Improving the Use of High-Quality Data for Improved Health Services in Liberia
MCSP/RHS Liberia Case Study

Summary

Before the USAID Maternal and Child Survival Program's Restoration of Health Services Project (MCSP/RHS) in Liberia began implementing activities to restore quality health services at facilities in three counties, facility data was not being collected in a standard reporting form, and it was not consistently being transferred from health facilities to the county level to be entered in to the national health management information system (HMIS). In addition, health facility staff did not know how to use the data that they produced to make facility-level decisions. MCSP improved reporting in its 77 supported facilities by printing forms, supporting health facility staff to aggregate and submit data on time each month, transferring the data to the county level, and supporting county-level staff to enter data into the

Drawing and interpreting graphs during data use training
(Photo credit: Swaliho Kamara; MCSP)

system. Data collected from July-September 2017 shows that 100% of MCSP-supported facilities reported on time, compared with 11% prior to the start of the project. MCSP also conducted training and supportive supervision to equip health facility staff to improve data quality, set targets, and use data for decision-making. MCSP's endline showed 78% of facilities reported making a decision along with the supervisor based on the RMNCH data, compared to only 53% at baseline. Future programs should build on these efforts to elevate the quality and use of data for decision-making among actors from the community level to the national level and from service providers to managers.

Background

MCSP/RHS worked with the Liberia Ministry of Health (MOH) to improve the delivery of quality maternal, newborn and child health services and restore confidence in the health system following the Ebola outbreak. MCSP worked in 77 health facilities in three counties (Nimba, Lofa, and Grand Bassa).

MCSP/RHS Key Facts

- Project start date: August 2015
- Project end date: June 2018
- Geographic focus: Grand Bassa, Lofa, & Nimba Counties
- Scope: 54 public & 23 private health facilities
- Technical areas: Essential primary health services & infection prevention and control

One of the key goals of the Program was to improve the quality and use of data from the routine health information system. Prior to MCSP's work, data was not being collected in a standardized reporting form, and it was not consistently being transferred from health facilities to the county level to be entered in to the national HMIS. In addition, health facility staff did not know how to use the data that they produced to make facility-level decisions; thus, they saw data collecting and reporting as an obligation rather than a management practice. MCSP's improvements, described below, enabled more informed decisions and ownership of data at all levels of the health system to improve health services and ultimately health outcomes for all Liberians.

Methodology

MCSP's approach to HMIS strengthening was to build on existing platforms and initiatives led by the MOH by improving the integrity, accessibility, value, and understanding of information systems at the facility level, thereby promoting use of high-quality, timely data for decision-making at facility, district, and county levels.

Improving Data Reporting and Quality

MCSP began its efforts in strengthening the HMIS in 2015 by adding missing facilities to the district health information system (DHIS 2) at the national level. MCSP staff ensured that all of its 77-supported facilities were reporting on a monthly basis by printing forms, supporting health facility staff to aggregate and submit data on time each month, transferring the data to the county level, and supporting county-level staff to enter data into the system. MCSP regularly confirmed completeness of data recorded in HMIS ledgers and conducted spot-checks to review data quality. These efforts greatly improved the quality and visibility of data at the county and national levels.

