November 2015

Status of *Data Demand, Quality and Use:* **Baseline Results** of **Assessed Health Districts** in **South Africa**

Introduction

The South African Department of Health (DoH) generates volumes of data from the routine health information system (RHIS), which consists of health data reporting from about 3,800 health facilities in 52 districts of the nine provinces. However, the audit of performance information by the Auditor General reported that data are generally of low quality and there is little use of the available information (DoH, 2013). Results of a rapid assessment conducted in 2013 by the MEASURE Evaluation Strategic Information for South Africa (MEval-SIFSA) project showed that the main causes of under-utilisation of data were: data use is not part of clinicians' in-service training; managers and clinicians focus on service provision/"pushing queues" and consider data an extra burden/diversion from core business; data reporting is erroneously considered data use; and managers, clinicians, and other health care workers lack knowledge, skills, and confidence in calculating targets for indicators, data analysis, interpretation, and use (Kareithi, 2014).

This fact sheet reports the consolidated data demand and use (DDU) baseline status of six districts in South Africa that are PEPFAR focus/supplemental/special focus high-burden DoH districts. The tool has been administered at provincial, district, and health facility levels.

MEval-SIFSA is mandated to enhance the capacity of the DoH in strategic information, including data demand and use (DDU), particularly in the management of HIV and AIDS and other health programs (MEval-SIFSA, 2015a).

This is in line with the latest PEPFAR country operational plan (COP) 2015, which calls for increased sustainable, high-impact activities to enhance the capacity of DoH, in line with the PEPFAR's Impact Action Agenda drive, "to do the right things in the right places at the right time" (OGAC, 2014). The use of routine health data contributes to improved service delivery, program monitoring, and program performance (PEPFAR, 2015), which, in turn, leads to better health outcomes for people.

To enhance DoH's capacity for DDU, MEval-SIFSA conducts training workshops, provides technical assistance, and develops information products. As Figure 1 illustrates, DDU capacity-enhancement efforts are expected to lead to increased DDU knowledge and skills, and increased use of data in decision making and advocacy, for better outcomes.

