THE GLOBAL FUND

Malaria

Results Report 2024

This chapter is part of the Results Report 2024.

2023 was another year of significant progress in the fight against HIV, tuberculosis (TB) and malaria. In countries where the Global Fund invests, there has been a full recovery from the disruptive impact of the COVID-19 pandemic. The results we have achieved in the last year build on our extraordinary track record of progress. Over the last two decades, our partnership has cut the combined death rate from AIDS, TB and malaria by 61%. As of the end of 2023, the Global Fund partnership has saved 65 million lives.

Online Report

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State of the Fight

Malaria

This chapter captures the latest information available on the fight against malaria. In 2023, the Global Fund partnership accelerated the equitable deployment of tools for malaria prevention, testing and treatment and continued to build strong, climate-resilient health systems. The Global Fund partnership is fighting back to defeat this daunting global health challenge and build on the significant progress that we have made since 2002.

Drosella, a community health worker, conducts home visits to test families and children for malaria in Mubuga, southern Rwanda. Community health workers are on the front lines of health care and disease response in rural and hard-to-reach communities – often, they are familiar, trusted people who are an integral part of the communities they serve.

The Global Fund/Brian Otieno

The challenge

Nearly half the world's population is at risk for malaria. In 2022, there were 249 million malaria cases worldwide – 94% of them in sub-Saharan Africa. Without access to treatment, these infections can be deadly. In malaria-endemic areas, families with young children face the grim reality that their child may not survive a malaria infection. In 2022, 76% of the 608,000 malaria deaths worldwide were in children under 5.

Ending malaria by 2030 remains a daunting challenge. Obstacles – climate change, inequitable access to prevention, testing and treatment services, humanitarian crises, conflict, inadequate funding to bridge critical gaps in prevention coverage, and growing resistance to antimalarial drugs and insecticides – hinder our way forward.

Of the three diseases at the core of the Global Fund's mission, malaria is the most affected by climate change. Malaria transmission is intricately connected with temperature and rainfall patterns. Extreme weather events can also cause rapid spikes in malaria cases. Extreme heat and drought can cause displacement of populations to higher transmission areas, making them more vulnerable to malaria. With every passing year, the effects of climate change will make ending malaria as a public health threat more difficult.

To meet the Sustainable Development Goal 3 target of ending malaria as a public health threat by 2030, countries are aiming to meet a set of global targets to reduce malaria case incidence and mortality rates by at least 90% by 2030 compared to 2015 levels. Malaria must also be eliminated in at least 35 countries, and a resurgence of malaria in all countries that are malaria-free must be prevented. The gap between these milestones and reality has been widening over the last several years.

But the Global Fund partnership is fighting back to defeat this daunting global health challenge and build on the significant progress that we have made since 2002. We are investing to build strong, climate-resilient health systems and accelerate the equitable deployment of tools for malaria prevention, testing and treatment. We strive to bring innovative and effective tools to populations, bridging the gap to the last mile. Global Fund investments to fight malaria support country-owned and country-led health programs that are tailored to reach those most in need and strengthen the entire health system.

The Global Fund's response

With support from Global Fund grants, countries are designing and implementing health programs to defeat malaria and ensure a healthier, safer and more equitable future for all.

The Global Fund provides the majority – 62% – of all international financing for malaria programs and we have invested more than US$19.1 billion in malaria programs as of 30 June 2024.

To end malaria, we must accelerate access to lifesaving tools to those who need them most, especially children under 5 and pregnant women in malaria-endemic countries. In 2023 the Global Fund expanded access to powerful tools to prevent and treat malaria, including insecticide-treated mosquito nets, seasonal malaria chemoprevention for children at high risk of malaria, intermittent preventive treatment of malaria for pregnant women, indoor residual spraying, and antimalarial medicines. With the aim to provide quality, people-centered care that maximizes resources and impact, our investments also focused on sub-national tailoring of the malaria response – including the implementation of the activity-based contract model to reach the last mile during mosquito net distributions in the Democratic Republic of the Congo, or support to community health workers who can access hard-to-reach communities in malaria-endemic areas.

We work as a partnership at local and global levels. In many countries where we invest, we work with governments, civil society and community-based organizations. At the global level, we work with a diverse set of partners, including the U.S. President's Malaria Initiative, the World Health Organization (WHO), the Bill & Melinda Gates Foundation, the RBM Partnership to End Malaria and others to accelerate the response to malaria and strengthen our investments in the fight against the disease. Together with Gavi, the Vaccine Alliance (Gavi), we invest to build resilient health systems and work to ensure that countries deploy the most appropriate set of tools in the fight against malaria – including vaccines. Unitaid and the Global Fund have invested together in innovations like seasonal malaria chemoprevention and dual-insecticide mosquito nets.

Equity, human rights and gender equality

For many countries, assessing and addressing human rights and gender-related barriers to malaria services are becoming a critical focus within their control or elimination programs. Initiatives like the Malaria Matchbox Toolkit – which more and more countries are prioritizing in the current grant cycle – and other equity assessment tools assist countries in identifying populations, groups, or individuals most affected by malaria.

In Uganda and Kenya for example, the Global Fund's Breaking Down Barriers initiative aims to support countries to scale up evidence-based programs that remove equity, rights and gender-related barriers to malaria services, with the aim to increase the effectiveness of Global Fund grants and ensure that health services reach those most affected. Breaking Down Barriers assessments show that by 2023, both countries had integrated human rights and gender considerations into their national malaria strategies and program implementation. Malaria Matchbox assessments identified at-risk populations and highlighted underserved areas. Community leadership, through dialogues, facilitated resource allocation closer to communities, enabling timely identification of challenges and locally driven solutions.

Prevention

Malaria prevention underpins malaria control efforts and is the most effective way to dramatically reduce cases and deaths. The Global Fund invests in trusted prevention tools including insecticide-treated nets, seasonal malaria chemoprevention (SMC), intermittent preventive treatment of malaria in pregnancy (IPTp) and indoor residual spraying.

