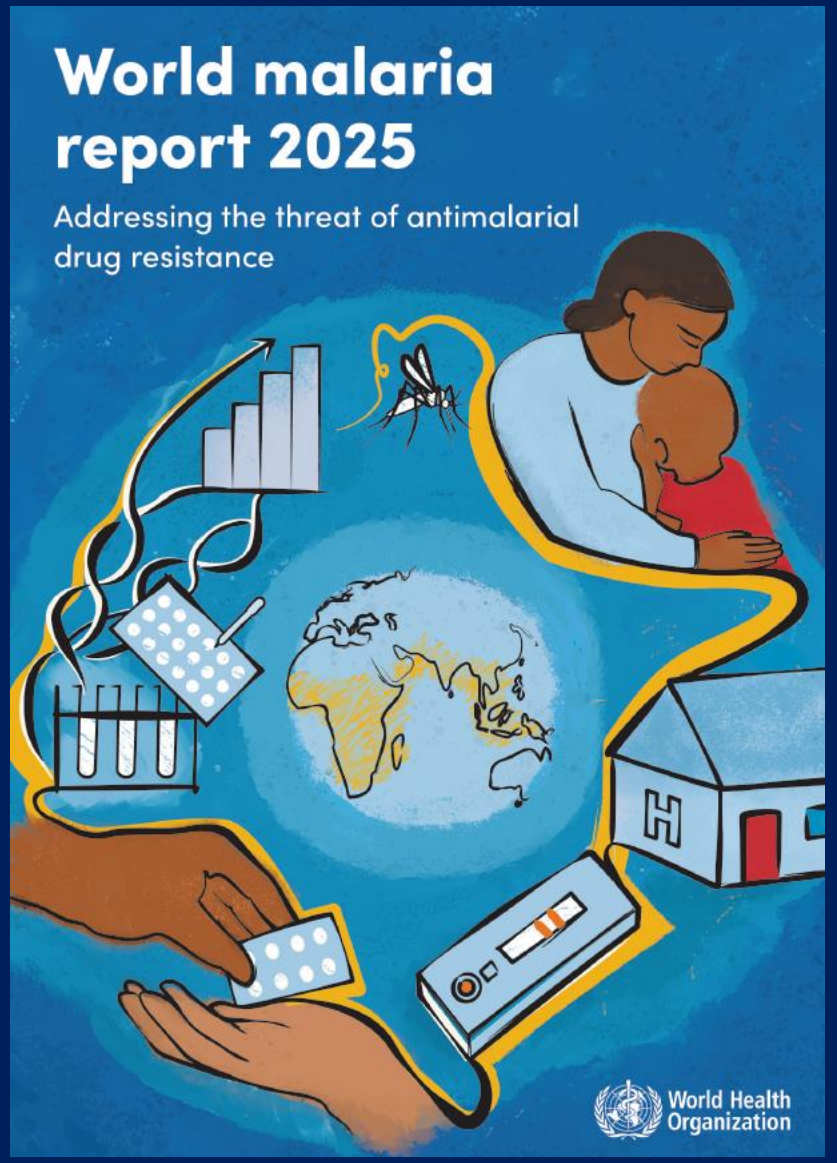
World Malaria Report 2025

Addressing the threat of antimalarial drug resistance



World Health Organization

Malaria situation worldwide

Key threats

What is being done

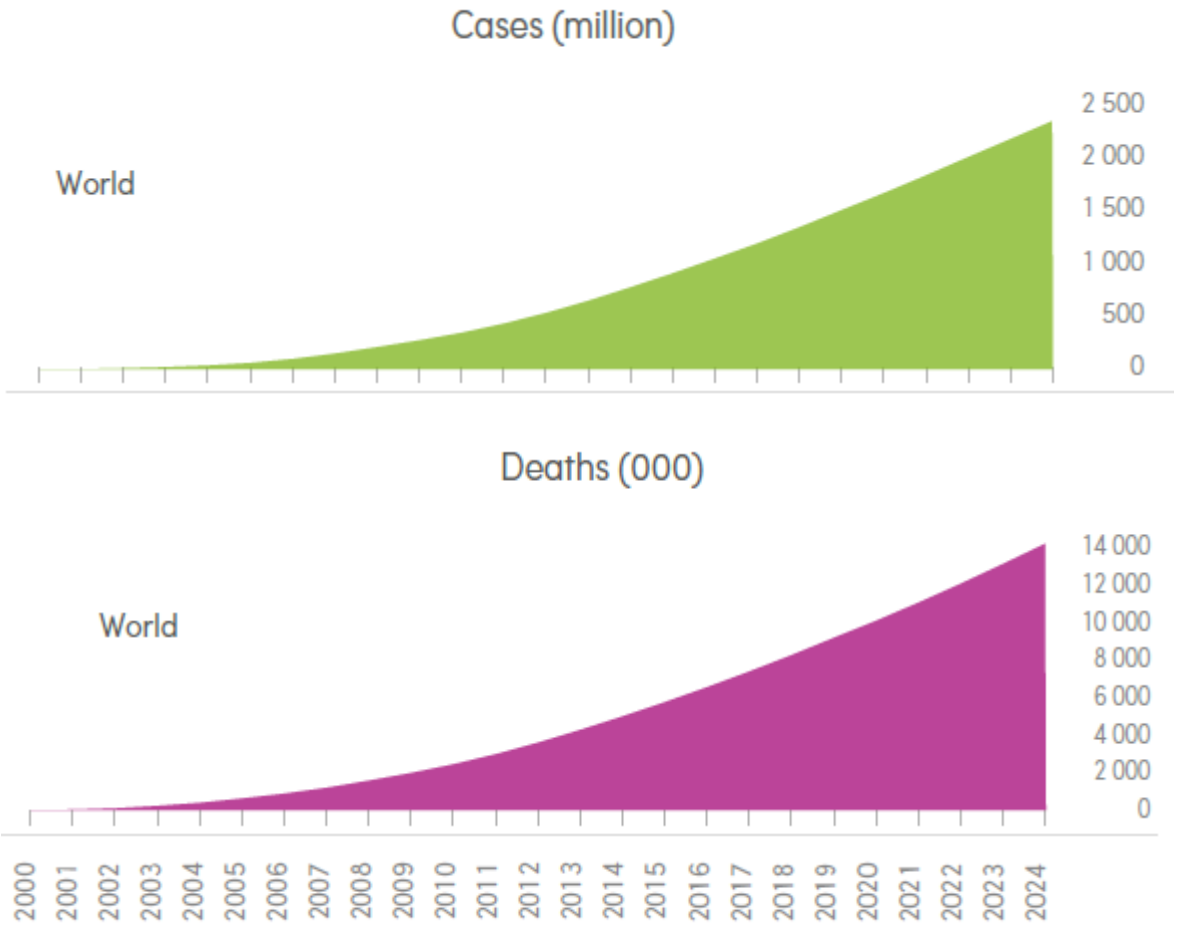
What is needed now

World Health Organization

Malaria responses worldwide are preventing illness and saving lives

- Globally, an estimated 2.3B cases and 14 M deaths were averted between 2000 and 2024.
- **In 2024 alone, more than 170 million cases and 1 million deaths were averted globally**.
- Most cases (76%) and deaths (93%) averted were in the WHO African Region.
- Alongside targeted malaria control interventions, other factors have also likely contributed to lowering malaria transmission and disease (e.g. improvements in socio-economic status and urbanization)

