



Results Report 2023





Contents

(Cover) Adelaide Tamele (center) with members of her indoor residual spraying (IRS) team in Boane, Mozambique. Adelaide has worked as a sprayer for six years, leading a team that sprays homes and other buildings to protect people from malaria. Mozambique has the fourth-highest number of malaria cases globally (10.3 million cases in 2021 for a population of approximately 33 million people). Earlier this year, Cyclone Freddy hit Mozambique's coastline twice, causing mass destruction, flooding and a surge in malaria. The Global Fund responded quickly, including by stepping up support for IRS teams like the one led by Adelaide. Malaria is considered one of the most climate-sensitive diseases, with upsurges in cases recorded after storms and flooding in regions around the world. The World Health Organization estimates that between 2030 and 2050, there could be an additional 250,000 deaths per year due to climate change – and 60,000 of these deaths could be from malaria.

The Global Fund/Tommy Trenchard/
Rooftop

(Back cover) In South Africa, a sex worker celebrates a negative HIV result. She was tested for HIV in the privacy of her own home thanks to a discrete visit by a community health worker.

MSF/Karin Schermbrucker

The Global Fund Results Report comes together through a collaborative effort made by many people, including a number of technical experts working outside of the Global Fund. In August 2023, we were deeply saddened to learn of the passing of economist Markus Haacker, whose contributions to this report and to other Global Fund publications we tremendously appreciate.

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Net distributor Yau Mustapha (left) and a colleague carry mosquito nets that will be distributed in Gabasawa, Kano State, Nigeria. Nigeria accounts for 31% of all malaria deaths globally. To combat the disease and despite challenges posed by COVID-19, conflict, displacement and difficult terrain, more than 87 million nets have been distributed across Nigeria over the last five years with the Global Fund's support. In Kano State, one of Nigeria's most populous states, 8.8 million nets were delivered to more than 18 million people in a two-week campaign in November 2022.

The Global Fund/Andrew Esiebo/Panos

For an interactive version
of this report, visit:

Online Report →

Letter from the Executive Director

Peter Sands, Executive Director of the Global Fund, and Shani Ally in Dar es Salaam, Tanzania. Shani, a mother of three, has been on treatment for HIV for more than 20 years. That treatment has kept her alive and prevented the transmission of HIV to her children and her husband. Today, Shani and her family live a life free from the fear of AIDS.

The Global Fund/David O'Dwyer



In 2022, the Global Fund partnership regained momentum in the fight against HIV, tuberculosis (TB) and malaria following the setbacks from the COVID-19 pandemic. After seeing the hard-won gains of the last two decades sharply reversed during 2020 and only a partial recovery the following year, in 2022 we saw a rapid acceleration of programmatic results across the three diseases. We put more people on antiretroviral treatment for HIV than ever before, we found and put on treatment more people with TB than ever before, and we distributed a record number of mosquito nets to prevent malaria. Overall, most of our prevention and treatment programs exceeded pre-COVID-19 pandemic results.

Yet despite this remarkable turnaround in programmatic results, we remain off the trajectory required to achieve the Sustainable Development Goal 3 (SDG 3) target of ending AIDS, TB and malaria by 2030. Across all three diseases, and especially TB and malaria, we will not achieve the 2030 target unless we take extraordinary steps. We must invest more, become smarter in how we invest, not least by accelerating the deployment of innovations to those who need them most, and we must redouble our efforts to end the stark inequities that fuel these diseases.

Regaining momentum

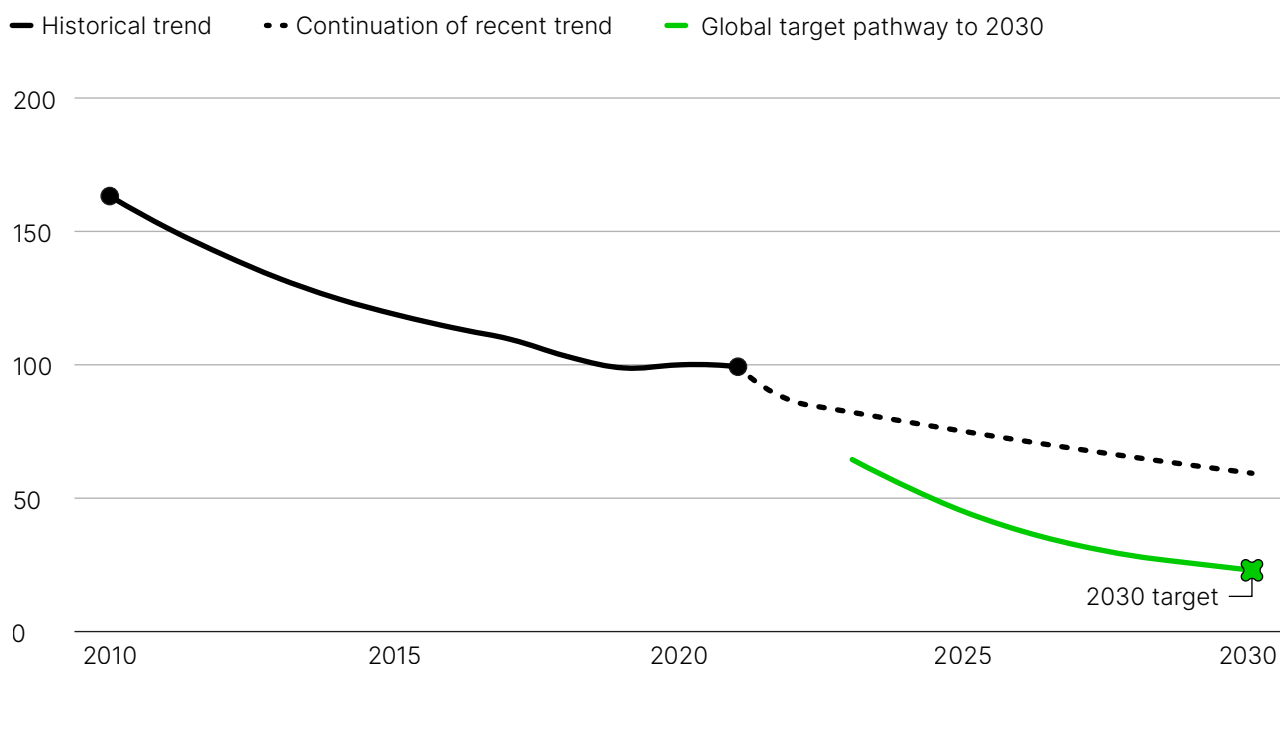
Thanks to the tireless efforts of communities, governments and partners, interventions to fight HIV, TB and malaria have recovered strongly across the world, with a marked acceleration in programmatic results between 2020-2021 and 2022. Through our COVID-19 Response Mechanism (C19RM), the Global Fund partnership played a critical role in helping countries respond to COVID-19

and mitigate its impact on HIV, TB and malaria programs. With the support of generous donors, we have awarded more than US\$5 billion through C19RM. These investments strengthened the response to COVID-19 and enabled the rapid adaptation of HIV, TB and malaria programs. These investments also enabled lifesaving services to be sustained for people affected by these diseases despite the disruptions and diversion of resources caused by the COVID-19 pandemic. Today, these investments are now helping countries reinforce their systems for health to be able to respond more effectively to current and future health threats.

