

# BURKINA FASO National Health Information System and 2010 – 2020 Strategic Plan Evaluation

**Executive Summary** 

# October 2020

Prepared for the Government of Burkina Faso's Ministry of Health





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## BACKGROUND

From 2010 to 2020, the Ministry of Health (MoH) of Burkina Faso implemented a National Health Information System (NHIS)<sup>1</sup> Strategic Plan. The Plan's goal was to enhance the system's overall functioning of the system, focusing on four main axes:

- Strengthening the NHIS's planning, coordination, and leadership
- Strengthening NHIS human and financial resources, equipment, and infrastructure
- Improving the production, management, and quality of health data
- Improving the production, dissemination, and use of health information

In 2019, while preparing to draft the 2021-2025 Strategic Plan, the MoH expressed interest in conducting a retrospective evaluation of their 2010-2020 NHIS Strategic Plan. The Bill & Melinda Gates Foundation (BMGF), along with the Global Fund, contacted Cooper/Smith to conduct this work based on similar assessments implemented in Malawi and Cameroon.

The Gates Foundation issued a 2-year grant (2019-2021) to Cooper/Smith under the Data Use Partnership (DUP) to support data use to improve health outcomes. Phase I (2019-2020) of this grant included this assessment. Data collection took place in Q1 2020 in five regions of Burkina Faso, in which 75 decision makers and 75 data handlers were interviewed and 69 facilities were assessed. Phase II (2020-2021) consists of technical support to the MoH based on the findings from this assessment.

# OBJECTIVES

The objectives of the evaluation were:

- to assess the implementation of the 2010-2020 NHIS Strategic Plan and provide recommendations for the upcoming 2021–2025 NHIS Strategic Plan development (and other relevant national strategies);
- 2. to analyze the NHIS from a user perspective understand identify key data elements, sources, and systems used to make decisions. This information helps us ensure that the right information is available at the right time to make the right decisions; and
- 3. to ensure that the MoH and partners use our findings to improve data analysis and to improve health outcomes.

<sup>1.</sup> In French: Système National d'Information Sanitaire (SNIS) or NHIS







# **REPORT OVERVIEW**

This report has three parts:

- Part I: Introduction including country and MoH overview and study context
- Part II: 2010 2020 NHIS Strategic Plan evaluation methods and findings
- Part III: NHIS user perspective evaluation (Data User Study/DUS)

# **KEY FINDINGS**

### I) NHIS 2010-2020 Strategic Plan Implementation

Our evaluation used a mixed methods approach, incorporating quantitative and qualitative questions, and a literature review. Overall, we found that the MoH did a satisfactory job in executing the Strategic Plan. However, in some areas, challenges remain. Below is a summary of NHIS Strategic Plan implementation success and limitations by Strategic Plan axis.

### Axis 1: Strengthen planning, coordination and leadership of the NHIS

SUCCESSES	LIMITATIONS
+ Ensured that a functioning health information system is in place to collect information	<ul> <li>No mid-term assessment on the strategic implementation performed</li> </ul>
+ Coordinated sub-committees that met regularly	<ul> <li>No activities formally planned for the 2015-2020 period</li> </ul>
<ul> <li>Consistently developed the Data Management Directorate (Direction des Statistiques Sectorielles or DSS) and IT Directorate (Direction des Services de l'Information en Santé or DSIS) action plans annually</li> </ul>	<ul> <li>Inconsistencies expressed by respondents on action plans' validation processes</li> <li>No NHIS specific action plans developed and no DSS and DSIS action plans well distributed across levels</li> </ul>
<ul> <li>Took into consideration partners and their needs when developing health information standards</li> </ul>	

### Axis 2: Strengthen human and financial resources, equipment, and infrastructure

SUCCESSES	LIMITATIONS
<ul> <li>Constructed and equipped an office for the General Directorate on Data Management (Direction Générale des Etudes et Statistiques Sanitaires or DGESS) according to plan</li> <li>Ensured that NHIS strengthening became a priority for donors through MoH advocacy</li> </ul>	<ul> <li>Over 50% of respondents mentioned that Internet connectivity is a challenge and limits their ability to communicate and collect and analyze data.</li> <li>Computers and devices for data collection and analysis are rarely available at the lowest levels of the health system</li> <li>Facilities do not know how to maintain equipment or configure device settings.</li> </ul>



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#### Axis 3: Improve the production, management and quality of health data

### SUCCESSES

- Successfully rolled out mHealth applications: mHealth application at the community level; Registre Electronique de Consultation (REC) at the primary health care (PHC) facility level; DHIS2 at the national level (Entrepôt National des Dnnées Sanitaires or ENDOS-BF)
- + Ensured that population data is available, reported, and can be used across all levels of the health system
- Developed and rolled out a software for hospital data collection and management
- Provided an environment for supportive supervision across the majority of PHC facilities
- Planned and implemented surveys within the designated timeframe and used the data to inform programming

### LIMITATIONS

- The private sector reported low levels of data collection, raising questions on data completeness and quality.
- It is unclear how often community data is validated.
   Community health workers (CHWs) were unsure of who validates their data, and respondents reported that community data is excluded if they cannot verify the data.
- While supervisory visits took place, 25% of respondents reported receiving no feedback.
- There is no standardized process in place for data validation across regions and facilities; existing processes are not followed consistently.

