
Global technical strategy and targets for malaria 2016–2030

Report by the Director-General

1. In May 2015, the Health Assembly adopted the global technical strategy for malaria 2016–2030,¹ a framework for all countries working to control and eliminate malaria. The strategy sets ambitious global targets for 2030, aligned with the Sustainable Development Goals, and milestones for measuring progress in 2020 and 2025. The 2030 targets include reducing malaria case incidence and mortality rates by at least 90% (compared with 2015 levels), eliminating malaria in at least 35 more endemic countries and preventing the re-establishment of malaria in all countries that were free of the disease in 2015.

2. In May 2021, the Health Assembly adopted the updated version of the strategy² that considered the changing malaria landscape, including the plateauing of progress and the disruptions caused by the pandemic of coronavirus disease (COVID-19), while recommitting to the global targets established in 2015. The updated strategy is more closely aligned with the United Nations priority of universal health coverage and re-emphasizes the need for sustainable, resilient health systems, a shift in decision-making authority to national programmes, and accelerated research and development.

GLOBAL TRENDS³

3. Widespread disruptions to malaria services during the COVID-19 pandemic drove up malaria cases and deaths at a time when progress against the disease had already stalled. There were an estimated 249 million malaria cases worldwide in 2022 (versus 233 million in 2019) and approximately 608 000 malaria deaths (576 000 in 2019).

4. The WHO African Region bears the heaviest malaria burden. In 2022, it accounted for an estimated 94% of all malaria cases and 95% of all malaria deaths globally. Between 2019 (pre-pandemic) and 2022, the estimated number of malaria cases in the African Region increased from 218 million to 233 million.

5. Progress towards the strategy's case incidence and mortality reduction targets is seriously off track. If the current trajectory persists, the 2030 target for reducing case incidence will be missed by 89%, while the target for reducing mortality rates will be missed by 88%.

¹ Resolution WHA68.2 (2015).

² Resolution WHA74.9 (2021).

³ All statistics drawn from World malaria report 2023. Geneva: World Health Organization; 2023 (<https://www.who.int/publications/i/item/9789240086173>, accessed 22 February 2024).

6. Despite global trends, a number of countries with a low malaria burden have been moving towards the goal of elimination. The strategy's 2025 elimination milestone¹ calls for eliminating malaria in at least 20 countries that were endemic in 2015; as of February 2024, 13 countries² were already reporting zero indigenous cases, and eight additional countries were on track to reach that milestone. Progress towards preventing the re-establishment of malaria is also on track: all 102 countries that had eliminated malaria by 2015 have remained malaria free.

THREATS TO MALARIA CONTROL

7. Malaria control has been undermined by fragile health systems. In many countries, a lack of resources has compromised the delivery of quality health services, including for malaria. Delays in malaria programme implementation and weak supply chains impede the availability of quality-assured products at the point of delivery, and there is often a chronic shortage of skilled health professionals.

8. These challenges are compounded by weak systems for surveillance, monitoring and evaluation. Such systems are critical to develop sound strategic plans, ensure resources are deployed and utilized efficiently and equitably, and measure the impact of interventions.

9. Inequity in access to essential health services is another major challenge to prevent, diagnose and treat malaria. Poor and marginalized populations are particularly vulnerable as they are more likely to become sick, less able to access quality services and hardest hit when they fall ill.

10. Uneven access to health services and insufficient funding for malaria commodities have led to significant gaps in coverage of WHO-recommended malaria control tools. In 2022, for example, only about half (56%) of young children and pregnant women in sub-Saharan Africa slept under an insecticide-treated net. Population growth can exacerbate the shortage of funding and contribute to suboptimal coverage of interventions in the countries most affected by malaria. About one third of febrile children under 5 years of age in sub-Saharan Africa were not taken to a health provider for care.

11. Progress against malaria has been threatened by a lack of robust, predictable and sustained financing at domestic and international level. In 2022, total malaria investments reached US\$ 4.1 billion – well below the strategy's funding target of US\$ 7.8 billion. In recent years, domestic funding from malaria-endemic countries has accounted for about one third of the global total.

12. Progress has also been undermined by humanitarian and health emergencies, including epidemics, conflicts and natural disasters. Between 2019 and 2022, 41 malaria-endemic countries suffered such emergencies (not including the COVID-19 pandemic), and many of them saw significant increases in malaria cases and deaths.