The impact of Global Fund investments, through C19RM and across our core grants over the last three years, is clear. For example, in 2020 the number of people tested for TB and put on treatment fell by 19% as case-detection programs were severely disrupted by COVID-19. In 2021, concerted efforts by communities and national TB programs supported by the Global Fund led to a

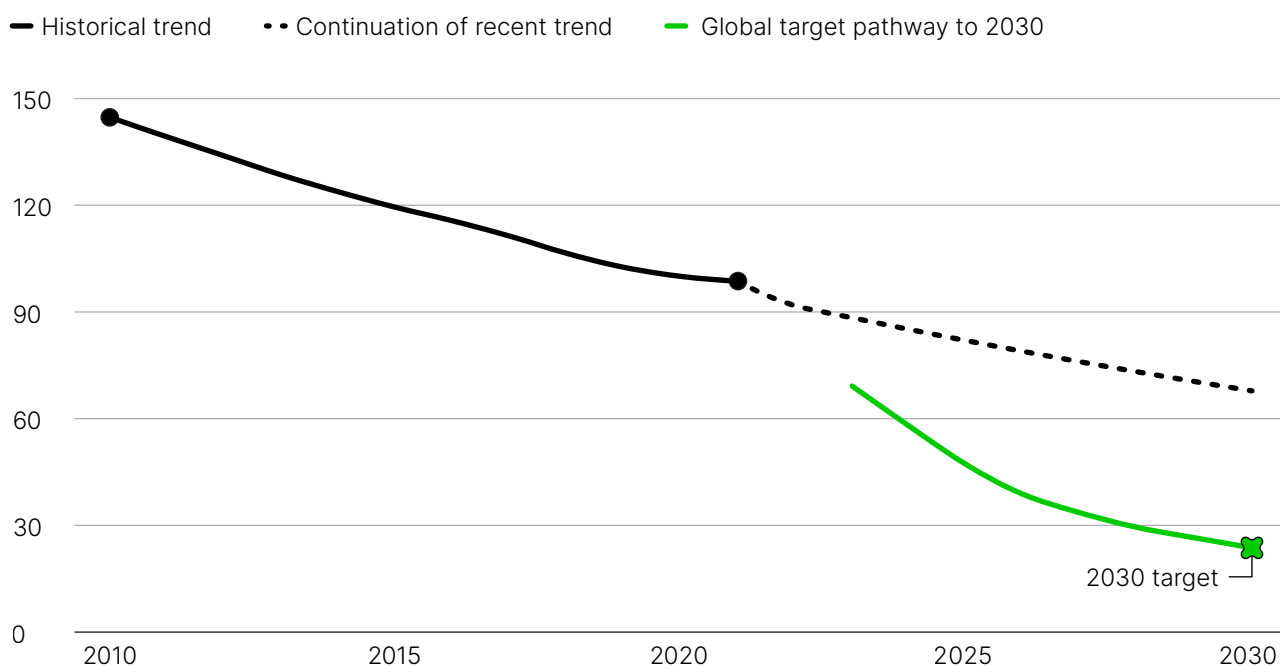
Combined mortality rate: progress towards global targets

In countries where the Global Fund invests



Combined incidence rate: progress towards global targets

In countries where the Global Fund invests



Lines are first normalized to 100 in 2020 for each disease, and then combined with equal weighting across the three diseases, separately for incidence and mortality rates. "Continuation of recent trend" is based on reverting to pre-COVID-19 (2014-2019) trends for TB and malaria and 2017-2022 trends for HIV and AIDS. "Global target pathway to 2030" combines targets from the 2023 UNAIDS Global AIDS Update, WHO End TB Strategy and WHO Global Technical Strategy for Malaria. The baseline for the TB and malaria target is 2015 and for HIV it is 2022; therefore, the global plan pathway starts from 2023. TB mortality excludes HIV-positive. Countries eligible for Global Fund support in 2022.

partial recovery, with a 13% increase in people treated for TB in 2021. In 2022, the Global Fund partnership achieved a further acceleration, with a 26% increase in the number of people diagnosed and treated for TB. As a result, we have not only erased the losses of 2020, but we have also caught up with and exceeded the pre-COVID-19 pandemic results of 2019.

We have seen a similarly sharp recovery in programmatic momentum in many aspects of the fight against HIV. For example, the number of people reached with HIV prevention programs fell by 10% in 2020 due to COVID-19 disruptions. But prevention services exceeded 2019 levels and increased by 47% and 22% in the following two years. HIV prevention services are critical in accelerating reduction of new infections and ending AIDS by 2030.

With malaria, the partnership achieved a similar recovery in key programmatic results, including testing. The number of cases of malaria treated dropped by 0.7% in 2020 but increased in 2021 by 8.7% and in 2022 by a further 11%, exceeding the pre-COVID-19 pandemic levels of 2019 by 20%.

Saving 59 million lives

The results we have achieved in the last year build on our track record of progress. Over the last two decades, we have cut the combined death rate from AIDS, TB and malaria by 55%. Working hand in hand with communities, governments, the private sector, civil society and our technical partners, the Global Fund partnership has helped save 59 million lives.

This remarkable total excludes lives saved through the Global Fund's investments to help countries respond to COVID-19. While our swift action to provide countries with COVID-19 diagnostics, personal protective equipment (PPE), treatments including oxygen and urgent enhancement to health systems undoubtedly helped

avert millions of infections and thousands of deaths from the new virus, we and our modeling partners have concluded that given the dynamics of the COVID-19 pandemic, and the multiplicity of different interventions, trying to attribute precise figures to the epidemiological impact of the Global Fund's interventions involves making too many assumptions to be valuable.

Each of the 59 million lives saved by the Global Fund partnership is a person – a parent, a child, a teacher, a worker, a neighbor, or a friend. Every life saved, and every infection averted, has a multiplier effect across families, communities and entire nations. The scale and societal impact of the partnership's lifesaving efforts over the last two decades is also demonstrated in the dramatic changes in life expectancy in many of the countries in which the Global Fund invests. For example, in 2002, someone born in Zimbabwe could expect to live to the age of 46. In 2019, life expectancy had increased to 61 years.¹ This extraordinary gain was possible because fewer people are dying from AIDS, TB and malaria.

The lives that have been saved measure only part of our impact; it's also about the lives that will be saved in the future. Reduced infection rates mean fewer lives at risk. Stronger systems for health – more inclusive, resilient and sustainable – mean better protection of lives, with health systems more capable of preventing, detecting and responding to infectious disease threats, both current and new. Through the combination of our core investments over 2021-2023 and C19RM, the Global Fund is investing approximately US\$2.2 billion in critical components of systems for health, including primary health care facilities, community health worker networks, laboratories, disease surveillance, supply chains, management information systems, health worker training and community systems for health, making the Global

1. Contributions of declining mortality, overall and from HIV, TB and malaria, to reduced health inequality and inequity across countries. Haacker, Markus. Health Policy and Planning, 6 July 2023. <https://doi.org/10.1093/heapol/czad046>.

Fund the largest multilateral provider of grants for health systems strengthening.

Colliding crises

Yet despite the impact the Global Fund partnership has had, and the remarkable rebound in programmatic results after the setbacks from COVID-19, achieving the SDG 3 target to “end the epidemics of AIDS, tuberculosis and malaria” by 2030 appears increasingly at risk.

Even before COVID-19, we were off track, with reductions in infections and deaths falling short of the trajectories envisaged by the global targets for HIV, TB and malaria. While much of the ground lost during COVID-19 has been regained, the world has not made the progress needed to get back on track in the fight against these diseases.

Moreover, COVID-19 has been far from the only challenge. In many of the countries in which the Global Fund invests, getting back on track against the three diseases has been

made much more challenging by a combination of interconnected and colliding crises beyond COVID-19, including climate change, conflict, debt, an alarming erosion of human rights, and deepening inequities within and between countries. While the impact and dynamics of these colliding crises differ by region and country, these crises invariably worsen the predicament of the poorest and most marginalized, putting them more at risk from the deadliest infectious diseases.

Climate change is already having an impact on the epidemiology of infectious diseases. For example, malaria is spreading to highland parts of Africa that were previously too cold for the *Anopheles* mosquito that carries the parasite. Cyclones, floods and other climate-related extreme weather events are causing dramatic upsurges in malaria infections, such as in Malawi and Pakistan, while also disrupting lifesaving health infrastructure and services. Food insecurity and water scarcity are displacing entire

The multi-year droughts in the Horn of Africa have caused displacement and food insecurity, devastating the health and well-being of many people in the region.

