PHISICC

Characterisation of the Health Information System in Nigeria

REPORT OF FINDINGS*

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(*) Analyses of HMIS meta-data is included in a separate report.

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Executive summary

Population health is directly affected by decisions taken by policy makers, managers, health care providers and by the population itself. Therefore, actions for improving the soundness of decisions need to embrace all decision making processes, starting at health facility level. The PHISICC project (Paper-Based Health Information System in Child Care) focuses on the paper components of the information system in three African countries (Côte d'Ivoire, Mozambique and Nigeria). Our research question is: what are the effects of paper-based information systems interventions on the quality and use of data and on health related outcomes in Primary Health Care (PHC) of Low- and Middle-Income Countries (LMIC)? To this end, the PHISICC project assessed the status of the Health Management Information System (HMIS) in order to understand how data are produced, stored and transmitted and what is the human experience around data and decision making. Then, in creative partnership with country partners, we will engage in co-creative, collaborative and intentional design activities to innovate on the tools and processes to improve paper-based systems. We will then test these innovations using randomised controlled trials. This report refers to the first part of the project: the assessment of the HMIS in Nigeria.

We used a mixed methods approach from several perspectives: public health, health systems and Human Centred Design. Methods included: review of key Nigerian health policy documents and ten days of field work in Abuja and in Cross River State to carry out interviews and workshops with key stakeholders, stakeholders analyses, interviews with health workers, health facility data verification exercises and health workers shadowing (observation). We did not aim to obtain generalizable findings, but rather to acquire an in-depth knowledge of the status of the HMIS, synthesising several types of evidence from several sources. Although we cannot rule out some degree of bias in our findings, we took all care to adhere to the widely accepted research standards. This research was cleared by the competent Nigerian ethical review board.

There are three levels of health care delivery in Nigeria: (i) the Federal level with teaching hospitals, specialist hospitals and 22 Federal Medical Centres, (ii) the State level, with general hospitals; and (iii) the Local Government Authority level (LGA), the primary level with where Primary Health Care (PHC) takes place. Accordingly, the National Health Management Information System (NHMIS), last reviewed in 2014, is organised following the same hierarchy of levels.

Common challenges of the HMIS in Nigeria included: (i) limited funding and inadequate human resources; (ii) irregular supply of data tools; (iii) lateral data collection by partners; (iv) lack of data analysis at the level of the data collection; and (v) lack of data use in decision making.

Our field work identified 24 paper-based forms used at health facility level and 43 templates / datasets from the DHIS2 system. Paper-forms include tools used at community level, tools used at the time of patient care (i.e. usually 'registers') and tools to report aggregated data to higher levels of the system. The monthly report form has 233 data entries. At the LGA (Local Government Area) health office, the information from monthly reports is entered into the DHIS2 system.

Fifty stakeholders were approached in the field work and participated in the different activities (interviews and workshops. Stakeholders,

together with governmental entities, are organised into several working groups to address HMIS issues. Some degree of donor pressure to shape the HMIS to donors' preferences was reported. In the area of HIV/AIDS, the influence of PEPFAR to determine the current configuration of the HMIS in the area of HIV/AIDS was considerable. However, over the past few years, the leadership role of the FMOH (Federal Ministry of Health) has become stronger. The FMOH, particularly the DPRS (Department of Planning, Research and Statistics) and the NPHCDA are the leading agents in issues concerning the HMIS. The general perception is that the paper-based information system will continue to remain a source of data for the foreseeable future.

The HMIS was seen as the main source of evidence for decision-making. Other sources were not generally considered as part of the decision-making processes.

Stakeholders' perceptions around PHISICC were unanimously positive. Stakeholders, championed by the NPHCDA, were supportive and expectant on the next steps of PHISICC.

The workshop participants were asked on their views regarding data quality criteria. Most considered 'accuracy' (concordance) as the most essential criteria, followed by completeness and timeliness. Interestingly, 'user friendliness' was less highly ranked. The least valued criteria was 'responsiveness to donors'.

A striking finding from the visits at the health facilities was that data was mainly seen as something to keep track of what has been done, regardless whether it was actually used for decision making or not; and to report to the next higher level.

Health facilities had a general register where everyone entering a health facility would have his/her name noted down. Additionally, users would also be registered in the specific service register, e.g. the general consultation, antenatal care, or vaccination. Paper tools had numerous problematic issues related to the amount of information, quality of data and formats.

Data verification exercises were performed in six health facilities. Of the 52 data verification exercises, 21 had perfect concordance. The other 31 showed over-reporting (i.e. the figure found in the monthly report was larger than the figure found through the re-counting in the register) and under-reporting (i.e. the figure found in the monthly report was smaller than the figure found through the re-counting in the register).

Health facilities and LGAs receive support from several entities. For example, in some LGAs, the Ward Health Committees are involved in the production of 'score cards' to monitor health related activities, they also mobilise in order to print paper tools which may have been exhausted.

The presented findings and abundant details collected in field notes and conversations, are a promising base to support the development of innovative interventions to improve paper-based systems and tools in Nigeria. They confirm the need to focus on decision making at health facility level. Team and partners also acknowledged challenges related to those who do not use health facilities since the impact of any improvement in the systems will not reach them unless a new HMIS directly or indirectly promotes the use of health services. Our findings also confirm the need to put health workers at the centre of the innovations design process in order to make their work more efficient, less heavy, more satisfactory and, through these means, more accurate and responsive to populations health care needs.