13. Biological threats such as drug and insecticide resistance are a serious concern. Partial resistance to artemisinin, the core compound of the most effective antimalarial medicines, has been confirmed in the Greater Mekong subregion and in four countries in Africa. Given the heavy reliance on artemisinin-based combination therapies in Africa, high treatment failure rates could have very serious

¹ To achieve the milestone, a country would need to report at least one year of zero indigenous cases of malaria by the end of 2025.

² Algeria, Azerbaijan, Belize, Bhutan, Cabo Verde, China, El Salvador, Malaysia, Saudi Arabia, Sri Lanka, Suriname, Tajikistan, Timor-Leste.

consequences. Meanwhile, mosquito resistance to pyrethroids, the most commonly used chemical in insecticide-treated nets, is rising globally.

14. The spread of *Anopheles stephensi*, a malaria vector that adapts easily to urban and man-made environments, poses an added challenge, particularly in Africa, where 40% of the population already lives in urban areas. *Anopheles stephensi* was originally native to South Asia and parts of the Arabian Peninsula but has been expanding its range over the last decade, with detections reported in eight African countries to date.¹

15. WHO's *World malaria report 2023* included, for the first time, a dedicated chapter on an additional threat: climate change. Climate variability is expected to affect the geographical range, intensity and seasonality of a number of vector-borne diseases, including malaria. It will have indirect effects on malaria burden in that, for example, it may reduce access to essential health services or disrupt the supply chain of insecticide-treated nets and medicines; it will have a broader impact through its effects on livelihoods, nutrition and security.

ACTIONS TAKEN TO COUNTER THREATS TO MALARIA CONTROL

16. In 2018, WHO and the RBM Partnership to End Malaria catalysed “High burden to high impact” to accelerate progress in 12 countries hardest hit by malaria. The approach is founded on four pillars: political will to reduce malaria deaths; strategic information to drive impact; better guidance, policies and strategies; and a coordinated national malaria response. These pillars are enabled through two platforms: functional national health systems and the adoption of a multisectoral approach. The benefits of this approach are not confined to the 12 countries; many other countries have been taking steps to use data more strategically to optimize interventions.

17. In November 2022, WHO launched a new strategy² to respond to antimalarial drug resistance in Africa. The strategy builds on lessons learned from past global plans and complements existing strategies, including broader efforts to respond to antimicrobial resistance. Vigorous measures are needed to protect drug efficacy in the African Region. In November 2023, WHO conducted a workshop in Uganda to support the most-affected countries in prioritizing activities to respond to this threat.

18. To address rising insecticide resistance, WHO recommends the use of dual active ingredient insecticide-treated nets, shown to provide greater protection against malaria than standard pyrethroid-only nets. The Organization issued updated guidelines for their use in March 2023. WHO's global database and the Malaria Threats Map³ offer detailed resistance data and track their evolution, to inform strategies for managing resistance in malaria vectors.

19. In 2022, WHO launched a new initiative to stop the spread of *Anopheles stephensi* in Africa and to support an effective regional response.⁴ The initiative has a five-pronged approach: increase collaboration; strengthen surveillance; improve information exchange; develop guidance; and prioritize research.

¹ Djibouti (2012), Ethiopia and Sudan (2016), Somalia (2019), Nigeria (2020), and Eritrea, Ghana and Kenya (2022)

² Strategy to respond to antimalarial drug resistance in Africa. Geneva: World Health Organization; 2022 (<https://iris.who.int/handle/10665/364531>, accessed 22 February 2024).

³ Available at <https://apps.who.int/malaria/maps/threats/> (accessed 22 February 2024).

⁴ Available at <https://www.who.int/publications/i/item/WHO-UCN-GMP-2022.06> (accessed on 22 February 2024).

20. In collaboration with the United Nations Human Settlements Programme (UN-Habitat), WHO published the *Global framework for the response to malaria in urban areas*,¹ to support city leaders, health programmers and urban planners to control and eliminate malaria.

21. The threat to progress on malaria must be seen within the broader paradigm of climate and health. WHO developed a series of proposals in its *World malaria report 2023* to help countries and their development partners detect, prepare for, respond to, and recover from short-term climate-related threats to malaria elimination as they address the longer-term impacts of climate change. In 2024, WHO will convene a virtual Technical Expert Group to review available evidence and establish a common position on the effects of climate on malaria.

