

WORLD MALARIA REPORT 2020

Global messaging



years of global
progress & challenges

30 NOVEMBER 2020

BRIEFING KIT

TOP-LINE MESSAGES

1. This year WHO is publishing a special edition of the *World malaria report* that highlights a period of unprecedented success in global malaria control. Beginning in the 1990s, the world laid the foundation for a renewed malaria response that contributed to 1.5 billion cases and 7.6 million deaths averted over the past two decades.
2. Despite remarkable progress, the global gains in combatting malaria have levelled off in recent years, and many high burden countries have been losing ground. In 2017, WHO warned that the fight against malaria had reached a crossroads. The “High burden to high impact” response, launched in 2018, aims to reignite progress.
3. Insufficient funding – at both the international and domestic levels – poses a significant threat to future progress. Funding gaps have resulted in gaps in access to proven, WHO-recommended malaria control tools.
4. In 2020, the COVID-19 pandemic emerged as a serious additional challenge to malaria responses worldwide.
5. In the current context, an effective use of limited resources will be critical to achieving a measurable impact against malaria. Local data and intelligence are vital to inform locally tailored solutions.
6. Progress can also be accelerated through robust political leadership, strengthened malaria surveillance, equity in access to quality health services, and stepped-up investment in research and innovation.

MESSAGE 1

WHO is publishing a special edition of the *World malaria report* that highlights a period of unprecedented success in global malaria control. Beginning in the 1990s, the world laid the foundation for a renewed malaria response that contributed to 1.5 billion cases and 7.6 million deaths averted over the past two decades.

- It took several decades from the end of the Global Malaria Eradication Programme (in 1969) for malaria to re-emerge as a public health priority. Insufficient political commitment and investment led to resurgences of the disease in many parts of the world – particularly in Africa.
- Throughout this period, there was limited access to effective vector control and treatment. The efficacy of chloroquine – the most commonly used antimalarial for both treatment and prevention – declined, resulting in further increases in malaria mortality.
- The 1990s laid both the political and scientific foundations for a renewed global response.
 - » A Ministerial Conference in Amsterdam, convened by WHO in 1992, marked a turning point in global efforts to contain malaria. In view of the increasing gravity and complexity of malaria, senior health leaders from 65 countries called for a renewed attack on the disease. A new WHO Global Malaria Control Strategy, endorsed by the Conference, was adopted the following year by the World Health Assembly.
 - » In June 1997, at its Assembly of Heads of State and Government, the Organization of African Unity released the Harare Declaration on Malaria Prevention and Control – the first formal political commitment in Africa to place malaria within the context of African economic recovery and development.
 - » Several months later, the Multilateral Initiative on Malaria was launched in Dakar, Senegal, at the first Pan-African Malaria Conference. This unprecedented gathering brought together leading researchers and academics to identify priority research areas for malaria.
 - » In 1998, WHO, the World Bank, the United Nations Development Programme and the United Nations Children's Fund created the Roll Back Malaria initiative with the goal of halving the global burden of malaria by 2010. Two years later, leaders of malaria-endemic countries in Africa signed the Abuja Declaration, which aimed to reduce malaria mortality on the African continent by 50% by the year 2010.
- Increased investment in research and innovation led to the development of new tools that continue to be the main interventions today – notably, insecticide-treated nets (ITNs), rapid diagnostic tests (RDTs), and artemisinin-based combination therapies (ACTs).
- The creation of new funding mechanisms – such as Global Fund to Fight AIDS, Tuberculosis and Malaria and the US President's Malaria Initiative – allowed for the wide-scale deployment of these new tools. Between 2000 and 2019, more than 2.2 billion ITNs, 2.7 billion RDTs and 3.1 billion ACTs were delivered to malaria-endemic countries.

- Together with robust political commitment in malaria-endemic countries, these and other developments contributed to an unprecedented period of success in global malaria control.
 - » Malaria control efforts coincided with other trends and changes that would have also contributed to reductions in the burden of this disease, including a period of considerable economic growth and development, infrastructure and housing improvements, rapid urbanization and general improvements in health systems and population health.
- Between 2000 and 2019, there was a marked reduction in global malaria case incidence and mortality rates:
 - » The malaria **case incidence rate** (cases per 1000 population at risk) fell from 80 in 2000 to 57 in 2019 (Fig. 3.2 a). Total malaria cases declined from 238 million in 2000 to 229 million in 2019. In this same period, the population in sub-Saharan Africa, which accounts for more than 90% of the global burden of malaria, increased from 665 million to over 1 billion.
 - » The **mortality incidence rate** (deaths per 100 000 population at risk) was reduced from 25 in 2000 to 10 in 2019 (Fig. 3.2 b). The total number of deaths fell from 736 000 in 2000 to 409 000 in 2019.
 - » All WHO regions have shown reductions in malaria case incidence and mortality incidence since 2000, and the entire WHO European Region has been free of malaria since 2015.

TABLE 3.1

Global estimated malaria cases and deaths, 2000–2019 *Source: WHO estimates*

YEAR	ESTIMATED CASES (x 000)	ESTIMATED DEATHS
2000	238 000	736 000
2001	244 000	739 000
2002	239 000	736 000
2003	244 000	723 000
2004	248 000	759 000
2005	247 000	708 000
2006	242 000	716 000
2007	241 000	685 000
2008	240 000	638 000
2009	246 000	620 000
2010	247 000	594 000
2011	239 000	545 000
2012	234 000	517 000
2013	225 000	487 000
2014	217 000	471 000
2015	218 000	453 000
2016	226 000	433 000
2017	231 000	422 000
2018	228 000	411 000
2019	229 000	409 000

FIG. 3.2.

Global trends in a) malaria case incidence rate (cases per 1000 population at risk) and b) mortality incidence rate (deaths per 100 000 population at risk), 2000–2019 and c) distribution of malaria cases and d) deaths by country, 2019 Source: WHO estimates.

