KEY MESSAGES

- **Numerous data records are incomplete and large amounts of data is missing across the PHC facilities and hospitals.**

- **Existing health records are stored in hardcover notebooks without computerised back-ups. Health staff are unable to account for missing registers in some facilities due to shortcomings in the handover process by exiting staff.**

Quality of Maternal and Child Health data within the Health Management Information System in Nigeria:

A post field reflection

Introduction

In 2012, the Federal Government of Nigeria launched the Subsidy Reinvestment and Empowerment Programme (SURE-P) to invest revenue from fuel subsidy into a social protection scheme to improve the lives of the most vulnerable population in rural areas. As Maternal and Child Health (MCH) is a national and global priority in the efforts to achieve the sustainable development goals, MCH was a component of the SURE-P scheme [1].

The MCH component of SURE-P

The MCH component of SURE-P comprises supply and demand components. The supply component aimed to broaden access to maternity services and improve health outcomes through infrastructure upgrade, supply of medical and surgical consumables and increased number of midwives, community health extension workers and village health workers.

The demand component aimed to stimulate the uptake of MCH services through providing conditional cash transfers to pregnant women to register at a primary health centre (PHC) and follow a continuum of care that included focused antenatal care, delivery by a skilled professional, and attending postnatal care for immunization and family planning.

Selected facilities were grouped into clusters comprising of 1 general hospital and 4 PHCs [1]. Outputs from the SURE-P programme were captured using routine Health Management Information System (HMIS) forms which are present in all PHC facilities nationwide.

National Health Management Information System (NHMIS)

The NHMIS, which became operational in 1999 and subsequently reviewed in 2004, aims to provide data to assess health status of the population to identify major health problems and set priorities at local, state & national government levels [2]. In March 2015, a realist evaluation project was initiated to evaluate what outputs and outcomes were achieved by SURE-P programme in Anambra state (one of the 36 states of Nigeria) and under what conditions.

Our approach

This mixed-methods evaluation used standardized HMIS proforma to collect quantitative secondary data in 3 general hospitals and 12 PHCs in 3 clusters of Anambra State, to help policymakers and programme managers identify key issues with quality of HMIS data and plan remedial actions for improving data quality.

- **Large number of indicators (233 in total) are being collected, which contribute to poor data recording practices and deficient quality**

- **General hospitals do not use the NHMIS forms and this makes data comparison and harmonization difficult between PHCs and hospitals.**

- **Recommendations include fostering the understanding and use of NHMIS forms across all tiers of healthcare, to enhance the harmonization and consistency of data collection**

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For two weeks in August 2015, trained researchers collected facility and state level data. Facility-level data included facilities inputs and programme outputs indicators. Facility data was collected over a 5 year period from May 2011 (i.e. 1 year before SURE-P) to April 2015. Information on staff numbers and remuneration was elicited through staff interviews.

What we found
PHCs
All data were captured on the NHMIS monthly summary form (001). The NHMIS is designed to capture 233 variables in one form including drug stock-outs, however these were often poorly filled and incomplete. Despite these weaknesses, the SURE-P implementation data across PHC facilities (May 2013- April 2015) were more complete than the pre-SURE-P data (May 2012-April 2013). Additionally, there were discrepancies between the daily records and the monthly summary records kept by facilities, thus making it difficult to ascertain the quality of PHC facility records and hence their reliability.

General and Teaching Hospitals
Three key findings from general and teaching hospitals are notable: First, the secondary and tertiary hospitals did not use NHMIS forms. Rather, data from different departments were captured in notebooks and in registers supplied by other vertical programmes such as the malaria control programme. Second, there was no formal data summary or harmonization of data across hospital departments. Third, there was no dedicated register for children under 5 years. Rather data for children less than 5years were lumped together with other paediatric (0-16 years) records.

Conclusion
These findings raise questions about the quality of HMIS data in Anambra State. Incomplete and inconsistent data hinder the use of secondary data for, evaluation of services and programmes, and for evidence-based policy decision-making and research. It is important to have accurate and readily available secondary data in developing countries, where it may not always be feasible to fund primary data collection for evaluations and research.

What can be done to improve quality of NHIMS?
First, promoting a shared understanding and use of NHMIS across all tiers of healthcare can encourage secondary and tertiary hospitals to adopt NHMIS forms for data collection.
Second, promoting harmonization of data collection tools across the three tiers of healthcare and provision of a central data bank can improve consistency of data collection.
Third, building the capacity of health workers across all tiers of healthcare in data management can enhance quality of data produced.

References
1. FMOH, *Subsidy Reinvestment and Empowerment Programme -Maternal and Child Health Services -Implementation Manual*, 2012, NPHCDA: Abuja, Nigeria.
2. FMoH Nigeria, *Revised Policy-Programme and Strategic Plan of Action*, N.H.M.I.S.N. Health Planning and Research, Editor 2006: Abuja, Nigeria.

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