Facilitators

Evidences

Challenges

Lessons Learned

Accelerating the achievement of health equity goals through a one record per citizen electronic medical record system in Eswatini

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Context

Eswatini’s healthcare system has evolved to overcome multiple challenges that lead to inequity. Among the challenges are fragmented and incomplete data coordination among healthcare workers, limited access to medical information, slowed service delivery, and data collection.

The Kingdom of Eswatini has implemented an electronic medical record (EMR) system, the Client Management Information System (CMIS), to address these challenges. Health disparities make optimal health difficult. Healthcare disparities have been reduced through CMIS implementations of one record per citizen.

Health equity was enhanced by implementing CMIS across the Eswatini health systems and making it accessible across all facilities. CMIS has been implemented in rural and urban health facilities with support from the United States Agency for International Development (USAID), the World Bank, and Global Fund to Fight AIDS, Tuberculosis and Malaria. As a result of maintaining one record for every citizen across the continuum of care, the government has improved healthcare delivery and ensured equitable health status among citizens.

Activity Description

The Ministry of Health’s Management Information System (MIS) unit chose to develop a customized solution because it allowed them to tailor CMIS to the Eswatini population’s needs and challenges. This ensures a more targeted approach. As a result, the system has functionality, security, and privacy measures have been improved, to ensure that information is protected. A pivotal role was played by the Global Fund in procuring hardware and other infrastructure that enabled the system.

The CMS project team consists of Ministry of Health (MoH) and Data.FI project experts with expertise in software development, networking, data use, and analysis. A data-centered project approach was used to develop the CMS software using agile methodologies. Based on stakeholder input and program needs, a monthly sprint software development cycle was used. Health equity goals were accelerated in two years through repeated health information exchange, so integrated laboratory diagnostic systems, deduplication algorithms for other systems’ data sources, and comprehensive data collection beyond HIV to include non-communicable diseases (NCDs), key populations, communities, vaccinations, HIV, stock management, and prescriptions.

There is a national population registry interface that enables the system to address the health needs of all citizens and non-citizens in the country. Close collaboration between the MoH and the Ministry of Home Affairs enabled this integration. A secure registration process can be achieved by retrieving and retrieving demographic information from any citizen or non-citizen with a national personal identification number (PIN).

Health care innovations adopted by the system include SMS reminders for appointments and communication with patients. Based on the availability of equipment, the system was implemented in additional rural and urban health facilities. The deployment allowed them to tailor CMIS to the Eswatini population’s needs and challenges. This ensures a more targeted approach. As a result, the system has functionality, security, and privacy measures have been improved, to ensure that information is protected.

By targeting health disparities, marginalized populations will receive the support and resources they need to improve their health. The upgrade of the CMIS has enabled patient-focused care for key populations. Additionally, healthcare providers have the tools to advocate for their health needs, leading to a more equitable healthcare environment.

With microwaves and APNs, the technology was able to overcome infrastructure limitations and connect all healthcare facilities, bringing contextually supported equitable health by facilitating real-time data sharing between frontline healthcare workers, providing timely and efficient care, and supporting collaborative decision-making.

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Challenges

- The lack of governance led to proliferation of disparate electronic tools and systems in healthcare.

Lessons Learned

- In order to implement health information systems, strengthening the Health Information Systems Coordinating Committee (HISCC) is essential. Roles and responsibilities must be clarified, as well as decision-making authority. Participation from diverse stakeholders promotes collaboration and buy-in.
- Support from USAID facilitated the transition to digital health systems and drove implementation.
- A pivotal role was played by the Global Fund in procuring hardware and other infrastructure that enabled the system to function across the country.

Data extraction performed by 2024 Data for Acceleration (DFA) for a Service Agreement Funded by the U.S. Agency for International Development and implemented by USAID, the Global Fund, and the World Bank.

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