© UNICEF/Ayene



Meanwhile, in far too many parts of the world, we are seeing an alarming erosion of human rights that directly impacts people's access to health

While we should not diminish the scale and complexity of these multiple colliding crises, we should not be daunted by them either. The Global Fund is uniquely positioned to respond to these challenges, given the sheer range of skills and strengths of our diverse partnership and the demonstrable adaptability of our model. By working with partners that have resilient local networks and the ability to respond rapidly to emergency situations, we have demonstrated that we can adapt and save lives when conflict or disaster strikes. Through our engagement with governments

•	•	•	and communities, we can help build systems for health that are more sustainable and resilient, better able to prevent and respond to new infectious disease threats and to climate shocks. By collaborating with development banks and other partners, we can pursue complementary financing approaches, such as blended finance and debt swaps, to support countries in accelerating their efforts to make their systems for health more prepared for pandemics and resilient to climate change. By mobilizing the full power of our partnership, we can and must redouble our efforts to protect and promote human rights, tackle gender inequalities and address other inequities.	than standard pyrethroid-only mosquito nets. Trials showed a reduction in malaria infections by approximately 50% among children between the ages of 6 months and 10 years. Optimizing the integrated deployment of such innovations, alongside other tools like the new vaccines and seasonal malaria chemoprevention, to reflect country and sub-national contexts and maximize impact, will be crucial to getting back on track to defeat malaria.
•	•	•	Furthermore, the Global Fund partnership is uniquely placed to accelerate the equitable deployment of game-changing innovations so that those who need them get them rapidly. For example, broader deployment of pre-exposure prophylaxis (PrEP), including the new long-acting injectable form, could have a significant impact in reinforcing prevention effectiveness among high-risk groups. Likewise, the dapivirine vaginal ring for HIV prevention gives girls and women the power to protect themselves from HIV infection.	Accelerating equitable access to innovative tools is essential for regaining and sustaining momentum in the fight against HIV, TB and malaria. It will also require the efforts of the entire partnership, including private sector innovators and manufacturers, partners like the World Health Organization (WHO) providing regulatory approvals and guidance, other partners like Unitaid and FIND contributing to market-shaping, and agencies like the United Nations Joint Programme on HIV/AIDS (UNAIDS) and the Stop TB Partnership working with government and community implementers to facilitate rapid adoption.
•	•	•	Against TB, key innovations include new diagnostic tools, such as mobile X-rays and lower-cost molecular diagnostics; new treatments, such as the bedaquiline, pretomanid, linezolid and moxifloxacin (BPaLM) combination therapy for drug-resistant TB; and the new short-course TB preventive treatment called 3HP.	Ending AIDS, TB and malaria The commitment to “end the epidemics of AIDS, tuberculosis and malaria” by 2030 is one of the most concrete targets among the SDGs, and one that would make a massive difference to people in the poorest and most vulnerable communities in the world. Despite all the challenges, the goal of ending AIDS, TB and malaria as public health threats remains achievable. We know what needs to be done, we have tools that work, and we can learn from successful examples.
•	•	•	For malaria, there are a range of innovations in vector control, prevention, diagnostics and treatment that will help us combat the alarming trends in infections and deaths. For example, dual active ingredient insecticide-treated mosquito nets, combining pyrethroid and chlorfenapyr, which will be available at scale from 2024, are dramatically more effective	Yet we will not achieve this goal if we stay on our current trajectory. As a partnership, we need to target resources towards those most at risk. We need to accelerate access to game-changing innovations, optimizing their deployment alongside existing tools to maximize the impact of every dollar. We need to



eliminate the inequities that increase the vulnerability of young women, key populations and the very poorest. This will require increased investment in disease-specific interventions to ensure equitable access to lifesaving tools, coupled with increased investment in strengthening systems for health to make them more inclusive, resilient and sustainable. It will also require policy changes in many countries to dismantle the barriers to access that prevent those most at risk from receiving the services they need.

Stepping up the fight against HIV, TB and malaria is ultimately a political choice. Given all the other pressing global issues – including climate change, conflict, inflation – it is understandable that public and policymaker attention may have shifted elsewhere. But, for the most marginalized in the world, it would be a tragedy to lose momentum in the fight against HIV, TB and malaria, and see the hard-won gains of the last two decades reversed. At a time when these communities are directly threatened

by climate change and conflict, ending AIDS, TB and malaria and building stronger systems for health is one of the most cost-effective and impactful ways to save lives, reduce inequities and improve livelihoods.

Conclusion

Over 20 years ago, the world came together to combat HIV, TB and malaria, the three most deadly infectious diseases. Working together, this extraordinary partnership has made enormous progress. But the job is not yet done.

We know that with science, money and leadership, we can fight and overcome even the most formidable infectious disease threats. We know that by working together, we can get back on track to end these diseases, make the world a safer place and accelerate progress towards the SDG 3 goal of universal health coverage and health and well-being for all. Together, we can build a healthier and more equitable world. ●

Social worker Vitaliy (right) meets with Vadym Pryzenko at the Alliance Global office in Lviv, Ukraine. Vadym was forced to flee his home in Kharkiv, Ukraine, due to the violence caused by the Russian invasion and ongoing war. Despite the many challenges posed by the war, Global Fund-supported partners, including Alliance Global in Lviv, have ensured people still have access to antiretroviral therapy and pre-exposure prophylaxis, or PrEP, a medicine that people can take to prevent themselves from getting HIV.

The Global Fund/Vladyslav Musiienko

Key Results and Lives Saved



Vi Van Hai is a former drug user living with HIV who is now on methadone treatment. He says this treatment has given him his life back. He also receives antiretroviral therapy and support from a local community-based organization called Sao Va. Here he is with his wife Luong Thi in front of their home in Que Phong District, Viet Nam.

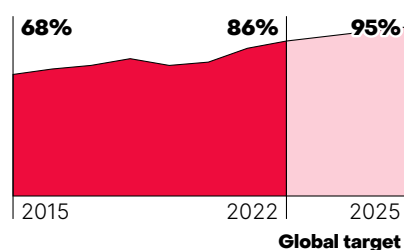
The Global Fund/Quinn Ryan Mattingly

In response to HIV, TB and malaria, we measure our progress against the global targets set for the three diseases² and in the Sustainable Development Goal 3 of health and well-being for all. Key results in the countries where the Global Fund invests include:

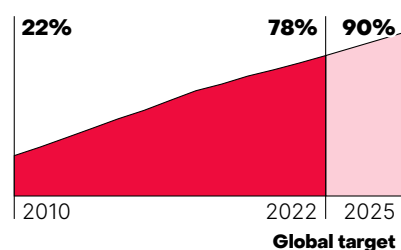


24.5 million People on antiretroviral therapy for HIV*

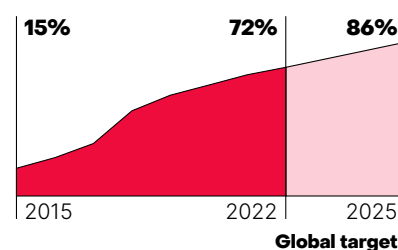
People living with HIV who know their status



People living with HIV receiving ARVs

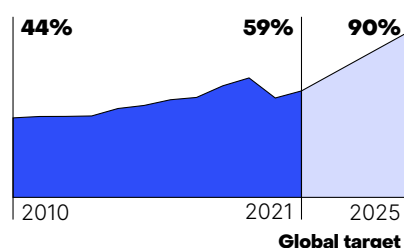


People living with HIV with suppressed viral load

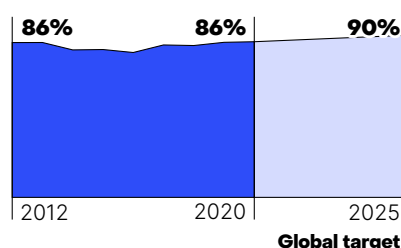


6.7 million People treated for TB*

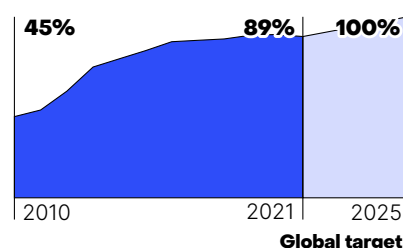
TB treatment coverage



TB treatment success rate (all forms)

