Improving the Generation, Quality and Use of Routine Immunization Data

PRELIMINARY LEARNING

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BACKGROUND

Using high-quality routine immunization data is critical to helping health officials and managers plan services and make decisions that enable them to reach every child with immunization. Since 2014, MCSP has worked to increase the generation, quality and use of immunization data to strengthen routine immunization systems in countries. MCSP's extensive work in this area – particularly at the district level, where partners have expressed the greatest need for documentation of lessons learned – places it in a unique position to share approaches that health workers and officials closest to the data have found most useful.

OBJECTIVE

Building on its immunization technical support to countries to address this challenge, MCSP is documenting lessons learned across MCSP-supported countries using different approaches to improve the generation and active use of routine immunization data at levels close to where the data is generated. Sub-objectives include (1) Identifying interventions that improve the quality and active use of data by those who generate and are closest to the data; (2) Documenting the rationale and evidence for these interventions' positive effect on quality of data and active use of data; (3) Identifying factors favoring the replicability of identified approaches; and (4) Enhancing sharing and learning across program countries.

METHODS

MCSP conducted an initial desk review of documents (reports, tools, or presentations) submitted by 11 MCSP or MCHIP Associate Award (AA) focal countries. MCSP headquarters staff then conducted in-depth key informant interviews using a standardized guide with 18 MCSP or MCHIP AA staff in the 11 countries.[1] An iterative process was used to organize findings into a matrix, review them, and generate additional follow-up clarification questions. The interview process was conducted in two rounds per country to answer initial ques-

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1 MCSP: Haiti, Kenya, Liberia, Madagascar, Malawi, Mozambique, Nigeria, Tanzania, Uganda. MCHIP AA: Pakistan, Zimbabwe

tions as well as follow-up questions. MCSP also took advantage of this interview process to promote cross-learning on this topic by providing feedback during the interviews. An internal webinar involving nine countries provided first hand opportunities to deepen the cross learning. Before the end of the program, MCSP plans to conduct a final round of interviews, with a number of national and district health officials in select countries to gain their perspectives around country data challenges and interventions that MCSP has been involved in.

PRELIMINARY LEARNING

The challenges to the generation and use of high-quality data highlighted by interview-

Figure 1: Actions taken

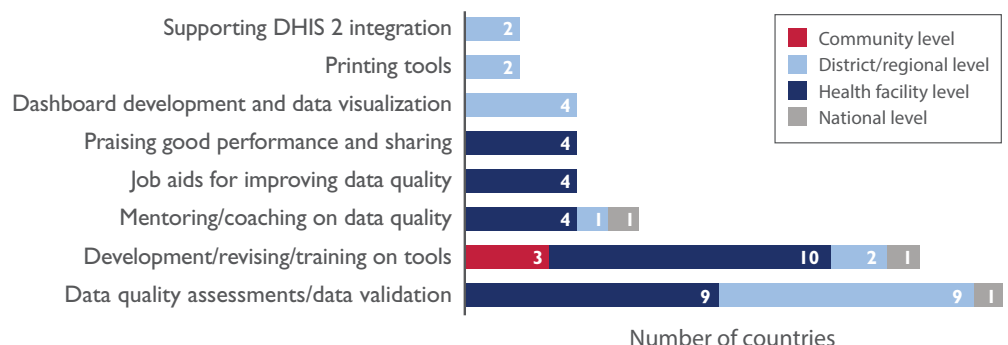### Actions taken by country programs to improve the generation, quality and use of data, by health system level

Legend:
- Community level
- District/regional level
- Health facility level
- National level

Action	Value
Supporting DHIS 2 integration	2
Printing tools	2
Dashboard development and data visualization	4
Praising good performance and sharing	4
Job aids for improving data quality	4
Mentoring/coaching on data quality	4 1 1
Development/revising/training on tools	3 10 2 1
Data quality assessments/data validation	9 9 1

Number of countries

Figure 2: Examples of approaches to solving the target population problem

UGANDA: MCSP implements **"low-tech"** solutions to improve the **accuracy of population estimates** and speed up screening to facilitate **defaulter tracing**.

- **Participatory mapping** yields more accurate estimates of children per community
- Health worker organizes **register** by community, using **tabs made of tape**
- "Before the child register was organized by village, this took 10 minutes. Now it **takes no more than two minutes**" to determine which vaccines the child needs that day

NIGERIA: MCSP asks how states can use geographic information systems **(GIS)** to produce **more accurate** health facility catchment area **maps** and **population estimates**.

- What **processes** are required to generate maps using GIS?
- How do end users find the maps' **accuracy** and **usability**?
- How do **population estimates, vaccination strategies**, and **costs** differ from hand-drawn map data?

MOZAMBIQUE: MCSP's tool to calculate **district-specific population** multipliers has a big impact thanks to successful **collaboration of all partners** at the national level.

- Country used one coefficient to **project target populations** from census data in all districts
- **National Immunization Technical Advisory Group** called for more accurate, district-specific, calculations
- Following a successful pilot, MCSP's tool for calculating district-specific multipliers will be rolled out **nationally**

ees in response to an open-ended question across the 11 countries included: lack of a reliable target population estimate (11 countries), lack of appreciation of the importance of reporting (7), lack of motivation/training of health workers (6), human resource constraints/lack of job aids (3), multiple reporting forms/lack of harmonized tools (3), lack of supervision or feedback mechanisms (2), misunderstood expectations (2), and multiple data capturing mechanisms such as DHIS/DVDM (1). MCSP-supported approaches to overcome these barriers focused largely on the health facility or district/regional level, although some worked with national governments (see Figure 1). For example, at national level in Madagascar, MCSP developed a data improvement guide for use by national immunization "coaches," whereas in Malawi and Zimbabwe, MCSP and MCHIP AA worked with communities to adapt the "My Village, My Home" tool[2] for infant tracking. The full range of these activities to improve the generation, use, and quality of immunization data will be described in a full report at the end of the global program. Figure 2 highlights three unique approaches to overcoming the most common barrier noted by countries: the lack of a reliable target population estimate.

CONCLUSION

The use of reliable, high-quality data is essential to helping health officials and managers target their limited resources where they are needed most and take rapid and effective action in re-

sponse to problems that arise. MCSP/MCHIP AA country programs have developed a wide variety of approaches and tools to improve the generation, quality, and use of routine immunization data, operating at all levels of the health system. By seeking to address challenges close to the point of data generation, MCSP helps to address gaps through a bottom-up approach. Some of these solutions require little technology or resources so that health facilities can implement them themselves, while others involve more complex technology or changing regional or national policy. Continuous learning and cross-country exchange is important for health workers and officials seeking solutions to problems. MCSP, as a global program, presents a unique opportunity to facilitate such learning exchange between country programs.

2 Tsega A & Favin M (2017). Documentation of REC in Malawi. USAID's Maternal and Child Survival Program. https://www.mcsprogram.org/resource/documentation-rec-malawi/