Fig. 2.17. Cumulative number of a) malaria cases and b) malaria deaths averted, globally and by WHO region, 2000–2024 *Source: WHO estimates.*



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Progress towards elimination reported across many countries

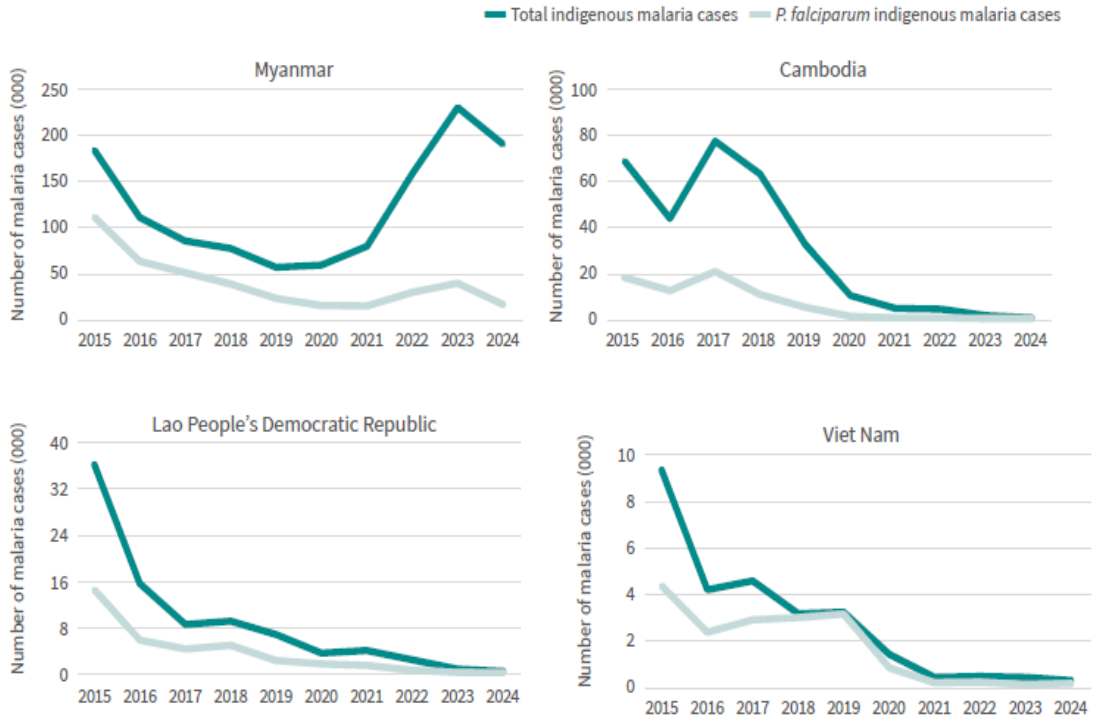
- **37 countries reported fewer than 1000 cases** in 2024 vs. 13 countries in 2000

- **WHO has certified 47 countries and 1 territory as malaria-free,** including, most recently, Georgia, Suriname and Timor-Leste as of October 2025

- Between 2015 and 2024, the GMS recorded 89% reduction in indigenous *P. falciparum* cases, driven by reduction in Cambodia, the Lao People's Democratic Republic and Viet Nam

- Success driven by the use of effective antimalarial drugs, supported by robust surveillance, community engagement and ownership, political commitment and sustained domestic funding.

Fig. 3.2. Total indigenous malaria and *P. falciparum* cases in endemic countries in the GMS, 2015–2024[a] *Source: NMP reports..*



Malaria remains a serious global health challenge

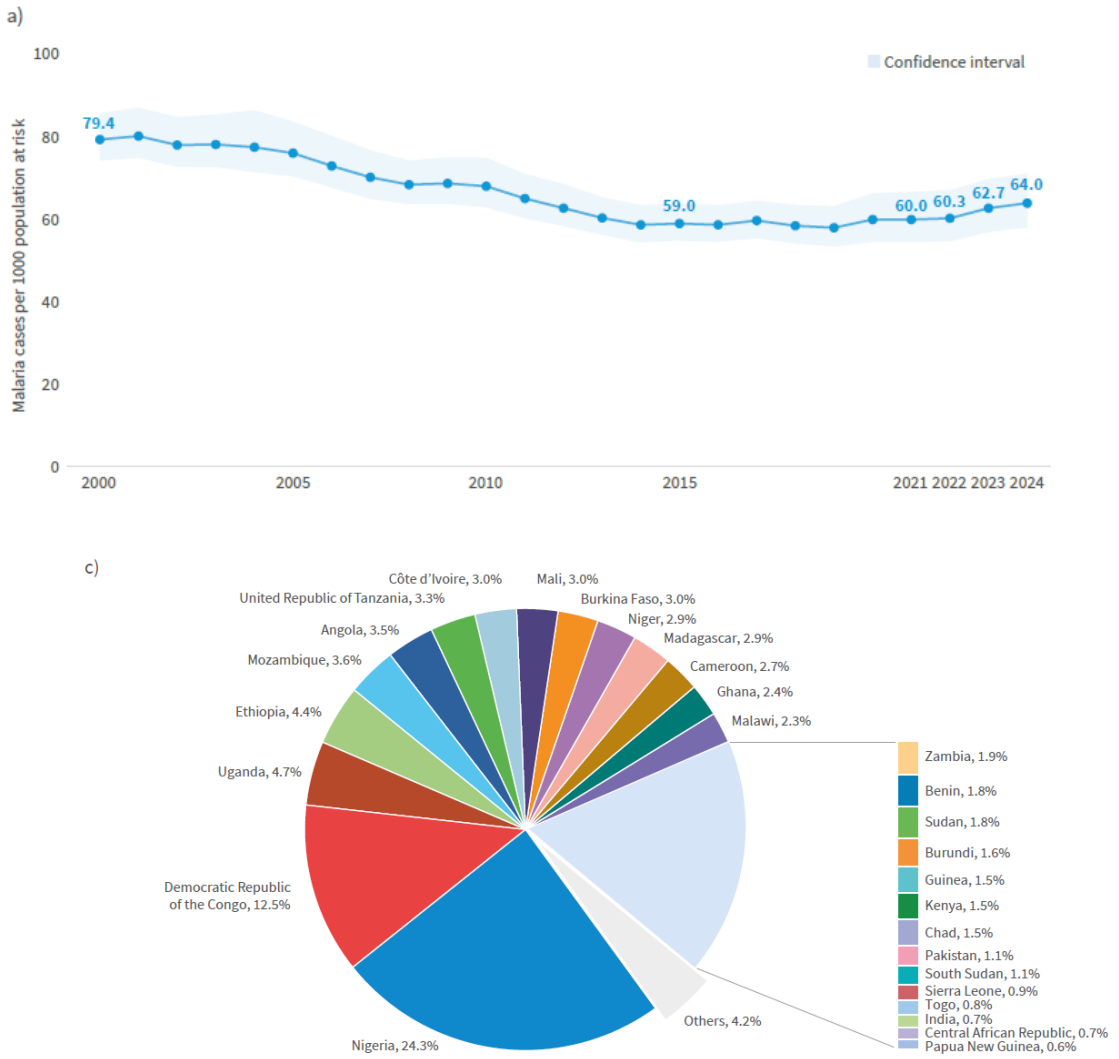
- The period 2023–2024 saw an increase of 9M cases, with 94% of cases in the WHO African Region.
  - **282M cases in 2024**
  - 273M cases in 2023

