as a strategy cannot alone sustain the CHP, at least in the short and medium term.

- There are areas where efficiency improvements may be obtained in the short term. The evaluation has identified three areas where efficiency gains can be achieved in the short term, via operational changes to the program. With current available data on costing, the magnitude of the possible cost saving could not be estimated:
 - 1) Medicines: 29% of CHWs reported to have any medicine in stock expired during the quarter preceding the LSTM survey. Reducing wastage of medicines will save a considerable amount of resources to the program, taking into account the fact that medicines are the most expensive component of the overall CHP cost (50%).
 - 2) Training: the organization of training by programs/packages generates multiplication of costs associated to the production, reproduction and distribution of training material, compared to a model of integrated training where a comprehensive curriculum is offered to the newly recruited CHWs
 - 3) Reporting: Rwanda relies on a double system of reporting, SISCOM and Rapid SMS. Although they are in principle conceived to address reporting needs that are only partially overlapping, the double reporting generates various efficiency issues: one is that CHWs spend up to 15% of their time on reporting activities; a second issue for consideration is the investment in two systems that require different/parallel inputs and processes (one is paper based, one electronic).

Impact

The evaluation draws the following conclusions on the impact of the CHP in Rwanda

- Reconstructing and testing the theory of change has helped to unveil a number of both design issues (the model) and operational issues (its functioning) that may undermine the full potential of the CHP. Despite of such findings, which will be important to define a response plan, overall the evaluation concludes that the program relies on a solid and consistent Theory of Change, and that most activities are realized as intended. Per se, this is sufficient to conclude that the CHP contributes to enhanced health outcomes in Rwanda.
- Additional considerations regarding impact include the following observations:
 - ✓ Access to diagnosis and treatment of childhood illness has increased after the introduction of integrated community case management.
 - ✓ There is moderate evidence of the effects of the introduction of a MNH package on maternal and newborn health outcomes.
 - ✓ There is evidence of a reduction of inequity in access to services for urban and rural populations in Rwanda.

Sustainability

To address the question of long term sustainability of the program, the evaluation has assessed and proposes some considerations on long term contextual issues that may prospectively impact on the relevance, as well as on the feasibility of the CHP. Our analysis was structured along four key dimensions: financial; human; social; and institutional factors of influence.

- Financial sustainability

At the time of writing this report, preliminary unpublished data available on the cost of the CHP and on the profit generated via cooperatives suggest that at its current costs – estimated at 35 ML USD per annum – the CHP would absorb approximately 10% of the total Government Expenditure on Health, in absence of alternative and complementary funding sources. Such investment is unlikely to be sustainable.

Cooperatives alone do not present actual or prospective capacity in the short and medium term to absorb any significant share of the costs of the CHP, unless they expand rapidly in number and in their capacity of generating larger income and profit. Clear commitment from donors in the short term to co-finance the program, and/or a quick redesign of the program (downscale) may be the avenues to be pursued to ensure program sustainability in the short and medium term.

- Human factors and sustainability

Two major human factors emerge from our analysis:

1. The ageing population of CHWs will prospectively pose two long term issues: the need to sustain a rapid investment for replacement of CHWs; the potential difficulties of recruiting new volunteer CHWs from younger generations, who are potentially more educated, and more geared towards remunerated job opportunities.
2. Increasing demand for respectful, quality care:
Communities raise concerns about lack of education; hygiene; knowledge; and appropriate behaviour of some CHWs. This raises issues about not only the type and 'quantity' of services provided, but also about the quality of such services and the client satisfaction with those. Such aspects need close consideration, at the risk of deploying a cadre that is not used at its full potential by communities.

- Social factors and sustainability

Available data clearly suggest that at the moment the CHWs are not used in urban areas as much as they are in rural areas. Or at least not for all the services provided. Clearly, urban settlements present a more varied menu of options for accessing health services. Concurrently, they present a different burden of disease and different types of barriers to access, predominantly related to social/cultural issues and to opportunity costs. In such scenario, it is imperative for the policy maker to 'draw' the future of the CHP taking into account that a different distribution of the population will be in place within the next decade. And that such distribution may change the patterns of demand for services and prospectively the relevance of a cadre of community based providers.

Although malaria, HIV/AIDS, TB, ARIs and other infectious diseases still account for a large portion of morbidity and mortality in Rwanda, there is evidence that such situation is fast changing and that non communicable diseases will progressively absorb an increasing share of the demand for healthcare of Rwandans. Main underlying reasons of such trend, the increasing life expectancy for the population, and the improved health status of the population due to the economic progress of the country.

