Community Health Information

MAHEFA's experience in building data quality at the community level

Background

Monitoring and evaluation (M&E), the process by which data is collected and analyzed, is essential to track progress and provide information for managers and stakeholders to use for health program planning and management. In addition, programs should pay special attention to data quality and apply rigorous standards to evaluate the quality of data that is used and reported. In an integrated community health program that involves community actors with low education levels and/or little experience with health reporting, it can be challenging to instill concepts of monitoring and evaluation and data quality. It is critical, though, that these community actors understand these concepts since data collection and reporting start with them and their information is then aggregated and sent to the next level. This technical brief focuses on M&E and data quality assurance at the community level, in particular with community health volunteers (CHVs).

MAHEFA Context

In Madagascar, the health system is organized at multiple levels: central level, managed by the Ministry of Health (MOH), then regional, district, commune and *fokontany* levels[1] specific institutions and management mechanisms defined for each level. A *fokontany,* or collection of villages, is the smallest administrative unit in Madagascar, as referenced in the National Health Policy (PNSC, *Politique Nationale de Santé Communautaire,* 2009), and reports to the commune, the next highest administrative level.

The primary actors in the community health structure are the CHVs who are elected at the *fokontany* level based on the criteria in Box 1. Their role is to raise awareness and offer basic services in health, nutrition and social issues. CHVs operate under the technical supervision of the basic health centers (CSB, *Centre de Santé de Base*), which are health facilities located at the commune level.

Data compiled at different levels of the health system is collected and analyzed at the central level and used by various stakeholders. Harmonization of reports of community-level activities and their integration into the central health information system is a recent development initiated in 2015.

The MAHEFA Approach

The MAHEFA Program introduced integrated community health activities in six of the most remote regions in Madagascar. The program's integrated approach, along with the introduction of several innovations, meant that community actors were responsible for managing several types of health activities and associated interventions. There was a high number of indicators necessary for tracking progress, resulting in a large quantity of data to collect and verify for CHVs and those they reported to.

Box 1 : Criteria for CHV selection

- Member of the local community
- Can be either male or female
- Must be 18 years or older
- Knows how to read and write
- Has a commitment to public service
- Able to volunteer, available and motivated
- Dynamic, sociable and a good communicator
- Has a reputation for being honest

MAHEFA worked with 6,052 CHVs in 24 districts and partnered with local non-governmental organizations (NGOs) to provide support the CHVs and serve as a link between the CHVs and regional MAHEFA offices[2]. The NGOs employed field staff to work at the commune level and provide direct support to CHVs. On the government side, CHVs were supported by CSB heads, who are their technical supervisors. Under MAHEFA, CHVs were the first tier of data collection, and submitted monthly activity reports to the program and CSB heads, who were responsible for reviewing this data before submitting it to the district level.

Among MAHEFA CHVs, 92 percent had not completed secondary school, and 29 percent had not completed primary school. Given this low level of education among the primary actors implementing community health activities, MAHEFA placed special emphasis on establishing strong M&E and data quality practices at the CHV level. MAHEFA conducted specific activities to en-

1. Ministère de la Santé Publique, Guide de mise en œuvre de la politique nationale de santé communautaire, 2014

gage and support CHVs, and actors at the second level of the system, the NGO field staff or TAs and CSB heads, were actively engaged in supporting the implementation and functioning of this first level of the system. All efforts to reinforce high quality data were conducted in a supportive and collaborative manner rather than in a critical or punitive way.

Key Activities

Activities related to data quality assurance (DQA) were instituted in line with the nine functional components of an M&E system detailed in Box 2[3]. MAHEFA carefully considered all components in the conceptualization and implementation of the M&E system; this Technical Brief specifically details components of MAHEFA's M&E system that required special attention in responding to the needs of CHVs.

1. Adapted and/or developed data collection and reporting tools. Data management tools for CHVs had been designed and were already in use in other regions in Madagascar for programs conducted by the MOH or other partners. These tools did not fully meet MAHEFA program needs, so MAHEFA adapted existing tools and/or developed new ones.

To develop these tools and adapt them for optimal use by the CHVs, the following steps were taken:

- Evaluation, review and adaptation of existing tools, taking into consideration materials and lessons from other health projects implemented by the MOH.
- Design of tools and reporting frameworks that were standardized, simple, and adapted for users' education levels, applying feedback received from CHVs. MAHEFA piloted early versions of these tools for eight months in 2012, with users providing feedback on the format and method of completion. Several changes were then made, some of which are outlined in Box 3.
- Development and inclusion of user guides on the first page of all tools. In addition, reporting forms were produced in triplicate to ensure that data is reliable and to help with verification and recording.
- Development of M&E manuals for CHVs and TAs that detailed the requirements for report submission, deadlines and descriptions. MAHEFA also developed job aids and check lists to facilitate these processes.

