



# Vaccine Preventable Disease Surveillance systems in Zambia

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

July 2025

## KEY FINDINGS

- VPD systems in use: Epi-Info transitioning to DHIS2
- Dual entry on paper-based and digital tools
- Case-based surveillance

## Analysis Overview

Zambia has a functional and mostly well-supported digital surveillance system for vaccine-preventable diseases (VPDs), with one digital system currently in use – DHIS2 - and a dedicated national-level manager overseeing its implementation. Surveillance data is reported weekly and shared with the WHO AFRO regional system, and reporting timeliness appears consistent. Governance structures are in place, with a formal governing body and alignment with a national digital health strategy. Funding is relatively robust, drawing from national budget lines and multiple donors, and specific budgets exist for software maintenance, infrastructure, and system improvements. The Ministry of Health (MOH) technical team is responsible for system management and performance monitoring.

Staff levels at the national level are reported to be sufficient, although disparities exist in staffing between rural and urban facilities. While rural and urban sites show parity in access to the surveillance system and use of mobile devices for data entry is absent, the majority of users rely on computers despite low availability (4% of sites use them). Infrastructure disparities in power and internet connectivity still exist and affect timely data submission. Data quality and timeliness issues persist, particularly within case-based surveillance (CBS), and there is a lack of routine training and evaluation for data quality management staff.

Despite high-level satisfaction with the system, Zambia's VPD surveillance still faces gaps in integration, interoperability, and capacity building. There is no integration with WHO AFRO systems or other national health systems beyond one internal platform, and the country lacks interoperability standards or frameworks. Additionally, training needs for MOH teams managing integrations are not routinely assessed or addressed. While some progress has been made, the long-term goal is to develop a more robust, integrated system that ensures sustained immunization coverage and rapid outbreak detection and response. Zambia was selected for the deep dive assessment due to the country's promising digital infrastructure, reported use of multiple surveillance platforms, and its strategic importance in representing mid-maturity contexts. For more information, please read the final report.

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Foundational	Developing	Established	Not Applicable or No Data
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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	2
	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	2
	Availability of monitoring tools/SOPs	2
	Software maintenance team in place	
	Integration/interoperability tech capacity	0
End-user Readiness	End-user satisfaction	2
	End-user training	1
Infrastructure Readiness	Availability of computers	0
	Mobile devices and mobile data access	1
	Stable power/internet infrastructure	1
	Capacity to maintain infrastructure	1
	Infrastructure disparities	2
System Lifecycle and Localization	Length of time system has been in use	2
	Multilingual software maturity	2
	VPD surveillance system transition	0
	User support during system transition	0

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Foundational	Developing	Established	Not Applicable or No Data
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Domain/Theme	Sub-domain	Maturity Level
Interoperability	Integration with WHO AFRO system	0
	Integration with national HIS	1
	Interoperability standards use (FHIR, ADX)	0
	Existence of national interoperability framework	0
Data Standards and Data Quality	Metadata dictionary	2
	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	1
	Timeliness and quality of CBS data	0
	Timeliness and quality of aggregate data	2
	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 Zambia'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.