EU R&I and Health Policy to
Tackle Global Challenges

A changing global malaria response

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SUMMARY

The global malaria response is unravelling. In 2023, available funding for malaria control reached just USD 4 billion against an USD 8.3 billion target, a gap that is continuing to widen. After the Global Fund, the US has historically been the second largest funder of the global malaria response, providing roughly a third of global resources. Now the US FY2026 budget proposal slashes malaria funding by 47 %, threatening to reverse two decades of hard-won progress.

Malaria cases hit 263 million in 2023, with 597 000 deaths. The US President's Malaria Initiative alone could prevent 15 million cases and 107 000 deaths in 2025, but funding freezes have already derailed 40 % of planned bed net distributions and 30 % of chemoprevention campaigns. The proposed US FY2026 cuts threaten far more devastating consequences.

The USAID Malaria Vaccine Development Program, instrumental in advancing next-generation vaccines, shut down mid-2025. Global R&D funding, already down to USD 690 million against an USD 851 million target, faces deeper cuts. This comes precisely when breakthrough vaccines show 75 % efficacy and new drug combinations near phase III completion.

While global funding is in retreat, national governments of high-burden countries are scaling up domestic financing and operational efforts. Still, local resilience can't substitute for global solidarity, nor can domestic budgets facing structural constraints match the gap left behind by receding international donors. There is an urgent need to recommit to malaria elimination as a shared global priority; otherwise, the decades of investment will unravel faster than they were built.

The Mind the Gap series was conceived as a platform to assess and reflect on the rapidly evolving global health landscape. It not only examines shifts in financing but also explores the impact on historically high investment areas such as HIV, malaria, tuberculosis, and sexual and reproductive health. As global stakeholders engage in conversations about how to reshape the global health ecosystem to meet current and future needs, it's critical to take stock of where we stand. Mind the Gap provides a timely snapshot of these shifts, combining data and anecdotal insights to highlight the real-world impact of a rapidly evolving funding landscape and provide solutions to build a more resilient, equitable and flexible architecture to tackle global health challenges.

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This publication is based on research funded by the Gates Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Gates Foundation.

POLICY CONTEXT

Malaria is a life-threatening but preventable and curable disease caused by *Plasmodium* species, spread mainly through bites from infected female Anopheles mosquitoes, and remains most common in tropical regions. Since 2000, a combination of increased funding, expanded proven interventions, and political commitment has led to a significant reduction in the global malaria burden, preventing an estimated 2.2 billion cases and saving 12.7 million lives.

The Global Malaria Action Plan, developed in 2008 by the Roll Back Malaria (RBM) Partnership, provided the first full-scale blueprint, with timelines and cost estimates, for achieving universal intervention coverage, reducing malaria cases by 75 % by 2015, while advancing toward eradication. Building on this, the WHO Global Technical Strategy (GTS) for Malaria 2016–2030 set new, ambitious milestones: a 90 % reduction in both incidence and mortality by 2030, elimination in at least 35 countries, and robust measures to prevent malaria resurgence. The 2022 Kigali Declaration on Neglected Tropical Diseases (NTDs) broadened the malaria response into the realm of NTDs. It mobilised political and financial commitments from Commonwealth nations and key pharmaceutical partners, thereby strengthening the integration of malaria within global NTD and Sustainable Development Goal agendas. In April 2024, the WHO's Global Malaria Programme launched a refreshed operational strategy for 2024–2030, designed to translate the GTS vision into tangible action and accelerate progress where previous momentum had stalled.

WHO estimates that malaria interventions averted 191 million cases and 991 000 deaths in 2022 alone. Nevertheless, 2022 saw a surge in malaria cases to 249 million, the highest in nearly twenty years, accompanied by an increase in deaths to 608 000. Pandemic disruptions, donor fatigue, shifting climate patterns, and geopolitical instability have derailed progress toward the Sustainable Development Goal target 3.3 of reducing malaria incidence and mortality by 90 % by 2030, with current projections showing shortfalls of 55 % and 53 %.

Globally, an estimated 263 million malaria cases and 597 000 associated deaths were recorded in 2023. Roughly half of the world's population is at risk of contracting the disease, with sub-Saharan Africa bearing the brunt of the burden. This is due to favourable climatic conditions for the most lethal malaria parasite, efficient mosquito vectors, widespread poverty, weak healthcare systems, and rapid urbanisation. The Malaria Consortium highlights a substantial rise in malaria cases in 2023 compared with the preceding year, with Nigeria and Ethiopia experiencing their most significant rises in

malaria mortality since 2015. Of the deaths recorded in 2023, 95 % were concentrated in African countries, and 76 % of these occurred among children under five.