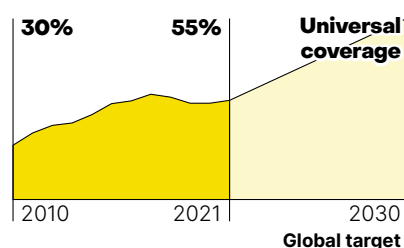


HIV+ TB patients on ARVs

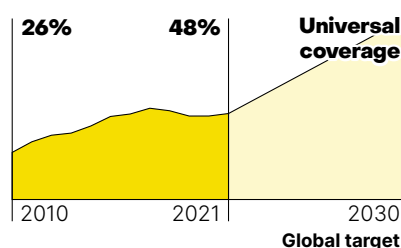


220 million Mosquito nets distributed*

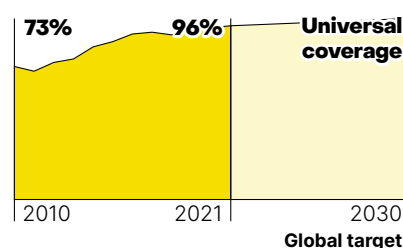
Mosquito nets population coverage



Mosquito nets population use

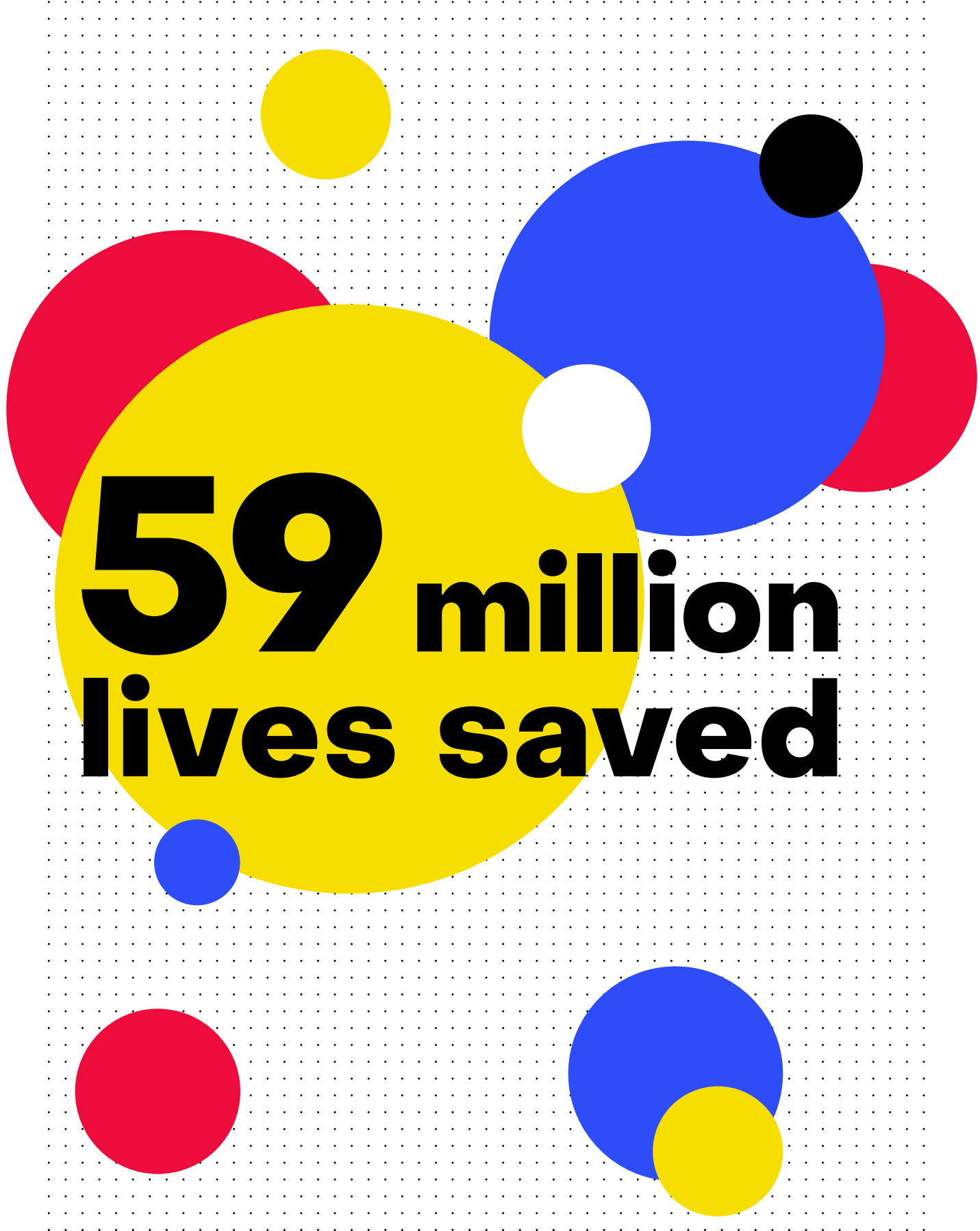


Suspected malaria cases tested



*Programmatic results achieved during 2022 by countries and regions where the Global Fund invests. Progress graphs are based on latest published data from WHO (2022 release for TB and malaria) and UNAIDS (2023 release). Malaria mosquito net coverage calculated based on 38 African countries for which data is available from WHO/Malaria Atlas Project estimates.

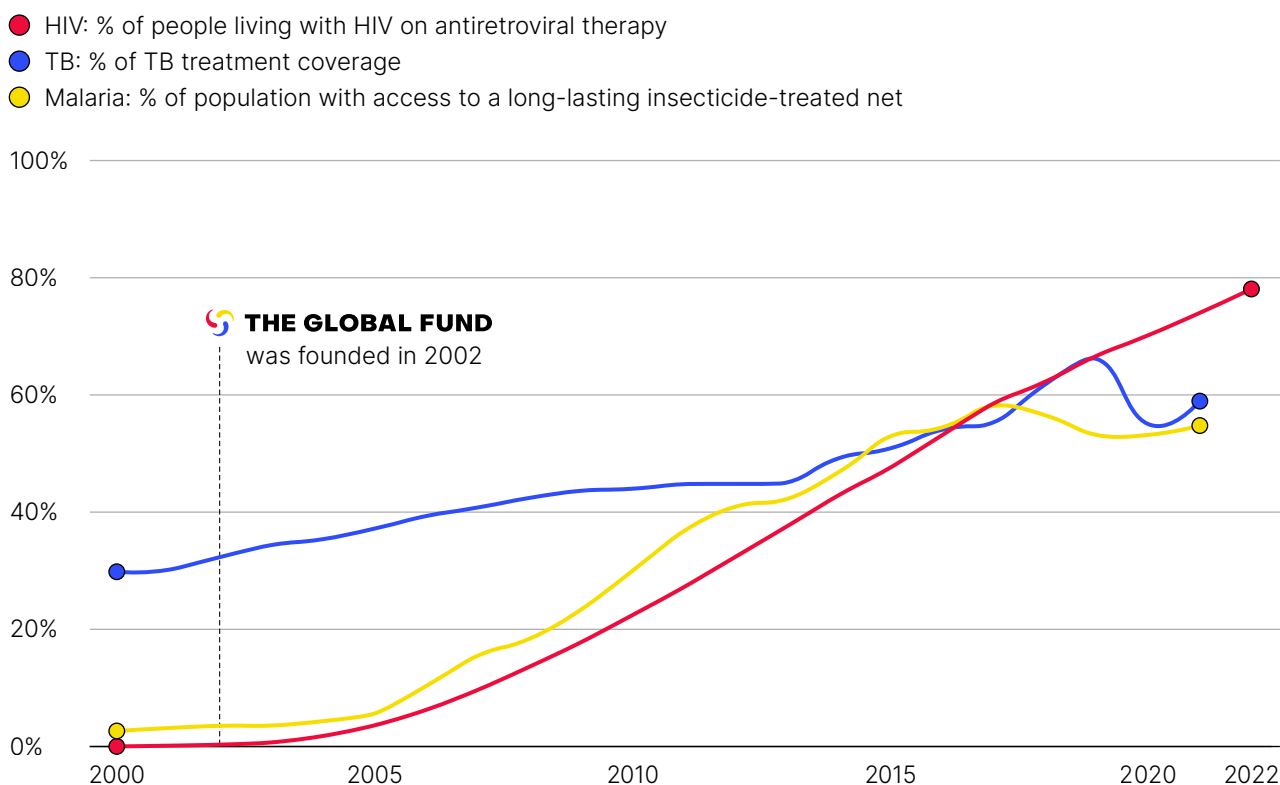
2. Targets for each disease are included in the UNAIDS 2025 programmatic targets and the 2021-2030 impact and resource needs estimates, 2022; WHO Global Technical Strategy for Malaria, 2015; WHO End TB Strategy, 2014; and the Stop TB Partnership Global Plan to End TB 2023 to 2030, 2022.



**59 million
lives saved**

Coverage of key treatment and prevention interventions

In countries where the Global Fund invests



Malaria coverage is calculated based on 38 African countries where the Global Fund invests, for which data is available from WHO/Malaria Atlas Project estimates. HIV and TB estimates are based on all countries where the Global Fund invests. Based on published data from WHO (2022 release for TB and malaria) and UNAIDS (2023 release).