- Since 2015, case incidence (adjusted for population growth) has risen from 59 to 64 cases per 1000 at risk.

- **Increase in case was largely driven by trends in a limited number of countries** including Ethiopia (+2.9 million), Madagascar (+1.9 million) and Yemen (+378 000)

- Factors contributing to the increase included technical, systemic, environmental, and financial challenges, including weak service delivery and surveillance, conflict and environmental disruptions, some biological threats, social inequities, and funding shortfalls

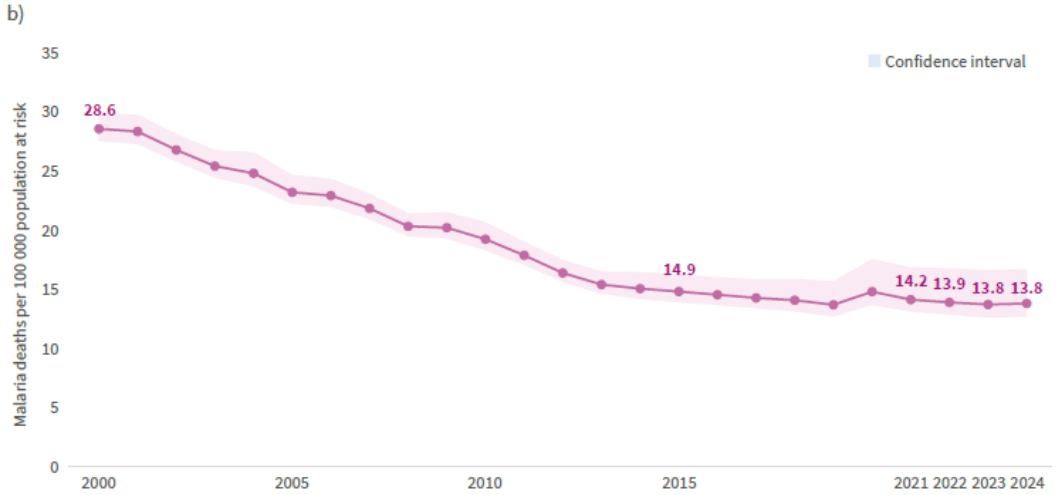
Fig. 2.3. Global trends in a) malaria case incidence (cases per 1000 population at risk) and b) mortality rate (deaths per 100 000 population at risk), 2000–2024; and c) distribution of malaria cases and d) deaths, by country, 2024 *Source: WHO estimates.*



More than 600 000 lives were lost to malaria in 2024, mostly among young African children

- Globally there were **610K malaria deaths in 2024** vs. 578K in 2015.
- Since 2015, the global malaria mortality rate has declined from **14.9** to **13.8** deaths per 100 000 population at risk, but has plateaued in 2024.
- A few countries shared more than 50% of the global deaths burden including Nigeria, DRC, Niger, and Tanzania

Fig. 2.3. Global trends in a) malaria case incidence (cases per 1000 population at risk) and b) mortality rate (deaths per 100 000 population at risk), 2000–2024; and c) distribution of malaria cases and d) deaths, by country, 2024 *Source: WHO estimates.*



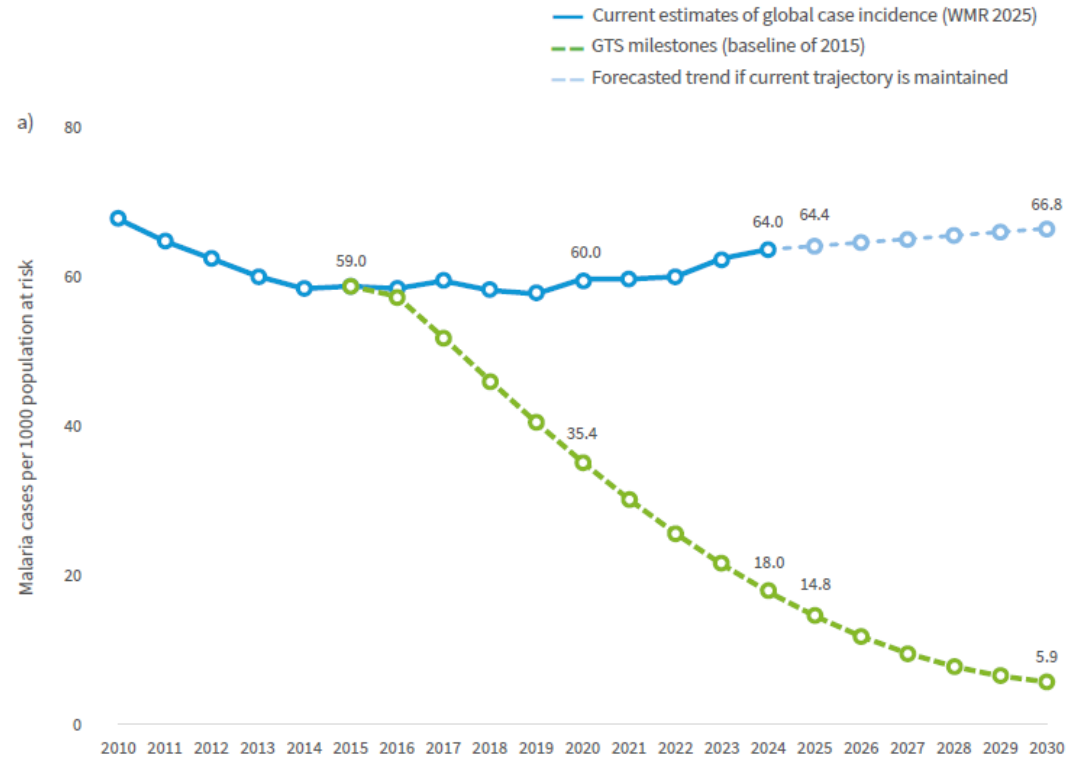
At the global level, progress towards key targets is off pace

- The WHO global strategy* calls for reductions in malaria case incidence and death rates of at least 75% by 2025 and 90% by 2030, compared to 2015 baseline levels.