The Global Fund supports the rollout of SMC campaigns – primarily in the hardest-hit countries across the Sahel – a cost-effective and targeted intervention for young children that can reduce malaria cases by more than 70%. In 2023, 44.6 million children received SMC, a 20% increase on the previous year. In 2023, the Global Fund invested US$86.4 million in SMC.

Through IPTp, the Global Fund supports administering preventive malaria medicines to pregnant women as part of antenatal care. In 2023, 15.5 million pregnant women received this preventive treatment in countries where the Global Fund invests.

New dual-insecticide mosquito nets

Insecticide-treated mosquito nets are a cornerstone of malaria control, and their widespread use has been instrumental in the dramatic decline in global malaria incidence. But they have historically relied on a single class of insecticides, called pyrethroids. Over the past two decades, mosquitoes have developed increasing resistance to pyrethroids, reducing the nets' performance.

To tackle this challenge, the Global Fund has been investing in the rollout and scale-up of game-changing dual active ingredient (dual AI) insecticide-treated mosquito nets, which combine two different classes of insecticides to ensure that mosquitoes resistant to one type are still killed by the second. These cost-effective and impactful new nets – which can reduce malaria cases by an estimated 45% relative to other net types – are absolutely key to getting back on track in the fight against malaria.

Years-long market-shaping efforts by the Global Fund and partners have had an enormously positive impact on ensuring equitable access to dual AI nets – making sure that those who need one, get one.

With support from the Bill & Melinda Gates Foundation, the Global Fund has established a Revolving Facility to support market-shaping interventions across the three diseases and underwrite associated risks. The Revolving Facility's first use case was to accelerate the sustainable scale-up of dual AI nets, securing lower prices and favorable terms with suppliers following the Global Fund's initial catalytic investments. This means access to these lifesaving tools can be scaled up even further than initially hoped. As a result of our collaboration and proactive engagement with in-country implementers, the rollout of these lifesaving new nets has also been much faster than anticipated. The latest forecast projects that dual AI nets will comprise 59% of insecticide-treated mosquito nets in the current grant cycle.

As the number of dual AI nets being used increases year on year, the subsequent financial savings to the health system will also increase, underlining the long-term financial and public health benefits of this new tool.

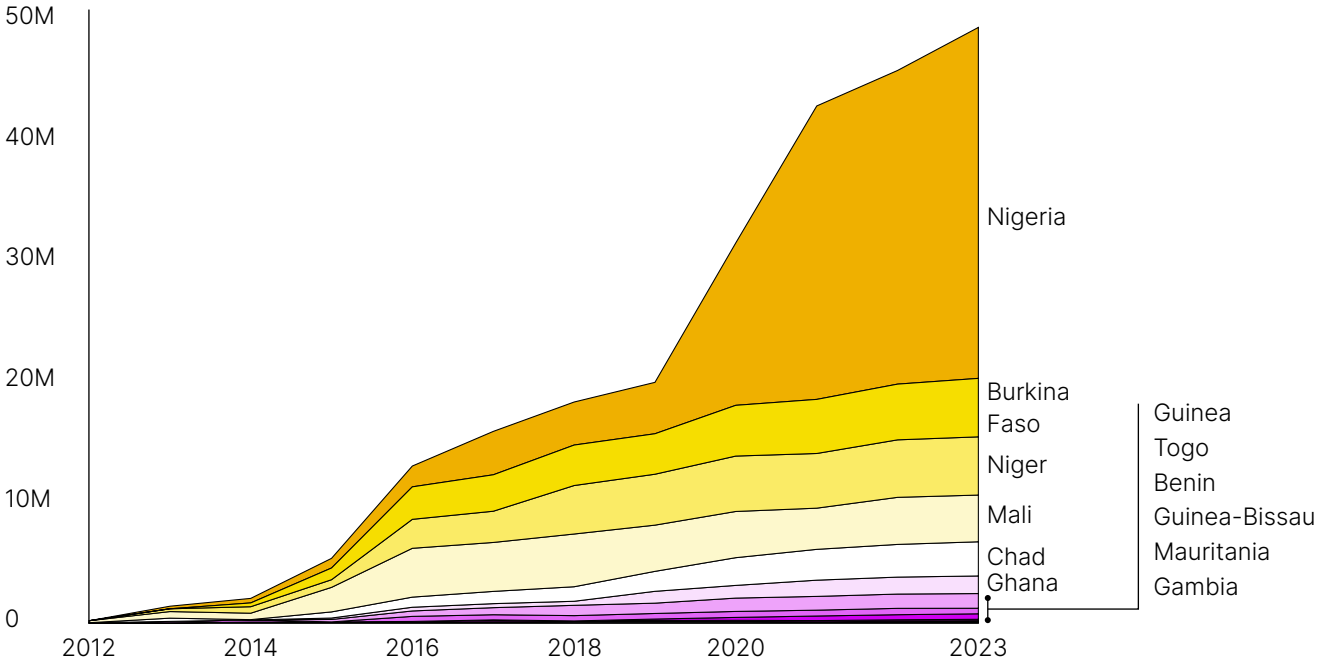
In September 2023, Niger was the first country to place an order for dual AI nets in the Global Fund's new grant cycle. Niger, alongside other implementing countries, is susceptible to the global factors that are rapidly changing the malaria landscape. It has documented high intensity pyrethroid resistance throughout the country; it is one of the top 50 countries most vulnerable to climate change; and in July 2023, a coup toppled the government and closed its borders. Against all odds, in March 2024, the first dual AI nets procured under the new Global Fund grant cleared customs. The significant scale-up of dual AI nets that is now underway across the continent will mean that national programs can deliver the best protection possible for those most vulnerable to malaria.