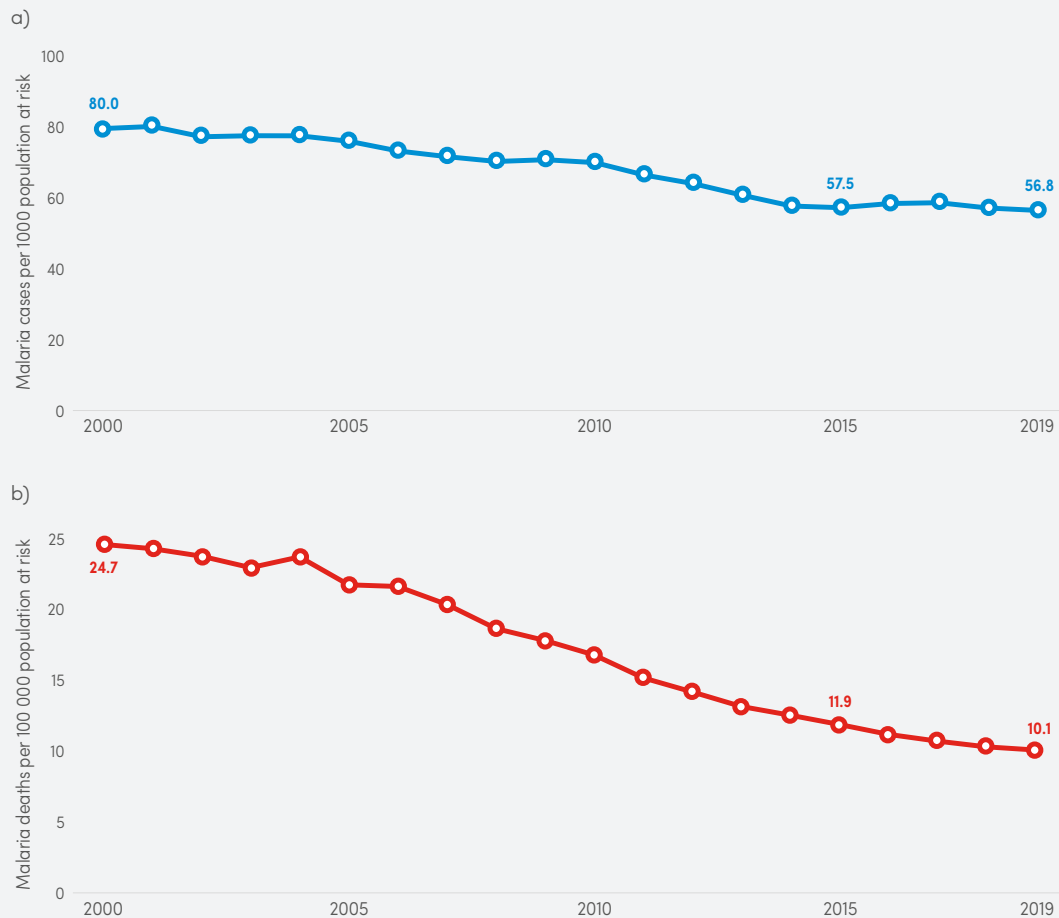
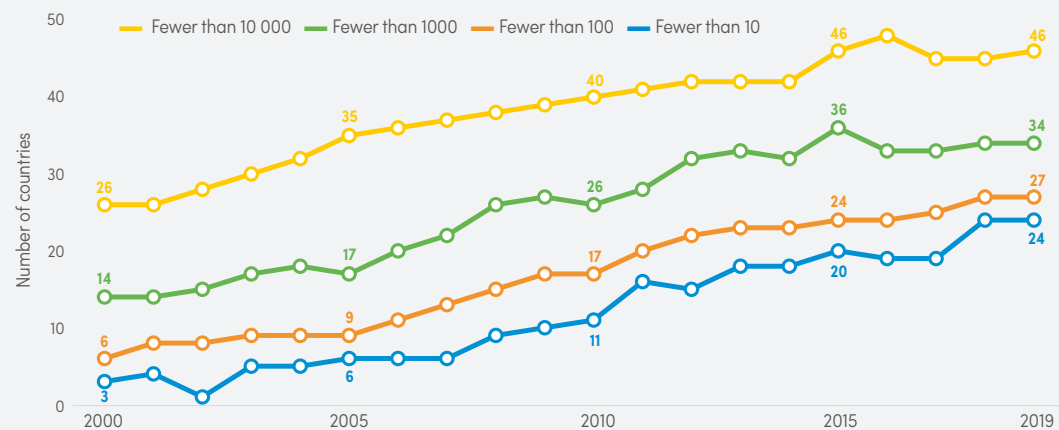


FIG. 4.1.

Number of countries that were malaria endemic in 2000, with fewer than 10, 100, 1000 and 10 000 indigenous malaria cases between 2000 and 2019 Sources: NMP reports and WHO estimates.



NMP: national malaria programme; WHO: World Health Organization.

- An estimated 1.5 billion malaria cases and 7.6 million malaria deaths were averted globally since 2000:
 - » Most cases (82%) and deaths (94%) averted were in the African Region, followed by the South-East Asia Region (10% and 3%).
- Many more countries moved towards the goal of zero malaria.
 - » Between 2000 and 2019, the number of countries with fewer than 100 indigenous malaria cases – a strong indicator that malaria elimination is within reach – increased from 6 to 27 (Fig. 4.1).
 - » Over this same time period, 21 countries reported at least three consecutive years of zero indigenous malaria cases, and 10 of these countries were certified malaria free by WHO.¹
 - » In 2019, China reported zero indigenous cases of malaria for the third consecutive year; the country recently applied for the official WHO certification of malaria elimination. In 2020, El Salvador became the first country in Central America to apply for the WHO malaria-free certification.
- In the face of the ongoing threat of **antimalarial drug resistance**, countries of the Greater Mekong subregion made major gains towards their goal of malaria elimination by 2030.
 - » In the six countries of the Greater Mekong subregion – Cambodia, China (Yunnan Province), Lao People’s Democratic Republic, Myanmar, Thailand and Viet Nam – the reported number of malaria cases fell by 90% from 2000 to 2019, while *P. falciparum* (*Pf*) cases fell by 97% in the same time period.
 - » This accelerated decrease in *Pf* malaria is notable in view of the threat posed by drug resistance in the subregion. The availability of efficacious antimalarial drugs, combined with a substantial decline in *Pf*, presents a unique window to defeat *Pf* malaria in the Greater Mekong.
 - » There were an estimated 240 malaria-related deaths in 2019 compared to 6000 deaths in the year 2000.
- By the year 2015, the malaria-specific target of the 2000 Millennium Development Goals (MDG 6 target C) – which called for halting and beginning to reverse the global incidence of malaria – had been achieved.
 - » A 37% global decline in new malaria cases was reported over the 15-year time frame. During the same period, malaria mortality rates fell by 60% worldwide.²