- The **2024 incidence rate** of 64 cases per 1000 population at risk was more than **3 times higher** than the target of 18 cases per 1000.

- **The 2024 malaria mortality rate** of **13.8** deaths per 100 000 population at risk was **more than three times the target of deaths**

Fig. 2.4. Comparison of global progress in malaria a) case incidence and b) mortality rate considering two scenarios: current trajectory maintained (blue) and GTS targets achieved (green) *Source: WHO estimates.*



GTS: *Global technical strategy for malaria 2016–2030*; WHO: World Health Organization; WMR: *World malaria report.*

World Health Organization

* *Global technical strategy for malaria 2016–2030*

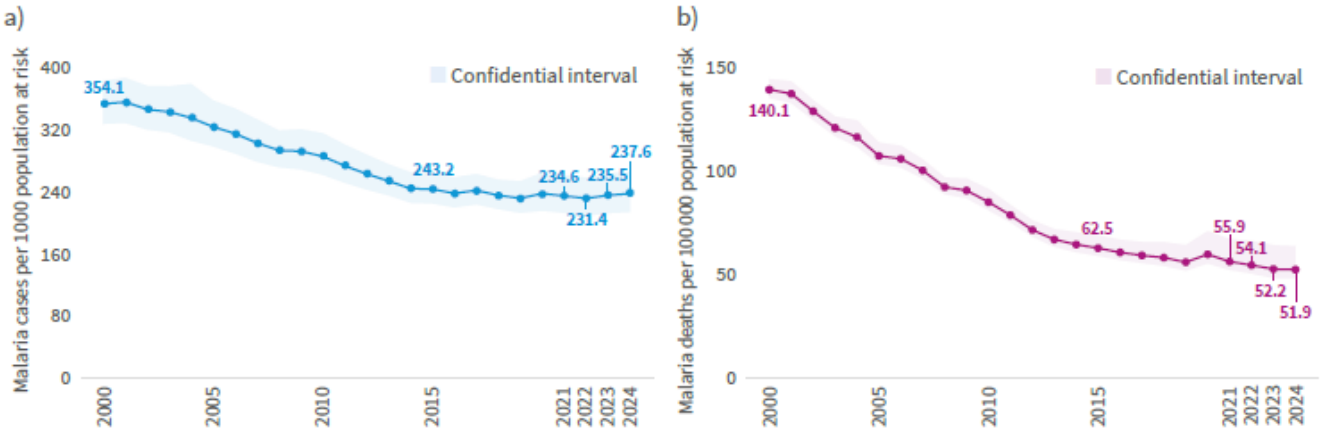
Despite some gains in Africa, progress must be accelerated

- About **95% of these deaths (579K) were in the WHO African Region**, and 75% of deaths in the African Region were among children under the age of five

- About **2/3 of global cases and deaths are concentrated in the 11 African** "High Burden High Impact" (HBHI) countries.*
  - From 2017 to 2024, the mortality rate fell by 13%

- The WHO African Region reduced case incidence and mortality rates by **2%** and **17%**, respectively since 2015.
  - But the **2024 rates for both indicators were more than double** the target levels set by the WHO *Global technical strategy for malaria 2016-2030*

Fig. 2.7. Trends in a) malaria case incidence (cases per 1000 population at risk) and b) mortality rate (deaths per 100 000 population at risk), 2000–2024; and c) malaria cases by country in the WHO African Region, 2024 *Source: WHO estimates.*



* The 11 HBHI countries include: Burkina Faso, Cameroon, Democratic Republic of the Congo, Ghana, Mali, Mozambique, Niger, Nigeria, Sudan, United Republic of Tanzania and Uganda.

Malaria situation worldwide

Key threats

What is being done

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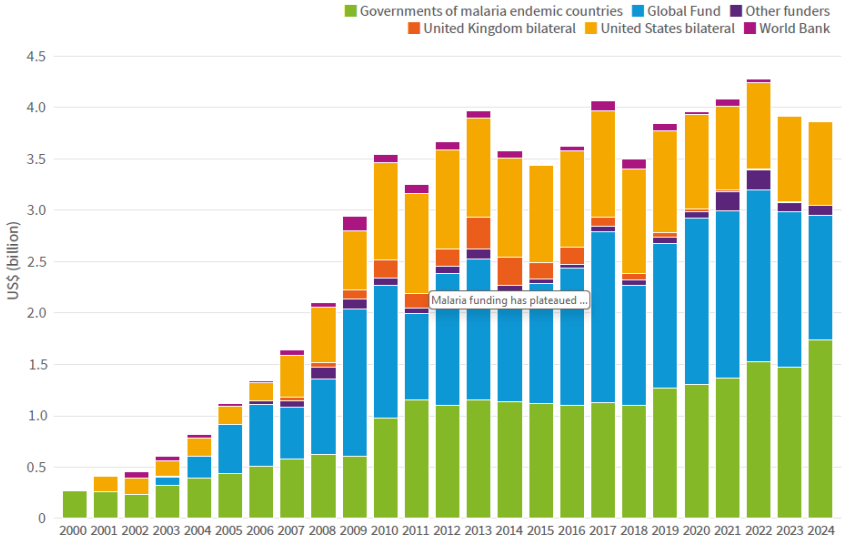
World Health Organization

Malaria funding has plateaued over the last decade and in 2024 fell far short of the 2025 US$ 9.3 billion target

- A total of **US$ 3.9B was invested globally** in the malaria response
- Based on the 2025 GTS target of $9.3B, this corresponds to a projected shortfall of about $5.4B, with only **42% of required funding attained**
- From 2010 to 2024, 67% of malaria funding came from international sources, **with endemic countries contributing 33%**
  - In 2024, about 56% of malaria funding came from international sources, with endemic countries increasing their share to 44%

Fig. 4.1. GTS funding targets for 2025 and 2030[a,b] *Sources: GTS and 2021 GTS update.*