The US government has actively participated in global malaria initiatives since the 1950s, with the establishment of the President's Malaria Initiative (PMI) in 2005 intensifying malaria control efforts in African nations most severely affected by the disease. PMI alone is credited with saving an estimated 11.7 million lives and preventing 2.1 billion malaria cases since its inception. In countries where the PMI programme is active, global initiatives have contributed to a 29 % reduction in malaria incidence and a 48 % decrease in mortality. The rollout of two malaria vaccines in 2021 and 2023 has also bolstered the global health community's optimism about strengthening malaria control.

As of December 2023, there were 151 malaria countermeasures in development. Vaccines make up 43 % of this pipeline, overtaking drugs at 27 %, down from a 36 % share in 2015. The rest includes diagnostics (19 %), biologics (5 %), and vector control products (6 %). Malaria vaccine research has progressed significantly, and malaria vaccines are proving impactful: the RTS,S vaccine introduced in 2019 has led to a 13 % drop in malaria deaths. The newer R21/Matrix-M vaccine recommended by WHO in 2023 has reduced clinical malaria cases by 75 %, highlighting the potential of next-generation vaccines. Despite the promise shown by these vaccines, persistent challenges including adherence, strain variability, and resistance necessitate the development of more effective and broadly applicable interventions, underscoring the need for sustained financing.

The new generation of antimalarial drugs shows great potential in combating drug resistance, offering hope for a future where malaria is no longer a significant global health challenge. Yet these advances are at risk due to cuts and uncertainties around funding. Currently, there are 48 antimalarials in development, comprising 41 small molecules and 7 biologics.

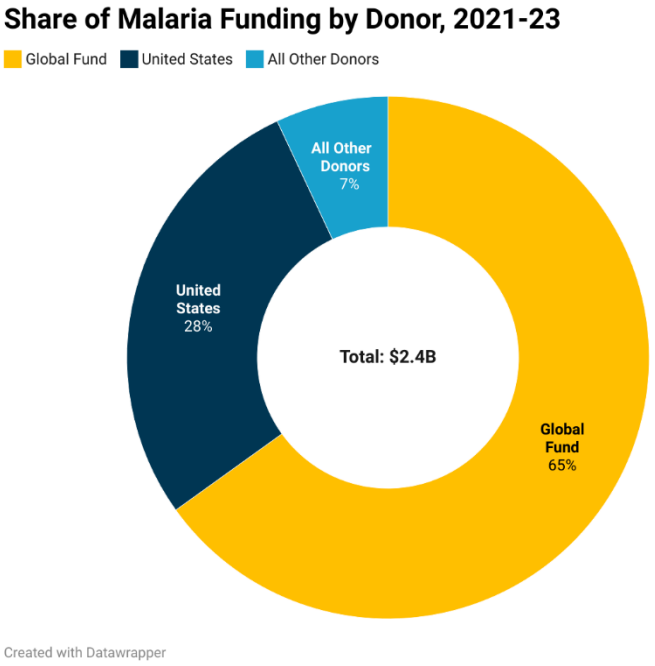
USAID funding cuts come on the back of already declining resources directed towards malaria efforts. Global funding for malaria control efforts is experiencing significant shortfalls, leading to disruptions in essential programs and hindering progress toward malaria elimination objectives. The funding deficit is compounded by challenges such as the emergence of drug and insecticide resistance, alterations in mosquito behaviour patterns, and the proliferation of the invasive *Anopheles stephensi* mosquito due to changing climatic conditions, which collectively risk undermining past achievements, particularly among vulnerable populations. As such, this brief examines the impact of the changing donor funding landscape on the global malaria response. The impacts of the shifts in donor funding across other domain areas, including the global HIV response, are discussed in accompanying briefs.

TRACKING FUNDING CHANGES IN THE MALARIA RESPONSE

Global funding to combat malaria has fallen considerably short of what is needed. Only USD 4 billion was allocated in 2023 against a USD 8.3 billion target, representing a growing gap compared with the USD 4.1 billion secured against a USD 7.8 billion target in 2022. This has translated into significant gaps in the provision of insecticide-treated nets (ITNs), pharmaceuticals, and other essential medical supplies, disproportionately affecting LMICs where the repercussions of these shortages are most acutely felt.