1 United Arab Emirates (2007), Morocco (2010), Turkmenistan (2010), Armenia (2011), Kyrgyzstan (2016), Sri Lanka (2016), Uzbekistan (2018), Paraguay (2018), Argentina (2019) and Algeria (2019)

2 As new data became available in the period 2015–2019, these estimates have changed. According to current estimates, there was a 29% global decline in malaria case incidence between 2000 and 2015 and a 60% decline in mortality rates in this same time period.

- Buoyed by the success of malaria control efforts in the MDG era, the World Health Assembly adopted a new WHO global strategy in May 2015 with ambitious targets for further reductions in malaria cases and deaths.
 - » The [Global technical strategy for malaria 2016–2030](#) (GTS) identified four global targets for 2030, with milestones along the way to track progress. The 2030 targets include:
 - reducing malaria case incidence by at least 90%;
 - reducing malaria mortality rates by at least 90%;
 - eliminating malaria in at least 35 countries; and
 - preventing a resurgence of malaria in all countries that are malaria-free.
- Near-term GTS milestones for 2020 include global reductions in malaria case incidence and death rates of at least 40% and the elimination of malaria in at least 10 countries.

Goals, milestones and targets for the *Global technical strategy for malaria 2016–2030*

GOALS	MILESTONES		TARGETS
	2020	2025	2030
1. Reduce malaria mortality rates globally compared with 2015	At least 40% 18% reduction achieved 22% off track	At least 75%	At least 90%
2. Reduce malaria case incidence globally compared with 2015	At least 40% 3% reduction achieved 37% off track	At least 75%	At least 90%
3. Eliminate malaria from countries in which malaria was transmitted in 2015	At least 10 countries On track	At least 20 countries	At least 35 countries
4. Prevent re-establishment of malaria in all countries that are malaria-free	Re-establishment prevented On track	Re-establishment prevented	Re-establishment prevented

MESSAGE 2

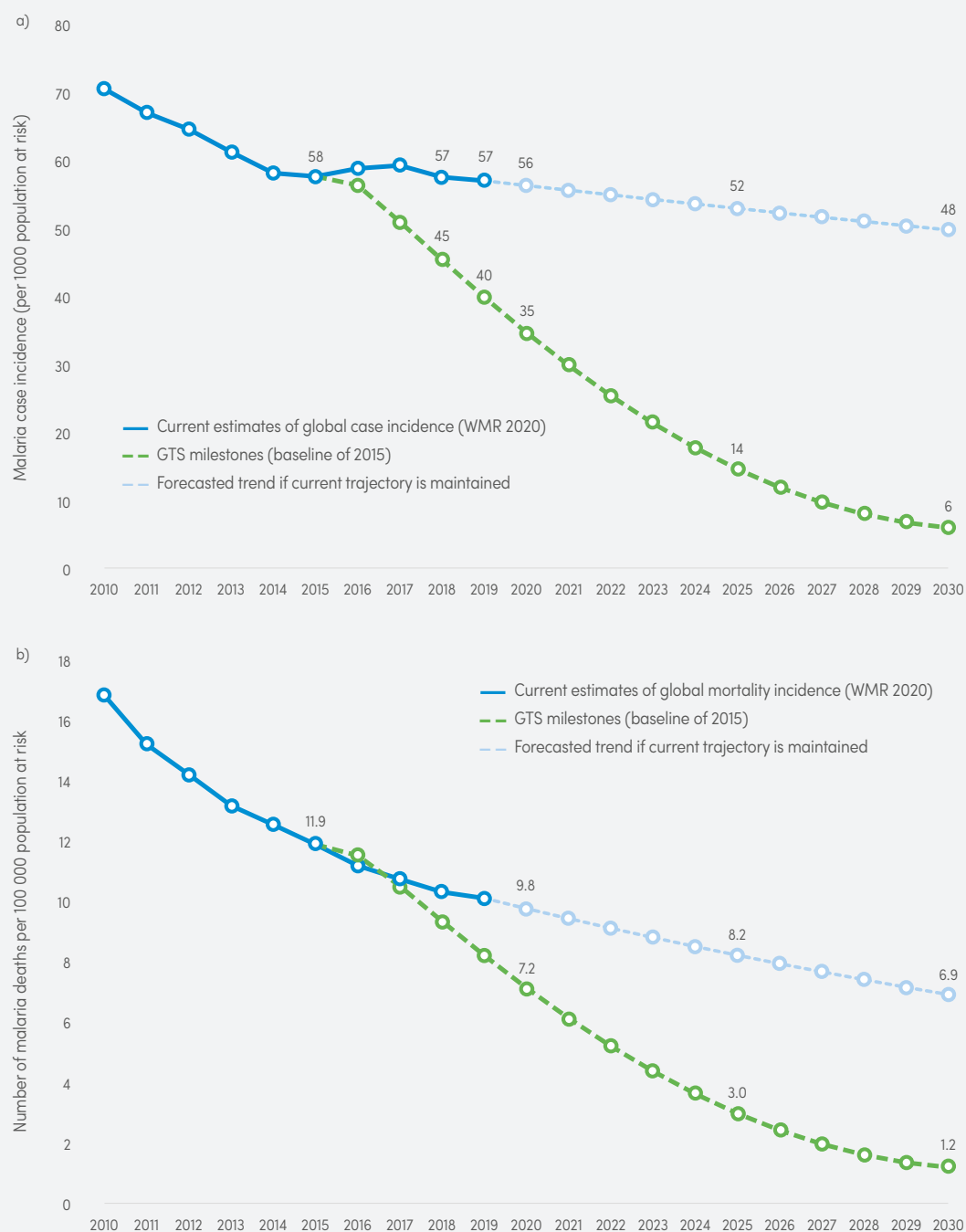
Despite remarkable progress, the global gains in combatting malaria have levelled off in recent years, and many high burden countries have been losing ground. In 2017, WHO warned that the fight against malaria had reached a crossroads. The “High burden to high impact” response, launched in 2018, aims to reignite progress.