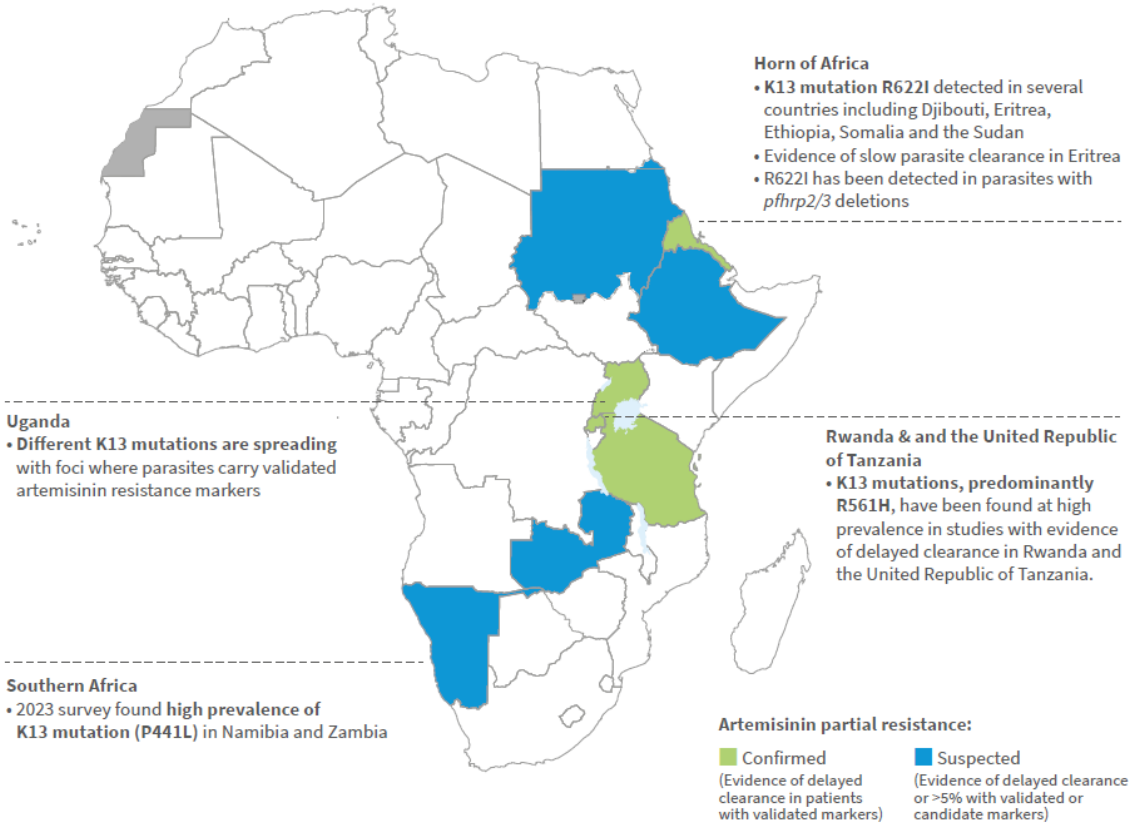
Fig. 4.4. Funding for malaria control and elimination, 2000–2024, by channel (constant 2024 US$)[a] *Sources: United States Government's ForeignAssistance.gov; Global Fund; NMP reports; OECD CRS database; United Kingdom Foreign, Commonwealth and Development Office; WHO/MNT estimates and World Bank DataBank.*



History shows how quickly drug resistance can spread and how devastating its impact can be

- ACTs became the backbone of malaria treatment after failures of chloroquine and sulfadoxine-pyrimethamine
- **Southeast Asia has been the first place where new resistance appears**, including the first reports of artemisinin partial resistance
- **Africa now faces rising risk with many lives at stake**
  - Treatment in Africa relies mainly on artemether-lumefantrine and artesunate-amodiaquine
  - Studies confirm artemisinin partial resistance in four countries and identify suspected resistance in another four
  - In some high-transmission settings (e.g. Uganda), more than half of parasites carry *PfKelch13* mutations associated with resistance

Fig. 7.2. Map of artemisinin partial resistance in Africa

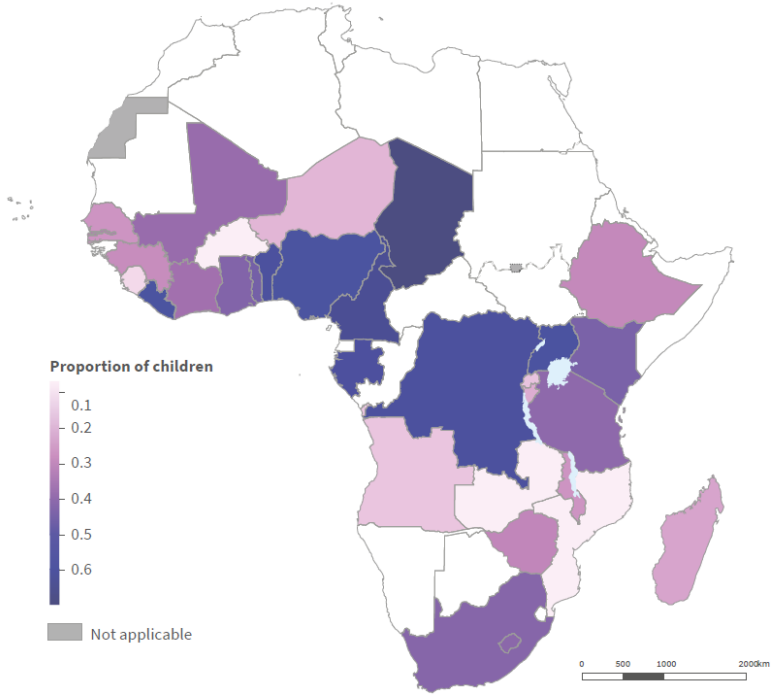


Response should address systems and market weaknesses through coordinated action

- Spread of resistance is shaped by the quality of health services, the way medicines are regulated and delivered, and how patients seek and use care
  - **Malaria patients in many countries rely strongly on the private sector**, where diagnostic testing is limited, treatment is often incomplete, and unapproved medicines may circulate

- Experience from the Greater Mekong Subregion shows how coordinated action can turn a shared threat into a common agenda and drive *P. falciparum* close to elimination in former epicentres of resistance

Fig. 7.6. Proportion of children seeking care in the private sector (formal, informal or pharmacies)[a] *Source: DHS/MIS 2015–2024).*