Health programs supported by the Global Fund partnership had saved 59 million lives as of the end of 2022. Overall, the combined death rate from the three diseases has reduced by more than half since 2002 in the countries where the Global Fund invests. That achievement is the result of efforts made by a wide array of actors comprising the Global Fund partnership, including significant investments and initiatives implemented independently of the Global Fund. Key partners contributing to the progress against the three diseases include implementing countries; civil society groups; people affected by the diseases; bilateral partners such as the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the U.S. President's Malaria Initiative (PMI), the U.S. Agency for

International Development (USAID), Agence Française de Développement, the UK Foreign, Commonwealth & Development Office, the governments of Germany and Japan; key multilateral and technical partners such as WHO, UNAIDS, the RBM Partnership to End Malaria, the Stop TB Partnership, Unitaid, and Gavi, the Vaccine Alliance (Gavi); private sector partners such as (RED); and foundations such as the Bill & Melinda Gates Foundation.

Investments by the Global Fund partnership have played a pivotal role in helping increase life expectancy in low- and middle-income countries. Millions of people in sub-Saharan Africa are living longer largely because of the gains made in the fight against HIV, TB and malaria. ●

19-year-old Albert Kabossou gets tested for HIV at the Walia youth center in N'Djamena, Chad. "It was here at the Walia youth center that I was informed about HIV prevention," Albert says. "Even though I always use condoms, I always get tested to make sure I'm okay."

© UNICEF/Dejongh





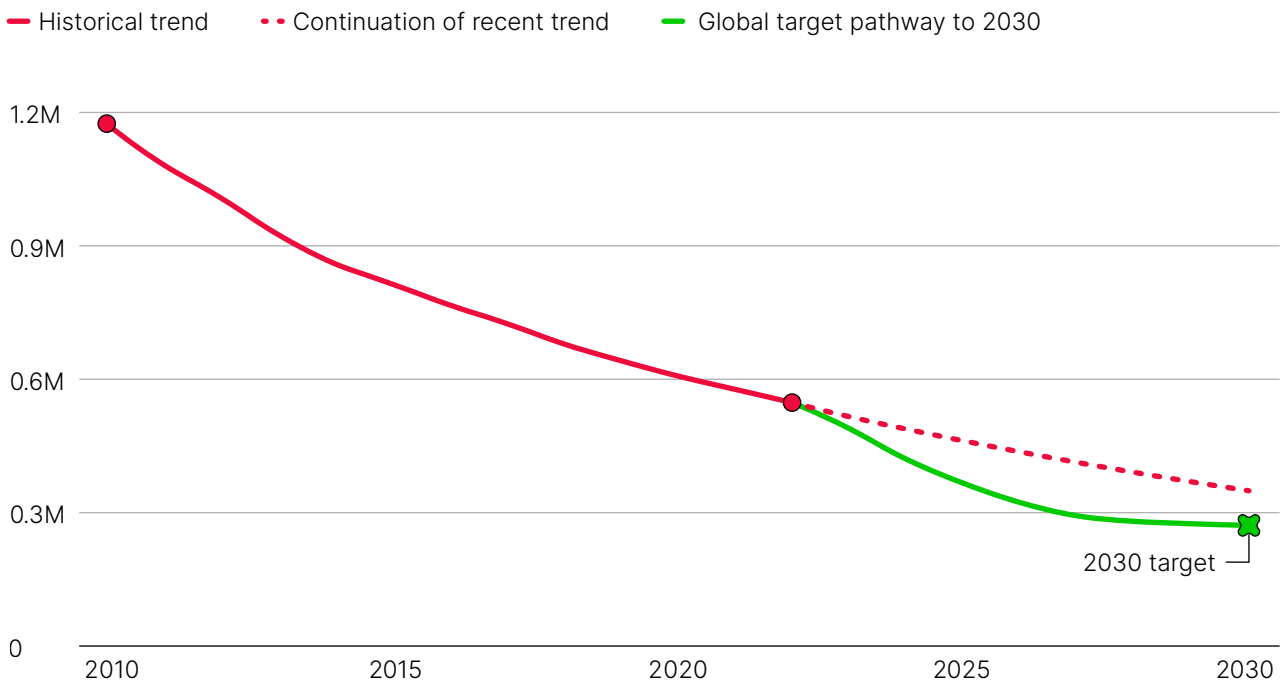
HIV:

State of the Fight

This chapter captures the latest information available on the fight to end AIDS. In 2022, HIV programs registered strong recoveries from the impact of COVID-19. However, multiple challenges, including stark inequalities and a growing threat to human rights, are keeping us off track to end the disease by 2030.

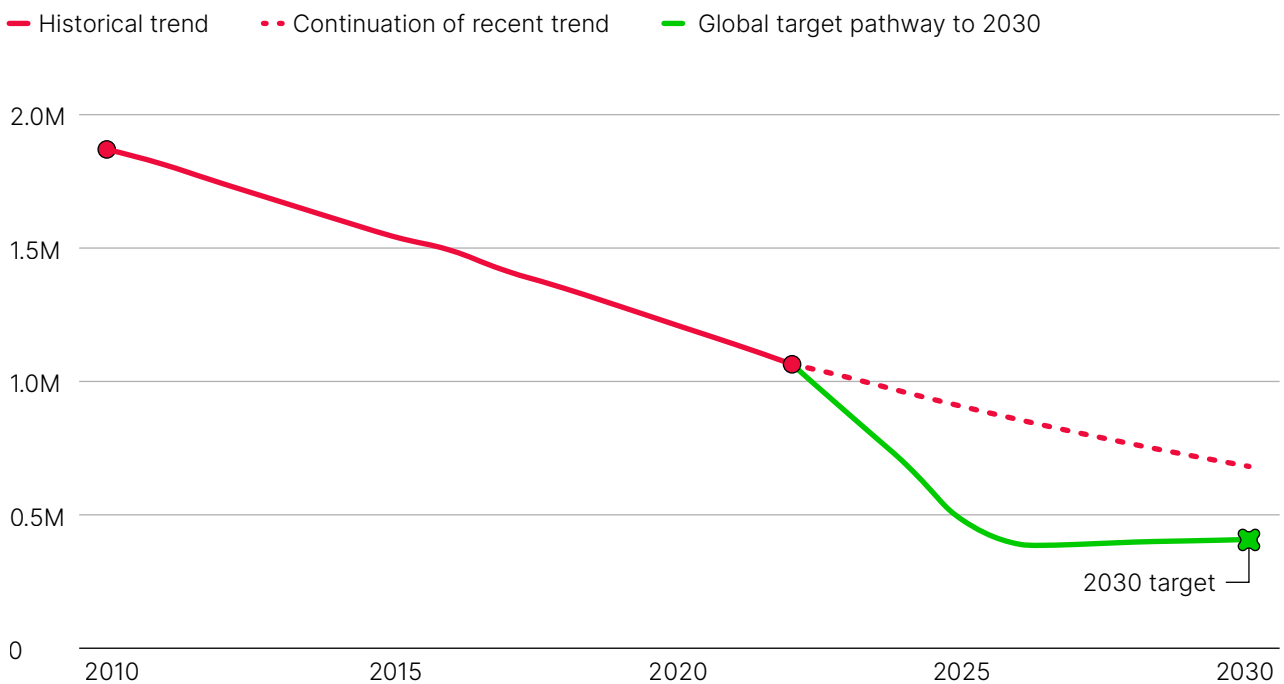
AIDS-related deaths: progress towards the UNAIDS target

In countries where the Global Fund invests



New HIV infections: progress towards the UNAIDS target

In countries where the Global Fund invests



"Continuation of recent trend" projection is based on the continuation of 2017-2022 trends. "Global target pathway to 2030" is based on the target from the 2023 UNAIDS Global AIDS Update. Countries eligible for Global Fund support in 2022.

The challenge

HIV remains a major public health threat. One person dies from an AIDS-related cause every minute. The disease has killed 40.4 million people to date. HIV continues to affect every region of the world, and 39 million people were living with the virus in 2022. AIDS-related illnesses remain the leading cause of death among women (aged 15-49 years) in Africa.

In 2020 and 2021, COVID-19 had a significant impact on the fight against HIV, disrupting health services and diverting critical resources. The Global Fund acted swiftly to support countries to respond to these challenges, and those rapid investments have paid off. 2022 marked an acceleration of HIV programs' recovery from COVID-19-related disruption. However, significant challenges remain.