- In 2017, WHO’s annual *World malaria report* warned that the global response had reached a “crossroads” and that progress towards critical GTS targets for reductions in disease and death was off track.
 - » In the report foreword, the WHO Director-General declared: “The choice before us is clear. If we continue with a ‘business as usual’ approach – employing the same level of resources and the same interventions – we will face near-certain increases in malaria cases and deaths.”
- For a second consecutive year in 2018, the *World malaria report* sounded the alarm over a stall in progress. Of particular concern was the report’s finding that, among the 10 highest burden African countries, there were 3.5 million more cases in 2017 over the previous year.
- According to WHO global projections,³ critical GTS 2020 milestones will not be achieved:
 - » **Case incidence:** WHO projects that, in 2020, there were an estimated 56 malaria cases per 1000 population at risk against a GTS target of 35 cases (Fig 8.1 a). The GTS 2020 milestone will be missed by an estimated 37% and, at the current rate of progress, the strategy’s 2030 target could be missed by 87%.
 - » **Mortality rate:** In 2020, the estimate for globally projected malaria deaths per 100 000 population at risk was 9.8 against a GTS target of 7.2 deaths (Fig 8.1 b). The GTS 2020 milestone will be missed by an estimated 22%.
 - » With the exception of the WHO South-East Asia Region, none of the world’s malaria-endemic regions are on track to achieve the GTS 2020 target of a 40% reduction in malaria case incidence.
- Malaria continues to take a heavy toll on pregnant women and children, particularly in Africa.
 - » Left untreated, malaria in pregnancy can lead to maternal death, anemia and low birth weight – a major cause of infant mortality.
 - » In 2019, an estimated 11.6 million pregnant women living in 33 African countries with moderate-to-high transmission were infected with malaria (35% of all pregnancies). As a result, an estimated 822 000 children in these 33 countries were born with a low birth weight.

³ The projections presented in the report do not account for potential disruptions due to the COVID-19 pandemic, which is likely to lead to higher than expected malaria morbidity and mortality.

FIG. 8.1.

Comparison of global progress in malaria: a) case incidence and b) mortality incidence 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.

- To reignite the pace of progress, WHO and the RBM Partnership to End Malaria catalysed the “**High burden to high impact**” (HBHI) response, launched in November 2018.
 - » HBHI builds on the principle that no one should die from a disease that is preventable and treatable. It is led by 11 countries that, together, accounted for approximately 70% of the world’s malaria burden in 2017.⁴ Over the last two years, HBHI countries have implemented activities across four response elements:
 - political will to reduce the toll of malaria;
 - strategic information to drive impact;
 - better guidance, policies and strategies;
 - a coordinated national malaria response.
- While it is too early to measure the impact of the HBHI approach, the report shows that in the first year:
 - » The total number of cases in the 11 HBHI countries increased slightly from 155 million in 2018 to 156 million in 2019.
 - » Between 2018 and 2019, cases in India were reduced by 1.2 million and in Mali by 800 000. Over the same timeframe, there was an increase in cases in Nigeria (2.4 million) and in the Democratic Republic of the Congo (1.2 million).
 - » Deaths were reduced in the 11 countries from 263 000 in 2018 to 226 000 in 2019.

⁴ Ten countries in sub-Saharan Africa – Burkina Faso, Cameroon, Democratic Republic of the Congo, Ghana, Mali, Mozambique, Niger, Nigeria, Uganda and United Republic of Tanzania – and India.

MESSAGE 3

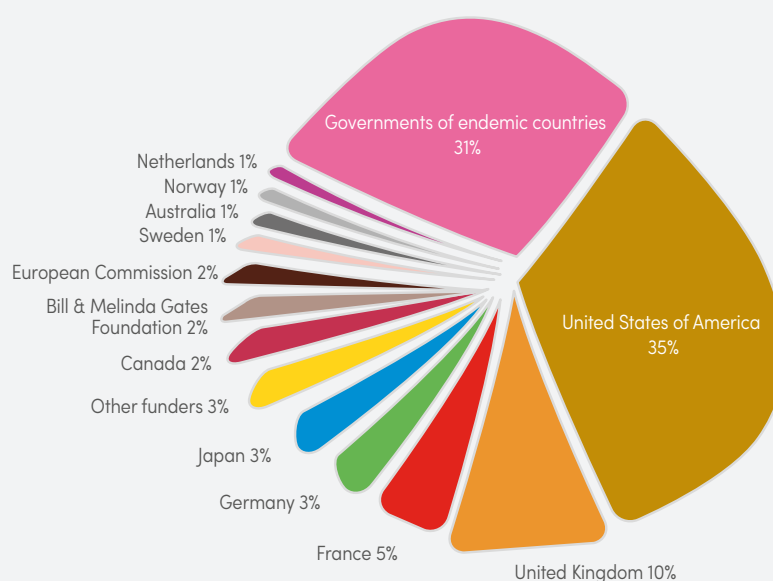
Insufficient funding – at both the international and domestic levels – poses a significant threat to future progress. Funding gaps have resulted in gaps in access to proven, WHO-recommended malaria control tools.

