

Routine capturing of quality of care data using electronic tool to synergy Quality Improvement for maternal and newborn health at district scale (QUADS2) - Mtwara Region Southern Tanzania

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Introduction

Progress in maternal and newborn health outcomes in low-income countries has been slow. In response to poor

Objective

To improve the measurement of the quality of maternal and newborn care, and to increase decision-makers' understanding and engagement in routine use of data to improve maternal and newborn quality of care.

maternal and newborn outcomes in Tanzania linked to poor quality of care(Lawn et al., 2016), the QUADS2 intervention was carried out in four districts in southern Tanzania 2015-2020. We aimed to bridge the quality know-do gap among healthcare workers and district health managers through improved routine measurement of the quality of maternal and newborn care. Thus, the project was developed to increase data quality, use and more active engagement of policy implementers' people.

Thus, QUADS2 aimed to improve the quality of HMIS data, through establishing a culture around data collection and use. However, it needed to go one step further, by developing a measure of the quality maternal and newborn care that can be routinely collected.

Methodology



Figure 2: Data verification involved QUADS staff to visit and access data accuracy and consistency in different data sources including Registers, DHIS2, Patographs and the data sent using QUADS2 tool. This was done twice a year

ANC, Labor and PNC. Again, each month they uploaded data about viability and functionality of essential equipment and supplies and supervisions. Finally at the end of the year they had to upload data about the facility profile in general number of hours the facility is open, infrastructure, communication and staffing. Data sources involved HMIS tools, DHIS and additional tally sheets for the indicators that are not included in HMIS

Collaboratively we developed electronic tool using WHO Quality of Care indicators for maternal and newborn health(World Health Organization, 2019). Then we conducted a number of evaluation activities. First, the electronic tool was verified to ensure that data collected through the tool are accurate. This was done on a quarterly basis by researchers from Ifakara health institute (IHI). Secondly, a qualitative study of the experiences of key stakeholders in the use of the tool was done with facility staff trained in and using the tool. During evaluation, we involved key stakeholders at District health management level and the Regional health management team level that included quality improvement focal persons. Routinely every month health workers were to upload the data about the patients they see at



Figure 1: Health worker at Michenjele dispensary conducting data entry and

Results

Using collaborative quality improvement, we agreed on how to collect additional indicators of quality currently not in routine tools, and how to use an electronic tool to collect and submit data. Health care providers in primary health facilities and district [hospitals working](#) in MNH department were trained on the indicators of quality of care. Initially, onsite training was conducted by project staff. Retraining was done whenever there was introduction of a new staff, and also refresher training. Documentation and reporting of indicators that are not captured by other routine tools was done through QUADS2-tally sheet.

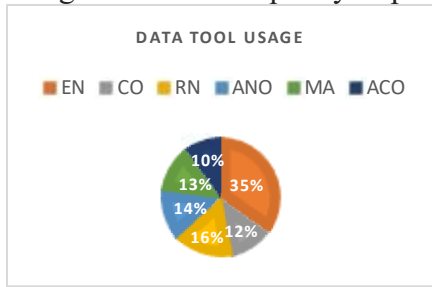


Figure 3: % Distribution of health workers who managed to use QUADS2 tool

Data verification found that there is an average error of 0.2 for data accuracy across all data sources (HMIS, DHIS, Registers and QUADS2-tally data tool).

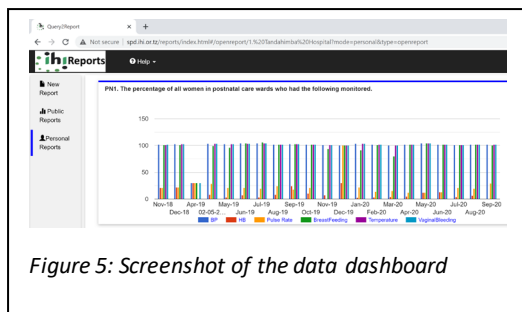


Figure 5: Screenshot of the data dashboard

Health workers working at maternal and newborn health in which majority (35%) were Enrolled nurses.



Figure 4: Dependency on supervision

Live dashboard

played an important role in informing first the health workers on the success of the submission of data, also generating reports that they could use to reflect the quality

of care they provide. The tendency shows that data submission is dependency upon motivation and supervision which also implies difficulty to establish a routine culture to use external tools.

Conclusion

Capturing electronic data from primary health facilities have evolved much. Advancement of technology, health workers exposure to digital technology such as smartphones brings more feasibility to implement and manage electronic data systems in health facilities. From this study we witnessed the possibility of adopting the recommended indicators of quality from WHO QOC indicators which Tanzania is among the piloting and learning countries.

References

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