



# Organizational and behavioral determinants of data quality and information use at district levels in Southern Yemen

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# BACKGROUND

- Good quality health information is one of the foundations of effective health service management and public health action.
- Behavioral determinants are important factors that affect data quality and information use for problem-solving.
- Behavioral factor measurements are divided into three broad domains: 1) perceived ability/confidence; 2) knowledge and actual skill, and 3) motivation to perform HIS tasks.
- The objective of this assessment was to explore the behavioral determinants of data quality and the use of information for evidence-based decisions at district levels.

### METHODS

- A cross-sectional observational survey was employed in selected district health offices found in three project intervention governorates.
- Purposive sampling was used to select 18 study participants from different departments representing three districts that were selected from the perspectives of accessibility, stability, and supportive local authority (to SHARP implementation) amid the ongoing conflict in Yemen.
- We adapted the performance of the routine information system management (PRISM) assessment framework in designing the data collection tools.
- Quantitative data were collected electronically.

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DISCLAIMER: This is a USAID-funded project.

# FINDINGS

- The study found out that most of the data quality assurance mechanisms and practices (data quality assurance guidelines and tools; clearly assigned roles and responsibilities for data review; staff training on data quality control mechanisms; and regular internal data quality checks) were not in place in all three assessed DHOs.
- Factors that contributed to poor data quality assurance practices include a low level of knowledge of how to conduct data data quality assessment tools.

### **Organizational determinants of RHIS performance**

- Most of the respondents perceived that their organization promotes data quality, and information use, and their superiors provided and sought feedback from concerned persons.
- Health department staff have a positive attitude toward their work, and commitment and perceived capacity to perform HMIS tasks were generally favorable.
- Study participants felt that the organizational culture of rewarding good performance is very low.
- Rewarding staff for good work scored low.

### Figure: Culture of information promotion at district health offices levels



- In terms of management functions, HMIS strategic plans and data management guidelines were not commonly available in the district offices.
- There are huge gaps in organizing need-based capacity building/training on RHIS, conducting regular supportive supervision and documented feedback mechanisms, and budget allocation for RHIS activities (monitoring and supervision).

### Behavioural determinants of RHIS performance

- On average staff's confidence level to perform routine health information system (RHIS) tasks is 66% with a minimum of 57% quality
- There was a mismatch between confidence (perceived ability to perform HIS tasks) and competency (actual skill to perform HIS tasks) among DHO staff.
- Very significant discrepancies are observed between the practical competency and perceived ability of staff on data quality assurance techniques

quality verifications among staff, the absence of staff designated to check/review the quality of reported data, guidelines, and

for using the information to solve problems and make decisions and a maximum of 79% for the ability to check/ensure data

# FINDINGS (CONT.)

### Figure 2: Confidence (perceived ability) vs. Competency of district health offices staff to perform RHIS tasks (%)



- of why data on various areas were collected).
- solving.

# CONCLUSION

- quality of the RHIS data generated and reported to a higher level.

# RECOMMENDATIONS

• Knowing the rationale for collecting routine health data has an implication for the value of data and its use for action.

• Our study shows that the district staff had limited knowledge of the rationale for having RHIS data (i.e., a low level of understanding

• They also scored very low on knowledge of how to conduct data quality verifications and problem definition, and problem-

• Good quality data is an imperative attribute for better quality health care service, which relies on the access to and use of quality data. Poor data can simply be translated to ill-calculated decisions eventually costing lives.

• The studied health information systems are not capturing the necessary information in a timely and accurate fashion in order to produce outputs that are adequate for the government's decision-making.

• In this study, district health officials do not have a good level of understanding of the usefulness of health information systems, and tasks and have low self-efficacy, confidence, and competency in performing their tasks.

• District health experts have a very low level of confidence to perform routine health information systems and they have a very low culture of data use for problem-solving or informed decision-making.

• The limited skill and absence of guidelines, tools, and mechanisms for data quality assurance have huge implications on the

• The technical, organizational, and behavioral determinants played important roles in the RHIS management. Knowing the rationale for collecting routine health data has an implication for the value of data and its use for action.

• RHIS strategic plans and budget, staffing plans, mentorship and training plans, RHIS supportive supervision guidelines, and RHIS management SOPs/manuals should be availed at district office levels.

• Health information system capacity-building interventions have to be need-based to fill the identified skill gaps by focusing on data quality assurance techniques and procedures, information use steps, data visualization, and analysis.

• There is a need to apply more practical hands-on adult learning techniques to address the observed data quality assurance, data analysis, interpretation, and use skill gap among health workers.