SUCCESSES	LIMITATIONS
<ul> <li>Completed the National Health Accounts (NHA) on an annual basis</li> <li>Developed and disseminated health statistical products</li> </ul>	<ul> <li>Many data products were not disseminated to the lowest levels of the NHIS, or if they were, decision makers did not always share with other staff.</li> </ul>
<ul> <li>Trained local decision makers on how to use health information for decision making</li> </ul>	

#### Axis 4: Improve the production, dissemination and use of health information

### **II) NHIS User Perspective Evaluation**

Systems live and die by their users. As part of our mandate to better understand opportunities for supporting and strengthening the NHIS, we did a deep dive into NHIS users' data use and decision making. Understanding the gaps which exist between what decision makers know, what decision makers need to know, and which data is collected by those who collect and aggregate data (called "data handlers") helps us uncover opportunities for strengthening the NHIS. We conducted a study (called a "Data User Study") that focuses on how decisions are being made and the information used to inform these decisions. Our study aims to answer the following question: is the **right data**, in the **right format**, in the hands of the **right person** to answer the **right question**?



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# **KEY FINDINGS**

**FINDING 1**) Health data systems are fragmented, hindering the ability of decision makers to fully access and use all available data for decision making. As an example, there are over 110 active databases, applications, and digital tools currently at use within the country (Figure 1).



FIGURE 1: NHIS DATA FLOW



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**FINDING 2) Decision makers are mostly focused on five decision categories:** drug supply, program performance, planning, budget, and testing/screening. These five decision categories account for 45% of all decisions identified by decision makers (Figure 2).



### FIGURE 2: MOST FREQUENT DECISIONS REFERENCED BY DECISION MAKERS

**FINDING 3)** Decision makers and data handlers are not aligned on which data elements are the most important. As such, data handlers are collecting data that is not deemed useful or important for decision makers. As shown in Figure 3, a total of 223 unique data elements were mentioned during the DUS. Of those, 54 data elements were referenced by both data handlers and decision makers 648 times, accounting for 69% of responses, while the remaining 31% of data elements are not aligned. Figure 3 also shows the top ten most referenced data elements, identifying which data elements are seen as equally or disproportionally important by role. The top ten data elements account for 48% of the 54 data elements referenced by both roles.

### FIGURE 3: DATA ELEMENTS MOST REFERENCED BY DECISION MAKERS AND DATA HANDLERS





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**FINDING 4)** Decision makers and data handlers are even less aligned on which data sources are most important. Figure 4 reveals that a total of 125 unique data sources were identified. Of those, only 22 sources were referenced by both data handlers and decision makers. Decision makers frequently mentioned informal data sources, such as individuals or cadres, as shown in the top ten most referenced data sources.



FIGURE 4: DATA SOURCES IMPORTANCE (REFERENCED) BY DECISION MAKERS AND DATA HANDLERS

**FINDING 5)** More data is collected than is needed for decision making. As a result, health workers at every level of the system spend between 13-46 hours per week collecting and making sense of data. As an example, there are 48 data elements collected for HIV/AIDS by data handlers, but decision makers only use 25 unique data elements to make decisions. Additionally, there may be room to streamline data collection processes. Human resource respondents identified 26 different data elements collected across 29 sources, showing that some data elements may be recorded in more than one source. Figure 5 shows the unique data elements, sources, and decisions for each programmatic area reviewing during the DUS.



### FIGURE 5: UNIQUE DATA ELEMENTS, SOURCES, AND DECISIONS BY PROGRAM AREA PROGRAM AREA

**FINDING 6**) **Routine supportive feedback is rare** (Figure 6). Approximately a quarter of decision makers reported receiving no feedback while less than 10% reported receiving routine feedback on data sharing, data quality, programmatic work, or words of appreciation.



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FIGURE 6: FEEDBACK PROVIDED TO DECISION MAKERS ON PERFORMANCE



# MAIN RECOMMENDATIONS

- *Align data to decision makers' needs.* Streamlining data collection sources, data elements, and ensuring they are aligned to decision makers' needs can prevent bottlenecks and the overproduction of data and shift time away from data collection to data use.
- Consider electronic data collection and systems where appropriate, accompanied by clear standards on when to "turn off" the paper. Dependence on paper data collection and manual data analysis processes can be automated to improve efficiency. In Burkina Faso, 70% of respondents use paper systems. This is time-consuming and prone to human error, which could affect data quality.
- Ensure interoperability between databases, applications, and ENDOS-BF will facilitate data sharing between programs and levels of the health system. Siloed systems and a lack of interoperability hinders decision makers' ability to make the most informed decisions and prevents sharing between programs and levels of the health system. Additionally, ENDOS-BF is not used to its full potential, and decision makers often rely on informal sources for data.
- **Present raw data to decision makers.** Our findings showed that in many cases, data are presented in an aggregated manner on paper format. Providing decision makers with the opportunity to access and explore the raw data that feed into aggregate counts can help increase confidence in the data.
- *Provide training on digital devices before decentralizing data entry.* Respondents at the lower levels of the health system reported low access to technology, data literacy, and attendance to trainings. Trainings on technology and digital devices should be deployed before decentralization of data entry at the community and facility levels takes place.
- Share data products at all levels of the health system. Findings reveal data is flowing up to the central level of the health system, but seldom flows back down to the facility or community levels. Given some findings that show a lack of access to technological devices and/or low technology literacy, sharing data products on paper during supportive supervision visits, instead of electronically sharing them, may be the best way to ensure data is flowing down to each level of the system.





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