Between 2021 and 2023, the Global Fund was the single largest donor to malaria programmes, constituting 65 % (USD 1.6 billion) of the share of total funding, with the US contributing the second-highest amount at 28 % (USD 673 million). The EU and the World Bank's International Development Association (IDA) each accounted for 2 % of the funding, and all other donors contributed 1 % or less (Figure 1). Domestic funding in malaria-endemic countries increased from 33 % in 2021 to 37 % in 2023.

Figure 1. Share of global malaria funding by donor, 2021–2023.



Source: KFF.

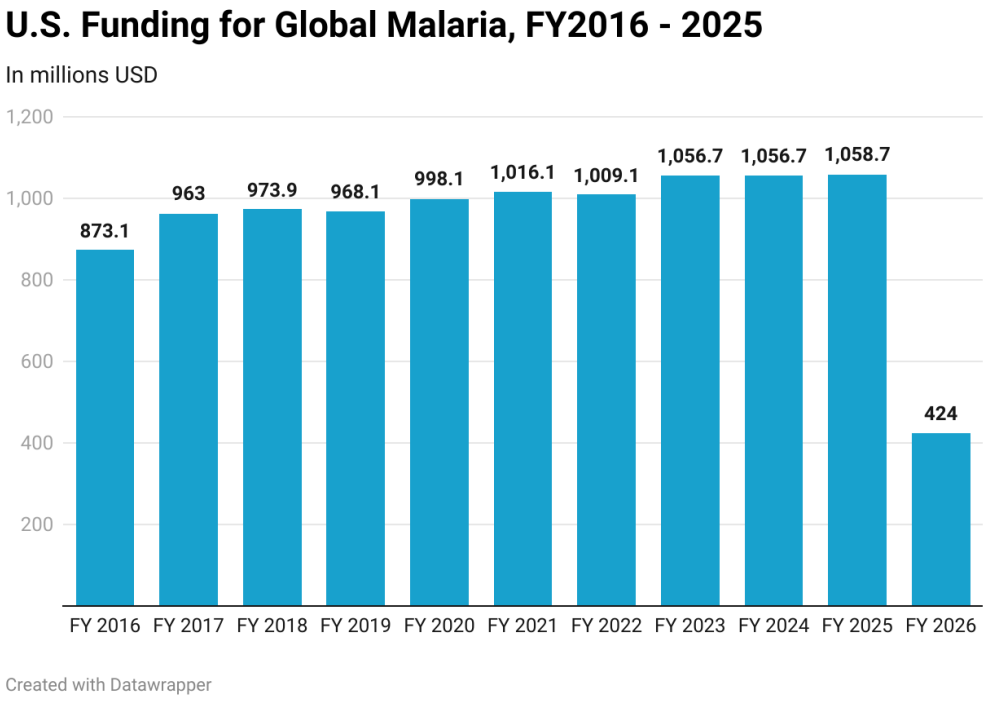
The European Commission pledged a record EUR 715 million to the Global Fund for the 2023 – 2025 period, up 30 % from the previous cycle of EUR 550 million, with amounts increasing across each replenishment cycle, totalling a contribution of EUR 3.41 billion since 2001. Team Europe, comprising the European Commission and EU Member States, contributed a total of EUR 21.2 billion to the Global Fund between 2001 and 2022, with a peak total contribution of more than EUR 4.3 billion for the period 2023–2025. Among EU Member States in the current cycle, France is the largest donor, with contributions

totalling EUR 1.15 billion, followed by Germany at EUR 996.5 million. Still, amidst a rapidly shifting aid landscape, the risk of the EU cutting its participation in the Global Fund remains a looming issue.

The US has been the leading donor government to malaria control, through PMI and contributions to the Global Fund. It has historically served as the biggest contributor to the Global Fund, supplying roughly one-third of its financial resources. From 2010 to 2023, the US was responsible for an average of 37 % of global malaria funding, distributed via both bilateral and multilateral channels.