Funding

- Despite a steep increase since 2000, levels of funding have plateaued in recent years and remain insufficient to achieve global targets.
 - » According to the report, funding for malaria control and elimination totaled US\$ 3 billion in 2019, falling far short of the US\$ 5.6 billion target of the global malaria strategy.
 - » Of the US\$ 3 billion invested in 2019, US\$ 2.1 billion came from international funders with over US\$ 1.2 billion (40%) channelled through the Global Fund. The highest contributions came from the Government of the United States of America (US\$ 1.1 billion), followed by the United Kingdom of Great Britain and Northern Ireland (US\$ 200 million). Germany, France and Japan each contributed an estimated US\$ 100 million, while other countries and private sector donors contributed a combined US\$ 400 million.
 - » Domestic funding for malaria has also stagnated over the last decade. In 2019, governments of malaria-endemic countries contributed about 31% of malaria funding, with investments of approximately US\$ 900 million in 2019 (Fig. 6.1).

FIG. 6.1.

Funding for malaria control and elimination, 2010–2019 (% of total funding), by source of funds (constant 2019 US\$) Sources: ForeignAssistance.gov, Global Fund, NMP reports, OECD CRS database, United Kingdom Department for International Development, WHO estimates and World Bank DataBank.



CRS: creditor reporting system; Global Fund: Global Fund to Fight AIDS, Tuberculosis and Malaria; NMP: national malaria programme; OECD: Organisation for Economic Co-operation and Development; United Kingdom: United Kingdom of Great Britain and Northern Ireland; WHO: World Health Organization.

- » Robust financing will be essential to meet the GTS targets for 2025 and beyond. The historic replenishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria and increased malaria funding by the US President's Malaria Initiative are important and positive milestones of the past few years. However, with a US\$ 2.6 billion funding gap in 2019, additional commitments are needed.

Coverage gaps

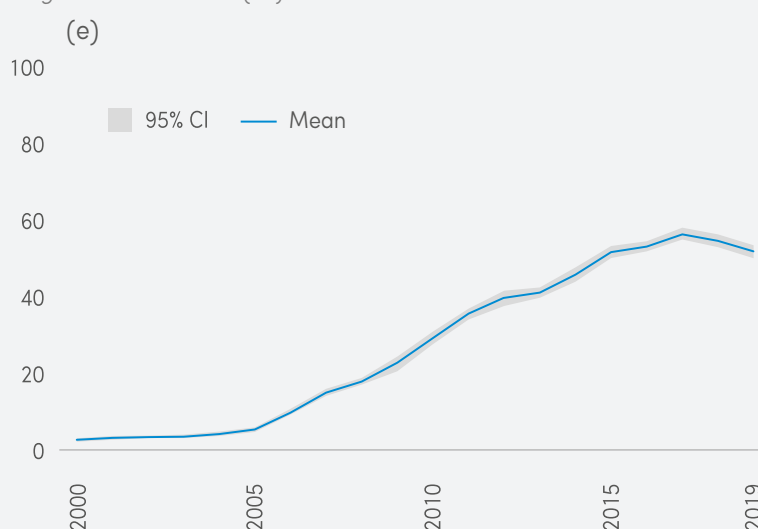
- Since 2000, expanded access to WHO-recommended malaria control interventions has played a critical role in reducing the global burden of the disease. However, a large proportion of the population at risk of malaria – particularly in the WHO African region – continues to lack access to prevention, diagnosis and treatment.

Prevention

- Vector control is the main approach to prevent malaria and reduce transmission. Two forms of vector control are effective in a wide range of settings: insecticide-treated mosquito nets (ITNs) and indoor residual spraying of insecticides (IRS).
 - » **Insecticide-treated nets (ITNs)** are the mainstay of malaria prevention efforts in sub-Saharan Africa. Between 2000 and 2019, the percentage of the population sleeping under an ITN increased considerably for children under the age of 5 (from 3% to 52%), for pregnant women (from 3% to 52%) and for the entire at-risk population (from 2% to 46%). However, despite impressive progress since 2000, there have been no significant gains since 2015 (Fig. 7.2 d).

FIG. 7.2.

Indicators of population-level coverage of ITNs, sub-Saharan Africa, 2000–2019: a) percentage of households with at least one ITN, b) percentage of households with one ITN for every two people, c) percentage of population with access to an ITN, d) percentage of population using an ITN, e) percentage of children aged under 5 years using an ITN and f) percentage of pregnant women sleeping under an ITN Sources: ITN coverage model from MAP (131).



- » **Indoor residual spraying (IRS)** of insecticides is another powerful way to rapidly reduce malaria transmission. It involves spraying insecticides on the indoor walls and ceilings of housing structures; for a period of time, the insecticides kill mosquitoes that come into contact with these surfaces. Globally, the percentage of the population protected by IRS declined from 5% in 2010 to 2% in 2019 (Fig. 7.4).
- The use of preventive antimalarial drugs, either alone or in combination, is another WHO-recommended strategy⁵ to protect against malaria among the most vulnerable groups in sub-Saharan Africa: pregnant women, infants and children under 5 years of age.
 - » **Intermittent preventive treatment in pregnancy (IPTp):** To prevent malaria among pregnant women living in areas of moderate-to-high malaria transmission in Africa, WHO recommends 3 or more doses of IPTp with the quality-assured medicine sulfadoxine-pyrimethamine (SP). In 2019, just over one third (34%) of pregnant women in 33 African countries received the recommended 3 or more doses of IPTp-SP. This represents a considerable increase in coverage since 2010 but only a modest increase since 2018 (Fig. 7.6).
 - » **Seasonal malaria chemoprevention (SMC)** is recommended for children under the age of 5 in high burden and highly seasonal malaria transmission areas. In 2019, a total of 21.5 million children in 13 African countries received this preventive malaria therapy during the high-transmission rainy season, compared to 0.2 million in two countries in 2012.