In 2022, 630,000 people died of AIDS-related causes – deaths that are largely avoidable through prevention interventions, early diagnosis and effective antiretroviral therapy and management of coinfections such as TB.

While infections among people of all ages have gone down by 38% globally since 2010 – from 2.1 million to 1.3 million in 2022 – progress has stalled. Sub-Saharan Africa has seen the biggest reductions in new HIV infections – a 54% decrease since 2010. Asia and the Pacific, accounting for 23% of new HIV infections in 2022, has seen a 14% decrease in new infections since 2010. However, infections, particularly among key and vulnerable populations, have risen in Latin America (an 8% increase since 2010), in Eastern Europe and Central Asia (a 49% increase since 2010) and in the Middle East and North Africa (a 61% increase since 2010).

Stark inequities, both within and between countries, fuel HIV and AIDS. Key and vulnerable populations are often neglected in HIV responses. They

face violence, stigma, discrimination and other barriers to access HIV services that meet their specific needs. Antiretroviral therapy coverage is lower among people from key populations than among the general population, increasing the risk of HIV transmission.

Gender inequalities, unequal power dynamics and harmful societal norms increase women and girls' vulnerability to HIV infection, particularly across Africa. Resource constraints and a widening funding gap mean that countries cannot fully fund a complete HIV response. Without sufficient resources for effective and accessible prevention and treatment programs, people will continue to die.

While there were 29.8 million people on lifesaving antiretroviral therapy globally in 2022, there are still close to 9.2 million people in the world who are living with HIV but who are not being treated. Children are particularly affected: 1.5 million children are living with HIV globally. In 2022, approximately 84,000 children died from AIDS-related illnesses. Only 57% of children living with HIV globally were reported to be receiving treatment in 2022, compared to 77% of adults, due to gaps in early diagnosis and rapid linkage to treatment. Ensuring HIV-positive mothers and pregnant women have continued access to antiretroviral therapy is critical to prevent transmission of the virus to their babies.

One of the most disturbing trends is the growing threat to human rights. Punitive laws and harsh policies fuel stigmatization, targeted discrimination and violence against key populations and LGBTQI+ people. This threatens to reverse our progress against HIV, as fear of violence, abuse, and incarceration can hinder access to prevention and treatment services. To achieve the 2030 SDG target, these infringements on human rights must stop.



In countries where the Global Fund invests:

53.1M

HIV tests were taken (including 12.2 million by priority and key populations). People living with HIV with knowledge of their status increased from 68% in 2015 to 86% in 2022. Global target: 95% by 2025.

24.5M

People were on **antiretroviral therapy for HIV** in 2022, up from 17.5 million in 2017. Coverage increased from 48% in 2015 to 78% in 2022. Global target: 90% by 2025.

Global targets in jeopardy

Many countries are still off track to achieve the target of ending AIDS as a public health threat by 2030, particularly in relation to the number of new HIV infections still occurring. COVID-19 mostly impacted HIV prevention services, which are critical to reducing HIV transmission. By taking bold action now, we can reverse this trend and get back on track to end AIDS by 2030.

We have the knowledge and tools to prevent every new HIV infection and each AIDS-related death. Nevertheless, in 2020 the world missed the “90-90-90” targets³ agreed upon at the United Nations General Assembly in 2016, which aimed for 90% of people (children, adolescents and adults) living with HIV to know their status, 90% of people living with HIV who know their status to be receiving treatment and 90% of people on treatment to have suppressed viral loads. At the end of 2022, 86% of people with HIV knew their HIV status,

89% of people with HIV who knew their status were on treatment, and 93% of people with HIV on treatment were virally suppressed. UNAIDS introduced two additional targets for 2025: 95% of women access HIV and sexual and reproductive health services; 95% coverage of services for eliminating vertical transmission. Working with partners, the Global Fund is supporting countries to reach these targets by 2025.

3. In December 2020, these targets were changed to “95-95-95” by 2025.

The Global Fund's response

The Global Fund provides 28% of all international financing for HIV programs and has invested US\$25.5 billion in programs to prevent and treat HIV and AIDS and US\$4.6 billion in TB/HIV programs as of 30 June 2023. Since 2020, the Global Fund has also supported countries in mitigating the impact of COVID-19 on the HIV response. Our Strategy is focused on accelerating our progress to get back on track and meet the SDG target for 2030.

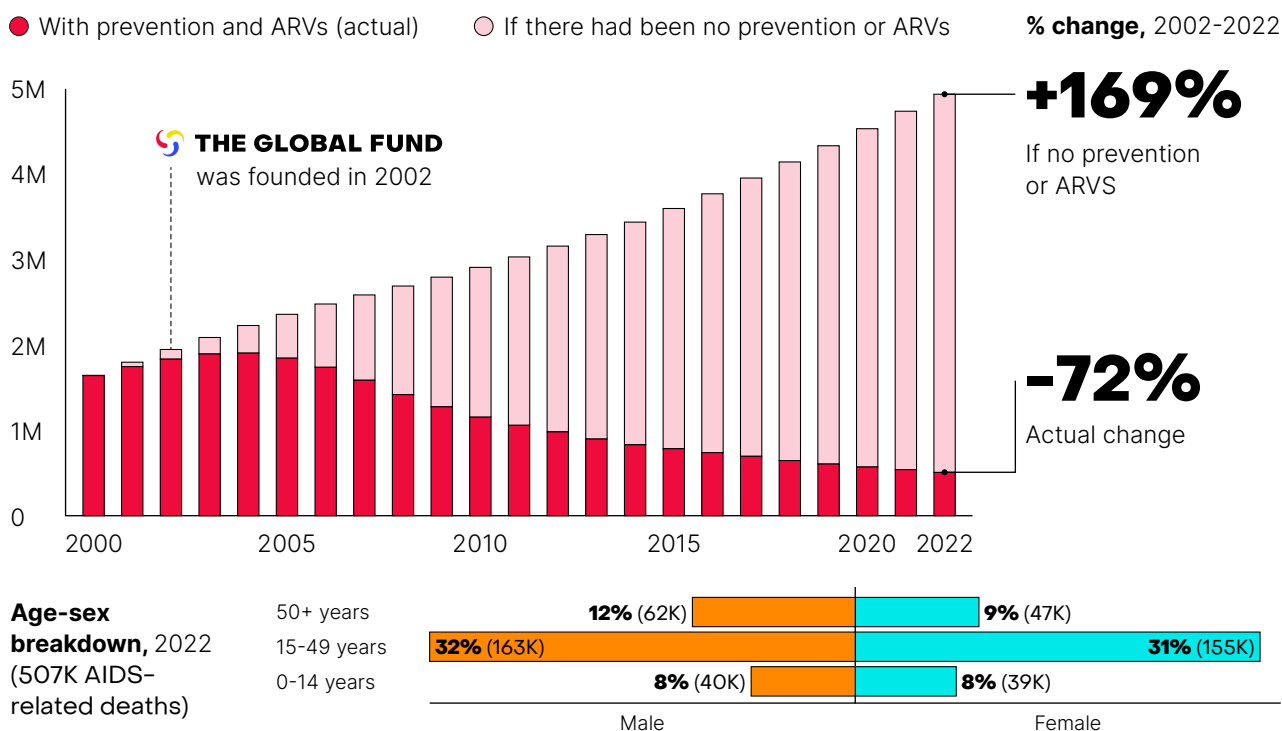
Anjalee Weerasooriya (right) is a counselor at the community center and health clinic in Slave Island, a suburb of Sri Lanka's capital city, Colombo. Anjalee and her colleagues provide HIV prevention, testing and care to people who inject drugs.

