Strengthening Public Health through DHIS2

Lauro Vives, WHO HIS and Digital Health Advisor

May 3, 2024

Disclaimer: The following slides are produced solely for the purposes of informing operations. As investigations are ongoing, all data are subject to verification and change. Most of the data sources are noted within the slides.



Agenda

- Introductions to DHIS2
- Alignment with Data Governance Principles
- Impact on Public Health Decision Making
- Interoperability and Systems Integration
- Future Directions of DHIS2 and Digital Health
- Discussion



Introductions to DHIS2

- Implemented through 2010 to 2015 to replace MS-Access.
- An open-source system used in middle-income countries (mostly in Africa, Solomon Islands, Tonga, and Vanuatu in the Pacific).
- It has evolved from what was to be an all-inclusive health information system (including clinical), to being solely focused on public health.
- Major technical upgrade completed in December 2023, including
 - O expanding data collection to align with various vertical program (e.g., maternal child health, malaria, etc.)
 - O standardization of hospital data across 6 hospitals
 - O strengthening monthly routine reporting across 225 health facilities (i.e. health centers, dispensaries, and aid posts)
 - O adoption of standard population denominators
 - O management of health programs at both health zone and area council levels
- Currently hosted offshore, but to be repatriated and hosted at OGCIO by October 31, 2024.



Alignment with Data Governance Principles

- Only source of truth for public health data.
- Data anonymized and aggregated.
- Gender disaggregated and inclusive (in some programs).
- More than doubled improvement in reporting rate and coverage since prior years for better accuracy and timely reporting.
- Continuing collaboration and data exchange with other government agencies (e.g., VNSO, Internal Affairs, Education, Justice and Community Services, etc.)

... but now the need for digital integration.



Impact on Public Health Decision-Making

- Routine monthly health facility reporting to monitor health services and interventions
- Master Health Facilities
- Monitoring and surveillance of disease outbreaks and epidemics
- Maternal and child health monitoring and reporting
- Immunization monitoring and reporting
- Leprosy, TB, Neglected Tropical Diseases monitoring and reporting
- Hospital services reporting



Interoperability and System Integration

• Current project

- Integration with Go.Data outbreak investigation to automate data aggregation for public health reporting (COVID-19, measles, leptospirosis, yaws, TB, and leprosy)
- Integration with Microsoft PowerBI for improved data visualization and dashboards
- Future integration plans
 - Integration with Heartcare NCD management system (2025)
 - Integration with Cancer Registry (2025)
 - Integration of vital events to national civil registry (CRIM) (2025)
 - Integration with National Electronic Health Record System (2026 2027)

The National ID is the "golden thread" to government systems integration and achieving Universal Health Coverage



Future Directions of DHIS2 and Digital Health

- DHIS2:
 - Pilot mobile tablets in rural health facilities to automate reporting (2024)
 - Implementation of a national immunization registry (2024 2025)
 - One Health approach to leptospirosis (2024 2025)
 - Implementation of Community and Outreach module (2025)
- Completion of Vanuatu Digital Health Strategy 2025 2029
- Legal adoption of National ID as the National Health Number
- Strengthening legal infrastructure through Health Information Policy or Act



Tenkiu Tumas