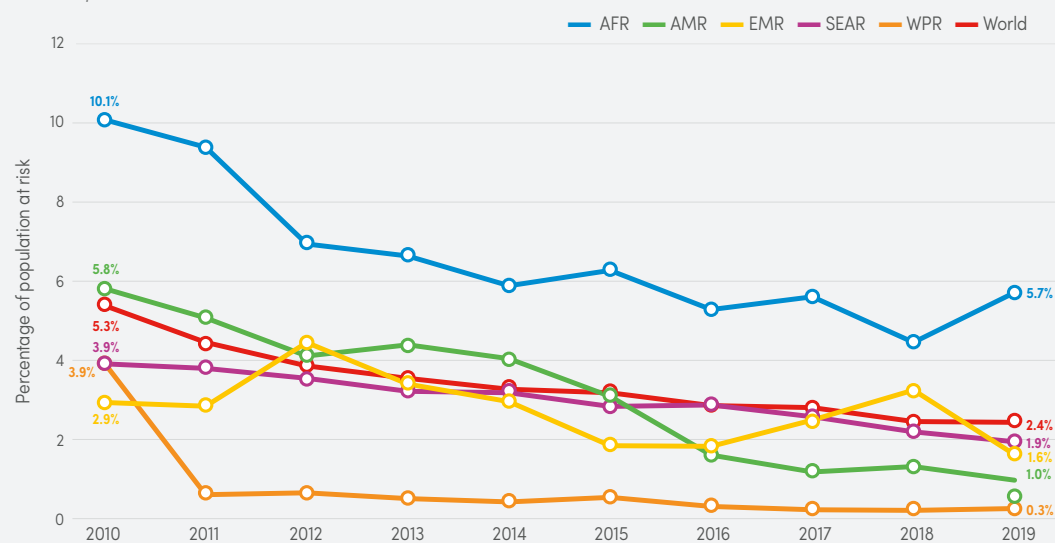
Diagnosis and treatment

- Early diagnosis and prompt treatment are critical to reducing severe malaria-related disease and death. High-quality malaria diagnosis through microscopy or rapid diagnostic testing is important in all malaria-endemic settings. The *P. falciparum* parasite species is responsible for 97% of malaria cases globally. The most commonly-used treatment for *P. falciparum* malaria is artemisinin-based combination therapy (ACT).
- According to household surveys from 21 countries in sub-Saharan Africa:
 - » Treatment-seeking rates for children with a fever have changed very little over the last 15 years. Surveys from the period 2015 to 2019 show that nearly one third (31%) of febrile children under the age of 5 did not receive care, compared to 36% over the period 2005 to 2011.
 - » Among febrile children who were taken to a health provider for care, the rate of diagnosis increased considerably, from a median of 15% in the baseline surveys (2005–2011) to 38% in the latest surveys (2015–2019).
 - » Among children with a fever who benefited from malaria treatment, the use of ACTs increased more than twofold: from 39% in baseline surveys to 81% in the latest surveys.

⁵ Preventive therapies are intended to complement vector control measures (ITNs, IRS), prompt diagnosis of suspected malaria, and treatment of confirmed cases with ACTs.

FIG. 7.4.

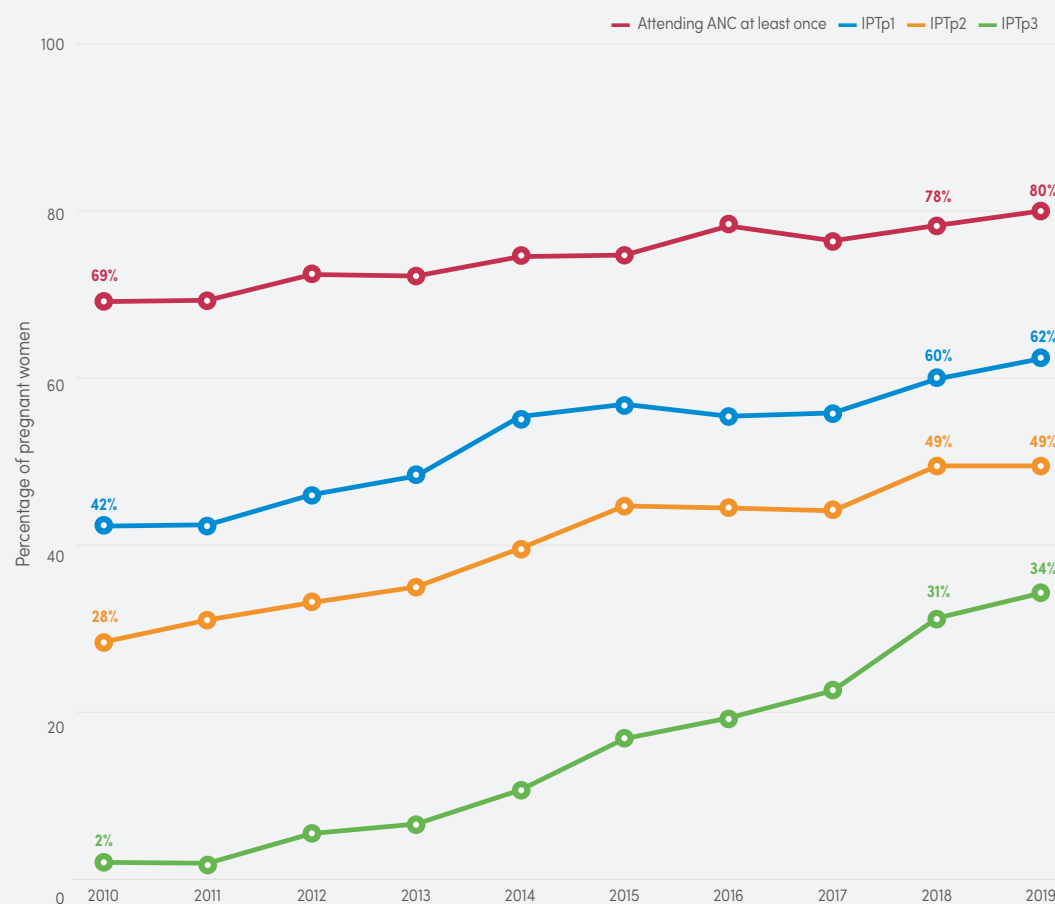
Percentage of the population at risk protected by IRS, by WHO region, 2010–2019 *Source: IVCC data and NMP reports.*



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; IRS: indoor residual spraying; IVCC: Innovative Vector Control Consortium; NMP: national malaria programme; SEAR: WHO South-East Asia Region; WHO: World Health Organization; WPR: Western Pacific Region.

FIG. 7.6.