The Global Fund/David Blacker/Panos



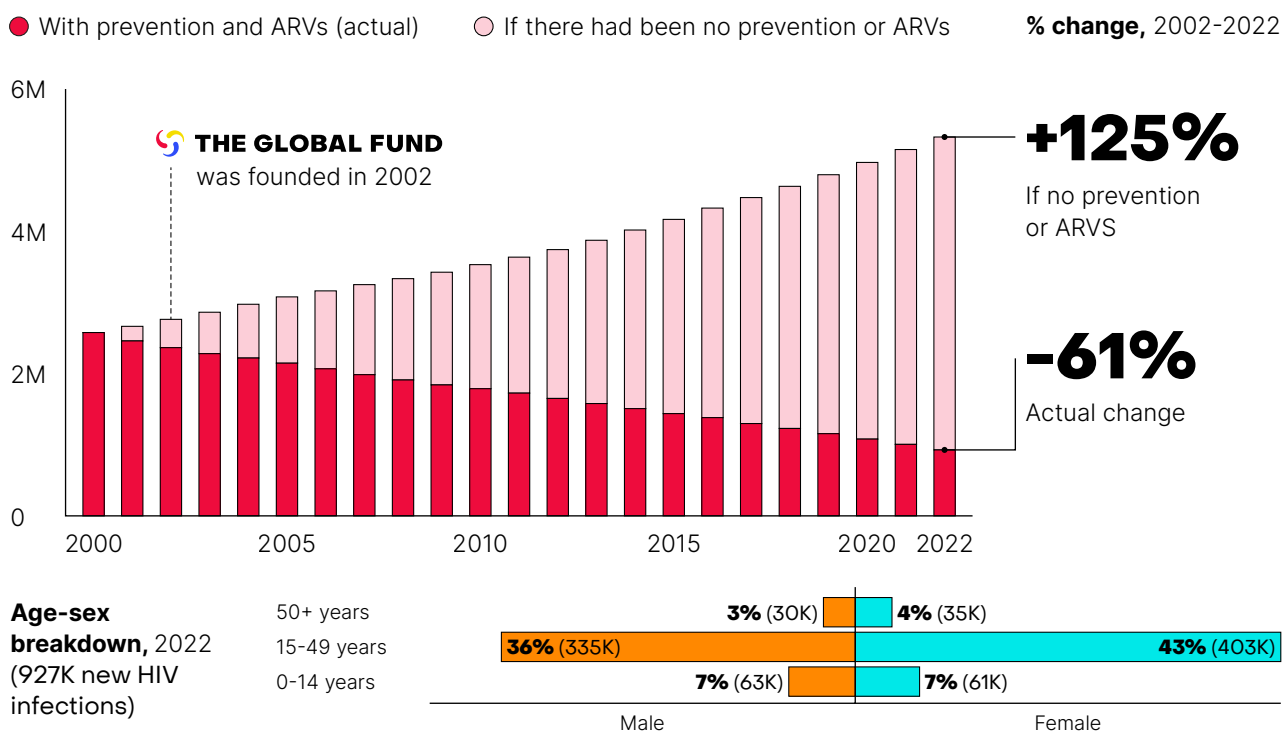
Trends in AIDS-related deaths

In countries where the Global Fund invests



Trends in new HIV infections

In countries where the Global Fund invests



HIV burden estimates from UNAIDS, 2023 release. Estimation of "no prevention or ARVs" trends from Goals Model, Asian Epidemic Model (AEM) and AIDS Impact Model (AIM).

People with advanced HIV disease (AHD) have a significantly weakened immune system and face a higher risk of severe illness and death, including from TB and bacterial infections. To provide care and treatment for those with AHD, we invest in the delivery of packages of services and products designed to address co-morbidities and co-infections and to support longevity and health. For example, the Global Fund provided technical assistance to support Zambia to develop an implementation toolkit for AHD management and a concept note to include AHD data elements in their national reporting system. These tools will support Zambia in improving the implementation of treatment programs as part of a comprehensive package of services for AHD.

HIV treatment innovations

The Global Fund supports countries to provide the best treatments as recommended by WHO for people living with HIV. Recently, the Global Fund has focused efforts on the introduction and scale-up of dolutegravir-based formulations, which improve clinical outcomes, are highly tolerable, and are available across most countries where we invest as low-cost generics.

Pediatric HIV remains a global area of unmet need, but recent treatment innovations have the potential to be game changers. Since a dolutegravir formulation for children was launched in 2021, the Global Fund has delivered the product to over 46 countries through our Pooled Procurement Mechanism.

To fight HIV effectively and equitably, existing and innovative tools need to be available to everyone, everywhere.

Differentiated service delivery

Differentiated service delivery is an approach designed to better serve individual needs and reduce unnecessary burdens on the health system. In collaboration with WHO, the Global Fund has supported the scale-up

of differentiated service delivery across countries to improve access to HIV prevention, testing, care and treatment, with a focus on key and vulnerable populations in high HIV burden settings. The Differentiated Service Delivery Strategic Initiative has served as a catalytic boost for the 18 participating countries to increase the efficiencies and cost-effectiveness of differentiated service delivery models.

In the Philippines, the Strategic Initiative supported the development of a roadmap to scale up virtual interventions for community organizations that serve key populations, taking into consideration the country's high mobile phone and internet usage. In addition, standard operating procedures for mobile van clinics are being developed to complement and strengthen the delivery of HIV services to key populations.

HIV prevention

The Global Fund's HIV prevention investments have grown significantly, from US\$705 million over the 2018-2020 period to more than US\$850 million over the 2021-2023 period. To end AIDS as a public health threat, we must do more to prevent people from acquiring the virus.

Condoms and lubricants are the mainstays of prevention of HIV and other sexually transmitted infections (STIs) and unintended pregnancies. According to the United Nations Population Fund (UNFPA), in 2022 contraceptives including male and female condoms averted 5.1 million STIs and 117,000 HIV infections, and also prevented 13.3 million unintended pregnancies.⁴ Over the 2021-2023 period, we are investing more than US\$140 million in condom programs.

In many countries, demand for condoms needs to be enhanced and supply systems need to be improved to ensure their delivery to the last mile. The

4. Annual Report 2022: A Year of Extremes. United Nations Population Fund, 2022. <https://www.unfpa.org/annual-report>.

Global Fund has therefore been investing in innovative programs to expand condom use in key countries. Program managers in Malawi, Mozambique, Uganda and Zambia are working with last-mile supply specialists and demand creation specialists to re-vamp condom programs.

Pre-exposure prophylaxis (PrEP), a medicine that people can take to prevent themselves from acquiring HIV, has been available in pill form for some time now, but too many people still don't have access to it. In the 2021-2023 implementation period, PrEP accounts for 3% of the HIV prevention budget with investments of US\$24.1 million. While this is double the previous period, we need to do much more to expand access to these vital HIV prevention tools.

The Global Fund adapts HIV prevention investments to reach the people in most need of those services, leveraging new approaches to deliver interventions in ways that respond to their individual needs and in places that are close to where they live, work, have sex and use drugs, including bars, vending machines, kiosks, pharmacies, hook-up websites, and backstreets.

To achieve this, we support community-based and -led organizations that are at the frontline of delivering HIV self-tests, condoms, harm reduction and PrEP, and we prioritize reaching the last mile for HIV prevention and testing products. COVID-19 showed how adaptable health services and community organizations can be in a crisis, and the lessons learned from the pandemic continue to inform and improve our response. For instance, in Djibouti, the Global Fund is working in partnership with the United Nations Development Programme (UNDP) and UNAIDS to support mobile brigades – teams of medical staff who bring HIV testing and prevention services to communities through mobile clinics. These mobile teams decrease the time it takes to travel to a clinic and eliminate the stigma that can be associated with visiting a health center.

We are also leveraging data to fight HIV. Improving the quality of local, regional and national data enables better planning and better distribution of resources, which leads to stronger impact. Working closely with partners and especially with UNAIDS, WHO and PEPFAR, the Global Fund strengthens data systems to increase the availability of sub-national data that captures HIV incidence and the size and characteristics of populations with the greatest HIV prevention needs, such as key populations. This enables national program managers to design “precision prevention” programs that tailor interventions to specific locations and populations.

Innovation in HIV prevention

In addition to providing support for oral PrEP programming, the Global Fund has begun supporting the procurement of long-acting PrEP, including the dapivirine vaginal ring and injectable cabotegravir (CAB-LA). These HIV prevention products and their new formulations can have a significant impact on preventing new HIV infections.

For example, long-acting PrEP in the form of the PrEP ring is a game-changer in the fight against HIV. The PrEP ring is a vaginal ring that contains antiretroviral medicine. Once inserted, it is kept in place for a month before being replaced with a new one. The PrEP ring is the first effective, woman-controlled HIV prevention option ever produced. It is recommended by WHO as part of a comprehensive approach to HIV prevention.

Replacing a vaginal ring every month instead of taking oral PrEP pills can be more suitable for some people's situations, especially where there is stigma associated with pill-taking or when people don't have the resources or the agency to negotiate condom use. Long-acting PrEP also circumvents many adherence problems, so it can be more effective than daily pill-taking.