Malaria vaccines

To accelerate progress in the fight against malaria, we must continue to innovate and make use of every effective tool available. Two malaria vaccines are currently recommended by WHO – RTS,S and R21. Leveraging the power of our partnership with Gavi and Unitaid, we co-funded RTS,S pilot implementation through routine immunization programs in Ghana, Kenya and Malawi starting in 2017 to accelerate the

Children covered by seasonal malaria chemoprevention

In countries where the Global Fund invests



Source: WHO World Malaria Report 2023, Medicines for Malaria Venture. This graph shows total national results, which are higher than the result reported by the Global Fund for 2023 (44.6 million children were covered by seasonal malaria chemoprevention in the countries where we invest). This difference is because the data reported by the Global Fund include the results that were directly reported by the implementers to the Global Fund. Data reported by the Global Fund are limited to children aged 3-59 months and only capture the results of the specific areas of the countries supported by the Global Fund and in accordance with the implementation plan in each country. The graph includes total national results, which, in some countries, include a wider age group and/or a different result counting methodology.

introduction of a new malaria prevention tool. The pilots reached 1 million children and demonstrated RTS,S safety, feasibility and impact when introduced in areas with moderate-to-high transmission and as part of a comprehensive malaria control strategy. In 2024, both malaria vaccines are being introduced into routine child immunization schedules across Africa.

Together with WHO and technical partners, the Global Fund is actively supporting malaria-endemic countries in decision-making to determine the best mix of malaria interventions based on their unique national context. We support ministries of health to develop national malaria strategies and plans that prioritize interventions based on systematic, evidence-based processes. The highest impact of malaria vaccines will be achieved when introduced as part of a mix of WHO-recommended, lifesaving malaria prevention efforts that the Global Fund heavily invests in, like SMC and insecticide-treated mosquito nets. Importantly, both vaccines prevent around 75% of malaria episodes in vaccinated children when given in areas of highly seasonal transmission where SMC is also provided.

Testing and treatment

Timely testing and early treatment for people affected by malaria is fundamental to preventing deaths and decreasing transmission. With the support of our suppliers, in 2023 the Global Fund was able to achieve some price decreases or maintain pricing for the majority of our antimalarial treatments despite increases in raw material costs, securing a stable supply for patients across countries. We are also working across the partnership to ensure equitable access to new diagnostics and treatments.

The Regional Artemisinin-resistance Initiative (RAI): Progress through partnership, precise targeting of malaria interventions and robust funding

When artemisinin-resistant P. falciparum malaria emerged in the Greater Mekong Subregion in the early 2000s, an urgent and coordinated response was needed. In 2014, the Global Fund launched the Regional Artemisinin-resistance Initiative (RAI) to address this threat, which posed a danger to the region and to high-burden areas elsewhere in the world. In the decade to 2022, reported cases of P. falciparum in Cambodia, the Lao People's Democratic Republic (Lao PDR), Myanmar,

Market-shaping efforts by the Global Fund and partners have had an enormously positive impact in accelerating equitable access to dual-insecticide nets.

Thailand and Viet Nam have been reduced by 92%, and estimated deaths from all types of malaria have been reduced by 88%. In 2022, Cambodia, Lao PDR, Thailand and Viet Nam reported fewer than 500 P. falciparum malaria cases each and only two malaria deaths. This is thanks to intensive regional collaboration among the countries and the Global Fund's investment of more than US$700 million in eliminating malaria in the sub-region.

Keys to the success of RAI have been the regional approach, bringing together a diverse group of committed governments, health practitioners and policymakers, scientists, development partners, civil society and private-sector partners to eliminate malaria in the Greater Mekong Subregion; and a community-level network of more than 35,000 malaria workers who provide services in the communities they know best, including those that are hard-to-reach.

Between 2024 and 2026 that partnership aims to consolidate this progress, eliminate P. falciparum from the Greater Mekong Subregion by 2026, then eliminate other forms of malaria by 2030, and put in place the systems needed to prevent re-establishment of malaria transmission.

But challenges remain: Reported cases in Myanmar have increased and accounted for more than 95% of the total in 2023. Thailand has also seen an increase from 2021-2023. Cases are increasingly concentrated in areas of dense forest and in border regions, especially on the Myanmar-Thai border, showcasing the vulnerability of malaria control efforts when interrupted. A robust approach is required to keep the region on track.

Progress

Working directly with governments, the private sector, health workers, civil society and communities, the Global Fund and partners have reduced malaria deaths by 28% between 2002 and 2022. Without these efforts, malaria deaths would have increased by 90% and malaria cases by 79% over the same period. The mortality rate – deaths per 100,000 population at risk – has been more than cut in half between 2000 and 2022 (143 per 100,000 population in 2000 to 56 in 2022). Since 2002, the malaria incidence rate in countries supported by the Global Fund has dropped by 29%, even though the population in those countries has increased by 43%.

Countries most affected by malaria are committing to robust and sustainable progress against the disease. In March 2024 in Yaoundé, Cameroon, ministers of health from African countries with the highest burden of malaria committed to accelerated action to end deaths from the disease. They committed to provide stronger leadership and domestic funding for malaria control programs; to ensure further investment in data technology; to apply the latest technical guidance in malaria control and elimination; and to enhance malaria control efforts at the national and sub-national levels.

The Global Fund is also supporting malaria elimination efforts in 21 countries in Asia, Africa and Latin America. In 2024 Cabo Verde was certified malaria-free by WHO, the latest on the list of 46 countries that have eliminated malaria since 2010.

Malaria medications ready to be given to patients at the Boane Health Centre in Mozambique.

The Global Fund/Tommy Trenchard/Rooftop

Our response to malaria strengthens health systems
The Global Fund's investments in the fight against malaria are making far-reaching contributions to strengthening health and community systems, making them more resilient, sustainable and inclusive.

Underpinning the lifesaving tools to fight malaria are strong and resilient health and community systems – and health workers are at the heart of these systems. By investing in the community health workers who bring malaria prevention and care services to the people who need them most, the Global Fund partnership strengthens the health system as a whole.