US congressional appropriations for malaria initiatives, encompassing the PMI and other control and research endeavours, have risen over the last decade, climbing from USD 873 million in FY 2016 to an estimated USD 1 billion in FY 2025 (Figure 2). Despite this increase, the funding level has been largely stagnant in recent years. In March 2025, the US government passed the FY 2025 Continuing Resolution in which funding of USD 805 million was included for PMI and other malaria activities at USAID and CDC, as well as for the Global Fund. However, the provisional FY 2026 budget included just USD 424 million for malaria, a significant decrease (47 %) of USD 381 million from the preceding year.

Figure 2. US funding for global malaria, 2016–2025.



Source: KFF.

IMPLICATIONS OF FUNDING CHANGES ON MALARIA AND HEALTH OUTCOMES

The funding freeze and stop work orders issued by the US administration in early 2025 caused considerable disruptions and confusion in malaria control efforts. USAID served as the primary governmental body responsible for executing malaria initiatives, channelling nearly all (96 %) bilateral malaria aid in FY2023. The absence of USAID and most of its staff has severely affected PMI's implementation capacity, with the reductions at CDC further affecting global malaria efforts.

An initial report after US funding cuts were introduced indicates that among 86 % of USAID awards that were rescinded, 770 global health awards were affected, with 157 malaria-related activities at risk and 80 % of these subsequently terminated. WHO highlights that by April 2025, over 40 % of planned insecticide-treated net (ITN) distributions and almost 30 % of seasonal malaria chemoprevention campaigns were delayed or at risk. Interruptions in malaria services were also reported across more than half of the 64 endemic countries surveyed by WHO, including medication and diagnostic supply shortages, health worker layoffs, and increased out-of-pocket costs for patients.

In Uganda, healthcare facilities have experienced shortages of rapid diagnostic tests, while in Ethiopia, the PMI office suspended ITN distributions midway through its campaign. Artemisinin-based antimalarials are increasingly unavailable, with several African nations reporting only a few months' worth of supplies on hand. The impact extends beyond a public health emergency to encompass economic repercussions, as malaria incurs an annual economic cost of USD 12 billion in lost productivity across Africa. In fact, the impacts of reduced malaria funding affect Americans at home, with malaria cases and local transmission re-emerging after decades of absence in several US states in 2023.

A leaked document from USAID estimated that a permanent cessation of the PMI could lead to an annual increase of 12.5 million to 17.9 million malaria cases and an additional 71 000 to 166 000 malaria-related deaths globally. Modelling estimates suggest that PMI could prevent approximately 14.9 million malaria cases and 107 000 deaths in 2025 – projected improvements now at risk due to potential reductions in foreign aid, project cancellations, and funding uncertainties.

The termination of the Demographic and Health Surveys (DHS) programme also carries serious implications for malaria control and elimination efforts globally. In malaria-endemic LMICs, DHS has been a vital tool for collecting data on key indicators such as malaria prevalence, use of ITNs, access to indoor residual spraying, and treatment-seeking for fever in children. These data have enabled governments and international agencies to track progress, identify gaps, and allocate resources efficiently. In many contexts, DHS

data serve as the primary, and at times the only, source of reliable, standardised malaria-related information at the population level. The WHO and the Roll Back Malaria Partnership, for example, rely heavily on DHS data for monitoring global targets and guiding donor investments. The loss of DHS not only undermines national and international malaria surveillance but also reduces transparency and accountability in tracking the effects of health funding cuts on malaria morbidity and mortality.

Malaria progress is in jeopardy, as seen in 63 % of the 108 WHO country offices participating in a rapid assessment reporting disruptions to malaria-related health services by early April 2025, following the pause in overseas development assistance. While the exact impact of funding cuts and freezes remains hard to assess, history reminds us that interruptions to malaria control efforts can trigger long-term resurgences and threaten serious setbacks to progress achieved to date. Rising drug resistance, population displacement, and shifting vector patterns driven by climate change remain major challenges that demand sustained funding to protect past gains and accelerate progress toward malaria elimination.

Implications of Funding Changes on Research and Innovation

Despite continued investment in malaria research and novel vaccine development, the available financial resources are inadequate to address escalating targets. Global funding for malaria R&D decreased by USD 103 million between 2019 and 2022, dropping from USD 707 million to USD 604 million. This represents a significant reduction in the share of total global R&D funding for neglected diseases, emerging infectious diseases, and sexual and reproductive health, falling from 12 % to 6 %. This amount remains well below the estimated annual malaria R&D need of approximately USD 851 million.

