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Malaria Crisis in Afghanistan: Urgent Action Needed to Combat the 45% Surge and Embrace Mosquirix Vaccination

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Letter to Editor

We are writing to highlight the pressing issue of malaria in Afghanistan, which is a significant public health challenge. Afghanistan currently ranks third globally in terms of its substantial malaria burden, with nearly 60% of the population residing in areas where the disease is endemic (1,2). Annually, approximately half a million malaria cases have been reported, and alarmingly, the number of cases has surged by 45% in 2022 compared to the previous year (3). The majority of these cases (90%) originated in four eastern provinces (Nangarhar, Laghman, Kunar, and Nuristan).

Inadequate attention to controlling Anopheles mosquitoes, the main malaria carriers, is a significant factor in the increasing number of cases in Afghanistan. Insufficient measures to address mosquito breeding, poor hygiene practices, and lack of clean water have worsened this issue. Additionally, limited access to healthcare services, particularly in remote areas, is another problem (4). This results in delayed diagnosis and treatment, leading to severe complications and even death. Armed conflicts and insecurity during the republic government hampered control efforts as healthcare workers could not reach many areas. Population displacement due to these circumstances also contributes to the spread of the disease. Although the new Taliban government in 2021 brought stability, the combined impact of COVID-19 and new regime sanctions still hindered Afghanistan's health care system.

The Ministry of Public Health (MoPH) collaborates with the World Health Organization and its partners to enhance malaria prevention and control in Afghanistan. Efforts have included the distribution of bed nets and effective drugs. Efforts have included distributing insecticide-treated bed nets and effective antimalarial drugs. The MoPH has also devised a National Malaria and Leishmaniasis Control Program that intends to eliminate the disease by 2030 (5). The plan emphasizes scaling up the bed net distribution, enhancing access to diagnostic tests and treatment, and strengthening surveillance and response systems. Existing strategies such as larvicides, indoor spraying, and Community-Based Malaria Management (CBMM) have shown promise; however, sustainable and cost-effective measures are needed. The CBMM strategy improves control indicators but faces challenges, such as overdiagnosis and mistreatment of malaria in febrile patients at the primary healthcare level (6,7).

The introduction of the RTS,S malaria vaccine, known as Mosquirix, has provided hope in the fight against malaria. This vaccine has been administered to 1.5 million children in moderate-to-high transmission areas as of April 2023, proving its efficacy against Plasmodium falciparum, the strain responsible for most malarial deaths worldwide (8,9). In Afghanistan, 95% of malaria cases are attributed to Plasmodium vivax, and 5% are caused by Plasmodium falciparum, emphasizing the importance of the vaccine's impact in the country (1).

In addition, increasing access to antimalarial drugs, raising awareness, and strengthening surveillance are crucial for comprehensive malaria control. To eliminate or reduce the number of cases, it is essential to strengthen the healthcare system, ensure the safety and security of healthcare workers, provide comprehensive financial support, and invest in training and capacity-building for medical staff. Improving laboratory services, promoting community engagement and education, and utilizing preventive measures such as insecticide-treated bed nets and appropriate antimalarial drug use are also vital. Collaborative efforts and sustained investments can reduce the burden of malaria and improve Afghan health.

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AR developed the concept, prepared the outlines, and wrote the first draft; SN contributed to the outlines, first draft, and edited the second draft; NS made critical revisions; and all authors reviewed and approved the final manuscript.

References

1. WHO. Malaria [Internet]. World Health Organization - Regional Office for the Eastern Mediterranean. [cited 2023 May 21]. Available from: http://www.emro.who.int/afg /programmes/malaria-leishmaniasis.html

2. ReliefWeb. World Malaria Day: A Malaria-Free Afghanistan - Afghanistan | ReliefWeb [Internet]. 2023 [cited 2023 May 21]. Available from: https://reliefweb.int/ report/afghanistan/world-malaria-day-malaria-free-afghanistan

3. WHO Afghanistan [@WHOAfghanistan]. Today is World Malaria Day. In Afghanistan, there were 125,788 malaria cases reported in 2022. [Internet]. Twitter. 2023 [cited 2023 May 28]. Available from: https://twitter.com/WHOAfghanistan/status/1650803939972108288

4. Siddiqui JA, Aamar H, Siddiqui A, Essar MY, Khalid MA, Mousavi SH. Malaria in Afghanistan: Challenges, efforts and recommendations. Ann Med Surg. 2022 Aug 17;81:104424.

5. Health M of P. Final NMLCP National ME Plan 2018-2022 [Internet]. 2019. Available from: https://moph.gov.af/sites/ default/files /2019-07/Final%20NMLCP% 20National% 20ME%20Plan%202018-2022%20%2824-JUL-2017%29.pdf

6. Leslie T, Mikhail A, Mayan I, Anwar M, Bakhtash S, Nader M, et al. Overdiagnosis and mistreatment of malaria among febrile patients at primary healthcare level in Afghanistan: observational study. The BMJ. 2012 Jul 24;345:e4389.

7. Mahmoodi SD, Atarud AA, Sediqi AW, Gallalee S, McFarland W, Aynie TB, et al. Trends in malaria indicators after scale-up of community-based malaria management in Afghanistan. Malar J. 2022 Jun 3;21:165.

8. Laurens MB. RTS,S/AS01 vaccine (Mosquirix™): an overview. Hum Vaccines Immunother. 2020 Mar 3;16(3):480–9.

9. Egbewande OM. The RTS,S malaria vaccine: Journey from conception to recommendation. Public Health Pract. 2022 Jun 17;4:100283.