Community health workers in countries where the Global Fund invests are trained to diagnose and treat multiple diseases beyond malaria. Through integrated community case management (iCCM) for example, community health workers receive training and support to be able to diagnose, treat and provide referrals for three common childhood diseases: malaria, pneumonia and diarrhea, expanding access to essential health care for children in hard-to-reach settings. Making testing and treatment a priority works toward strengthening health systems more broadly. For example, in many rural health facilities most heavily afflicted by malaria, the sheer volume of malaria cases is often overwhelming and does not leave room to deliver other important health services. Reducing the burden of malaria in these areas is therefore a powerful way to free up health system capacity. This makes the health system more resilient and better able to meet the needs of the community it serves. The Global Fund has invested more than US$1.5 billion in community health workers since 2020. Over the 2024-2026 period, we are investing over US$900 million in community health workers, a 32% increase on the previous three-year period.

The Global Fund also invests in additional elements of health systems strengthening to support the malaria response, including health products management, warehouse and distribution systems, monitoring and evaluation, digitalization of health information systems and continuous quality improvement across the continuum of community and facility-based services.

Taken together, these investments in the health workforce and the broader health system strengthen our global response to malaria, ensuring both prevention and care reach the most vulnerable populations. ●

Key Results for 2023

In countries where the Global Fund invests:

335M

Suspected cases of malaria were tested in 2023.

44.6M

Children received **seasonal malaria chemoprevention** in 2023.

171M

Cases of malaria were treated in 2023.

15.5M

Pregnant women received preventive therapy in 2023.

227M

Mosquito nets were distributed to protect families from malaria in 2023.

7.9M

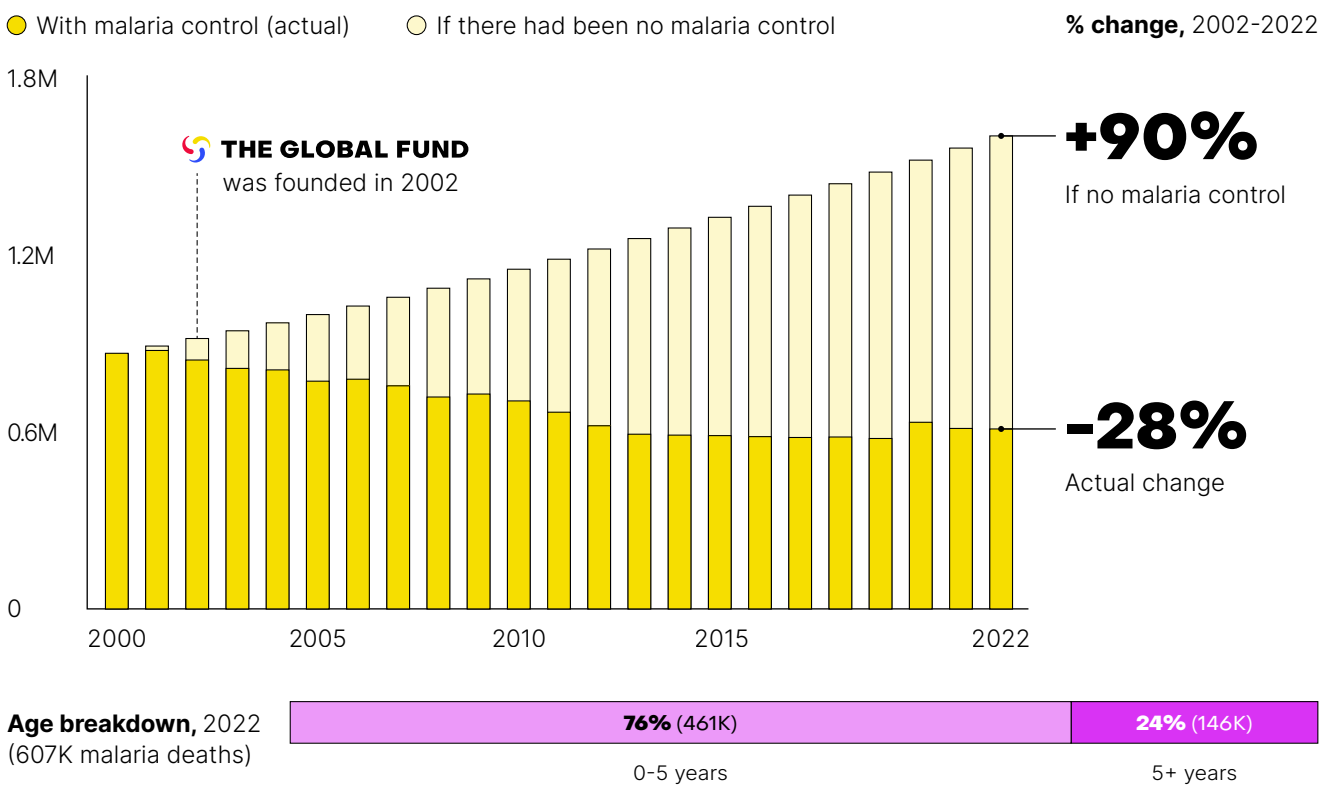
Structures were covered by indoor residual spraying in 2023.

57%

Coverage of the **population with access to a long-lasting insecticide-treated net** increased from 30% in 2010 to 57% in 2022, and coverage of the population using a net increased from 26% in 2010 to 50% in 2022. Global target: Universal access to vector control for populations at risk.