22. To accelerate progress towards the goal of universal health coverage, WHO is working with countries to reorient health systems towards primary health care – an approach that can help deliver 90% of essential health services, including those for malaria, and save 60 million lives by 2030. Primary health care uses a whole-of-society approach to effectively organize and strengthen national health systems to bring services for health and well-being closer to communities.

OPPORTUNITIES TO ACCELERATE PROGRESS AGAINST MALARIA

23. Subnational tailoring of malaria interventions, one of four pillars of the “High burden to high impact” approach, utilizes local data to guide the selection of the most appropriate mix of interventions in a given context to achieve maximum impact. Between 2018 and 2023, WHO helped more than 30 countries make strategic use of data for decision-making and subnational tailoring. In 2024, the Organization will publish new guidance to help countries prioritize malaria interventions and maximize their impact in resource-constrained settings. Building on this guidance, WHO will publish a manual that provides an overview of key concepts and procedures underpinning the subnational tailoring of malaria interventions for decision-making.

24. In March 2024, WHO organized the Malaria Ministerial Conference in Yaoundé, Cameroon, to strengthen political and financial commitments among African Ministers of Health representing countries with a high burden of malaria. The Ministers signed a declaration² pledging to end malaria deaths in their respective countries and committed to strengthening national health systems, bridging financing gaps, building collaborative partnerships, and mobilizing multisectoral, whole-of-society action against malaria. Among other measures, they endorsed the need for an accountability mechanism to track the commitments outlined in the declaration.

25. In 2021, WHO recommended the RTS,S AS01 vaccine to prevent malaria among children living in regions with moderate to high *P. falciparum* malaria transmission. More than 2 million children received at least one dose of the vaccine through the WHO-coordinated malaria vaccine implementation programme in Ghana, Kenya and Malawi between 2019 and 2023. A rigorous evaluation showed a substantial reduction in severe malaria and a 13% drop in early childhood deaths in the areas where RTS,S was administered. A broader roll-out of the vaccine is now underway; Burkina Faso and Cameroon introduced it in early 2024, and many more countries plan to launch malaria vaccine programmes this year. WHO recommended a second safe and effective malaria vaccine, R21/Matrix-M,

¹ Available at <https://iris.who.int/bitstream/handle/10665/363899/9789240061781-eng.pdf?sequence=1&isAllowed=y> (accessed on 22 February 2024).

² Declaration for accelerated malaria mortality reduction in Africa: commitment that “No one shall die from malaria” (https://cdn.who.int/media/docs/default-source/malaria/mpac-documentation/malaria-conference-declaration-final.pdf?sfvrsn=2a67eb91_7, accessed 14 March 2024).

in October 2023. The availability of two malaria vaccines, both pre-qualified by WHO, is expected to substantially increase supply and make broad-scale deployment across Africa possible.

26. A rich research and development pipeline is poised to introduce next-generation malaria control products that could help accelerate progress towards global targets, including new vector control technologies, vaccines, diagnostics and medicines. This pipeline will benefit from WHO guidance on target product profiles and preferred product characteristics, key tools to incentivize and guide the development of urgently needed health products.

27. WHO has taken a number of steps to expand access to its malaria recommendations and guidance. Since 2021, the consolidated WHO guidelines for malaria have been accessible in four languages through a web-based platform.¹ All of WHO's most up-to-date malaria recommendations can also be found in a mobile app.²

ACTION BY THE HEALTH ASSEMBLY

28. The Health Assembly is invited to note the report and is further invited to consider the following questions:

- Building on the momentum from the Malaria Ministerial Conference in Cameroon, how can increased political commitment in the highest burden countries be translated into domestic resources for primary health care and malaria control?
- In view of the stalled progress against malaria in moderate- and high-burden countries, what should Member States do to secure sufficient international investment that is aligned with national plans and priorities?
- What support (technical, financial) do Member States need to ramp up their responses to biological threats such as antimalarial drug resistance?
- How can Member States ensure the most efficient, equitable and sustainable responses to malaria?

= = =

¹ The platform can be accessed at <https://app.magicapp.org/#/guideline/7663>.

² The app can be downloaded from <https://www.who.int/teams/global-malaria-programme/malaria-toolkit-app>.