KEY MESSAGES:

- The supply-side and demand-side Results-Based Financing interventions contributed to improving the performance of Community Health Workers:
  - Although the frequency of over reporting errors did not change significantly, the errors declined substantially from over 140 percent to seven percent, indicating a clear improvement in performance.
- Average quality scores indicate progress in reporting with a 9 percent increase in timeliness and completeness of reports, an 11 percent improvement in report accuracy, and an eight percent enhancement in the quality of management.

Context

Rwanda is a low-income country with approximately 10.9 million inhabitants. Despite significant progress being made since 1994, the country’s economic and development indicators remain low. In 2011, the Gross Domestic Product (GDP) per capita in Rwanda was approximately US$ 580, and 58 percent of the population lived under the national poverty line. With a 0.429 score on the Human Development Index, Rwanda ranked 166th out of 187 countries in the 2011 Human Development Report published by the United Nations Development Program (UNDP 2011).

Similarly, health indicators perform poorly: the total health expenditure is approximately US$55 per capita, and life expectancy at birth is 55 years; under-five mortality is at 54 per 1,000 live births; and the maternal mortality ratio is estimated at 340 per 100,000 live births.

To improve these maternal and child health (MCH) outcomes, the Government of Rwanda has been implementing Results-Based Financing (RBF) nationwide, with almost every administrative unit operating under a performance agreement. In 2010, Rwanda implemented two pilot RBF interventions at the community level:

1. **A supply-side scheme**, using Performance-Based Financing (PBF) to incentivize cooperatives of Community Health Workers (CHW) to provide for the (i) provision of 10 MCH services; (ii) quality reporting; and (iii) the quality of cooperative management.

2. **A demand-side scheme**, using in-kind incentives to reward women who utilize three selected MCH services, including (i) antenatal care; (ii) delivery in a health facility; and (iii) mother and child postnatal care.
within three days of birth.

Introduction

This HNP Knowledge Brief focuses on the key findings of the World Bank Case Study entitled: “Verification of Performance in Results-Based Financing (RBF): the Case of Community and Demand-Side RBF in Rwanda” (2014).

This case study sought to shed light on the extent to which the RBF instigated positive change with regard to CHW performance in Rwanda.

METHODOLOGY

Data for eight indicators were collected in four sectors in three provinces during the fourth quarters of 2010, 2011 and 2012. Data sources included key informants, registries and Health Management Information System (HMIS).

To assess progress in the quantity of services provided, pre-verification and post-verification data were compared, respectively using data on performance as self-assessed by CHWs in four cooperatives at cell level and verified data available at national level. In parallel, the analysis linked to reporting quality and cooperative management quality builds on data contained in quality checklists.

Reports developed after RBF counter-verification visits were completed in the community (MoH, 2012a; MoH, 2012b) were also used to verify the distribution of in-kind incentives as well as trace patients in the community. These reports were used to counter-balance the fact that purposive counter-verification at the health center, sector and district steering committee levels were unavailable for analysis.

RBF VERIFICATION MECHANISMS

The community RBF interventions implemented in Rwanda use four methods to verify the performance of CHW cooperatives (i.e. supply-side scheme) as well as to verify the distribution of in-kind incentives (i.e. demand-side scheme).

The first method concerns the verification of the quantity of services provided by CHWs, which is performed monthly for every cooperative (no sampling) by the affiliated health center and validated quarterly by a steering committee headed by the local government administration.

Each month CHWs fill in the routine community HMIS form which includes the 10 quantity indicators. This form is then compiled by CHWs at cell level (i.e. group of villages). At the end of each month, a meeting is held with health center representatives and cooperative leaders to prepare a sector (i.e. group of cells) report. For each indicator, summations are checked and potential data inconsistencies identified. Data is checked against referral forms submitted by clients referred by CHWs.

The second method pertains to the assessment of the quality of CHW cooperatives, using a quality checklist. It entails the health center assessing the quality of reporting (i.e. timeliness, completeness, accuracy) monthly and the local steering committee validating this information every quarterly. It also involves the district hospital evaluating the quality of cooperatives’ management and the district steering committee validating this evaluation.

The third method concerns the verification of the quantity of in-kind incentives distributed, which performed by the district hospital (optional) during monthly routine monitoring visits to health centers. The demand-side scheme encourages women to use MCH services offered by health centers. When a woman comes to the health center for any of three pre-defined services, she receives an in-kind incentive. The health center is responsible for distributing the incentives and for renewing stock when appropriate.

The fourth method involves the counter-verification of the above-mentioned mechanisms, carried out by the health center, the sector and the district hospital or by the Ministry of Health (MoH) on either a purposive or systematic basis.

Study Findings

The case study concentrates on the quantity of services provided, generating results through the comparison of self-assessed performance prior to verification and performance formally assessed after verification. It considers changes which occurred between the fourth quarters of 2010, 2011 and 2012.

While this analysis did not highlight significant changes in the frequency of reporting the rates of errors during the periods under review, it revealed significant decreases in the size of over-estimations – even though under-estimations remained stable:

- 48 percent of indicators were accurately self-assessed by CHWs (i.e. where verification detected no error);
- 24 percent were over-estimated; and
- 28 percent were under-estimated with average under-estimation of 8 percent.