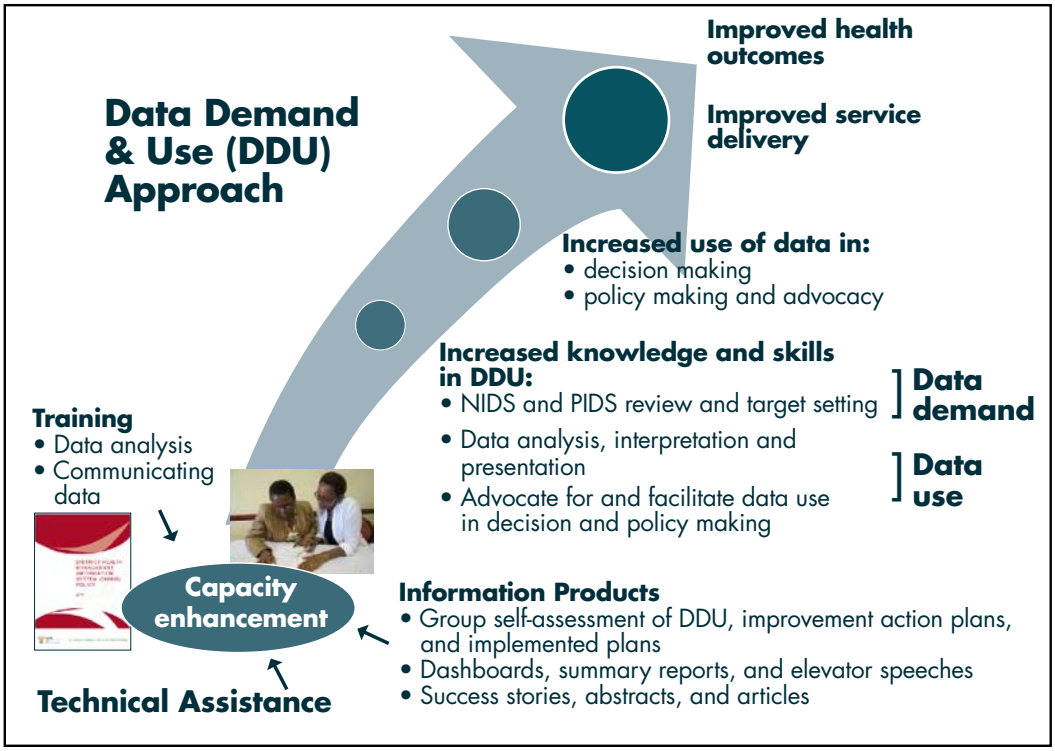

Figure 1: MEval-SIFSA's approach to enhance DoH's DDU capacity to improve data demand and use in decision making to improve health outcomes

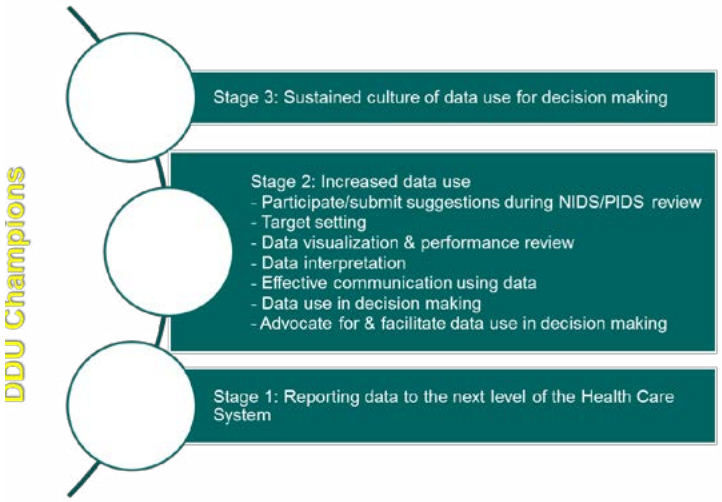

Figure 2: Stages towards Becoming a DDU Champion

MEval-SIFSA works with DoH teams—led by their DDU champion—to progress over a number of stages, as shown in Figure 2. From stage 1 (strengthening health systems through conducting data review meetings and reporting better quality data), to stage 2 (increased communication using data, making recommendations to stakeholders using data, and increased use of data in decision making). It is hoped that by MEval-SIFSA project Year 5, the DoH teams will have graduated to stage 3 (a sustained culture of data use in evidence-based decision making, with documented change in program performance and health outcomes).

Overview of the Data Demand, Data Quality, and Data Use Facilitated Group Self-Assessment Tool

In 2013, MEval-SIFSA developed the Data Demand, Data Quality, and Data Use Facilitated Group Self-Assessment Tool ("the tool") to assess the DoH's DDU baseline capacity and to monitor DDU improvement over time. The tool measures a team's competencies and practices before capacity enhancement begins (baseline), periodically during capacity enhancement, and after capacity enhancement has ended (endline), as illustrated in Figure 3.

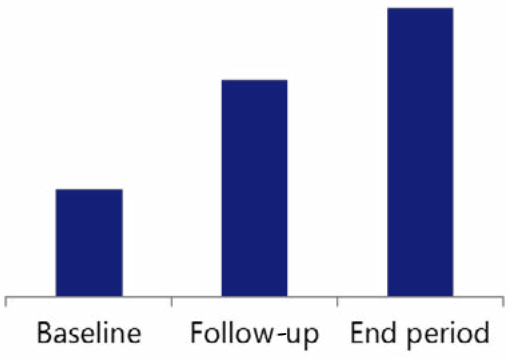

Figure 3: Expected Improvement in DDU Competencies and Practices

The tool was adapted to the context of the DoH in order to measure the capacity of teams or programs at all levels of the healthcare system: national, provincial, district, subdistrict, and health facilities. 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 from published literature on good practice in data demand and use (Foreit, Moreland, Lafond, et al, 2006; MEASURE Evaluation, 2011; Nutley & Reynolds, 2013).