However, in 2023, global funding for malaria R&D rose to USD 690 million. This increase of 9 % from 2022 signalled a positive turnaround after four consecutive years of declining investment. Most R&D areas saw funding increases, with the exception of biologics, which dropped 45 % to USD 15 million following a peak in 2022. Vaccine R&D reached USD 148 million, the highest since 2019, boosted by new funders and a USD 23 million contribution from the Bill & Melinda Gates Foundation. The top two funders in 2023 were the US National Institutes of Health (USD 201 million) and the Gates Foundation (USD 181 million). Nevertheless, the wave of funding cuts in 2025 suggests substantial reductions in available funds, even below the low point of 2022.

In early 2025, the USAID-supported Malaria Vaccine Development Program (MVDP) ceased operations due to the spending freeze implemented by the Trump administration. This initiative, a collaboration involving institutions such as Johns Hopkins University and the University of Oxford, was tasked with advancing the development of next-generation

malaria vaccines, with a particular focus on reducing mortality among children in sub-Saharan Africa, where malaria claims approximately 450 000 young lives annually.

The MVDP's research aimed to enhance the efficacy and longevity of existing malaria vaccines, two of which were introduced in 2024, with 17 nations incorporating them into their standard paediatric immunisation programmes. However, the program's suspension has raised concerns among researchers about delays in medical progress and the risks associated with abruptly halting human and animal trials, including implications for participant safety and research continuity. While the full impact of such funding cuts may not be immediately apparent, their consequences are profound. The progress in malaria vaccine development represents a significant global health accomplishment, substantially influenced by programs like the MVDP.

Other critical malaria R&D interventions at risk include preserving the effectiveness of artemisinin-based therapies, advancing new non-artemisinin drug combinations, and creating vector-control tools to counter rising drug and insecticide resistance, including the challenge of outdoor-biting mosquitoes. Additional priorities involve improving diagnostics to detect asymptomatic infections and expanding the use of point-of-care G6PD tests.

Artemisinin-based combination therapies (ACTs) have significantly reduced malaria deaths over the past two decades. Looking ahead, new antimalarials aim for single-dose cures, resistance prevention, prophylactic use, and safe use during pregnancy. The most promising approach involves non-ACTs, currently in phase III trials due to conclude by 2027.

The United Kingdom, through its government, non-government entities, and research institutions, has consistently been the second-highest national funder of malaria R&D since 2007, contributing an average of 9 % of global funding. Reductions in R&D funding by the UK government for malaria further threaten considerable progress to date and ongoing developments for new interventions. For the Global Fund's 2023–25 replenishment, the UK pledged £1 billion, down from the £1.4 billion pledged in the previous replenishment period.

EU support for malaria R&D follows a similar trend of declining funding. The European & Developing Countries Clinical Trials Partnership (EDCTP) was launched to support clinical trials and capacity building to combat HIV/AIDS, malaria and tuberculosis in Africa. Within the initial EDCTP programme (2003–2013), 42 out of a total of 254 grants were directed towards malaria-related research totalling EUR 50.2 million. In EDCTP2 (2014-2024), malaria research received a total of EUR 139.2 million, distributed across 17 grants. Since its launch, EDCTP3 has committed EUR 43.3 million to 11 collaborative malaria-focused

projects, and under its 2025 Work Programme, announced an additional EUR 30.9 million in funding to advance the clinical development of new and existing malaria therapeutics.

Shifting Financing and Ownership in the Malaria Response

The funding gaps, rising cases, stalled vaccine trials, and disrupted health systems underline both the urgency and insufficiency of current investment levels for malaria control. Nevertheless, while global funding is in retreat, national governments of high-burden countries are scaling up domestic financing and operational efforts, as seen in Nigeria, representing more than a quarter of the global malaria burden, raising funds in 2025 to continue affected programmes and produce testing kits with sufficient capacity to meet national demand.

While unpredictable and insufficient donor funding poses a sobering challenge to the global malaria response, the 'high burden to high impact' approach, championed by African leaders and others, offers a critical opportunity to rethink the path forward. Grounded in country ownership, targeted action in high-burden areas, and strengthened primary health care, this strategy can reinvigorate malaria control efforts and renew optimism for malaria elimination. Using today's funding cuts as a catalyst, it encourages the development of more resilient, locally driven systems capable of withstanding future financial shocks. Nonetheless, global solidarity and international partnerships must complement this new reality.

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