



# Characterisation of the Health Information System in Côte d'Ivoire

## REPORT OF FINDINGS\*

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

Swiss TPH



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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 (CIV), 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 of Low- and Middle-Income Countries (LMIC)? To this end, we will assess the status of the Health Management Information System (SNIS in CIV), 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 SNIS in the country.

We used a mixed methods approach from several angles: public health, health systems and Human Centred Design. Methods included: review of key CIV health policy documents and two weeks field work in the North and South of CIV to carry out interviews and workshops with key stakeholders, stakeholders analyses, interviews with health workers, health facility data verification exercises and health workers shadowing. We did not aim to obtain

generalizable findings, but rather to acquire an in-depth knowledge of the status of the SNIS 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 CIV ethical review board.

Twenty-two stakeholders were approached in the field work and participated in the different activities. Five of them were also engaged in in-depth interviews. We also visited 16 health facilities to carry out interviews, data verification and health workers shadowing in the areas of Abidjan and Korhogo.

We found that the SNIS is a priority at national level in the health sector and that there is an intensive debate in the country in relation to the configuration of the SNIS and how can it be better used for decision making. The Direction de la Prospective, de la Planification, de l'Evaluation et de l'Information Sanitaire (DPPEIS) is clearly perceived as the leading entity in the SNIS and is well considered.

The SNIS is complex and heavy, in terms of the number of indicators, forms, reporting requirements and coordination between sectors and programmes. This is partially due to the perceived need to accommodate perspectives and needs of the governmental health sector, in the first instance, but also those of stakeholders, particularly in the area of HIV/AIDS. Despite the DPPEIS being perceived as having a leading role in the SNIS, it has to face the difficult challenge to respond to the data needs of a complex stakeholders environment in the country.

Stakeholders clearly aim at maximising both data quantity and quality. These competing interests are not always aligned and this has been reported to jeopardise the quality of data and the potential for data use. The focus of the SNIS

is clearly on reporting to higher levels of the systems in detriment of decision making at the points where data are collected. This results in a high workload and challenges at health facility level to comply with health care requirements, in one side, and with data reporting, in the other. The attention is then directed towards the technicalities of the SNIS to comply with data requirements as opposed to the use of data for decision making at each layer of the system.

Understandably, in this context the SNIS poses several serious challenges, including: lack of resources, poor capacity of staff at peripheral level and lack of harmonisation and standardisation. This was reflected in the visits to health facilities, where paper tools were usually disorganised without proper archiving tools and practices; and with stock-outs of tools which were very smartly addressed with local solutions. Specific needs (e.g. tracking children lost to follow up for vaccination) were also addressed with local adaptations of forms or with the creation of new ones.

PHISICC is perceived as an opportunity to produce robust, new evidence on what works to improve paper based SNIS, particularly for decision making at health facility level. There is wide recognition that despite remarkable technological progress, paper will continue to be an essential tool for decision making in the country.

Data verification exercises were performed in three health facilities. Of the 14 data verification exercises, four had perfect concordance. The other ten data verification exercises revealed four over-reporting cases (i.e. the figure found in the monthly report was larger than the figure found through the re-counting in the register) and six under-reporting cases (i.e. the figure found in the monthly report was smaller than

the figure found through the re-counting in the register).

These findings, and the 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 CIV. They confirm the need to focus on decision making at health facility level as the main rationale to address improvements in the systems. To this end, we started the 'dissection' of the component of decision making in order to study how to make the systems responsive to these components. Team and partners also acknowledge 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 SNIS actually directly or indirectly promotes the use of health services. Our findings also confirm the unnegotiable 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.