

Spotlight on Nigeria

Digital health's catalytic effect on Nigeria's malaria elimination efforts

Progress has been made in Nigeria to reduce the burden of malaria. To fully eliminate the disease, the country needs an integrated, digitally enabled health system capable of providing efficient, affordable, and accessible care.

Malaria epidemiology in Nigeria

Among all malaria cases in the world, three out of ten infections begin in Nigeria. The country tops the list of the 29 countries that account for 96 percent of malaria cases globally.¹ Furthermore:

- Nigeria accounts for 32 percent of global malaria deaths.¹
- One in four children in Nigeria under five years of age tests positive for malaria parasites.²
- 97 percent of all people in Nigeria are at risk for malaria.³
- Pregnant women and children are the most at-risk, with the highest prevalence of malaria in children aged six months to four years recorded in Kebbi State (52 percent) and the lowest in Lagos State (1.8 percent).²

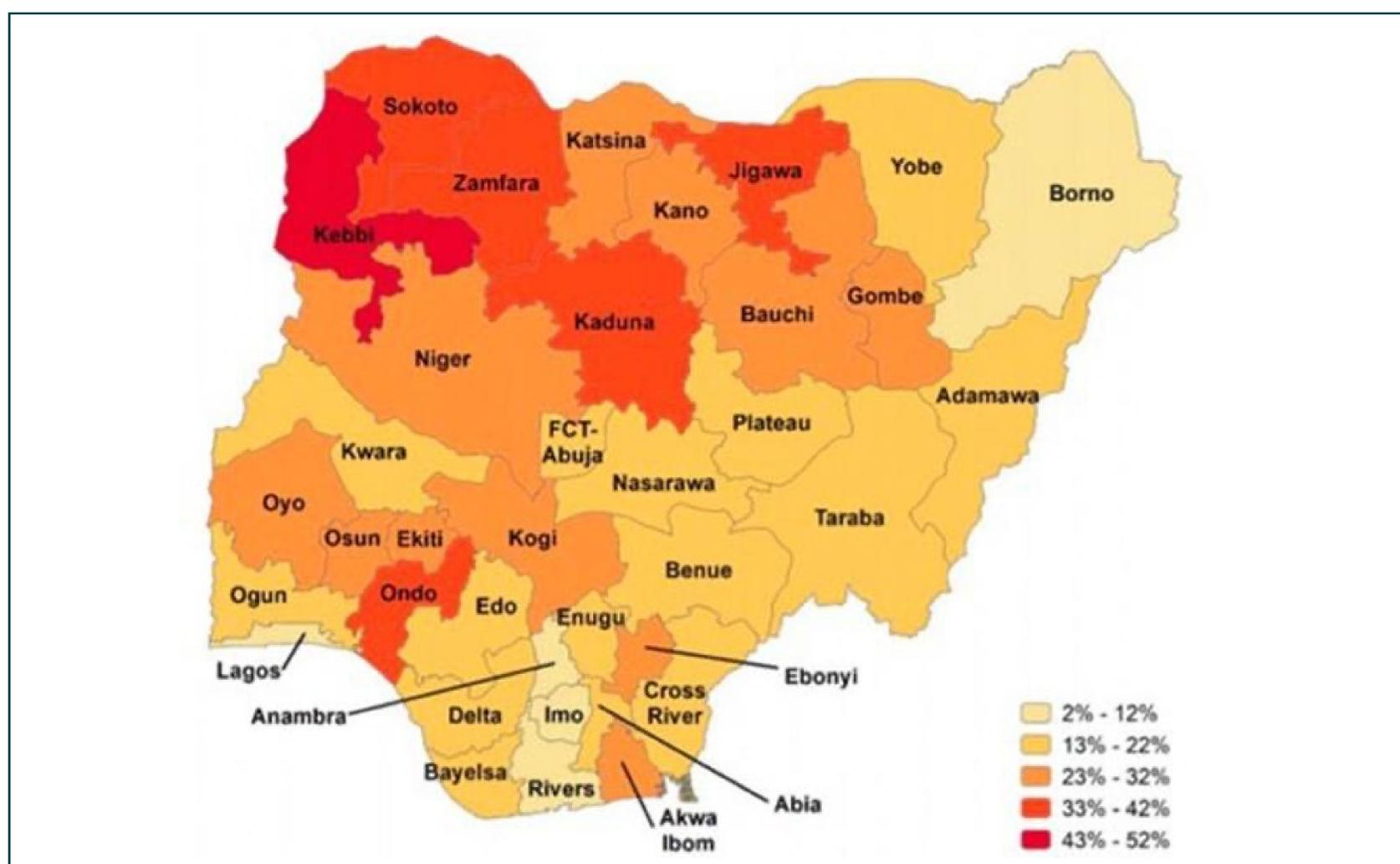


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The National Malaria Elimination Programme (NMEP) leads Nigeria’s efforts towards reducing the burden of the disease. Variations in the prevalence of malaria across states led the NMEP, with technical assistance from the World Health Organization (WHO), to stratify the country into different epidemiological zones. This delineation enabled Roll Back Malaria partners and malaria experts to develop context-specific strategic approaches to prevent and treat malaria in each of the zones.

