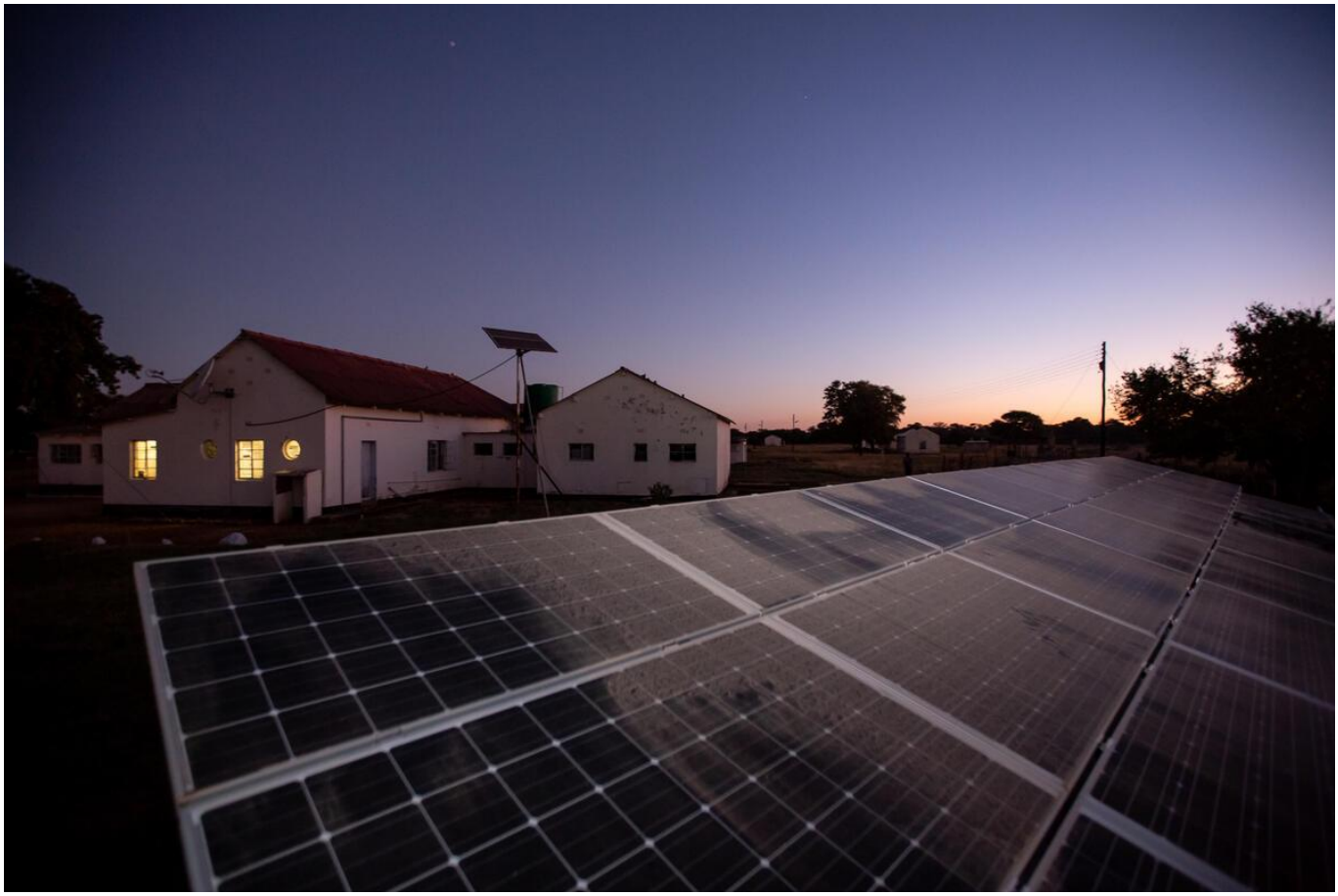
THE GLOBAL FUND

Zimbabwe

Digital Health Case Study August 2025



Solar panels at Sipepa Rural Hospital in Bulawayo, Zimbabwe ensure the clinic can function adequately at night.

UNDP/Karin Shermbrucker

Digital Health in Zimbabwe

The Global Fund has funded Zimbabwe health programs since 2003 in the total amount of US$2.8 billion. Since 2014, over US$43.1 million has gone toward digital health investments in Zimbabwe's HIV, TB, malaria, health and community systems.[1]

In 2023, Zimbabwe used Global Fund investments to support:

- 1.23 million people on HIV antiretrovirals (ART).
- The treatment of 20,000 cases of tuberculosis (TB).
- The distribution of 870,000 mosquito nets to prevent malaria.