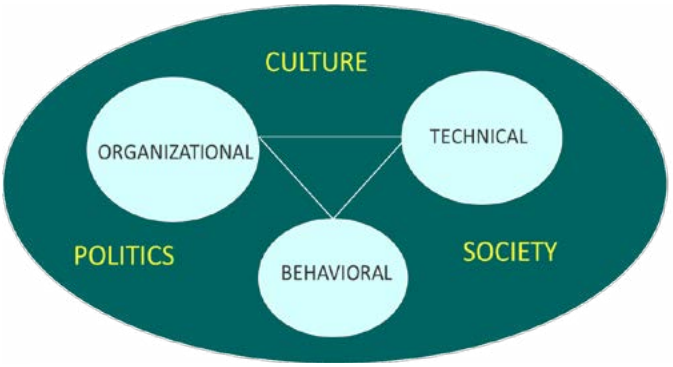

Figure 4: Determinants of the Health Information System's Performance

The tool is structured as a facilitated group self-assessment, focused on data demand, data quality, and information use, with criteria across technical, organisational, and behavioural determinants. Technical, organisational, and behavioural determinants are essential factors for successfully improving health information system performance. As Figure 4 shows, these three determinants are influenced by political, cultural, and social contexts. Technical determinants are data collection processes, systems, and tools, including designs, methods, forms, and technology. Organisational determinants are the system or organisational context that supports data collection, availability, and use, including structure, resources, functions, management, governance, roles, and responsibilities. Behavioural determinants refer to the behaviour of individuals who produce and use data, including their knowledge, skills, competence, attitudes, values, and motivation.

For more details about this tool, see the MEval-SIFSA technical brief "Data Demand, Quality and Use Facilitated Group Self-Assessment Tool" (MEval-SIFSA, 2015b).

Tool Implementation Process

To implement the tool, MEval-SIFSA facilitates the group self-assessment. DoH teams examine their status, discuss, reach a consensus, and then rate themselves on a four-point Likert scale (1=strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree) for each of the 44 criteria in the tool (10 data demand criteria; 16 data quality criteria; and 18 criteria on data use).

The DoH teams participated in two MEval-SIFSA training workshops—Evidence Based Health Management in 2014 and the Communicating Data for Decision Making in 2015—during which the self-assessments were conducted. Participants were data users and data producers, including district managers/deputy district managers, program managers, subdistrict managers, facility managers, clinicians, health information management (HIM) managers and officers, monitoring and evaluation (M&E) managers and officers, and trainers. Based on results of the self-assessment, teams developed improvement plans to address the identified DDU challenges, including proposed interventions, steps involved, person(s) responsible, other stakeholders involved, and timelines.

Results

The six districts rated their competencies and were scored on the 4-point Likert scale. Results were compiled to provide mean scores for each component (i.e., data demand, data quality, and data use), and for each determinant (technical, organisational, and behavioural). These were further compiled to provide an overall DDU mean score.

As Figure 5 illustrates, the combined overall baseline score was 2.93 out of a maximum of 4. This means that the districts assessed themselves as being above median (2.5). The highest score was 2.95 for data use, followed very closely by data quality at 2.94, then 2.92 for data demand.

There is little difference in the average score by the three components. The slightly higher score for data use compared to data demand and data quality means that DoH districts make slightly more effort to use data for reporting and performance analysis.

Figure 5: Overall Baseline Score of Assessed Districts by Components and by Determinants, 30 September 2015

[1] Accredited by the Health Professions Council of South Africa (HPCSA); 30 Continuing Professional Development (CP) points, level 1.
[2] Accredited by HPCSA; 30 CPD points, level 3 (highest level).