Percentage of pregnant women attending an ANC clinic at least once and receiving IPTp, by dose, sub-Saharan Africa, 2010–2019 *Source: NMP reports, US CDC and Prevention estimates and WHO estimates.*



ANC: antenatal care; CDC: 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; US: United States; WHO: World Health Organization.

MESSAGE 4

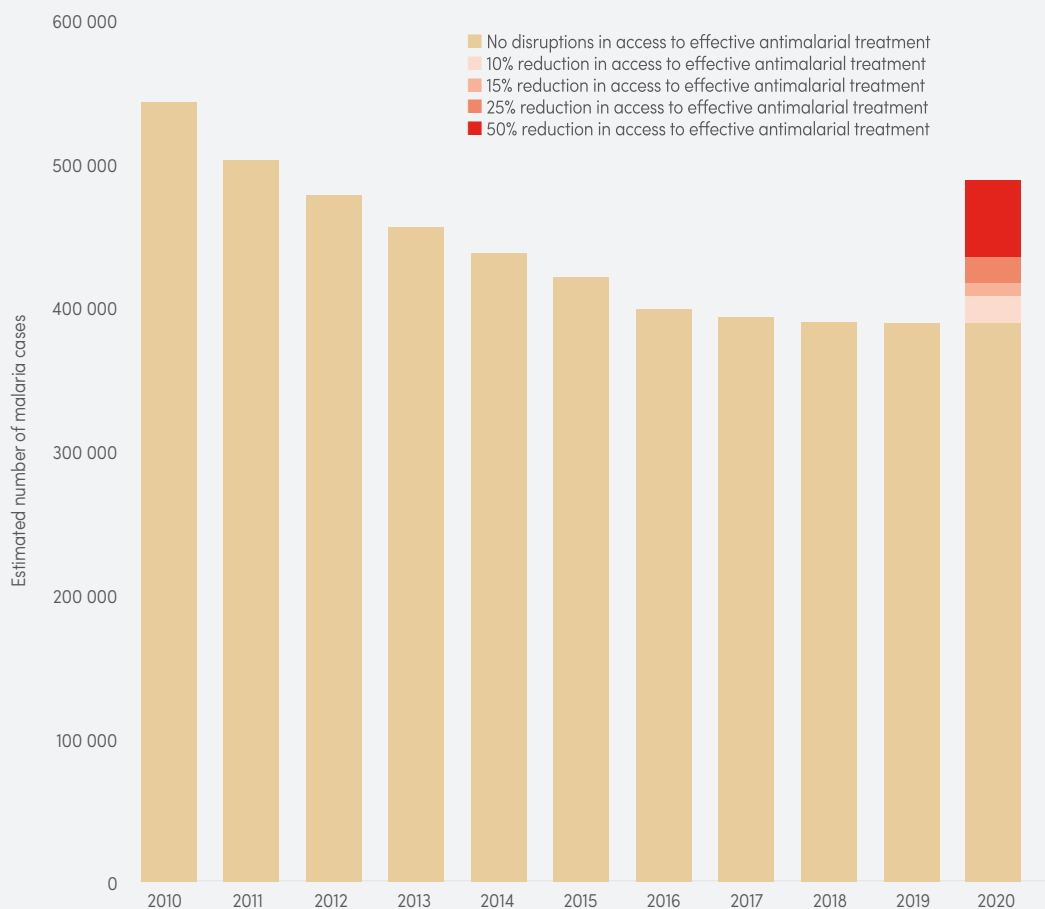
In 2020, the global COVID-19 pandemic emerged as a serious additional challenge to malaria responses worldwide.

- Since the early days of the pandemic, WHO and partners have raised concerns that lockdowns and other COVID-19 restrictions could lead to major disruptions in essential services for the prevention, detection and treatment of malaria.
- In March 2020, [WHO issued a statement](#) urging countries to maintain malaria services while ensuring they are deployed in ways that protect health workers and communities against potential COVID-19 transmission.
 - » Dr Pedro Alonso, Director of the Global Malaria Programme, said: “WHO would like to send a clear message to malaria-affected countries in Africa. Do not scale back your planned malaria prevention, diagnostic and treatment activities. If someone living in a place with malaria develops a fever, he or she should seek diagnosis and care as soon as possible.”
 - » This message was later reinforced by the WHO Director-General, Dr Tedros, who said in his [opening remarks](#) during a virtual forum: “Countries need not choose between protecting their populations from COVID-19 or malaria; they can – and should – do both.”
- Heeding the call, many malaria-endemic countries mounted impressive responses to the pandemic, adapting the way they deliver malaria services to the COVID-19 restrictions imposed by governments.
 - » [Guidance](#) developed by WHO and partners – “Tailoring malaria interventions in the COVID-19 response” – has been critical in helping countries adapt their malaria responses during the pandemic to ensure the safe delivery of services that prevent, diagnose and treat the disease. This guidance complements broader WHO guidance on maintaining essential health services and providing [community outreach services](#) during the pandemic.
- According to the report, most malaria prevention campaigns moved forward in 2020 without major delays.
 - » In Africa’s Sahel subregion, most countries with planned SMC campaigns are on track to complete by the end of 2020.
 - » All 31 countries (25 in Africa) that had planned ITN campaigns in 2020 are aiming to complete them by the end of the year. As of 23 November 2020, 105 million of the expected 222 million LLINs had been distributed.
 - » Of the 47 countries globally with planned IRS campaigns, 36 are on track to complete them by the end of the year.

- However, disruptions in malaria diagnosis and treatment have been more difficult to quantify.
 - » The analysis suggests that in all malaria-endemic countries, disruptions in diagnosis and treatment have ranged from between 5% to 50%.
- According to the report, even with the completion of malaria prevention campaigns, moderate disruptions in access to effective antimalarial treatment could lead to a considerable loss of life.
 - » The analysis suggests, for example, that a 10% disruption in access to effective antimalarial treatment in sub-Saharan Africa could lead to 19 000 additional deaths. Disruptions of 25% and 50% in the region could result in an additional 46 000 and 100 000 additional deaths, respectively (Fig. 10.7).

