

Mozambique MCHIP Technical Briefs

Data Quality, Management and Use for Decision-Making

Introduction

The quality of data collected and reported has been a great concern for MCHIP throughout program implementation. As a result, several major steps have been taken to ensure that the reported data are of the best quality possible to improve decision-making for management. The project has turned these challenges into opportunities and helped put the Mozambique MOH on the path to having a highly integrated maternal, newborn and child health (MNCH) reporting system with improved data quality and timeliness.

The project relies on data from the national health information system (HIS). Although this represents an opportunity for MOH-ownership of the MCHIP program, at the same time it poses a great challenge for the project to get timely, complete, and accurate data for decision-making and reporting.

It is important to understand the flow of information within the MOH from the service delivery point to the central level at MOH and to the MCHIP Maputo offices. First, data are recorded at the service delivery point in the health facility by MOH health providers, using the standard integrated MNCH registers. The data is then aggregated for all facilities at the district level at the District Statistical Nucleus and sent electronically to the Provincial Statistical Office. At the provincial level, the data are aggregated and sent to the National Department of Planning and Cooperation (DPC) within the MOH national headquarters in Maputo. In order to speed up the data flow from health facilities to the MCHIP database, each month the MCHIP-supported provincial nurse collects the data recorded in the registers of the 8-12 facilities in the province in which she is engaged and sends this information directly to MCHIP's Monitoring and Evaluation (M&E) Unit in Maputo. At this level the data is compiled and reviewed for completeness and consistency. The information is further analyzed for inclusion in project reports. This brief details the considerable steps MCHIP has taken at multiple levels to address challenges to ensure good data quality.

Data quality issues

There are challenges related to data quality that result from the lack of accuracy, completeness and timeliness of reporting within the MOH system. The supervision visits conducted by MCHIP at the health facility level have revealed that there is often a lack of understanding of the data collection and reporting tools, as well as a lack of understanding of the MNCH indicators and the importance of their collection and reporting. At the provincial and district levels the data is not usually analyzed nor used for decision making, and as a consequence, often the data received at higher levels are late, incomplete, and have internal inconsistencies. Another important limitation is stock out of the registers and reporting forms at the health facility level. These identified challenges affect not only the national HIS, but also the data quality of the MCHIP project—as the project relies on the data produced within the national system to monitor its progress and effectiveness.

Measures taken to address the challenges

1. Support for the national reporting system

MCHIP has supported the MOH at all levels to improve the MNCH information system:

- a) Central level: MCHIP contracted two senior advisors to provide technical assistance on data management and use of data for decision making within the National Public Health Directorate and the Maternal and Child Health Department
- b) Provincial level:
 - Formal training of health service providers at the end of 2012 on the use of new registers introduced in January 2012. Some of this training was carried out directly by MCHIP M&E staff and some was carried out by MOH DPC staff with MCHIP support and funding.
 - Support by the MCHIP-funded provincial nurse supervisors for provincial and facility level supervision and on-the-job training on use of the registers and reporting formats.

2. Development of key MNCH indicators

MCHIP led the effort of implementing partners and technical agencies to provide technical assistance to the MOH on the revision of the MNCH national indicators. This process ensured that the key indicators to monitor the implementation of MNH high impact interventions is included in the national list of indicators, allowing MoH and MCHIP to track progress over the time. These thus have become integrated and institutionalized components of the MOH HIS.

3. Data collection and reporting forms/tools

MCHIP is the MOH lead partner in the revision of data collection and reporting tools, including revised register books for all of the critical MNCH areas. MCHIP began its consultations with the MOH in 2010. MCHIP then supported the MOH in its initial national rollout of new tools in January 2012. With the evolving data needs of the MOH and implementing partners, shortcomings were identified in the registers making it difficult to capture evidence-based MNCH practices. Because of that, a follow-up revision of the registers took place in 2013. The review of indicators was finalized in 2013 with a national partner consultation and submission to the Minister of Health for his approval in November. Training for the new registers will commence in August 2014. In addition to leading the registers revision process, MCHIP is also playing a critical role in the content development of the trainings, and developing a protocol for the monitoring of the registers' implementation.



The registers introduce a new concept in the data management of client information – longitudinal follow up, allowing health providers to more easily see the evolution of services of a single client over multiple service contacts. From the data management perspective, a cohort reporting system is included which is intended to improve the quality and ease of analysis of the data reported, enabling better access to information that allows programs to monitor their effectiveness in terms of promoting clients' consistent utilization of services and adherence.

4. Data quality mechanisms and controls

MCHIP gave technical assistance to the MOH to include data validation checks within the MNCH electronic HIS platform. These validation checks flag values that are inconsistent and give immediate feedback on the level of data quality. This intervention has helped to reduce the level of systematic errors, improve data inconsistency and overall data quality.

5. Training on HIS

MCHIP provides on-the-job-training for health providers working at service delivery points. The training aims to promote better understanding of the registers and indicators. In health facilities supported by MCHIP, the data for key indicators from the registers is graphically displayed on wall charts, to enable managers to track trends over time of critical MNH practices and other gauges of quality of care. Training is provided as well to the provincial and district teams.

Before the introduction of the previous MNCH registers and reporting tools in January 2012, MCHIP supported the provider training throughout the country. As the project is refocusing its effort on fewer sites (to achieve greater impact), training on data management improvement (collection, aggregation, analysis and reporting) is part of the plan for overall quality improvement in these intensive-focus sites. By prioritizing data quality, management and decision-making, the project anticipates receiving more reliable data from these sites to be able to assess the real effect of the high-impact MNH interventions promoted by MCHIP.

6. Supervision

MCHIP is conducting supervision on three levels. At service delivery sites, MCHIP provincial nurses focus on providers and on improving the quality of reporting of the services provided. The supervision carried out by the M&E team from the Maputo office supports provincial supervisors and the Provincial Health Directorate to

improve the MNCH data analysis at the district and health facility levels. The third level of supervision is done by the Maputo M&E staff to support the National MOH M&E team.

Results achieved

This comprehensive package of activities has yielded an MNCH reporting system that is highly integrated and complete, with data that allows for management decision making at the national and local levels. In summary, the following results have been achieved since the start of the MCHIP project. With national MCHIP leadership:

- MNCH indicators have been revised and updated in the nationwide integrated MNCH registers;
- MNCH registers and reporting tools have been revised and updated and form a single integrated reporting system;
- MOH national M&E capacity has been strengthened – the National Public Health Directorate and MCH Department; and
- MNCH provincial, district and facility level data management capacity has been strengthened across all 11 provinces.

Upcoming plans

In the coming months, MCHIP will play a leading role in:

- Developing and implementing national and provincial training to support the implementation of the revised MNCH registers;
- Developing and leading the monitoring process for the implementation of the revised MNCH registers;
- Facilitating the involvement of key stakeholders in the revision of the revised electronic platform to support the new MNCH registers;
- Continuing to conduct supervisory visits to health facilities to ensure quality data;
- Continuing to provide training to provinces to enhance their capacity to collect, compile, and analyze data from the districts; and
- Initiating new trainings for the District Statistical Nuclei to increase their capacity to ensure the flow of quality data from the facilities to the provinces.