Box 2: Components of a functioning M&E system to ensure high quality of data

- M&E capacities, roles, and responsibilities
- Training
- Instructions for data reporting
- Indicator definitions
- Data collection and reporting tools
- Data management process
- Mechanisms & controls to ensure data quality
- Linkages with national reporting system
- Data use

2. Implemented the data management process and mechanisms and controls to ensure data quality. For the program in general, all CHVs were trained in each of the integrated health areas, with sessions on M&E for that topic, including using the data tools and potential reporting challenges. MAHEFA implemented an ongoing support system for CHVs after the training, through monthly meetings at the CSB where CHVs from that commune would come together to meet with the CSB Head and the TA to review reports, verify data and discuss challenges and solutions.

Specific to DQA, MAHEFA developed tools to manage and verify data and, between July and September 2013, a special DQA training using these tools was given to TAs, who subsequently trained CHVs in their catchment areas. Among the DQA tools is a monthly report verification form to be used by the CHVs. The DQA guide includes information on: (1) collection and verification of CHV reports; (2) verification for data consistency and reliability; (3) analysis of CHV performance; (4) approval of CHV reports; and (5) consolidation of CHV reporting data. The DQA guide was designed for the TA but was also used by the CHVs at the monthly meeting to provide feedback, and by CSB Heads after the US Government (USG) sanction was lifted.

During the monthly meeting, TAs and CSB Heads verified CHVs' activity reports, and approved and consolidated reports. After the DQA training, the DQA guide was also used during these meetings and the monthly verification form was filled out by TAs. TAs and CSB Heads did the verification jointly with the CHVs, validated the data together, and discussed expectations for the next month, with adjustments as necessary.

2. From 2011-2014, MAHEFA could not work with the Government of Madagascar as a result of the U.S. Government political sanction.
3. David Boone, Ronald Tran Ba Huy, Cyril Pervilhac, Annie La Tour, 2008. "Routine Data Quality Assessment Tool (RDQA), Guidelines for Implementation for HIV, TB, & Malaria programs".

For communes with higher numbers of CHVs reporting to the CSB, TAs and CSB Heads had limited time to verify and approve the quality and completion of each monthly report. In these communes, MAHEFA identified higher-performing CHVs based on the quality and completion of their tools and trained them to assist in verifying reports from other CHVs during the monthly meeting. This approach encouraged peer exchange between CHVs, and led to a general improvement in CHV knowledge. Over time, these improvements resulted in increased numbers of high-performing CHVs able to conduct verification. In communes where all CHVs became verifiers, "peer verification" became the norm.

Box 3: Examples of changes made to data management tools after receiving CHV feedback

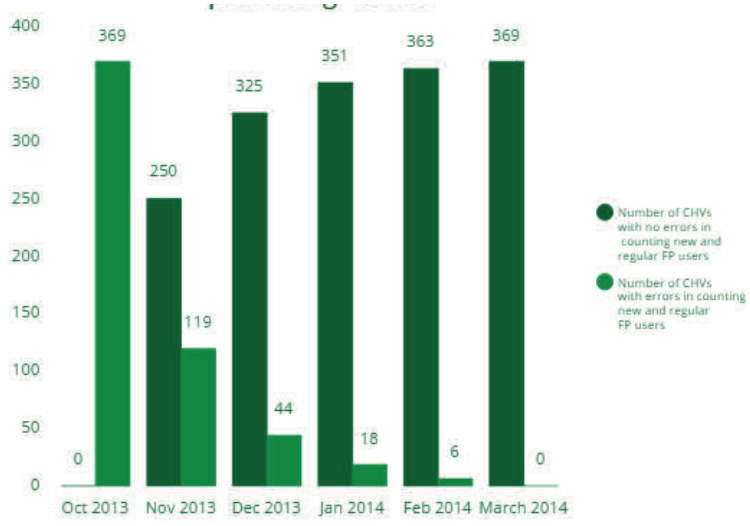
- Reduced the size of the tools to make them easier to transport (e.g., to community activities and monthly meetings).
- Enlarged boxes on reporting pages to make them easier to read and able to fit handwriting.
- Modification of the rows and columns to facilitate transcription from registers to reports at the end of each month. Each column was designed to provide only one piece of information, making it easier to calculate the total and to transfer information to a new page and to the monthly reporting form.

Results

MAHEFA's efforts to establish and maintain robust M&E and DQA procedures that engaged community actors and responded to their needs led to the following achievements:

- Tools had a user-friendly format for CHVs, which facilitated their use and ultimately contributed to improved data quality.
- Community actors had increased knowledge and awareness about the importance of reporting high quality data. The integration of the DQA into each monthly meeting and use of data especially contributed to this increase.
- Introduction of the peer verification approach to reinforce data quality assurance. This practice improved the knowledge and skills of CHVs by engaging them as "verifiers" in the practical application of DQA concepts. Other CHVs also improved their knowledge and skills over time.
- Improved quality of data. Although MAHEFA did not systematically record the number of data reporting errors that required corrections at the TA level, some differences in data quality were noted after the DQA trainings were held. The percentage of monthly reports submitted on time by CHVs and validated by TAs and CSB Heads increased from an average of 66% before August 2013, to 80% and higher as of October 2013. Examining data on family planning (FP) users, an area where errors are common: of 369 CHVs who made errors in October 2013 in counting the number of new FP users, regular FP users, and users lost to follow-up, only 32% made errors the following month, and only 5% made errors in January 2014. By March 2014, none of these CHVs were making errors in these indicators.

