Vaccine Preventable Disease Surveillance systems in **Burundi**

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

July 2025

KEY FINDINGS

- VPD systems in use: eSurv, Epi-Info and DHIS2
- Dual entry on paper-based and digital tools
- Case-based surveillance and aggregated data systems

Analysis Overview

Based on the available data from the survey, several insights emerge regarding the maturity and functionality of the digital systems in place. Burundi currently uses 3 systems - eSurv, Epi Info and DHIS2 - and is currently in the process of digitalizing paper-based systems.

Data Use and Reporting scored relatively highly, which suggests that Burundi has well-developed mechanisms for using collected data effectively, indicating that data from VPD surveillance systems is actively analyzed and reported in ways that inform decision-making and public health action, and VPD surveillance data is reported to the WHO AFRO regional system. . However, there are known timeliness and data quality issues related to CBS data, and data quality issues related to the aggregated data, which impacts the utility and actual use of surveillance data for planning and response.

End-User Readiness indicates that whilst user satisfaction is high, overall satisfaction is less so. However, other important domains such as Governance and Strategic Alignment, System Lifecycle and Localization, and Workforce/Technical Capacity reflect foundational to developing stages in areas such as leadership structures, system maintenance, and the availability of enough skilled and trained personnel to effectively support these systems.

Areas in most need of development include Infrastructure Readiness and Interoperability and Data Standards and Quality. These low scores indicate that Burundi faces significant challenges in ensuring the necessary technological foundation (stable internet access and power supply), aligning systems to exchange data effectively, and implementing consistent data standards—critical elements for a resilient and integrated disease surveillance system. Strengthening these domains will be essential for the country to achieve more robust, integrated, and responsive surveillance for vaccine-preventable diseases to drive towards the country's vision of having high-speed reliable internet and data systems that can make effective of use of artificial intelligence tools.

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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	0
	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	1
	Integration/interoperability tech capacity	0
End-user Readiness	End-user satisfaction	2
	End-user training	2
Infrastructure Readiness	Availability of computers	0
	Mobile devices and mobile data access	2
	Stable power/internet infrastructure	1
	Capacity to maintain infrastructure	1
	Infrastructure disparities	0
System Lifecycle and Localization	Length of time system has been in use	2
	Multilingual software maturity	2
	VPD surveillance system transition	
	User support during system transition	0

DIGITAL HEALTH SYSTEMS TO SUPPORT VPD CURVEILLANCE IN **BURUNDI**

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Foundational	Developing	Established	Not Applicable or No Data

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

Use and limitations of the maturity model

The maturity model provides a framework for identifying strengths and gaps in Burundi'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.

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