Human Resources for Health

Workforce Analytics for Design and Planning Report

MOZAMBIQUE CASE STUDY

MOZAMBIQUE

Health System Overview

The health system in Mozambique is structured along three levels: the central level (MISAU), the provincial level Directorates of Health (DPS), and the district level District Service of Health and Social Affairs (SDSMAS). It is based on decentralized management, where each level has its own authority to hire health workers. The National Health Services has 58,124 health workers, with 55% in service delivery related cadres and 45% in other supportive and administrative cadres. There are 18 health pre-service medical training facilities, with an average of 3,000 graduates total per year. As of December 2019, there were 1,643 public health facilities in Mozambique, 95% of which are primary health care facilities. There are also 1,672 private health facilities and approximately 50 private pre-service health training facilities, but MISAU does not currently capture private sector data.

Current State of Health Workforce Information Ecosystem

Figure 6 – Summary of HRH in Mozambique

Knowledge of...

...where and who health workers are	...how they perform	...if they show up for work	Salary Payment Processes

- HRIS in place that includes health worker details and geocoded post location.
- Strong reliance on payroll as a data source.

- Paper-based system for the entire public service and CHWs.
- Process not informed by data.

- Attendance tracking is paper-based. Aggregated data fed into payroll to record leave.

- Functioning payroll system for doctors, nurses, and CHWs, with no salary delays reported.
- Payments hard to access for those in rural areas.

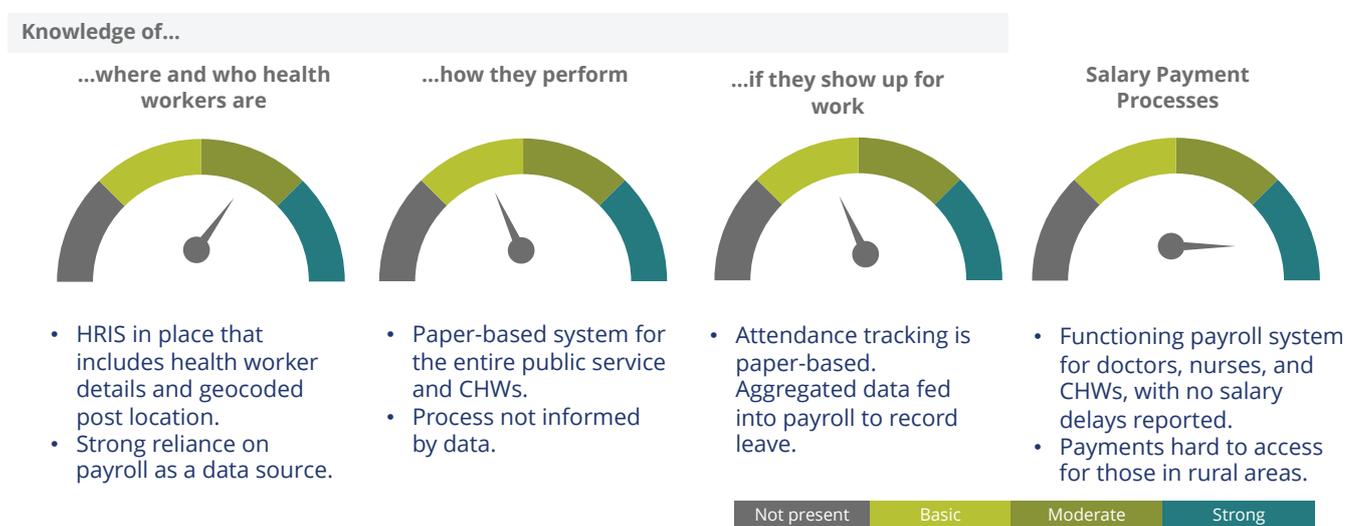| Not present	Basic	Moderate	Strong

Figure 6 above provides an overview of the state of HRIS in Mozambique. The National Human Resources Development Plan for Health (PNDRH) 2016-2026 (Ministry of Health, Republic of Mozambique, 2016), which builds on a prior strategy from 2008-2015, outlines the objectives and strategic goals of the health sector, including the main objective of reducing the ratios of health personnel per 100,000 inhabitants. The current plan describes the needs of HRH per cadre and health facility level, and it also includes medical specialization requirements for the next ten years. Mozambique has much clearer and more specific policy guidance on HRIS than Burkina Faso and Uganda, possibly demonstrating a higher level of ownership over the HRIS development and data use. Despite an impressive policy landscape, there are still areas of policy ambiguity, for example the role of the MISAU in overseeing the growing private sector health workforce and the CHWs, including their enumeration.