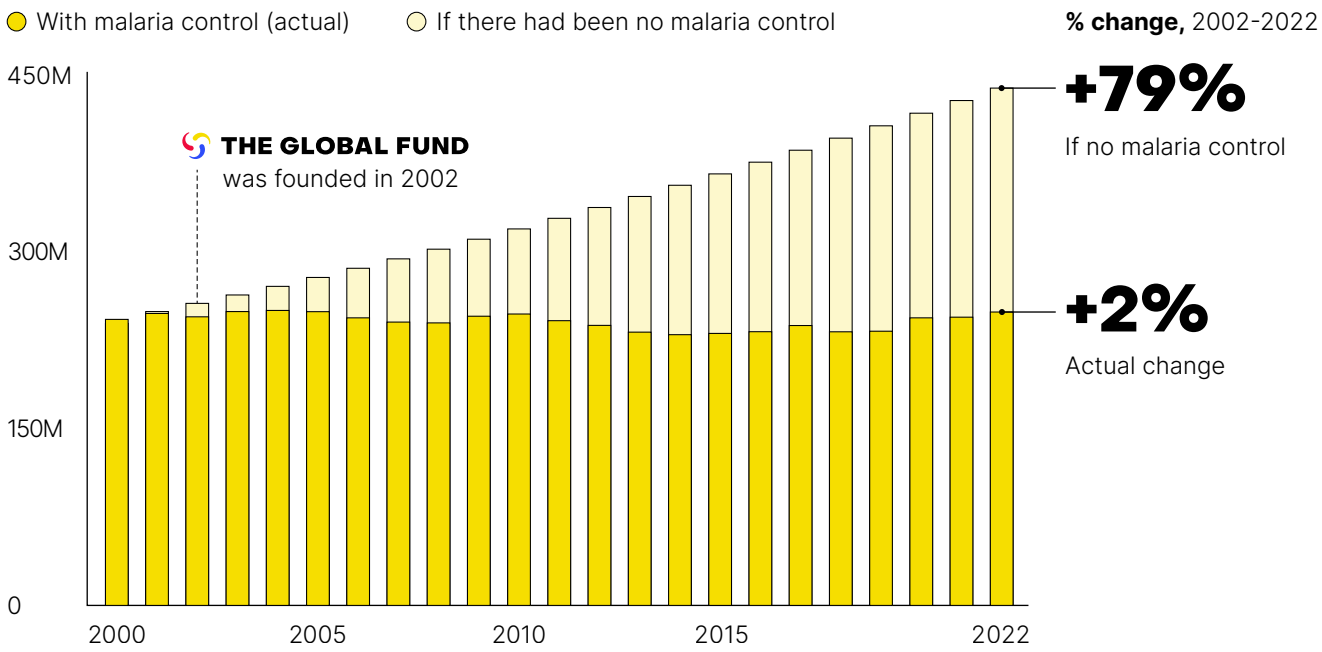
Trends in malaria deaths

In countries where the Global Fund invests



Trends in malaria cases

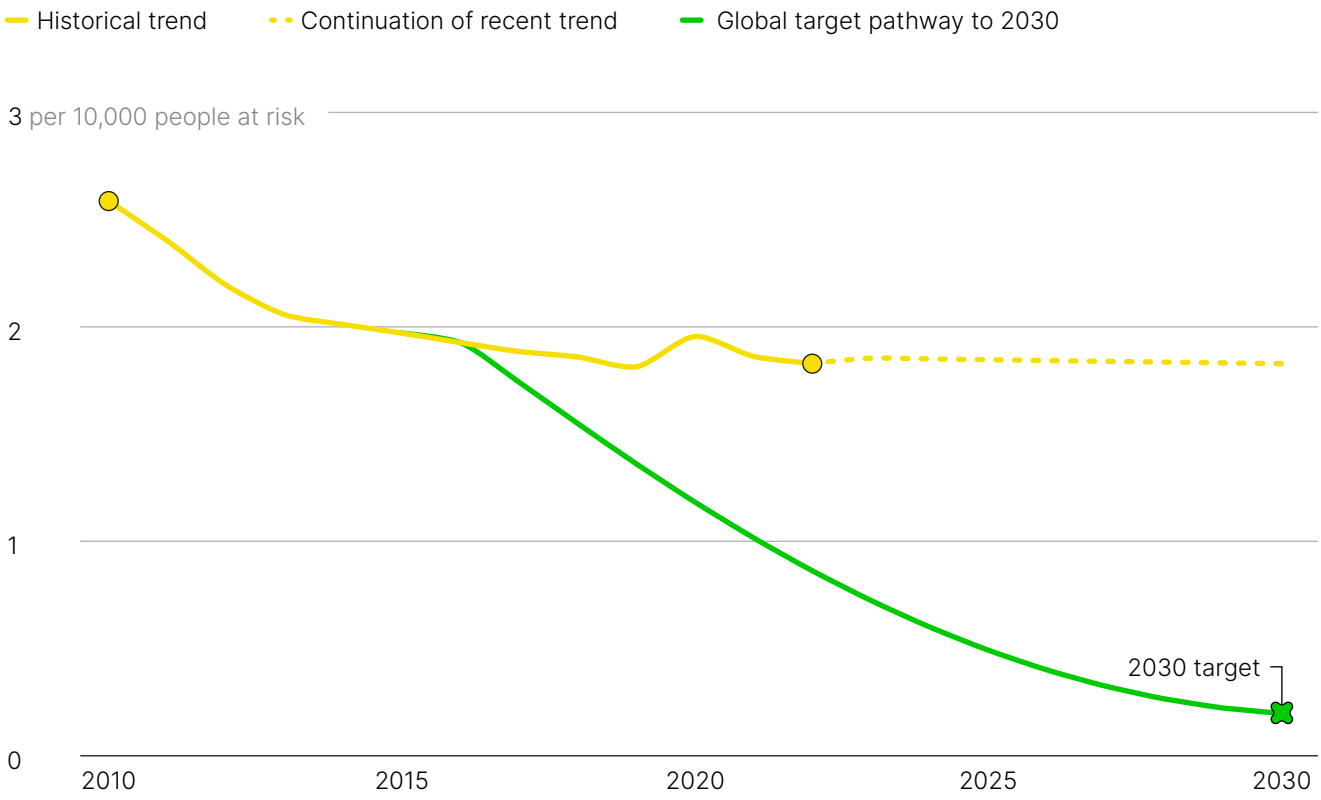
In countries where the Global Fund invests



Malaria burden estimates and estimation of "no malaria control" from WHO World Malaria Report 2023.