The ability to provide data on these impactful interventions is largely made possible by the country's evolving digital health investments.

While the digital health investments are a small part of Global Fund financing in Zimbabwe, many of the systems thath help deliver these program results are enabled through digital health investments – from providing health facilities with electrical power and internet to digitally enabling diagnostic systems for patient-centered longitudinal care via digital patient data systems that can easily exchange data across locations and other systems. Digital health investments offer significant impact for the patients who rely on facilities at the "last mile" and are often disadvantaged by the lack of electrical power, internet and health system linkages.

Zimbabwe is undergoing a comprehensive digital transformation of its health system, driven by national commitment, strategic investment, and support from international partners including the Global Fund.

For the Global Fund's 2023-2025 grant cycle, Zimbabwe is a priority country in the Digital Health Impact Accelerator, a Catalytic Fund that runs parallel to dedicated HIV, TB and malaria grants. [2] Zimbabwe has prioritized the foundational strategic planning and digital infrastructure, including health facility solar power and internet connectivity, that are a critical base for impactful digital health investments. Focusing on interoperable patient level medical record systems, the Digital Health Impact Accelerator is putting Zimbabwe on a path toward digital maturity that provides an opportunity for using AI in public health decision support, predictive analytics for disease outbreaks, and workflow automation.

[1] This tally includes:

- US$9.85 million out of US$508.75 million during the 2024-2026 grant cycle.
- US$26.62 million of US$667.21 million total during the 2020-2022 grant cycle.
- US$6.63 million of US$509.05 million total during the 2017-2019 grant cycle.

[2] The Digital Health Impact Accelerator is supported by the Global Fund through donations from Anglo American, the Patrick J. McGovern Foundation, Medtronic LABS, Dimagi, Medic, Orange and Zenysis.

HIV prevention

Zimbabwe expanded its HIV prevention services outreach between 2017 and 2023 by over 50% among adolescent girls and young women and by over 135% among other key populations.

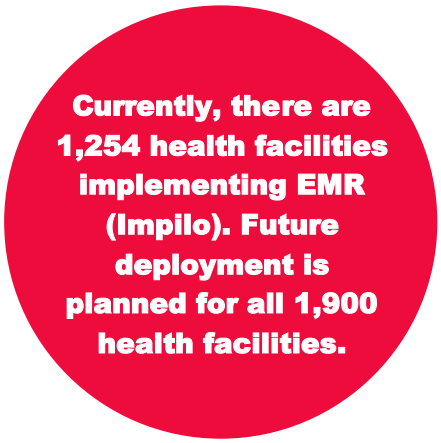
With support from the Global Fund, Zimbabwe National AIDS Council uses DHIS2 Tracker to implement a national digital system to track HIV risk, referrals, services and outcomes of priority populations of HIV prevention responses, such as adolescent girls, young women and key populations. This system builds on Zimbabwe's long-standing use of DHIS2, while contributing new features to the global DHIS2 platform, helping other countries improve their HIV programs.

To support the digitized prevention program, Global Fund grants have supported the distribution of over 5,900 mobile devices to community level.

Patient-centered longitudinal care

Patient-centered longitudinal care can be greatly enhanced through the use of **electronic medical records (EMRs)** that compile patient data for clinicians to see a full picture of a patient's health journey. EMRs improve continuity and coordination across health care providers and locations, particularly for patients with diseases that require complex and extended treatment, such as HIV and TB, as well as for highly mobile populations.

Since February 2015, the Government of Zimbabwe has engaged in the development of a national EMR system, culminating in the current, locally called Impilo (meaning "life" or "health" in Ndebele). The overall goal of the Impilo system is to ensure the highest quality of health service delivery through a standards-based, interoperable, patient-centric system that assists in patient care and management. Through this system, Impilo aims to improve the quality of care in public health facilities, reduce the burden of paper data collection for health care workers, manage patient-level data and generate key indicator reports for managing health programs.



The development of a health information exchange is also underway to connect laboratories, logistics information management systems and DHIS2 to Impilo, further enhancing patient care.

What difference do power and internet connectivity make for a health facility?

Power for a health facility means it has access to:

- Essential medical devices, including more possibilities for oxygen and refrigerators for cold chain commodities, such as vaccines.
- Advanced devices like GeneXpert machines for diagnostics.
- Lights for at-night patient emergencies and health worker safety and security.
- Internet.

Internet for a health facility means it has access to:

- Expanding human resource capacity, including via remote training.
- Improved planning and management of human resources for health.
- Telemedicine to supplement specialty gaps.
- Digitized data systems for faster surveillance, more patient-centered care and use of linked lab diagnostics.
- Modern supply chain and commodity management via digital systems to manage inventory and prevent stock-outs.
- Better community health care, including linkages between community and primary health care facilities.