Building Skills in Data Interpretation and Use

In 2017 MCSP and MOH counterparts facilitated an updated HMIS roll-out training to all 33 MCSP-supported facilities in Grand Bassa County (trainings in MCSP's remaining two supported counties were led by other partners). MCSP's training added a session on setting targets and the use and interpretation of data to improve the value of data collection to health workers. Following the roll-out training, MCSP conducted intensive on-site supportive supervision visits to mentor and train health facility staff in all three MCSP-supported counties in improving data quality, setting targets, and interpreting data for decision-making. Facility staff now use MCSP-developed charts to manage data on the integrated management of childhood illnesses (IMNCI) and other primary care services. This mentoring helped facility staff identify gaps in performance and areas to focus efforts to improve services provided.
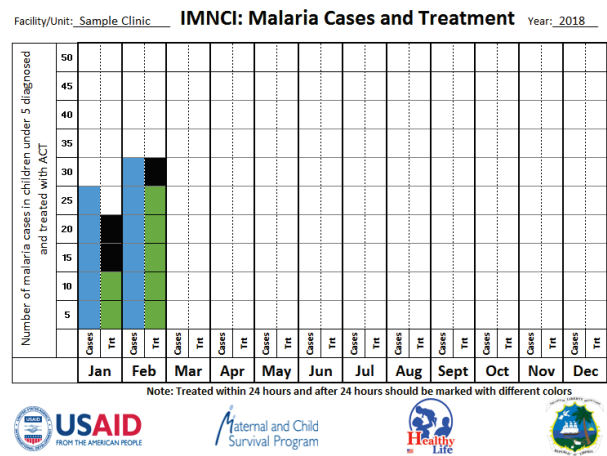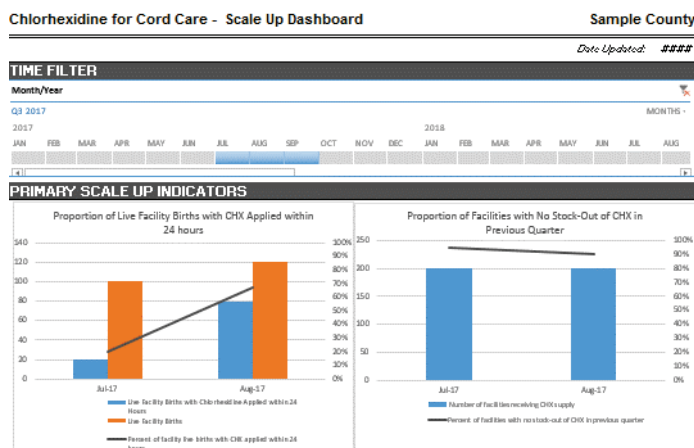

MCSP-developed chart template to manage facility-level IMNCI data

MCSP provided technical support for quarterly review meetings at the county level to bring together monitoring and evaluation (M&E) staff, district and county managers, and clinical supervisors to review data and performance. Each quarter, MCSP together with county M&E staff facilitated a review of a small standard set of key indicators and a more in-depth examination of data on a specific topic that changed for each meeting. With all needed stakeholders in the room, participants could discuss the data together and develop action plans to address identified issues.

Supporting Monitoring for Chlorhexidine Scale-Up

MCSP worked with the MOH to develop a plan outlining monitoring strategies and approaches for the National Plan for Scale-up of Chlorhexidine for Newborn Cord Care 2017-2021. MCSP successfully advocated for the inclusion and update of the chlorhexidine indicator in the national HMIS to disaggregate first application within versus after 24 hours from birth. The indicator was rolled out nationwide in October 2017. MCSP developed and rolled out facility-level wall charts to monitor the coverage of chlorhexidine using the indicator. MCSP also developed a dashboard for use by county- and national-level scale-up teams to monitor the progress and outcomes of chlorhexidine

Dashboard template developed by MCSP for chlorhexidine monitoring at the county and national levels

scale-up. Use of routine and non-routine data will inform MOH efforts to expand and strengthen the use of chlorhexidine nationwide to save newborn lives.