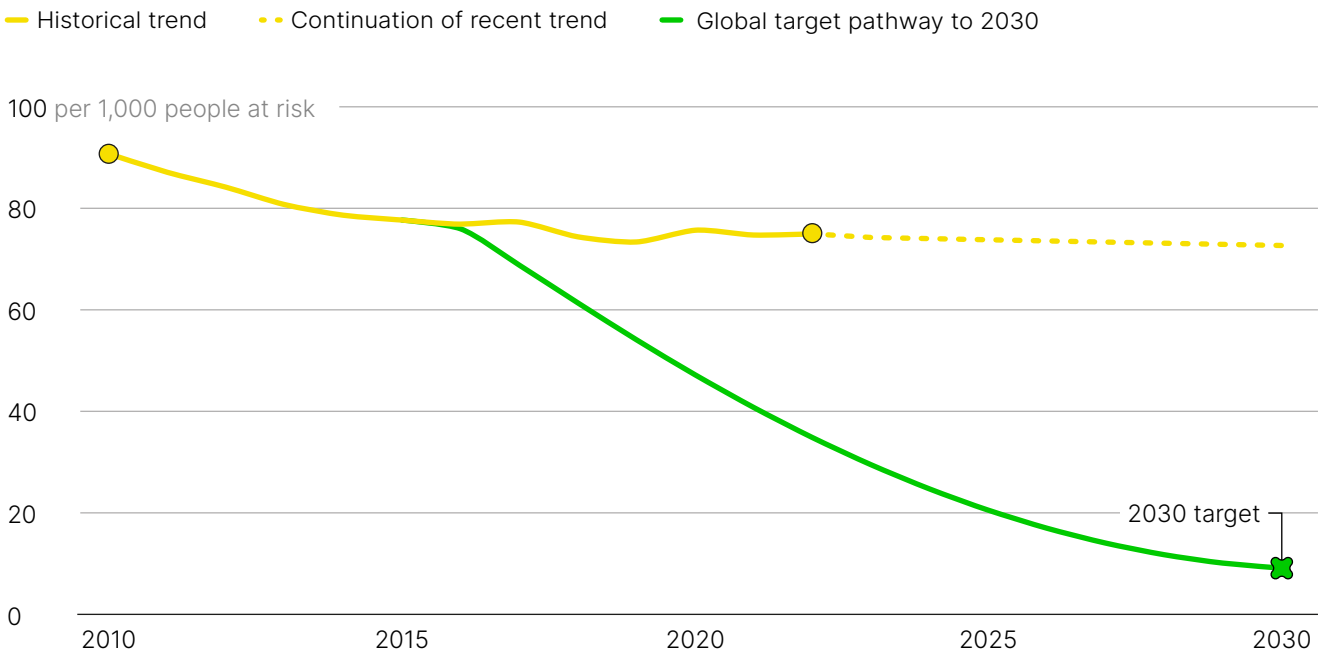
Malaria mortality rate: progress toward the WHO target

In countries where the Global Fund invests



Malaria incidence rate: progress toward the WHO target

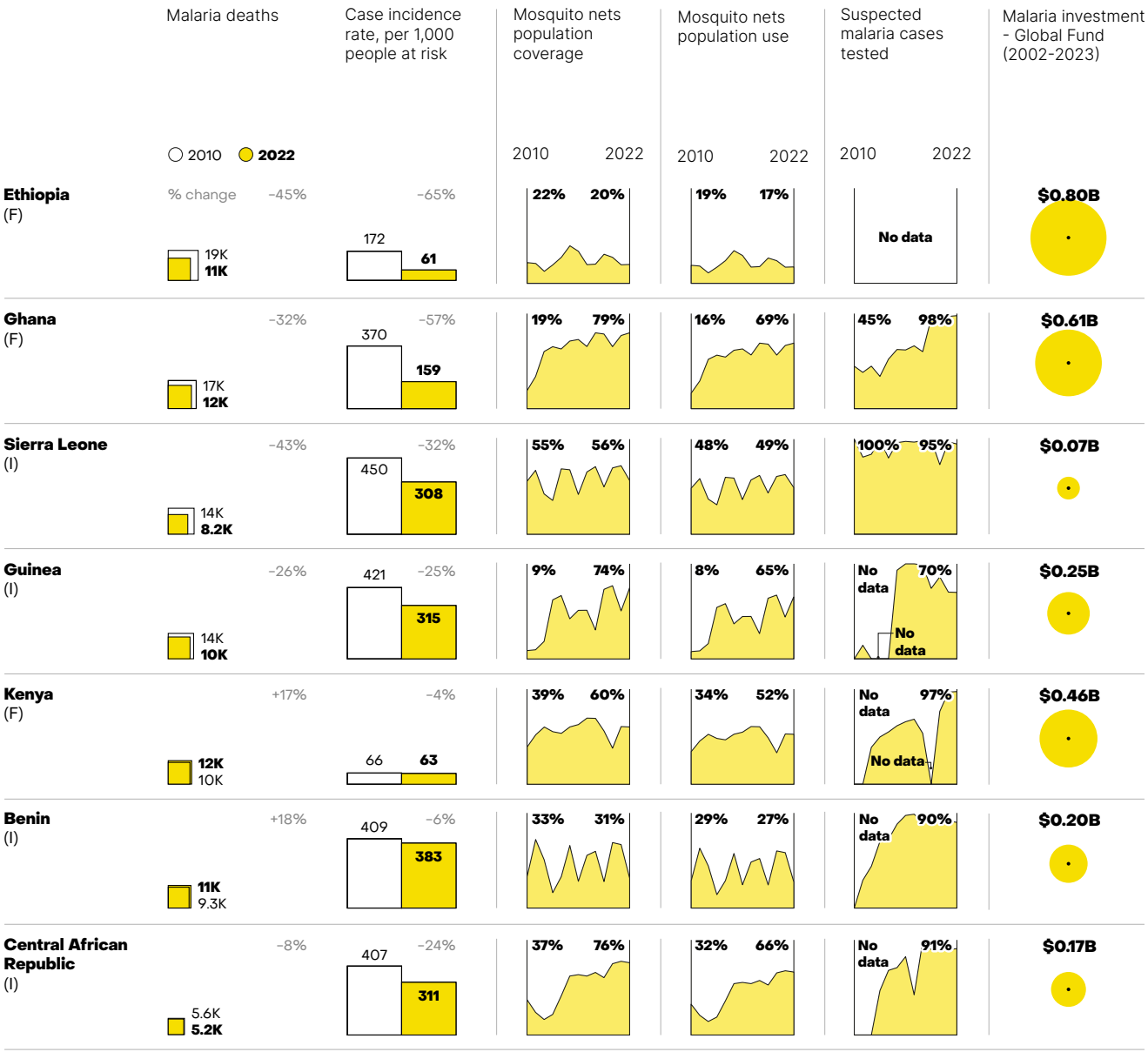
In countries where the Global Fund invests



"Continuation of recent trend" projection is based on reverting to pre-COVID-19 (2014-2019) trends. "Global target pathway to 2030" is based on targets from the WHO Global Technical Strategy for Malaria. Countries that have recently received Global Fund malaria funding and have reported programmatic results over the past two cycles.