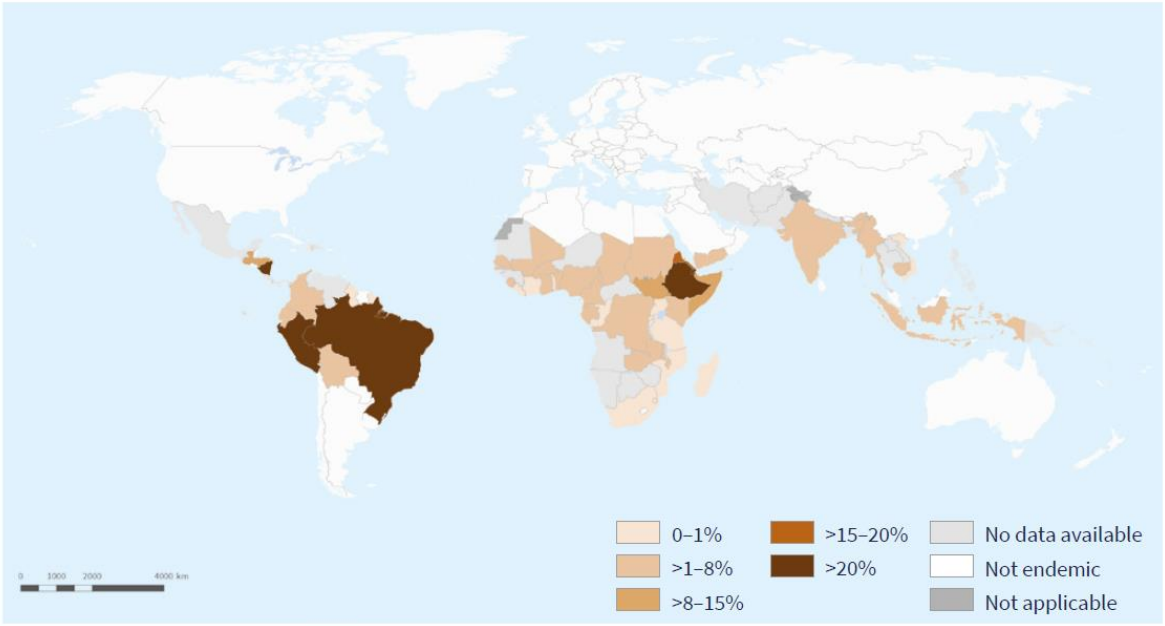
- WHO launched a **strategy in 2022 to respond to the threat of antimalarial drug resistance in Africa**
  - Several countries are tailoring the strategy to their context, including plans for multiple first line treatments
  - Any response must fit the local context and include the places where people actually seek care, supported by strong regulation, better quality assurance, and active engagement of providers
  - Strong surveillance of drug efficacy and resistance, with timely sharing of data, is essential for knowing where and when to act

Other threats are hampering progress in global malaria control

- **Resistance to pyrethroids** confirmed in 48 of 53 countries where it was monitored between 2020 and 2024
- **Invasive mosquito vector** *Anopheles stephensi* detected in 9 African countries (Niger reporting for 1st time)
- Malaria parasites with ***pfhrp2* gene deletions** reported in 42 endemic countries
- Reported cases of ***P. knowlesi*** declined by 34% between 2023 and 2024

Countries reporting confirmed pyrethroid resistance, 2020-2024

Fig. 6.1. Estimated prevalence of *pfhrp2* gene deletions (1996–2024)[a] among countries that were malaria endemic in 2024 *Source: Review of published literature included in the Malaria Threats Map (66).*



pfhrp2: *Plasmodium falciparum* histidine-rich protein 2.
[a] Year of sample collection, not year of publication.

Malaria situation worldwide

Key threats

What is being done

What is needed now

World Health Organization

Case management for children under five has seen improvements

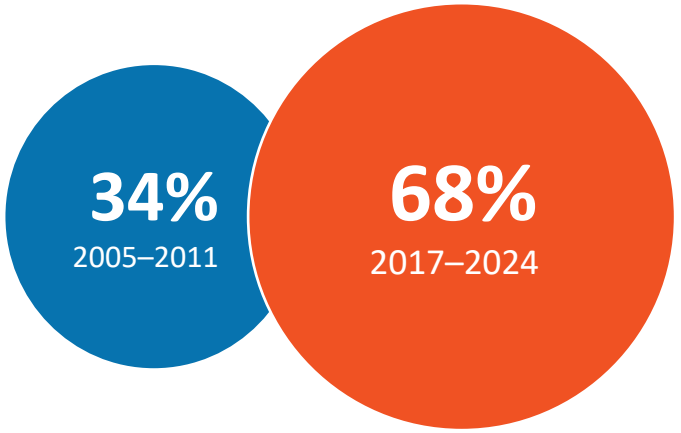
- Effective malaria diagnosis and treatment remain critical to reducing disease burden and improve clinical outcomes

- In 2024, **NMPs distributed 395 million RDTs in 2024**, about 48.5 million (14%) more than in 2023

- **Improved case management** across 21 sub-Saharan African countries
  - Increase in diagnosis with the proportion of febrile children taken to a health provider and received a diagnosis from 30% in 2005-11 to 47% in 2017–24
  - Increase in ACT* share of antimalarials

Use of ACTs

(Of the children who reached a health provider and received an antimalarial drug)



*Artemisinin-based combination therapies (ACTs) are the most effective and widely recommended treatment for uncomplicated malaria – especially for infections caused by *Plasmodium falciparum*, the parasite responsible for most malaria deaths in Africa.

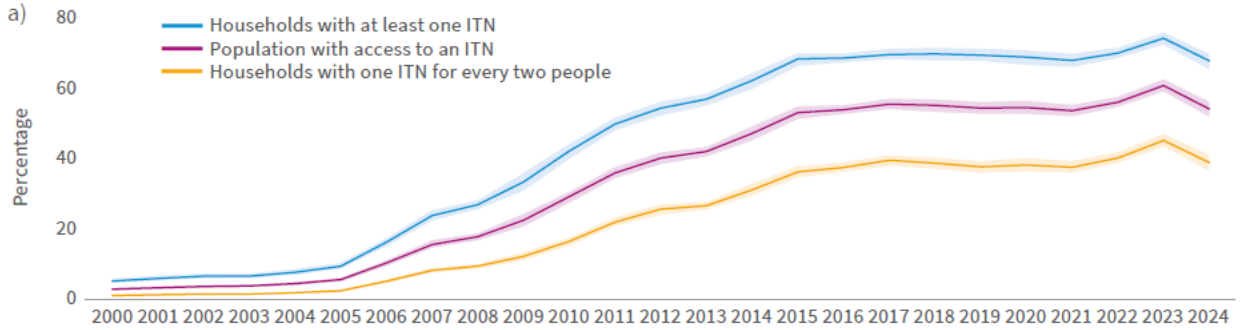
Usage of nets plateaued but significant progress in deploying new generation nets

- More than 3 billion insecticide-treated nets (ITNs) have been distributed globally