FIG. 10.7.

Estimated potential increase in malaria deaths in sub-Saharan Africa (excluding Botswana, Eswatini, South Africa and Namibia) corresponding to varying levels of disruptions of access to effective antimalarial treatment Source: WHO estimates.



WHO: World Health Organization.

MESSAGE 5

In the current context, an effective use of limited resources will be critical to achieving a measurable impact against malaria. Local data and intelligence are vital to inform locally tailored solutions.

- To date, the HBHI approach has been formally initiated in 10 high burden countries: Burkina Faso, Cameroon, the Democratic Republic of the Congo, Ghana, India, Mozambique, Niger, Nigeria, Uganda and the United Republic of Tanzania. In all initiation meetings, there was strong support for the approach, with high-level government and partnership participation.
- Recognizing the heterogeneity of malaria within national borders, HBHI countries are moving away from a “one-size-fits all” approach. Instead of applying the same approach to malaria control everywhere, they are using local data and intelligence to adapt to local disease patterns and optimize the choice and delivery of malaria control interventions.
 - » The HBHI approach, for example, has been used successfully to inform Nigeria’s new national strategic plan for malaria, as well as funding requests to the Global Fund, the US President’s Malaria Initiative, and other donors.
 - » A recent analysis from Nigeria found that through an optimized mix of interventions, Nigeria could avert tens of millions of additional cases and thousands of additional deaths by the year 2023, compared to a business-as-usual approach. The interventions include scaling up the use of preventive malaria therapy for young children, implementing new-generation piperonyl butoxide nets, and improving efficiencies in the deployment of net campaigns in urban areas. This approach would enable Nigeria to free up financial resources that could be used in other areas where they are needed most.

MESSAGE 6

Progress can also be accelerated through robust political leadership, strengthened malaria surveillance, equity in access to quality health services, and stepped-up investment in research and innovation.

- As we learn from COVID-19 and the early progress of HBHI, the principles outlined in the GTS have become even more relevant for the challenges we face today.
 - » **Country ownership and leadership.** For malaria control efforts to succeed, government stewardship is essential, together with the engagement and participation of affected communities.
 - Tackling malaria and other major public health challenges requires a multisectoral, whole-of-government approach.
 - Political commitment must translate into resources and actions to ensure all people at risk of malaria have the services they need to prevent, detect and treat the disease.
 - » **Improved surveillance, monitoring and evaluation.** Reliable health information is critical in the fight against malaria to develop sound strategic plans, ensure resources are targeted efficiently and equitably, and measure the impact of interventions.
 - Effective and efficient malaria programming and the containment of outbreaks such as the COVID-19 pandemic are reliant on effective data and surveillance systems.
 - While considerable improvements have been made in the last few years, surveillance systems in many countries, particularly those with a high burden of malaria, must be further strengthened.
 - The report highlights a number of actions that are needed, among them:
 - moving away from an aggregate tallying of cases by hand to personal electronic records to improve efficiency, timeliness and quality of surveillance;
 - using data to inform communities on the services that are available to them, their rights to access them, and the risks they are exposed to.
 - » **Equity in access to health services.** All citizens, wherever malaria is present, must have access to quality services to prevent, diagnose, and treat the disease without facing financial hardship.
 - As the report documents, many people living in malaria-affected countries still lack access to essential health services, and some are pushed into extreme poverty by paying for them.
 - Universal health coverage is the vital foundation to ending malaria worldwide and achieving the health-related Sustainable Development Goals.

» **Innovation in tools and approaches.** Eliminating malaria in all countries, especially those with a high disease burden, will likely require tools that are not available today. Investing in the research and development of new vector control tools and insecticides, improved diagnostics, and more effective medicines must be a priority.

- Despite the substantial progress against malaria seen over the last two decades, countries have relied on a combination of imperfect prevention tools that were mainly developed in the 1980s. According to the report, no “truly revolutionary product” has reached the market over the last 10 years.
- In September 2019, the WHO Director-General issued a “[malaria challenge](#)”, calling on the global health community to ramp up investment in the research and development of new malaria-fighting tools and approaches. This message was further reinforced in the [report](#) of the WHO Strategic advisory group on malaria eradication (April 2020); members of the group noted that ridding the world of malaria would require an enhanced focus on the research and development of new tools.

Vector control

- In the vector control space, a number of new tools, technologies and approaches are under development, including, for example, new types of insecticide-treated nets, spatial mosquito repellants, vector traps and sugar baits designed to attract and kill *Anopheles* mosquitoes; see [here](#) for an overview.
 - If these tools demonstrate efficacy in controlling malaria, WHO will formulate new policy recommendations or amend existing ones to support their deployment in malaria-affected countries.
- In recent years, there have also been significant advances in gene-drive approaches aimed at suppressing mosquito populations and reducing their susceptibility to infection, as well as their ability to transmit disease-carrying pathogens.
 - These advances have led to a debate on the benefits and risks of genetically modified mosquitoes (GMMs). In October 2020, WHO published a [new position statement](#) clarifying its stance on the evaluation and use of GMMs for the control of vector-borne diseases.

RTS,S malaria vaccine

- In 2019, three countries – Ghana, Kenya and Malawi – introduced the RTS,S malaria vaccine in selected areas through a [WHO-coordinated pilot programme](#). The vaccine has been shown through rigorous clinical trials to reduce 4 in 10 malaria cases in young children. Evidence and experience from the programme will inform future policy decisions on the vaccine’s potential wider deployment.

- As of November 2020, nearly half a million children had received their first dose of the vaccine across three African countries (Ghana, Kenya, Malawi). Despite the challenges posed by the COVID-19 pandemic, these countries have achieved good uptake of the vaccine in areas where children are at high risk of illness and death from malaria. Vaccination is continuing in all participating countries without major disruptions.
- The RTS,S vaccine programme has been rolled out in partnership with Ministries of Health of the three countries, PATH, and GSK, the vaccine manufacturer. The programme is funded through contributions from Gavi, the Vaccine Alliance, the Global Fund and Unitaid.

The *World malaria report 2020* and all related material is available at:
<https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2020>