Investment and impact: Malaria

	Malaria deaths	Case incidence rate, per 1,000 people at risk	Mosquito nets population coverage	Mosquito nets population use	Suspected malaria cases tested	Malaria investment - Global Fund (2002-2023)
	○ 2010 ● **2022**					
	% change −13%	−18%	2010 2022	2010 2022	2010 2022	
Countries where the Global Fund invests	702K **607K**	91 **75**	30% 57%	26% 50%	74% 95%	**$17.5B**
	% change −5%	−19%	2010 2022	2010 2022	2010 2022	**$1.60B**
Nigeria (D, F)	200K **189K**	376 **305**	26% 52%	22% 45%	No data 94%	
Congo (Democratic Rep.) (D, I, F)	−18% 86K **71K**	−20% 385 **310**	27% 74%	24% 64%	35% 95%	**$1.63B**
Burkina Faso (D, I, F)	−56% 38K **17K**	−38% 570 **354**	26% 83%	23% 73%	19% 97%	**$0.54B**
Côte d'Ivoire (D, I, F)	−66% 33K **11K**	−44% 466 **261**	11% 84%	9% 73%	No data 63%	**$0.56B**
India (D)	−82% 31K **5.5K**	−85% 17 **3**	No data	No data	100% 100%	**$0.29B**
Uganda (D, I, F)	−32% 26K **18K**	−35% 409 **268**	37% 56%	33% 49%	25% 97%	**$0.88B**
Niger (D, I)	+33% **34K** 26K	−28% 408 **295**	43% 85%	37% 74%	68% 95%	**$0.34B**
Mozambique (D, F)	−10% 24K **22K**	−15% 374 **317**	22% 55%	19% 48%	70% 100%	**$0.66B**
Tanzania (United Rep.) (D, F)	+22% **27K** 22K	−14% 141 **122**	53% 70%	46% 61%	25% 100%	**$0.99B**
Mali (D, I)	−1% 20K **20K**	−8% 384 **354**	49% 60%	43% 52%	No data 96%	**$0.24B**



An interactive version of this chart is available with data for all Global Fund-supported countries at https://www.theglobalfund.org/en/results/.

Data are based on estimates published in the World Malaria Report 2023 https://www.who.int/teams/global-malaria-programme/reports/world-malaria- report-2023; World Malaria Atlas Project data for mosquito net access and use in countries for which estimates are available https://malariaatlas.org/; and Global Fund disbursements, which are available on the Global Fund Data Explorer.

1. Countries listed on this page were selected based on three criteria:
   - Being among the top-10 countries with the highest number of malaria deaths in 2010 (D).
   - Being among the top-10 countries with the highest malaria incidence rate in 2010 (I).
   - Being among the top-10 countries that received the highest amount of funding from the Global Fund from 2002 to end December 2023 to support malaria programs (F).

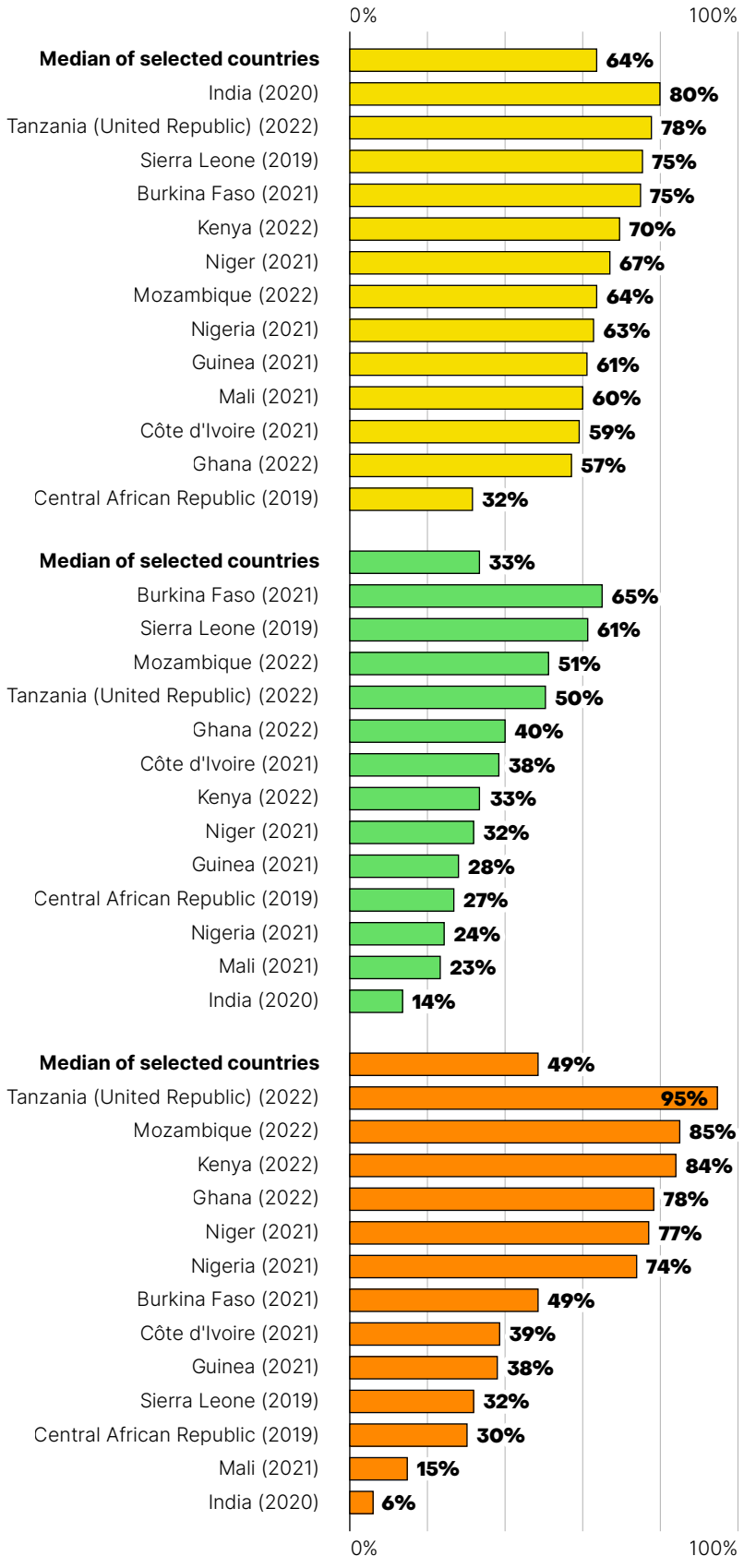
Some countries appear in multiple lists; therefore, the total number of countries is less than 30.