Figure 1. Prevalence of malaria in Nigerian states, measured by the percentage of children 6 to 59 months of age testing positive for malaria by microscopy/rapid diagnostic test



Source: Nigeria Demographic and Health Survey 2018²

How digital health can help fight malaria in Nigeria

Digital health solutions can help the government monitor cases, coordinate responses, and strengthen the capacity of health workers to deliver quality, timely, and efficient care. Nigeria's digital strategy offers the framework to implement digital interventions in a coordinated fashion.

The national stakeholders dialogue helped participants ideate on several mechanisms to employ so that digital health investments are aligned to improve national monitoring and evaluation systems and productivity, including the creation of a Digital Health Unit and the activation of a quarterly Digital Health Technical Committee.

Key message from the national stakeholders dialogue

Nigeria's National Malaria Strategic Plan, 2021–2025, prioritizes the need to "improve the generation of evidence for decision making and impact through reporting quality malaria data and information from at least 80% of health facilities and communities." One key priority of the National Malaria Strategic Plan is scaling up innovative³ approaches to data collection using a digital tool such as mobile technology. However, such efforts face challenges, including inadequate funding, insufficient human resources, multiple non-interoperable tools, and a lack of reliable and supportive infrastructure.

Digital Community Health Initiative: Digital Square/PSI

The U.S. President's Malaria Initiative (PMI) launched its [Digital Community Health Initiative \(DCHI\)](#) with a vision to strengthen quality health delivery at the community level. Led by USAID and co-implemented with the U.S. Centers for Disease Control and Prevention (CDC), this initiative aims to invest in the scale-up of digitally enabled community health platforms across 27 countries, including [Nigeria](#). DCHI is implemented by PATH's Digital Square initiative and its partners, including Populations Services International (PSI), John Snow Inc., and Last Mile Health. In Nigeria, PSI collaborated with government stakeholders to document digital community health tools available, data collection, and business processes to deliver malaria services by community health workers. The findings facilitated a national stakeholders dialogue in March 2021 for implementing partners and all levels of government agencies.

Through these conversations, the stakeholders collectively proposed opportunities and solutions to the challenges of digital health deployments and developed a roadmap. As a result, participants in the national stakeholders dialogue built consensus on gaps and priorities for future digital health investments in Nigeria.

Figure 2: Entities that participated in the national stakeholders dialogue



Impact of the support and learnings

The national technical dialogue among federal government departments and agencies, state-level government entities, and key digital health implementing partners highlighted the opportunities for improved coordination, definition and adherence to national standards, and better use of digital health tools. Through this dialogue, two key ideas emerged for engagement with partners. The FMOH created a Digital Health Unit as an avenue for partners to interface with the government and activated a Digital Health Technical Committee to create a quarterly opportunity for government-partner engagement. This dialogue also included an emphasis on the importance of high-quality data collection and the need to make decisions rooted in this data to mitigate malaria infections.

This dialogue led stakeholders to support the deployment of a single national tool, the District Health Information Software 2 (DHIS2)-based Community Health Management Information System (cHMIS), for data collection at the community level. In the past, government entities and partners have introduced multiple tools, leading to fragmented and inconsistent data collection. In Nigeria, government agencies and departments favored the approach of adopting “one national community health digital tool,” the cHMIS, to enable more consistent and standardized community-level data collection. As multiple government entities have overlapping responsibilities for managing community health data, PMI DCHI learned how valuable it was to engage all relevant government entities to ensure that they are aligned on digital health investments to help improve national reporting of quality malaria data and harmonize data collection.

"This U.S President's Malaria Initiative Digital Community Health prioritization workshop has brought to the table the need to urgently harmonize the (cHMIS) tool domiciled in the Department of Health Planning, Research, and Statistics and the Community Health Influencers, Promoters and Services (CHIPS) instance domiciled in the National Primary Health Care Development Agency."

- A Nigeria digital health stakeholder

Moving forward

Digital Square and PSI are currently collaborating with Nigeria's Federal Ministry of Health, the National Primary Health Care Development Agency, the United Nations Children's Fund, WHO, the USAID-funded Integrated Health Program, and other digital health partners to integrate case management digital data collection tools through a pilot of the cHMIS digital tool, which will allow community health workers to report patient-level data at the community level and aggregate these data at the facility or ward levels. Ultimately, the goal is for decision-makers at various levels to have timely, actionable data to catalyze Nigeria's efforts at malaria elimination and other disease control efforts and to support the efficient use of available resources.

References

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