Figure 1. Improved counting of new family planning users and regular family planning users



Challenges

Difficult to reach community actors in rural areas. Despite efforts described above, the challenge of reaching CHVs and community actors who reside in extremely rural or geographically isolated areas remains. It was often difficult to harmonize decisions and updates from the central level across some of the program's geographic areas. Moreover, these areas had less consistency in meeting attendance, DQA and report verification due to the amount of travel time required and accessibility issues during the rainy season.

Low/no use of data among some CHVs and TAs. Certain TAs and CHVs did not fully appreciate the value and importance of data, and therefore neglected the quality of their data. These individuals often lacked motivation for this aspect of their work, and some considered it to be supplemental to their responsibilities rather than essential.

Weak linkages with the national reporting system. Community health data has not been comprehensively included in the national health information system. MAHEFA's M&E system was designed to feed into the existing national system, not to create a parallel system. CHV reports were submitted to CSB heads who were then responsible for submitting them to the next reporting level. However, this step is not yet standardized; when it is, there will be even greater improvements to the quality of community health data.

Lessons Learned and Recommendations

Ensuring high quality of community-level health data is possible. In a setting where CHVs had low education levels and were engaged to start integrated community health activities for the first time in their communities, MAHEFA was able to ensure acceptable, and even high, levels of data quality. Ongoing efforts for community-level M&E and DQA should continue, while new and emerging approaches should be identified and implemented by future community health projects.

Appropriate planning and resource allocation for CHV support is essential. MAHEFA recommends adequate training for CHVs (minimum two days) and ongoing support throughout data collection, and especially during the first months. A training module on the use of data management tools for community health should be developed and should take into account the varying educational levels and learning capacities of CHVs. Each CHV should be followed closely as they master M&E and DQA tools and procedures.

Reinforce or establish the importance of M&E system within the program's culture. With a well-established culture of strong M&E, community actors (CHVs, TAs and CSB Heads) will quickly gain an appreciation for high quality data. The M&E culture is reinforced by clarifying data management roles and responsibilities; engaging community actors as much as possible in the design of systems and tools; reliable and continuous support; and use of data. The importance of M&E and DQA concepts should be reinforced at each opportunity and in a supportive and collaborative way. When community actors find that data is necessary and helpful for planning activities and making decisions, they will work to ensure that data is valid, has integrity, and is precise, reliable, and timely.

Develop and use reference documents. Reference documents, including manuals, guides, check lists and job aids, should be developed and used for the systematic application of the overall M&E strategy, which will facilitate overall program functionality. Seeking feedback from users of the M&E system during a pilot phase improves tool development and promotes ownership among community actors.

Madagascar Community-Based Integrated Health Program (CBIHP), locally known as MAHEFA, was a five-year (2011-2016), USAID-funded community health program that took place across six remote regions in north and north-west Madagascar (Menabe, SAVA, DIANA, Sofia, Melaky, and Boeny). The program was implemented by JSI Research & Training Institute, Inc. (JSI), with sub-recipients Transaid and The Manoff Group, and was carried out in close collaboration with the Ministry of Public Health, the Ministry of Water, Sanitation and Hygiene, and the Ministry of Youth and Sport. Over the course of the program, a total of 6,052 community health volunteers (CHVs) were trained, equipped, and supervised to provide basic health services in the areas of maternal, newborn, and child health; family planning and reproductive health, including sexually transmitted infections; water, sanitation, and hygiene; nutrition; and malaria treatment and prevention at the community level. The CHVs were selected by their own communities, supervised by heads of basic health centers, and provided services based on their scope of work as outlined in the National Community Health Policy. Their work and the work of other community actors involved with the MAHEFA program was entirely on a voluntary basis.

This brief is included in a series of fifteen MAHEFA technical briefs that share and highlight selected strategic approaches, innovations, results, and lessons learned from the program. Technical brief topics include *Behavior Change Empowerment*, *Radio Listening Groups*, *Community Score Card Approach*, *Chlorhexidine 7.1%/Misoprostol*, *Champion Communes Approach*, *Community Health Volunteer Mobility*, *Emergency Transport Systems*, *Malaria*, *Community Health Volunteer Motivation*, *Family Planning & Youth*, WASH, *E-box*, *Community Health Financing Scheme*, and *NGO Capacity Building*.

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