Such issue poses two main questions, prospectively: 1) will there be demand in future for a cadre of volunteers equipped with basic training, or the changes in the epidemiological profile of the country will require more 'medical care'? 2) How much additional costs to the health sector will NCDs bring, and to what extent investments in tertiary care will affect the overall sector budget and hence the ability to continue investing in the CHP? Answering these questions goes beyond the scope of this evaluative exercise; raising these questions will hopefully support the MoH in its future planning and reviews of the CHP.

- Institutional sustainability.

It is opinion of the evaluators that the CHP relies on an extremely solid design, and that such design is fully supported by political will and by institutional arrangements, at all levels of the system.

Interviews, focus group discussions, literature, and desk review of documents point towards a clear and consistent picture: over 20 years, the CHP has consolidated and is considered a priority at all levels.

We believe that the major threat to the institutional sustainability of the CHP at the moment is the current lack of an **institutional framework regulating such program**, and determining in a formal manner the duties and the rights of a cadre of 45,000 providers of health care *vis a vis* the policy maker and *vis a vis* the fundamental right to health of the population.

In simple words, at this point in time there is a large cadre of individuals providing services to the population – some of those to treat life threatening conditions – without any formal arrangement in place.

This situation poses all stakeholders at risk: the MoH, in that it does not have at the moment a formal counterpart to which certain services are 'subcontracted' at predetermined conditions; the CHWs, who are individually bearing the risk of providing care to individuals outside of any formal agreement that clarifies their rights and their duties; and ultimately citizens and users of CHWs, since at the moment there is no formal accountability mechanism protecting their rights to quality care when accessing community services.

5. RECOMMENDATIONS

Short term recommendations

1. MoH and RBC should rapidly redesign the training model for the CHP, considering an integrated training approach as the way forward, in line with many other countries implementing CHPs; in doing so, aspects of health promotion and of respectful care should be included in the training package. Alternative forms of training (e-platforms) may be considered as options, especially for refresher trainings.
2. Evidence from the assessment of the RapidSMS system in Rwanda should be used by the MoH as a starting point to engage stakeholders in a comprehensive discussion on the possibility of merging the reporting systems of CHWs into a single, unified and simplified one.
3. The CHU should move from a largely unused 'CHP logframe' to a lean, real time dashboard which makes use of routine data to manage the program against selected key performance indicators (KPIs) at all levels of the system

4. With support from partners if relevant, the MoH should assess which are the systemic bottlenecks determining an inefficient and ineffective distribution of medicines *at the last mile*, i.e. from facilities to CHWs.
5. Given the short term funding constraints facing the CHP, the RBC and MoH should immediately produce a 'business case' for the CHP. This will be used to engage the Ministry of Finance and Economic Planning and key partners and donors in an informed dialogue aimed to explore short term financing options for the program.

Long term recommendations

Various long term issues have been raised in the evaluation report as prospective changes to the scenario of Rwanda, which may have effects on demand and supply of health services in the country and hence on the CHP. Also, given the high levels of coverage achieved from the country in the past decade, further progress will only be possible through surgical mapping/identification and 'smart targeting' of those pockets of the population that are currently unreached. And the CHP is by nature a perfectly suited instrument to sustain a flexible and effective smart targeting strategy.

In line with such thinking, our recommendations to the MoH and RBC for the long term include the following:

- Continue investing in cooperatives and to strengthen such mechanism. The focus on cooperatives should shift from that of creating a financial sustainability mechanism to a broader one of also creating an institutional framework under which CHWs can engage in an organic and formal dialogue with the MoH regarding service provision; duties; rights.
- Design and implement a package of targeted interventions aimed at improving the recruitment, retention, performance and motivation of CHWs, having in mind a possible acceleration of the attrition, and a consequent 'generational change' in the pool of prospective candidates to be CHWs in future.
- Various models should be considered against a scenario of 5 to 10 years, to (re)design the program in such a way that it maintains its relevance to the needs of the Rwandan communities and that it enhances its efficiency. These may include any of the following options:
 - Differentiate the package of services between rural and urban areas.
 - Reduce the package of curative interventions to those mostly used by communities, and epidemiologically relevant.
 - Consider strategies to reformulate the program so that it reaches the most unserved population more aggressively. This may include options such as retailoring the distribution according to parameters of population density, and/or of distance from facilities.
- A realistic, long term strategy must be conceived, to envision the role of CHWs in Rwanda within a 10-15 years' time. In light of such vision, an exit strategy or a systemic and progressive change to the CHWs profile must be planned.