The systems mapping identified nine different systems in place across five different ministries and departments that make up the health workforce information ecosystem, as depicted in Figure 7. However, the assessment found a high level of integration across systems, with a strong foundation to work toward interoperability and an "enterprise architecture."

The case of Mozambique is important as it takes a novel and cost-effective approach to fostering local ownership, a key factor in system adoption and sustainability. The lessons from Mozambique are applicable to countries that are eager to foster local ownership, lay the foundations for a more integrated approach, and work toward institutionalizing data use practices.

Figure 7 – Mozambique Information Systems Overview
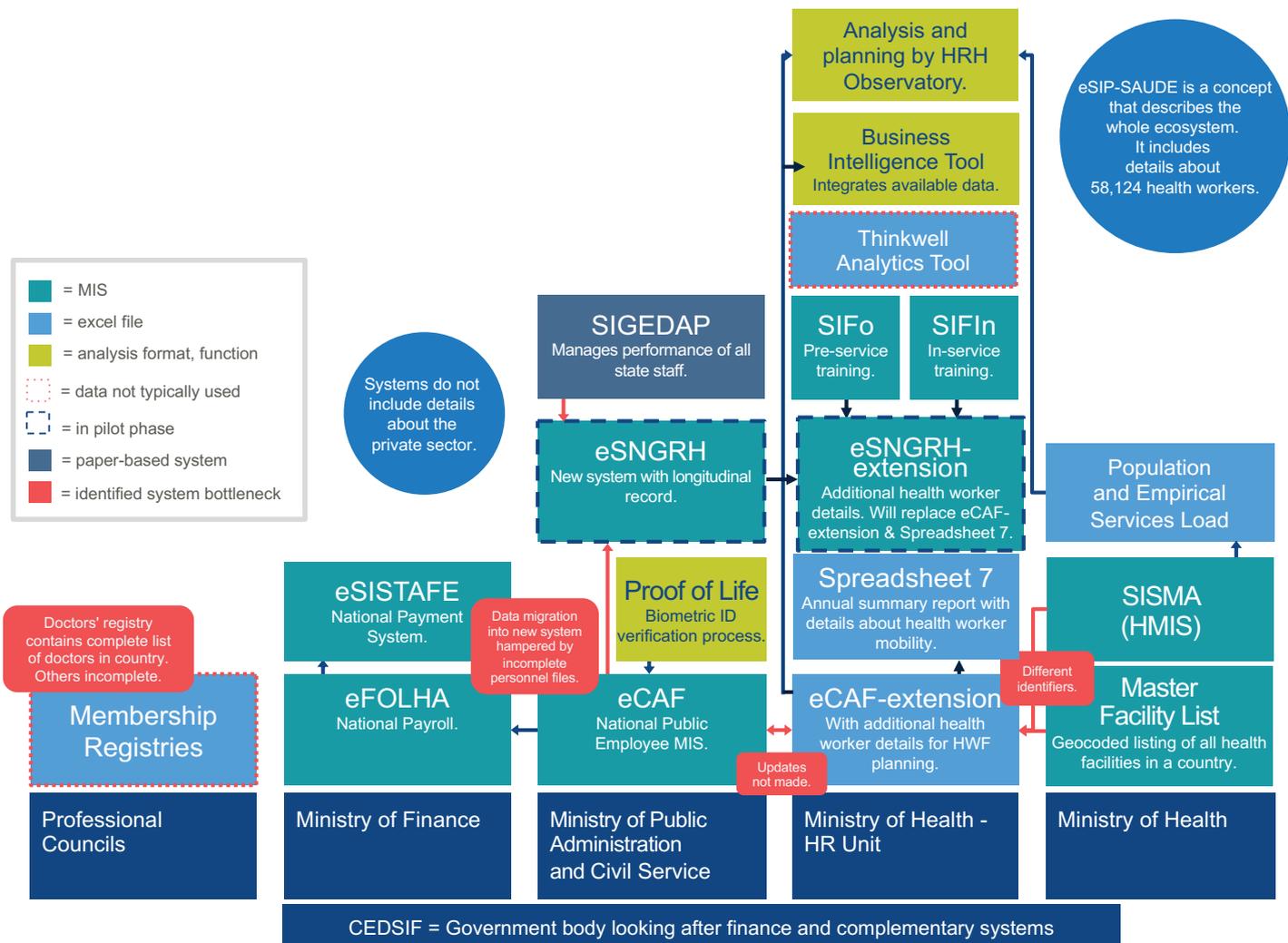
Mozambique has taken a unique approach to its HRIS development, prioritizing local ownership through building on what is already in place, namely, the payroll information system. Building upon the Ministry of Public Administration and Civil Service's information, in 2007 they developed an HRIS to use within MISAU for planning and management decision making. The Ministry of Health's HRIS works by extracting all the health workers' details from the Ministry of Public Affairs and Civil Service's HRIS (eCAF) **which covers the entire public sector**, into a separate database (an eCAF extension, often called eSIP-SAUDE), with additional details relevant to MISAU's decision-making needs. Different system components (an in-service training database and a pre-service training database) were included with a view toward a more integrated HRIS ecosystem – remarkable in the absence of a digital health policy. [6] The system was a cost-effective mechanism to provide health worker numbers and locations. However, its design does not meet all decision makers' needs; for example, it does not provide a longitudinal record. A new more comprehensive system in development is expected to automate administrative functions and provide customized reports (SNGRH, at the pilot phase since 2017).