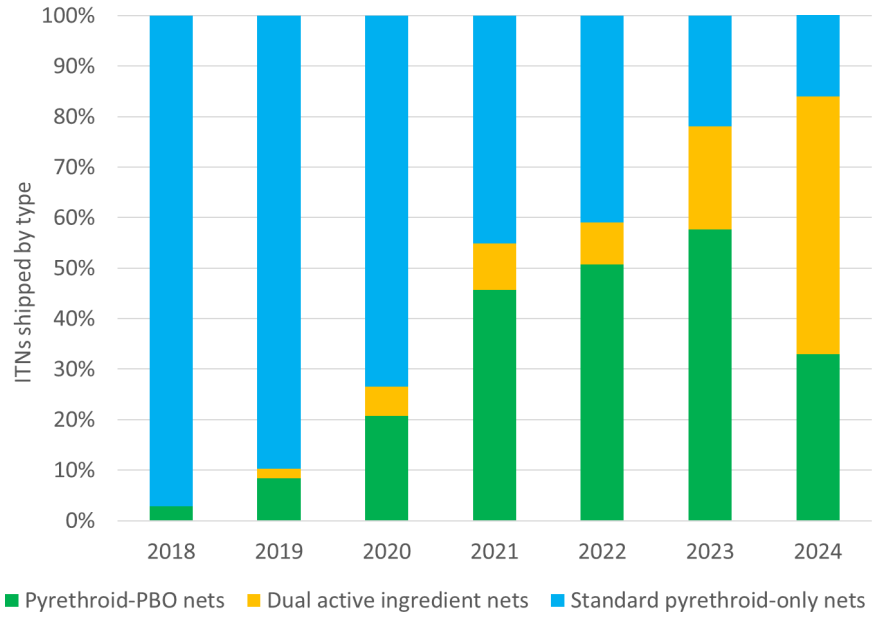
- In sub-Saharan Africa, while **bednet usage has dramatically increase since 2000, it has plateaued over recent years** with just below half (47%) of those at risk of malaria were sleeping under an ITN in 2024 similar to previous levels since 2015

- New generation nets offer superior protection against malaria than pyrethroid-only nets and are becoming more widely available.
  - **Share of PBO or dual active ingredient nets shipped by manufacturers to SSA increased from 10% in 2019 to 84% in 2024**
  - New tools needed as resistance will likely continue to emerge

Fig. 5.4. Indicators of a) population-level access to ITNs, and b) population-level use of ITNs, sub-Saharan Africa, 2000–2024 *Source: ITN coverage model by the Malaria Atlas Project.*



Share of ITNs types (conventional PBO and dual active ingredient), 2018 - 2024



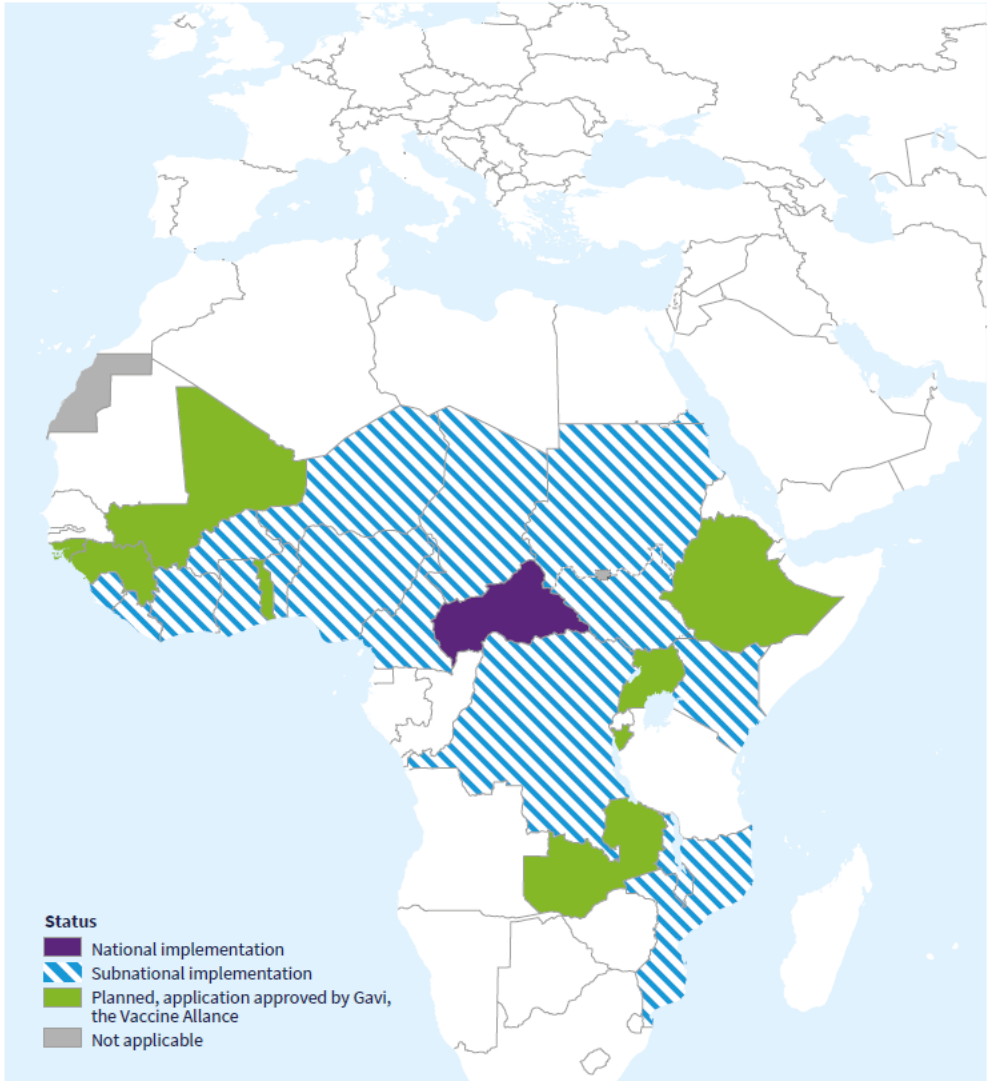
Wider vaccine rollout also promises to lower the disease burden

- WHO now recommends 2 vaccines (RTS,S/AS01 and R21/Matrix-M) for use in malaria-endemic areas

- The RTS,S malaria vaccine was first introduced into childhood immunization programmes in selected areas of Ghana, Kenya and Malawi in 2019, as part of the WHO-coordinated MVIP, and showed:
  - 13% reduction in all-cause mortality (excluding injury)
  - 22% reduction in hospitalizations for severe malaria among children age-eligible for vaccination
  - During vaccine scale up, 63–75% of children had received three doses of malaria vaccine, and 33-53% four doses

- By December 2024, **17 countries had introduced malaria vaccines, delivering over 10.5 million doses to more than 2.1 million children**
  - by end of October 2025, 7 additional countries had implemented the vaccine

Fig. 5.12. Countries implementing malaria vaccine or planning introduction with approved Gavi support in 2024 *Source: WHO malaria vaccine introduction dashboard.*



