Using the *Data Demand, Quality, and Use*
Facilitated Group Self-Assessment Tool

Introduction

The South African Department of Health (DoH) generates volumes of data from its routine health information system (RHIS). By June 2014, over one billion patient encounters were recorded in the national DoH electronic software application, DHIS (Schönfeldt, 2014). Data are collected monthly on about 150 indicators from about 4,000 health facilities nationwide, within 52 districts of the nine provinces. Despite the high volume of data collected by the DoH, a national audit of performance information reported that data are generally of low quality and there is little use of information (Department of Health, 2013). The DoH requested the MEASURE Evaluation Strategic Information for South Africa (MEval-SIFSA) project's support to enhance its capacity in strategic information, including data demand and use (DDU) and to understand the effects of capacity enhancement. In 2013, MEval-SIFSA developed and implemented the *Data Demand, Quality, and Use Facilitated Group Self-Assessment Tool,* hereafter referred to as "the tool."

MEval–SIFSA is a USAID-funded project that seeks to sustainably enhance the capacity of the DoH at national, provincial, and district levels—and other departments and PEPFAR partners that support DoH—to identify data needs, improve data quality, and use data for evidence-based decision making and management of HIV and AIDS and related health programs.

DDU Approach

MEval-SIFSA's DDU approach aims to enhance the capacity of the DoH to institute a culture of demand for quality data from the RHIS and a culture that uses these data for evidence-based decision making. MEval-SIFSA provides this capacity building through training workshops, technical assistance, and information products. It is expected that improvement in health system strengthening activities, such as DDU, will lead to improved service delivery and, ultimately, to improved health outcomes for people.

Development of the Tool

MEval-SIFSA developed the tool in order to monitor measurable changes in DDU improvement over time. The tool was adapted to the context of the DoH in order to measure the capacity of teams or programs at any level of the health care system. The tool draws on key concepts from the Performance of Routine Information System Management (PRISM)—a conceptual framework that recognises the broader context in which the RHIS operates—and published literature on good practice in data demand and use (Foreit, Moreland, Lafond, et al, 2006; MEASURE Evaluation, 2011; Nutley & Reynolds, 2013).

What Is the Tool?

The tool examines the determinants of health information system performance. It measures a team's competencies and practices before capacity enhancement begins (baseline), periodically during capacity enhancement, and after capacity enhancement has ended (endline).

The tool is structured as a facilitated group self-assessment. It focuses on factors of data demand, data quality, and information use. For each of these three components, the tool includes criteria based around **the three determinants for successfully improving the health information system performance**: technical, organisational, and behavioural. Teams rate themselves on a four-point Likert scale of 1 (strongly disagree) to 4 (strong agree) for the 44 criteria in the tool (10 data demand criteria; 16 data quality criteria; and 18 criteria on data use).

Technical determinants of DDU relate to established processes, norms, and procedures regarding data. For example, a technical determinant of data use is, "There are established processes in our team to ensure that information is used to inform key management practices."

Organisational determinants of DDU involve leadership and staff. For example, an organisational determinant of data use is, "The leadership in our team supports having the necessary information for data-informed decision/policy making, and facilitates the process for the rest of the team."

Behavioural determinants of DDU refer to motivation, collaboration, knowledge, skills, competence, values, and attitudes. For example, a behavioural determinant of data use is, "In our team, those who produce and use data are motivated and committed to use information to improve performance, and for data-informed decision/policy making."

Figure 1 shows an extract of the tool, and Table 1 shows the implication of each score.

Figure 1: Extract of the Tool from the Data Use Section

	Rating
Choose one response for each of the following statements **Rating** 1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree	
Technical Determinants	**Rating**
1 There are **established processes** in our team to ensure that **information is used to inform key management practices**.	
Organizational Determinants	
8 The leadership in our team **supports having the necessary information for data-informed decisions/policy making**, and facilitates the process for the rest of the team.	
Behavioural Determinants	
13 In our team, **those who use and produce data**—i.e. the decision/policy makers, managers, health care professionals, M&E and HIM officers and managers, data capturers/officers, and health program managers—have the **data use skills**, which include skills in data analysis, interpretation, presentation, and development of data-informed program recommendations, as well as decision/policy making.	
15 In our team, those who produce and use data are **motivated and committed to use information** to improve performance, and for data-informed decision/policy making.	
16 **Data users and producers** in our team **regularly work together**, **jointly analyse and interpret data** to answer programatic and decision- and policy-making questions, and are routinely involved in discussion on performance of the Routine Health Information System (RHIS).	
18 **Success stories** of **improved data demand, data quality, and information use** are **widely disseminated to various audiences.**	

The results provide a score for data demand, data quality, and data use, and for each of the three determinant areas. The results are then compiled to provide an overall DDU score for the assessed team.

Table 1: Scores and Implication of Each

Score	Implication
1	Far from meeting expectation; requires great improvement
2	Does not meet expectation; requires a lot of improvement
3	Meets expectation; some effort required to reach "GOLD Standard"
4	Highly meets expectation; maintain "GOLD Standard"

Advantages of the Tool

The tool can assist management teams to perform in-depth examination of their competencies and practices on data demand, data quality, and data use. According to one team that used the tool, it was an "eye opener" and enabled them to have a clear sense of which practices they needed to improve. The tool has also allowed teams to understand the importance of collaboration among data users and data producers. The tool has further increased teams' understanding of their DDU challenges, for better solutions design. One DoH district information manager appreciated the assessment and commented,

I have been waiting for this self-assessment. After the AG's [Auditor General's] visit, we were wondering what was pulling us down. We suspected that it is the behavioural determinants. This assessment has confirmed that it is indeed the behavioural determinants.

In the long term, the tool will enable teams to quantify changes in their capacities on data demand, data quality, and data use. In addition, the tool will allow MEval-SIFSA to quantify the effects of its contributions to the DoH's capacity to participate in improving the appropriateness of data collected in the RHIS for programs and management, producing good quality data, and using that information in planning, advocacy, and in decision/policy making.

After implementing the tool and reviewing their scores,

teams develop improvement plans for addressing barriers to data demand, quality, and use in decision/policy making. The plans include proposed interventions, steps involved, person(s) responsible, other stakeholders involved, and a general timeline. Additionally, MEval-SIFSA enhances the DDU capacity of teams by facilitating workshops on communicating data for decision making. These workshops, over four days, continue to build capacity in data-informed decision making, target setting, data visualisation and analysis, data interpretation, data communication, and advocating data use in decision making. Further, MEval-SIFSA conducts follow-up visits providing further support in DDU, monitors implementation of improvement plans, and identifies and documents improved DDU competencies and practices.

Dissemination and Use of the Tool

MEval-SIFSA continues to use the tool with DoH teams and disseminates information on its use at various forums, such as the Data Management Association Southern Africa conference in July 2015. So far, 26 teams have used the tool: one provincial level; six districts, which are all PEPFAR focus/supplemental/special focus high-burden DoH districts in South Africa (PEPFAR, 2015); 14 hospital complexes; and 5 hospitals. In the future, MEval-SIFSA will assist teams that attend the Communicating Data for Decision Making training workshop to assess their baseline data demand, quality, and use capacities, and will utilise the tool to conduct follow-up assessments.

A health facility in Waterberg District, Limpopo Province, South Africa, self-assessing using the tool and developing their improvement plan (October 2014)

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