BEST PRACTICE: HRH OBSERVATORY

Mozambique was one of three countries to pilot the WHO (NHWA) supported by a national HRH Observatory consisting of a team of analysts who compile and analyze HRH data for decision making.

MISAU implements the HRIS at all administrative levels of the health system (e.g., health unit, district, province, and national levels). The existing HRIS (eCAF extension, or frequently called eSIP-SAUDE, describing the larger network of systems) can analyze available HRH, including location and total number of health workers. It can produce national statistics on human resources, including responses to WHO requests for data. Mozambique has also conducted a workload assessment and HRH profiles by province. An HRH retention strategy has been developed, and, in training for HRIS use, investments have been made in HRH management and planning, including data-quality and data-use trainings.

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[6] *A public sector digital policy has been launched since the assessment was completed.*

Mozambique was one of the first countries to implement NHWA in 2016, and the system was able to provide almost half of the core indicators used at that time (42 out of 90).[7] Mozambique also has an HRH Observatory, a WHO-supported platform which consists of a team of analysts who provide analysis support on HRH to MISAU. However, despite a thoughtful system design, and an analytics support team, stakeholders report there is not a strong "culture of data use" in Mozambique, with other factors influencing decision making.

Along with the systems' strengths, some bottlenecks have been identified:

- Updates to eCAF are often not made in a timely fashion by data entry clerks at the provincial and district levels.

- Different facility identifiers – between the Master Facility List, the health information systems (HIS) – Sistema de Informação de Saúde para Monitoria e Avaliação - SISMA) and eCAF – undermine the ability to integrate data or make the systems interoperable.

- Efforts are under way to migrate data from paper files into the new SNGRH system to create a longitudinal digital record. This is a slow process due to both incomplete and paper files, which are housed in the filing cabinets of different facilities across the country.

- The registries of the professional councils are not typically used in human resource decision making.

- The information architecture, with its strong reliance on payroll as a data source, does not capture data on contract workers, CHWs, or the private sector health workforce.

- Thinkwell established a tool to calculate the workload of different facilities to rationalize deployment at the district level. The tool is similar to WISN but takes into account the time taken for each task; however, stakeholders have expressed a concern that it does not cover enough cadre types. This tool has not been fully rolled out due to the COVID-19 pandemic.

Visibility Outside Formal Public Sector

The area where core functions are not comprehensively addressed is mapping the nascent but profitable private sector. There is a policy mandate to provide oversight of the private sector and the CHW cadre, projected to be 7,300 in 2020 (Community Health Roadmap, 2021), and manage the professional registrations of different cadres. The nursing and medical councils are undergoing efforts to strengthen their registries, which would fill the latter gap.

Findings Across Priority Use Cases

Looking across the priority use cases, good systems are in place, but actors at all levels conduct many administrative

BEST PRACTICE: eCAF - A HOME-GROWN, INCREMENTALLY DEVELOPED, HRIS

Policy makers in Mozambique listened to the MOH's desire to develop a HRIS to meet their country's needs using their own technology and resources. Building upon the Ministry of Public Administration and Civil Service's information they slowly and securely developed an HRIS to use within the MOH and inter-ministerially for planning and management decisions. Two decades of multi-sector and ministerial coordination has resulted in locally owned and incrementally developed HRIS systems to serve government needs.

functions and reports manually, causing delays and speaking to a need for automation at national, provincial, and district levels. Despite impressive achievement in the HRIS space, uneven use of data for decision making due to political considerations, lack of incentives, and uneven capacity remain an issue, as does a lack of timeliness in data entry, impacting data quality.

