



Vaccine Preventable Disease Surveillance systems in Congo

Assessment of the implementation and use of VPD surveillance systems in Africa.

July 2025

KEY FINDINGS

- VPD systems in use: Epi-Info
- Dual entry on paper-based and digital tools
- Case-based surveillance

Analysis Overview

The survey of Congo's vaccine-preventable disease (VPD) surveillance system reveals a program with strong foundational elements but significant capacity and infrastructure limitations. A dedicated national focal point oversees surveillance activities, supported by a dual-entry system using both paper-based and digital tools. Data is reported weekly to the national level and shared with the WHO AFRO regional system, aligned with standardized indicators. The country has a formal governance framework, a national digital health strategy, and a costed work plan, with funding sourced from both national and international partners.

Nonetheless, operational challenges are substantial. There is no dedicated funding for system maintenance, connectivity, or hardware, and the Ministry of Health lacks the technical personnel and tools needed to monitor performance, manage backups, or address system failures. Training efforts are insufficient, and there is no metadata dictionary to ensure standardized data use. Infrastructure disparities between rural and urban areas further constrain data reporting, with rural regions facing severe limitations in power, internet, and staffing.

These constraints directly impact system performance at the facility level. No sites currently use computers or mobile devices for data entry, and end users are not provided with the necessary tools or connectivity. The technical workforce is under-trained and under-resourced, hindering routine system upkeep and integration efforts with other health systems.

While the system integrates with the WHO AFRO platform, broader interoperability is limited, and existing national frameworks are not fully implemented. Despite these gaps, stakeholders expressed moderate satisfaction with the system and emphasized a long-term goal of achieving national ownership. Realizing this vision will require sustained investment in infrastructure, technical capacity, interoperability, and governance to ensure the system's resilience and effectiveness.

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| Foundational | Developing | Established | Not Applicable or No Data |
|--------------|------------|-------------|---------------------------|
|--------------|------------|-------------|---------------------------|

| Domain/Theme | Sub-domain | Maturity Level |
|------------------------------------|--------------------------------------------|----------------|
| Governance and Strategic Alignment | Existence of a formal governing body | 2 |
| | Existence of a Digital Health Strategy | 2 |
| | Sustainable funding | 2 |
| | Equity infrastructure | 1 |
| | Equity policies (rural/urban) | 2 |
| | Submission to WHO AFRO regional system | 2 |
| Workforce/Technical Capacity | Dedicated VPD surveillance officer | 2 |
| | Admin/monitoring team in place | 0 |
| | Availability of monitoring tools/SOPs | 0 |
| | Software maintenance team in place | 0 |
| | Integration/interoperability tech capacity | 0 |
| End-user Readiness | End-user satisfaction | 0 |
| | End-user training | 0 |
| Infrastructure Readiness | Availability of computers | 0 |
| | Mobile devices and mobile data access | 0 |
| | Stable power/internet infrastructure | 0 |
| | Capacity to maintain infrastructure | 0 |
| | Infrastructure disparities | 1 |
| System Lifecycle and Localization | Length of time system has been in use | 2 |
| | Multilingual software maturity | |
| | VPD surveillance system transition | 0 |
| | User support during system transition | 0 |

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|---------------------------------|--------------------------------------------------|----------------|
| Interoperability | Integration with WHO AFRO system | 2 |
| | Integration with national HIS | 0 |
| | Interoperability standards use (FHIR, ADX) | 0 |
| | Existence of national interoperability framework | 1 |
| Data Standards and Data Quality | Metadata dictionary | 0 |
| | Org units structure | 2 |
| | Compliance with WHO AFRO standardized indicators | 2 |
| | Data quality governance | 1 |
| | Data entry/management training | 0 |
| Data Use and Reporting | Data reporting needs | 2 |
| | Data sharing practices | 2 |
| | Timeliness and quality of CBS data | 2 |
| | Timeliness and quality of aggregate data | |
| | Case-based data security compliance | 2 |

Use and limitations of the maturity model

The maturity model provides a framework for identifying strengths and gaps in Congo's VPD surveillance system. It covers key domains like governance, data quality, and infrastructure. However, it simplifies complex realities and may overlook regional variation or the interplay between paper based and digital tools. Results should be interpreted with field insights and stakeholder input.