Interviews conducted for the case study indicate that errors are mainly unintended mistakes rather than fraudulent attempts to increase CHWs’ income. These mistakes are generally caused by (i) misunderstandings with regard to the definition of used indicators, leading CHWs to report patients who do not meet the criteria used for incentivized indicators; and by (ii) compilation errors made when...
consolidating reports at different levels of the scheme.

Reporting quality scores were only considered for 2011, as they were unavailable for 2012. These scores are high for completeness and timeliness, while indicating less progress with regard to reporting accuracy. On average, among the 435 CHW cooperatives included in the supply-side scheme and during the five quarters between the fourth quarter of 2010 and the fourth quarter of 2011, scores evolved from:

- 85 to 94 percent for report timeliness and completeness;
- 81 to 89 percent for management quality; and
- 68 to 79 percent for report accuracy.

Among the sample of hospitals visited for the purpose of the case study, there was no evidence that a verification of in-kind incentives was carried out.

There are two types of counter-verifications performed:

- Purposive counter-verifications at the health center, sector and district steering committee levels.
- Studies performed at national level including, among other things, patient tracing in the community. Two studies have been conducted:

The results of the purposive counter-verifications are not recorded and, thus, no results were presented by the case study. The supply-side study reviewed data for six indicators for the second quarter of 2012, comparing cell reports with (i) data compiled at sector level and (ii) results entered in the national database (i.e. HMIS on which payments are based). The study found a relatively high level of discrepancies between:

- Cell and sector reports in 24 to 70 percent of the sectors (depending on the indicators),
- Sector reports and the national database in 17 to 67 percent of the sectors.

The study also checked whether clients reported having been referred to a health center by a CHW to confirm the provision of care. This counter-verification established that 97 percent of clients sampled could be identified in the community. Conversely, the demand-side study tracked patients in the community. The period assessed was April to September 2011. A total of 107 patients reported by health facilities to have received in-kind incentives were randomly selected in the 55 health centers of the study: 97 percent of patients confirmed having been treated at the facility. Among them, 97 percent reported having received treatment for the relevant service, and 98 percent of women confirmed receiving in-kind incentives.

**Lessons Learned**

**A high degree of variability** was observed in the way tools were used from one health center to another, from one district to another. For instance, different health centers use different criteria to assess the quality of community reports.

- A higher degree of homogeneity is desirable to enable comparisons.

**Lack of incentives/penalties and lack of motivation in reporting accuracy/inaccuracy:** Although most misreported data can be attributed to unintended mistakes, there are no incentives to reduce the frequency of these errors – there are no penalties attached to misreporting. *It should be noted here that the payment for quality reporting only takes into account the internal consistency of their reports, not whether it triangulates with referral reports at the health facility.*

- The introduction of financial incentives/penalties linked to reporting accuracy could help reduce both the frequency and the size of reporting errors.

**The focus on curative care** – rather than on preventive and promotional care – stems from the strong link between the HMIS and easily verifiable PBF indicators.

- The incentivization of CHWs will have to focus both on increasing awareness-raising activities and on the mechanisms required to verified results inherent to these activities.

**Consistent use of counter-verification:** interviewed respondents indicated that sector steering committees – who currently perform many verification activities on behalf of health facilities – were strained by their added responsibilities, stressing the need to further strengthen the counter-verification mechanism.

- Although results of one counter-verification study show that the in-kind incentives reach intended beneficiaries, more primary evidence is required.

**Pre-verification data** submitted by CHWs is not registered into a database.

- The analysis of the differences between reported and verified data is critical to learning. It is also important in informing changes toward a less systematic and less costly verification system (for example, sampling).

**Overall documentation and use of data:** the case study was limited by the lack of recorded data. For instance, as data pertaining to in-kind incentives was not consistently registered, an analysis of data linked to the demand-side intervention was difficult.

- Better documentation and better data use are required.
Recommendations

1. Develop a system capable of systematically comparing CHWs reported data and verified data to guide the provision of incentives/penalties. This could be realized by modifying the mechanism used for the verification of the quality of CHW cooperatives, which currently focuses on the internal consistency of reports (for example, data accuracy) as well as on components that are not expected to change over time such as district authorization and legal status.

2. Select indicators that reflect the key objectives and goals of the project while also being measurable and verifiable, potentially including more preventive measures.

3. Implement systematic counter-verifications: the first task should be to provide sector steering committees with standardized guidelines and tools to facilitate the adequate sampling of households as well as the preparation of reports that allow consolidation at sector, district, and national levels. At a later stage, risk-based sampling could be introduced.

4. Increase both the frequency and the rigor of counter-verification activities to better assess the performance of the schemes as well as identify areas for improvement.

5. Ensure that health facilities and CHW cooperatives across the country use standardized tools and criteria.

6. Train key actors of the community RBF intervention to ensure that verification criteria are used uniformly.

References


This HNP Knowledge Note highlights the key findings from a study by the World Bank on the “Verification of Performance in Results-Based Financing (RBF): the Case of Community and Demand-Side RBF in Rwanda” by Mr. Adrien Renaud and Dr. Jean-Paul Semasaka, 2014.