The **power and internet connectivity** of health care facilities are huge factors in the quality of patient-centered care. According to the World Bank's *Zimbabwe Economic Update*, power shortages have cost the country an estimated 6.1% of GDP annually. Power outages also undermine the functioning of medical equipment, digital systems, and basic health services, particularly in rural areas. Without power, health facilities cannot operate essential medical devices, store and use commodities like vaccines that rely on cold storage across the supply chain, set up an internet connection or even turn on lights, which are critical for health worker safety and retention.

The Global Fund has invested over US$28 million into Zimbabwe's solar energy systems as part of the Solar for Health program, including solar installation at the national warehouse of the National Pharmaceutical Company. The Solar for Health initiative has equipped over 1,000 health facilities with solar power systems, covering more than 60% of all health facilities. The Global Fund is currently investing in additional internet connectivity for rural health facilities in Zimbabwe as well. These investments are dramatically improving energy and internet access, enabling continuous service delivery and uninterrupted operation of cold chains, laboratories, and digital data systems.

Spotlight: Solar for Health

The Global Fund-financed Solar for Health initiative exemplifies how infrastructure and digital transformation go hand-in-hand. It addresses the core challenge of unreliable electricity in Zimbabwe, especially in rural and underserved areas. Key achievements include:

- 1,044 health facilities solarized, reaching all ten provinces.
- 11 megawatts of cumulative capacity installed.
- CO2 emissions reduced by 405,158 tons over the system lifecycle.
- Cold chain reliability significantly improved.
- Estimated electricity cost reductions of up to 60% for powered facilities.
- Significant reduction in power outages, enabling uninterrupted service delivery.

In addition to hardware installation, the project includes capacity building for health workers and maintenance teams, with technical support from UNDP and local authorities.

Digital data systems for labs, commodities, and program quality

For diseases like TB and HIV, diagnosis does not rely on a health care provider's observation of symptoms alone but relies heavily on **laboratories** to test patient samples. The Global Fund provides funding for labs to process samples using the most evidence-based methods, many of which are now digitally enabled or analyzed, including through artificial intelligence (AI), such as in the case of computer-aided diagnosis of TB. An important consideration is also how labs then communicate test results back to providers and patients. These communication systems are also increasingly digitized. Zimbabwe is adding interoperability across the lab information system, lab analyzers, eSample transport system, and Impilo.

Getting **commodities** – such as insecticide-treated nets, condoms and medicines – to pharmacies, health facilities and communities across Zimbabwe in the right numbers is no easy feat. The system to do so must be efficient and lean, incorporating forecasting and reducing wastage. Zimbabwe uses Global Fund financing for its digital supply chain systems, including its logistics management and information system and warehouse management system.

The Government of Zimbabwe and partners have strengthened the **national health management information system** for routine reporting of key health metrics, including for HIV, TB and malaria, and the Global Fund financing supports data analysis and capacity building at sub-national levels too. These investments result in the ability of high-quality data to be used in programmatic decision making at both national and sub-national levels.

Governance, standards, and interoperability

The **Zimbabwe Digital Health Strategy 2021-2025** outlines a vision for integrated, interoperable, and patient-centered digital health systems. Zimbabwe's Strategy is anchored in global best practices and aligns with WHO guidelines on national digital health.

Interoperability – a key pillar of digital health transformation that enables different health systems to exchange information securely, reliably and in real time – is being expanded through the development of a **national health information exchange platform**, with Global Fund support. The Global Fund support also enabled the development of a national **Digital Health Architecture Blueprint,** a tool to help countries move from high-level strategy to the detailed design and operationalization of their interoperability architecture, with a focus on modular design that can be built and adapted over time. Another critical part of interoperability efforts is Zimbabwe's adoption of the **Health Level Seven Fast Healthcare Interoperability Resources (HL7 FHIR)** standard, an internationally recognized framework that defines how health data should be structured and shared across different digital systems. Global Fund support is facilitating adoption of this standard into the existing Impilo system.

Together, these efforts will enable core health systems – including the electronic health records, laboratory systems, and supply chain platforms – to communicate with one another using shared data formats and protocols. These technical building blocks are reinforced by a focus on improving the foundational digital health physical infrastructure, governance and strategy – positioning Zimbabwe to deliver more connected, patient-centered care while strengthening national health system integration and resilience.

AI

In 2024, Zimbabwe launched its official **AI Policy** which outlines a strong level of ambition and sets the stage for robust health-specific AI applications in the future. Given the progress in the country’s power and connectivity systems, EMRs, use of digital tools by community health workers and digitized data, the stage is set to support the country’s introduction of AI tools.