Access to preventive therapy improved, with some gaps remaining

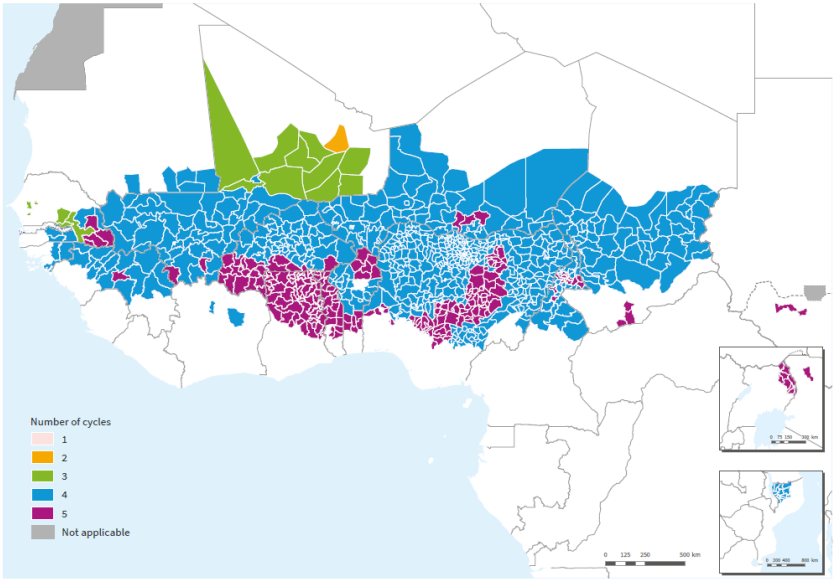
- The average **number of children treated per cycle of SMC increased from 170 000 in 2012 to 54 million in 2024**
  - In 2024, SMC was implemented in 20 African countries, with Nigeria alone treating 28.5 million children
  - Kenya introduced SMC for the first time in 2024

- In 2024, **at least eight countries implemented PMC** including Benin, Cameroon, Côte d'Ivoire, the Democratic Republic of the Congo, Mozambique, Nigeria, Sierra Leone and Togo
  - In total, nearly 1 million children aged under 24 months received their first dose of PMC in 2024.

- IPTp3* (3-dose regimen) coverage for eligible pregnant women and girls in 34 African countries **increased from 43% in 2023 to 45% in 2024,** but still below the target of 80% coverage
  - Current level of IPTp result in low birthweight being averted in an estimated 530 000 neonates

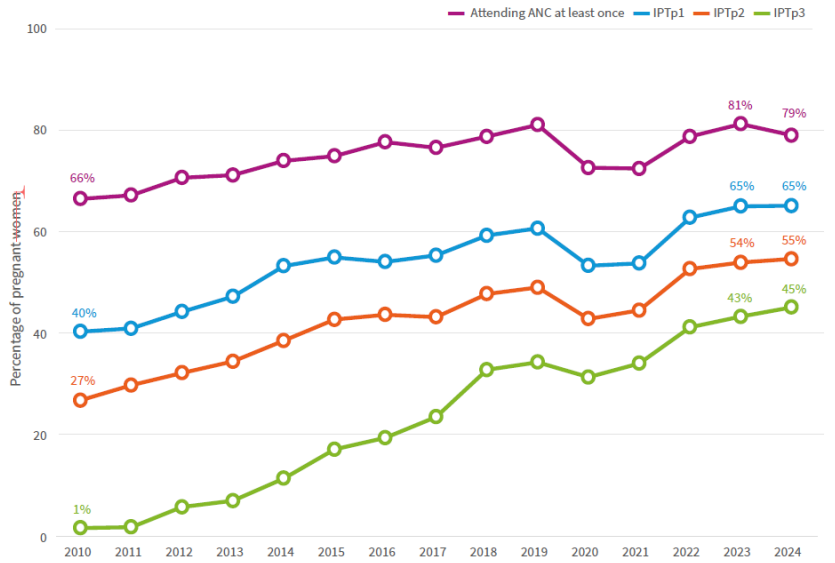
* Intermittent preventive treatment of malaria during pregnancy (IPTp) is used to prevent malaria among pregnant women and girls living in areas of moderate-to-high malaria transmission in Africa. WHO recommends a regimen of 3 or more doses.

Fig. 5.6. Subnational areas where SMC was delivered, and number of treatment cycles per district, in implementing countries in sub-Saharan Africa, 2024[a] *Source: LSHTM.*



LSHTM: London School of Hygiene & Tropical Medicine; SMC: seasonal malaria chemoprevention.
[a] Subnational data for implementation in Madagascar not shown.

Fig. 5.8. Percentage of pregnant women and girls attending an ANC clinic at least once and receiving IPTp, by number of SP doses, sub-Saharan Africa, 2010–2024 *Sources: NMP reports, CDC and WHO estimates.*



ANC: antenatal care; CDC: United States Centers for Disease Control and Prevention; IPTp: intermittent preventive treatment in pregnancy; IPTp1: first dose of IPTp; IPTp2: second dose of IPTp; IPTp3: third dose of IPTp; NMP: national malaria programme; SP: sulfadoxine–pyrimethamine; WHO: World Health Organization.

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Recent cuts in global health aid threaten decades of malaria progress

Sustained financing is critical for a resilient malaria response and continued health impact

- Modeled evidence that PMI led to 15M malaria cases, and 107,000 deaths averted globally in a year*
- Historical evidence shows that funding reductions lead to malaria resurgence and increased disease burden

From 2024 to 2025, disruptions and decline in global health financing

- In 2024, global malaria funding reached US$3.9B, less than half of what is needed annually
- From 2024 to 2025, ODA fell by 21%, largely due to reductions from key donors **

Decline impact programs and poses a significant risk to maintaining malaria response

- ODA reductions caused disruptions across health systems
- Increased the risk of stock-outs and campaign delays
- Routine Surveillance systems weakened, and majority of planned surveys cancelled or postponed

Mitigation strategies were implemented, but risk persists

- Rapid, coordinated action kept key interventions (SMC & ITN campaigns) mostly on track with partner support
- Ongoing risk as major donors signaled potential cuts while some U.S. funding resumes via the State Department
- Challenges in securing domestic financing for health
- Risk of outbreaks and malaria resurgence

Addressing current challenges will require leadership, community engagement and sustainable financing

- **Political commitment is essential** - Yaoundé Declaration demonstrated national and continental leadership, accountability, and institutional resilience

- Such a commitment called for **multi-stakeholder effort** to reinvigorate global malaria control
  - **Big Push framework** aimed to strengthen malaria response through inclusive national leadership, robust data systems, expanded access and quality of interventions, rapid adoption of new tools, and increased funding
  - **Community role** play critical in accessing interventions, ensuring accountability, and sustaining momentum.

- **New governance model needed**
  - Based on national leadership and global solidarity,
  - With programmatic advances including improved surveillance, vaccines, new vector control tools, and data-driven decision-making

Thank you

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