As illustrated in Figure 5, examination of the results by the technical, organisational, and behavioural determinants showed clear differences. The assessed DoH districts overall performed higher on technical determinants (3.31), followed by organisational determinants (3.01). DoH districts' lowest performance was on behavioural determinants (2.49). This pattern was the same across the data demand and data use components. Only in data quality was performance higher on organisational determinants than technical determinants.

The consistently lowest performance was on behavioural determinants across all components (data demand, quality, and use). This indicates that behavioural factors regularly play a role in pulling down performance. Better performance on technical and organisational factors alone will not suffice. It is important to improve the knowledge, skills, competencies, attitude, values, and motivation of DoH personnel. This would have an effect of improving performance in data demand, quality, and use.

Conclusion

At baseline, the consistent lowest score on behavioural determinants across all three components of data demand, data quality, and data use shows assessed DoH districts faced more challenges in that aspect compared to organisational and technical determinants. These data emphasise the need for the DoH, working with its development partners, to make significant efforts to improve behavioural factors, using innovative strategies. Further, DoH and its partners should communicate the benefits of improving data demand, data quality, and data use in decision making to achieve the resulting effects in improved health system performance in service delivery, and ultimately in health outcomes.

How One District Benefitted from Self-Assessments

- Assessed DoH teams that obtained in-depth understanding of their DDU challenges immediately developed better solutions to address data use needs, and monitored implementation of their own efforts to improve data use. One example is uThungulu District, Kwa-Zulu Natal Province. See MEval-SIFSA (2014) for the online story on uThungulu's immediate commitment to use data following capacity enhancement at http://www.cpc.unc.edu/measure/sifsa/strengthening-evidence-based-health-management-in-uthungulu-district-kwazulu-natal-south-africa/view.

uThungulu District HAST Coordinator, Sister Linda Dlamini, making presentation at the Special Forum on Achieving HIV and TB 90-90-90 Strategy, co-authored by MEval-SIFSA Senior Technical Advisor for DDU, Roselyn Marandu-Kareithi, PhD.

- Further, the uThungulu District HIV and AIDS, sexually transmitted infections and tuberculosis (TB) (HAST) coordinator made a concerted effort to use data for decision making by communicating targets to facilities, conducting quarterly review meetings (as stated in the District Health Management Information System [DHMIS] Policy, DoH, 2011), monitoring performance, and providing feedback. She went a step further and demonstrated innovation, awarding high-performing facilities with Certificates of Appreciation, which motivated staff to improve performance and achieve set targets.
- Where the uThungulu District HAST Team review process identified constraints in service delivery (for example, inadequate numbers of clinicians, which led to low numbers of medical male circumcisions [MMC] performed), the district intensified the innovative "hospital roving cutting teams" (groups of clinicians certified to perform circumcision) who visited facilities to circumcise willing males. Thereafter, facility nurses can provide recuperative care to the clients.

- With further technical assistance from MEval-SIFSA, the District HAST coordinator made a presentation *(Using Data to Improve Program Performance and Contributing to Achieving the 90 90 90 Strategy: How Data Feedback to Clinicians Improved Viral Load Monitoring, and Viral Suppression)* at the Special Forum on Achieving HIV and TB 90-90-90 Strategy, linked to the 2015 7th South Africa AIDS Conference; see photo on previous page. The national DoH commended these results, indicating that MEval-SIFSA and the uThungulu District demonstrated the positive impact a successful collaboration between DoH and development partners can have on enhancing capacity and improving health outcomes.

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MEASURE Evaluation Strategic Information for South Africa (MEval–SIFSA) Project seeks to sustainably enhance the capacity of the Department of Health 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/AIDS and related health programs. MEval–SIFSA is implemented by the Carolina Population Centre at the University of North Carolina at Chapel Hill, in partnership with ICF International, John Snow, Inc., Management Sciences for Health, Palladium, and Tulane University. For more information, visit http://www.measureevaluation.org/sifsa

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