Results
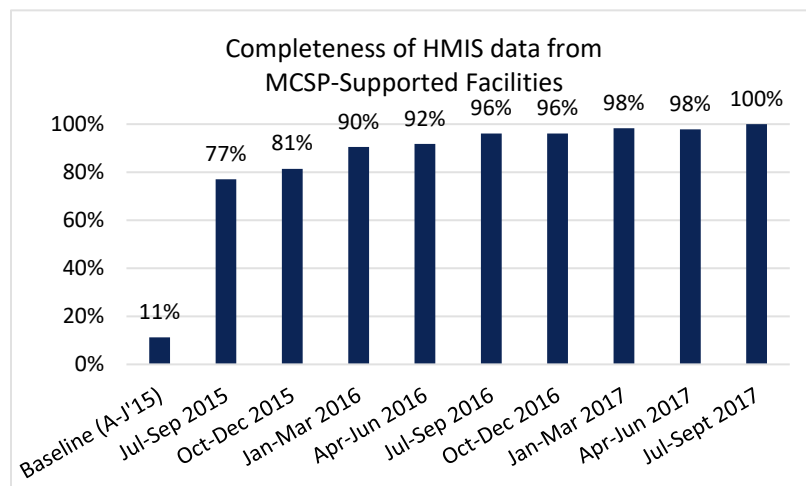
In April-June 2015, prior to the start of MCSP, only 11% of MCSP-supported facilities reported data to the HMIS in the quarter, whereas in July-September 2017, 100% of facilities reported on time. Visibility and use of data increased with a renewed focus on data for performance review and management of health program activities during quarterly review meetings at the county level and during supervision visits at health facilities.

MCSP's endline assessment (conducted in December 2017) showed that 84% of facilities were monitoring key reproductive, maternal, newborn, child, and adolescent health (RMNCAH) indicators, compared to only 49% in the baseline assessment (conducted August 2015). In addition, 60% of facilities had graphs displayed and updated to monitor these indicators, and an additional 14% had indicators with targets but no graphs. At baseline, only one in five facilities had updated monitoring charts and targets. Furthermore, MCSP's assessment showed an increase in use of these data for decision-making: 92% of facilities reported reviewing performance based on HMIS data with a district or county supervisor during recent supervision visits, compared to 61% at baseline, and 78% of facilities reported making a decision along with the supervisor based on the RMNCH data, compared to only 53% at baseline.

Lessons Learned and Recommendations

Understanding the current status and quality of health service delivery is essential to making informed decisions about how to improve such programs. Through MCSP's HMIS strengthening efforts, health facility staff are empowered to self-assess their performance and make decisions about how to improve the services they deliver. County- and national-level staff have more reliable information on the services they

supervise—from maternal health to immunization, and from management of childhood illnesses to chlorhexidine scale-up—to be able to effectively monitor and improve the quality of services in their respective jurisdictions.

Future programs may benefit from lessons that MCSP learned during this process. First, the project learned that staff at the health facility level had almost no understanding of how to use data to improve their activities. It is important that efforts to improve the quality and completeness of data at the facility level include capacity building on data use. Not only does data use training enable informed decisions at the facility level, but it also leads to higher data quality, since health facility staff are more invested in reporting data accurately so that they can use it. Second, the project learned that when training staff on data use, keeping charts simple and clear is important; trainers should choose one kind of chart (e.g., a bar graph or line graph) and use it consistently to build health worker capacity. Third, data review within the facility creates teamwork among the different departments. Staff become more aware of service utilization and disease trends and make decisions together about appropriate actions to take. Finally, MCSP's experience shows that, though more challenging, it is possible to teach and promote data use through mentoring visits alone, as was done in Nimba and Lofa Counties; trainings like those done in Grand Bassa are very useful, but it is also possible to build data use skills through routine supervision.

Future programs should focus on building on these efforts to elevate the quality and use of data for decision-making among all actors from the community level to the national level and from service providers to managers. Review and discussion of facility data to assess areas of high performance and gaps should be a part of all supportive supervision visits and should include clinical supervisors and technical staff in addition to M&E staff. Furthermore, the MOH county and district health teams should continue to encourage data use in facilities through quarterly review meetings and mentoring; these efforts should involve lower levels of the health system, including community health teams. Finally, data use training on what data is, how it is useful, and why it is important should be included in pre-service education (PSE) curricula for health workers. Ultimately, maintaining and scaling up efforts to improve data quality and use should contribute to timelier, informed decisions and improved health outcomes in Liberia.

Improving the Use of High-Quality Data for Improved Health Services in Liberia