

# Malaria tracker: The best bet for malaria elimination in Nigeria

R. C. Onah<sup>1</sup>, U. M. Obeta<sup>1,2\*</sup> and N. L. Obeta<sup>2</sup>

<sup>1</sup>Department of Public Administration and Local Government University of Nigeria Nsukka, Enugu State, Nigeria.

<sup>2</sup>Department of Medical Laboratory Management, Federal College of Medical Laboratory Science and Technology, Jos, Nigeria.

\*Corresponding author. Email: [uchejesoobeta@gmail.com](mailto:uchejesoobeta@gmail.com)

Copyright © 2024 Onah et al. This article remains permanently open access under the terms of the [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received 13th July 2024; Accepted 25th August 2024

Dear Editor,

Malaria is a significant public health burden in Nigeria, accounting for a substantial number of cases and deaths annually. Regrettably, the Malaria disease burden in line with the WHO (2023) report showed that there were 249 million cases of malaria in 2022 when compared to 244 million cases in 2021 and the number of malaria deaths stood at 608,000 in 2022 compared to 610 000 in 2021. It is highly appalling that among the list of four African countries that accounted for just over half of all malaria deaths worldwide, Nigeria is leading with the limited data provided at 26.8%, followed by the Democratic Republic of the Congo (12.3%), Uganda (5.1%) and Mozambique (4.2%) (WHO, 2023).

The health professionals, especially Medical Laboratory Scientists use various techniques and methods such as Microscopy (Thin and Thick film), Rapid Diagnostic Tests (RDTs), Immunological techniques, Immunochromatographic techniques, Fluorescence techniques and Polymerase chain reaction (PCR). Still, in the end, we are where we are as a nation when assessed. Also, many preventive strategies have been encouraged to avoid mosquito bites through the use of mosquito nets, the use of mosquito repellents (containing DEET, IR3535 or Icaridin), the use of coils and vaporisers and wearing of protective clothing or using of window screens. The vector control measures are in place including integrated vector management (IVM) being practised in other African countries but majorly insecticide-treated nets (ITNs) and indoor residual spraying (IRS) as encouraged in Nigeria. Chemoprophylaxis is on the increase among other nationals visiting Nigeria. At the same time, preventive chemotherapy includes perennial malaria chemoprevention (PMC), seasonal malaria chemoprevention (SMC), intermittent preventive treatment of malaria in pregnancy (IPTp) and school-aged children (IPTsc), post-discharge malaria chemoprevention (PDMC) and mass drug

administration (MDA) are encouraged in Nigeria as various forms of anti-malaria (WHO, 2023). We are on the verge of accepting the malaria vaccine but various efforts so far have not yielded tangible results in the past with all the international aid.

Nigeria has been part of all elimination strategies of WHO with several beautiful policies but lacking in the aspect of surveillance and this is where our opinion would rely on the need for new policy to drive the surveillance strategy through the use of malaria trackers in Nigeria just as we did it in COVID-19 era. Malaria tracker, an innovative digital surveillance system in the form of a dashboard or an application an instance of BETAMALAMETER or OBETMALNOTE respectively.

A malaria tracker is a computer application made with the aid of programs and software and is useful with the assistance of the Internet. The malaria tracker should be a lesson derived from the COVID-19 dashboards and trackers such as Presidential Taskforce Incidence and Response Tracker, NCDC Disease (COVID-19) Dashboard, Main NBS Dashboard, QCRI Lagos Mobility Dashboard, COVAX, WHO COVID-19 Dashboard, Worldometer and several others (Suleiman *et al.*, 2022; Obeta *et al.*, 2021).

The WHO is currently advocating for digital solutions for malaria surveillance and elimination. One such is leading by example by initiating the WHO Integrated Data Platform (WIDP) in 2016. This, however, has not been implemented in Nigeria. In consideration of the peculiarity of Nigeria, the Malaria Tracker is just the best. Knowing fully well that WHO gave each nation authority for the National Malaria Programme, Nigeria can do better if Sri Lanka could eliminate malaria using healthcare technology called GIS (Rajvanshi *et al.*, 2021) just as India is employing such technologies like T4 (Bharti *et al.*, 2020).

A simple mobile application compatible with Android

phones can do the magic for Nigeria. The authors are of the opinion that Nigeria in addition to several policies on paper, should as a matter of urgency come up with a Malaria Tracking Policy. The authors also propose that such a policy should mandate the Nigerian Centre for Disease Control (NCDC) and National Primary Healthcare Development Agency (NPHCDA) to collaborate in the implementation of this policy and be supervised by the Federal Ministry of Health (FMOH). The malaria tracker in our thinking should be domiciled at all primary health centres, and secondary and tertiary hospitals in Nigeria with central points at Local Governments, State Governments and Federal preferably NCDC. The weekly update as was done in COVID-19 would track malaria patients, endemic areas and preventive managements carried out by government agencies and partners.

In recalling all the global commitments by Nigeria in a bid to eliminate malaria, we join the African Health Ministers to declare an accelerated malaria mortality reduction in Nigeria with the aid of malaria tracker as another mobile e-surveillance tool for Nigeria using BETAMALAMETER or OBETMALNOTE.

The effort of the Federal Ministry of Health in Nigeria is appreciated but this is the time to adopt digital or e-solutions for malaria elimination. The e-2025 target is here while Nigeria is leading from the back on the malaria burden. Malaria tracking policy would change the narrative if accepted, legalized, implemented and monitored.

## CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

## REFERENCES

- Bharti, P. K., Rajvanshi, H., Nisar, S., Jayswar, H., Saha, K. B., Shukla, M. M., Mishra, A.K., Sharma, R.K., Das, A., Kaur, H., & Lal, A. A. (2020). Demonstration of indigenous malaria elimination through Track-Test-Treat-Track (T4) strategy in a malaria elimination demonstration project in Mandla, Madhya Pradesh. *Malaria Journal*, 19, Article number 339.
- Obeta, U. M., Ejinaka, O. R., Etukudoh, N. S., Ikeagwulonu, C. R., Agbo, E. C., & Jwanse, I. R. (2021). A study on coronavirus and Nigerian population; the realities with medical laboratory services. *Issues and Development in Health Research*, 2, 144-154.
- Rajvanshi, H., Bharti, P. K., Nisar, S., Jayswar, H., Mishra, A. K., Sharma, R. K., Saha, K.B., Shukla, M. M., Wattal, S. L., Das, A., & Lal, A. A. (2021). A model for malaria elimination based on learnings from the Malaria Elimination Demonstration Project, Mandla district, Madhya Pradesh. *Malaria Journal*, 20, Article number 98.
- Suleiman, M. M., Algeelani, N. A., Al Moayed, Y. A. A., Sariff, N. B., & Miaikil O. A. M. (2022). COVI: A Covid-19 Tracker Application. *International Journal of Computer Science and Information Technology Research*, 10(2), 111-120.
- WHO (2023). *World malaria report 2023*. Retrieved from <https://www.who.int/publications/i/item/9789240086173>.