2. The aggregate numbers presented as "Global Fund-supported" include countries that have recently received Global Fund funding for malaria programs and have reported programmatic results over the past two cycles. These countries received US$17.5 billion from 2002 to end December 2023 to support malaria programs. Additionally, they received US$1.9 billion in cross-cutting support across the three diseases, resulting in a total of US$19.4 billion. Countries/programs previously supported by the Global Fund received US$1.1 billion since 2002, resulting in a total disease-specific investment of US$18.5 billion.

3. In line with the Global Fund results reporting methodology, the charts reflect the achievements of national health programs, representing the outcomes, efforts and investments of all partners, domestic and international. For selected High Impact countries, Country Results Profiles provide further detail, including investment from all funding sources: https://data.theglobalfund.org/annual-results.

Coverage of malaria treatment (%)

Children aged under 5 years with fever in last 2 weeks:



Countries selected based on criteria used for the Investment and impact: Malaria chart and available data. "Selected countries" refers to median of countries included here. Source: Household surveys https://mics.unicef.org/ and https://www.statcompiler.com/en/.

Karima brought her son Nahim across the border from Nigeria for treatment at the CSI Nyelwa in Maradi, Niger, when he showed signs of malaria. Children under 5 are particularly vulnerable to the disease.

The Global Fund/David O'Dwyer

Melissa and Tomnjong with their children Gabriella and Tony-Jason in Soa, Cameroon. The family sleeps under dual active ingredient insecticide-treated mosquito nets to protect themselves from malaria. Community health worker Amélie (in blue) provides them with home-based care, including malaria testing and referring Tony-Jason to the local clinic where he was vaccinated against malaria when he was 6 months old.

The Global Fund/Vincent Becker

Cameroon

Case Study

Fighting to protect mothers and children from malaria on all fronts

The entire population of Cameroon – 27 million people – are at risk for malaria.

The disease is particularly devastating for pregnant women and young children. When a pregnant woman is infected with malaria, her baby can be born severely underweight, resulting in health complications and even death. In 2022, an estimated 12.7 million pregnant women in Africa, or 1 out of 3, were diagnosed with the disease.

And malaria is evolving. Climate change is changing the geography of the disease, and increasing resistance means that nets treated with certain chemicals no longer offer the protection they once did.

Cameroon is at the forefront of a collaborative effort to develop, invest in and deploy lifesaving tools to counter these new threats, and build on the country's progress fighting malaria over the last decade.

Cameroon's government, with support from the Global Fund, Gavi, the U.S. President's Malaria Initiative, community partners and others, is working to roll out the newest mosquito nets, preventive treatment for young children and pregnant women, the new malaria vaccine as well as community-based testing and treatment services.

New dual AI mosquito nets are coated with two insecticides, making them more effective against mosquitoes that have built up resistance to standard nets.

This year, the Global Fund supported a mass distribution campaign in the Southwest region, a particularly challenging area that has experienced insecurity since 2017. In just seven days, 1.2 million new dual AI nets were distributed directly to people's homes.

And in January 2024, Cameroon became the first country in the world to incorporate the new RTS,S malaria vaccine into its routine national child immunization program. The Global Fund worked together with Gavi and Unitaid to fund the initial pilot programs for the vaccine.

By combining the latest tools in the fight against malaria, mothers and children in Cameroon now have multiple layers of protection against the disease. ●


WHO

The full suite of the Results Report 2024 includes:

Summary & Key Results

Health and Community Systems

HIV: State of the Fight

Colliding Crises

Tuberculosis: State of the Fight

Investing for Impact

Malaria: State of the Fight

Left: Health workers help identify people with malaria who are symptom-free and administer treatment in Sanxay District, Attapeu Province, in the Lao People's Democratic Republic. This preventive strategy – called targeted drug administration – paired with regular testing and mosquito nets, can keep malaria from spreading throughout communities.

WHO/Enric Catala

Back cover: JinJin, a 16-year-old member of an Indigenous tribe in Palawan, the Philippines, visits a halfway house in Sitio Pinagar, Barangay Ransang, for a routine malaria test. Every month, JinJin travels more than two hours alone on foot through dense jungle to meet community health workers at the halfway house – named because it is located halfway between mountainous regions inhabited by Indigenous tribes and the closest medical clinic. In 2022, JinJin experienced fever and headaches, prompting her to travel to the halfway house for malaria testing. When she tested positive for malaria, she stayed for three days for daily observed treatment.

The Global Fund/Vincent Becker

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