



Finding common threads in the interoperability journeys of Burkina Faso, Ghana, Indonesia, and Madagascar

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Major Takeaways

Despite variations in each country's health systems key levers to interoperable health information systems include government leadership and good governance of those systems.



Introduction

- Interoperability is the ability of different systems to access, exchange, integrate, and use data coordinated through shared application interfaces and standards within and across organizational, regional, and national boundaries to provide timely and seamless information portability and optimize health outcomes.
- Interoperable systems can provide many benefits including reduce time spent on manual processes, enable a continuum of care and provide enhanced surveillance opportunities
- Interoperability varies by country and context but there are common elements of every interoperability journey as evidenced by implementation in Country Health Information Systems and Data Use (CHISU) program countries: Indonesia, Burkina Faso, Ghana, and Madagascar.

Results

- **Key challenges:**
 - Lack of standards and guidelines to enforce exchange standards
 - Complexity of maintaining system-to-system connections
- **Success factors:**
 - Burkina Faso - Establishing common interoperability layer (Zato Mediator)
 - Ghana - Government leadership, establishing a single HMIS (DHIS2)
 - Indonesia - Government regulation penalizing health facilities that do not connect, establishing common interoperability layer for health (OpenHIM Mediator)
 - Madagascar - Utilizing an eGovernment framework (X-roads), providing clear developer guidelines

Conclusion

There is no one straight-line approach to achieving interoperability—but there are common threads and practices that can lead to success. These include political leadership, health information systems governance, an architectural approach that utilizes an interoperability layer, regulation and the foundation of an e-Government enterprise architecture.

Methods

- This analysis is based on several years of implementation of the CHISU program across diverse country health information systems, each representing unique challenges and solutions
- In three of the four countries, the Health Information Systems (HIS) Stages of Continuous Improvement (SOCI) model was leveraged as means of assessing gaps in the HIS and specifically the interoperability component. In Indonesia, the SOCI was adapted to a local version called a Digital Maturity Index, which is now performed annually

Indonesia Digital Maturity Index Assessment Results