Recruitment and Deployment

The hiring process in Mozambique is designed to be open and transparent, with publicly announced vacancies open to anyone meeting the requirements. While there is a strong policy framework in place for equitable deployment, uneven distribution of health workers across provinces and districts persists. A closer look at the recruitment and deployment data flow identifies why this is the case and where the bottlenecks lie:

- The Ministry of Health makes decisions about where to allocate health workers based on analysis from the HRH Observatory, guided by the National Human Resources Development Plan for Health. However, inequities persist, and stakeholder suggested that it is not politically expedient to send newly recruited health workers to all provinces, even if some provinces are chronically under-served.

- The province-level Ministry of Health office creates a proposal of staffing needs according to established staffing norms; however, the data used is not up to date, undermining the utility of the proposal.

- The exact facility location of health workers is sometimes obscured because changes to administrative boundaries or facility classifications are not always fully updated in the system; some new health units are not registered in the system so the health worker is listed as working in the district administration office; and some health workers' exact location is not updated if the update can mean that there is a loss of benefits.

- Doctors and nurses are deployed from the district to different facilities, sometimes in response to staffing norms (Quadro

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Tipo) and sometimes in response to community demand.

- The most reported concern about the HRH data was that data were not updated regularly due to a reported lack of appreciation for its importance.

Salary Payments and Reconciliation

The salary payment system in Mozambique is backed up by a proof of life identification process, an attempt to eliminate fraud and ghost workers, thereby strengthening the quality of payroll data. When looking at salary payments the data flow and actor assessments identified the following bottlenecks:

- Changes to deployment status within eCAF must be confirmed by the administrative court. This is a slow process that can take months, but in the new system (SNGRH), this step will be automated.

- Decisions about promotions and salary increments are made at the national level, but there is a pending requirement for automated reports regarding who is due for promotion or retirement and when. This is currently compiled manually, resulting in a large administrative burden. It also often means actions are not taken in a timely manner.

- Digital financial services are at a nascent stage in Mozambique. Health workers are paid directly into their bank account, and for health workers in remote rural areas, this can require travel of up to 300 kilometers to access their salary.

Individual Performance Management and Attendance Tracking

Low priority is given to performance data in decision making – a disincentive for refining and improving the system. This lack of attention has resulted in several challenges:

- Individual performance management is paper based and kept in the health workers' personnel files, which are not broadly accessible. Many decisions about increments and promotions are made at the national level without access to these files.

- Doctors and nurses in management roles need to complete a performance plan at the beginning of the year, but this is often not done.

- Performance reviews are supposed to occur every quarter but typically occur annually. Supervisors give staff a point score based on their subjective opinion. This represents a missed opportunity in terms of use of service delivery and attendance data.

- There are often delays in the verification of performance reviews.

- Performance reviews are a factor in decision making about training opportunities, promotions, and transfers but are not prioritized; other factors (if there is budget available, time served) take precedence.

- Health workers sign an attendance book to mark their attendance each day. Supervisors are responsible for checking the attendance book and verifying attendance; however, as this is paper based, the data are difficult to aggregate and review.

- For CHWs, performance is managed formally by a nurse at their most proximate facility and informally by community leaders within their community. There is no higher-level oversight from the district, province, or national levels.

Overall, it appears that performance management and attendance tracking represent an important opportunity area for HRH management in Mozambique, and this is likely to be eventually addressed in the new SNGRH system – with the three most recent performance reviews visible in the health worker's record. It is likely that the data and the process will only improve if the data have more perceived use in decision making.

> ### BEST PRACTICE: PROOF OF LIFE
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> Annual biometric proof of life check conducted to prevent ghost workers and fraudulent practices in eCAF. Health worker must present in person with ID to Ministry of Public Affairs and Civil Service during their birth month.

Data Availability

- Reliance on payroll as data sources means that contract staff and CHWs are not included in the HRIS.

- Lack of visibility into private sector health workforce, despite legislation in place.

Data Quality and Use

- Data not always up to date, especially for specialization codes and deployment location.

- Data not always used because of conflicting political demands.

- Data not entered in a timely way, impacting quality and usefulness.

Systems and Tools

- Many administrative functions and reports conducted manually, resulting in delays.

- Lack of data checks and standardized validation results in data quality issues.

Human Capability

- Professional councils led by volunteers.

- Despite good functionality, users do not engage with the system due to low digital literacy.