In countries where the Global Fund invests:

72%

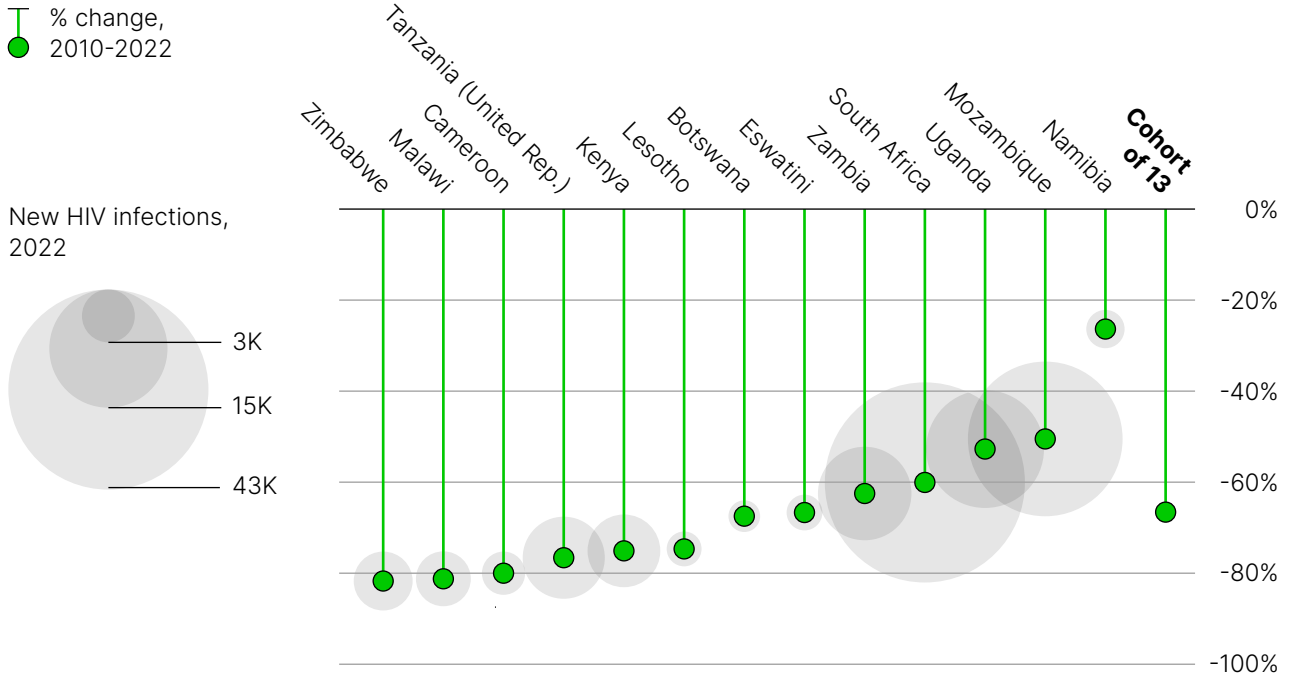
Of people **living with HIV** had a suppressed viral load in 2022. Coverage increased from 15% in 2015 to 72% in 2022. Global target: 86% by 2025.

710k

Mothers living with HIV received medicine to keep them alive and prevent transmitting HIV to their babies in 2022. Coverage increased from 47% in 2010 to 82% in 2022. Global target: 100% by 2025.

Reduction in HIV incidence rate among women aged 15-24

% change 2010-2022 in 13 priority countries



Source: HIV burden estimates from UNAIDS, 2023 release.

The Global Fund is the primary funder for the procurement of the dapivirine vaginal ring.

Key populations

Key populations – people such as male, female and transgender sex workers, people who inject drugs, people in prisons and other closed settings, transgender people, and gay men and other men who have sex with men – are substantially more vulnerable to HIV than the general population. In 2022, HIV prevalence (compared with adults in the general population, aged 15-49 years) was 11 times higher among gay men and other men who have sex with men, 4 times higher among sex workers, 7 times higher among people who inject drugs, and 14 times higher among transgender people.⁵

Yet key populations often face barriers to health care, including discrimination, stigmatization and harmful laws

and policies. The Global Fund's HIV prevention investments prioritize key populations and address their HIV and sexual health needs. We also invest in programs that address the barriers to HIV and other services. Key populations were critical to the elaboration and operationalization of our 2023-2028 Strategy.

Community engagement is crucial in reaching key populations. Viet Nam is running successful HIV prevention and harm reduction programs, supporting community-friendly clinics with a focus on community engagement and mobile testing services that reach key populations, especially people who use drugs, people who identify as LGBTQI+ and men who have sex with men. These programs connect people with health workers, counselors and peer educators who provide HIV testing, health information and services.

5. The path that ends AIDS: UNAIDS Global AIDS Update 2023. UNAIDS, 13 July 2023. <https://www.unaids.org/en/resources/documents/2023/global-aids-update-2023>.

Adolescent girls and young women in countries with a high HIV burden

Gender inequalities, sexual and gender-based violence, discrimination, and harmful societal norms place adolescent girls and young women at higher risk of acquiring HIV: Around 4,000 adolescent girls and young women become infected with HIV every week, the large majority in sub-Saharan Africa.

However, we are making progress. Targeted investments in HIV treatment and prevention interventions have led to significant decreases in HIV incidence in this group. In 2022, approximately 120,000 adolescent girls and young women were newly infected with HIV in 13 focus countries in sub-Saharan Africa. While these are infections that could have been prevented, this represents a 67% reduction in incidence rate among adolescent girls and young women in these countries since 2010, indicating the effectiveness of focused interventions. In 2022, 2.5 million adolescent girls and young women were reached with HIV prevention programs in the same 13 countries.

The Global Fund supports HIV programs that address the structural, behavioral and biomedical risks that adolescent girls and young women experience. We also invest in integrated service delivery platforms for HIV services. The Global Fund works with countries that have moderate-to-high HIV incidence among adolescent girls and young women to include them as a priority within national HIV strategies and policies.

Reaching boys and men is a critical priority in HIV prevention. The Global Fund's investments ensure boys and men have greater access to HIV services, especially in places where HIV incidence is high. We focus our investments on workplace-based HIV testing and treatment services, condom programs, harm reduction programs, voluntary medical male circumcision programs, as well as interventions to transform cultural and social norms that perpetuate gender inequality and increase HIV vulnerability.

Farida Sonia Tiemtore (center), president of Les Héroines du Faso, poses with participants of an education session she facilitated in Ouagadougou, Burkina Faso. Les Héroines du Faso received support through Voix EssentiELLES, a fund that provides grants and capacity development for women and girls' community-based organizations, groups and networks and their leaders, strengthening the participation of women and girls in decision-making processes and spaces that influence health policies and programs. Voix EssentiELLES is managed by Speak Up Africa and is backed and co-funded by Fondation CHANEL and the Global Fund.

The Global Fund/Olympia de Maismont



Human rights and gender equality

Because of the crucial dimension of rights and equality, the fight against HIV and AIDS has always been bigger than just an effort to defeat a particular virus. Since HIV is driven by inequities, defeating it means making the world better and more inclusive.

Progress in the fight against HIV has not been equal, and inequalities fuel the epidemic today. Even when health services are available, structural factors like stigma, discrimination and violence persist and prevent people, including LGBTQI+ people in many regions of the world, from having access to HIV prevention – which contributes to higher infection rates.

The world is experiencing a rise in homophobia and discrimination against people based on their gender or sexual identity. Of 193 countries in the United Nations, 67 still criminalize same-sex acts. As UNAIDS notes,⁶ making same-sex relations a criminal offense heightens the disproportionate HIV risk that LGBTQI+ people already face. For example, a 10-country study in sub-Saharan Africa⁷ found that where these criminal prohibitions were present, HIV prevalence was twice as high among gay men and other men who have sex with men than in countries without such laws.

Since 2017, the Global Fund's Breaking Down Barriers initiative has supported programs to remove gender- and human rights-related barriers and to address stigma and discrimination in more than 20 countries. This includes a range of different activities, from social media campaigns, radio programs, and community dialogues to implementing the HIV Stigma Index and anti-discrimination laws. The Breaking Down Barriers initiative puts in the hands of people affected by HIV, TB and malaria the knowledge, the skills and the mechanisms to understand, demand and secure their health-related human rights. The initiative works to enable and

hold accountable health care providers, law enforcement, prison officials, judges, and parliamentarians to provide supportive and effective services to all those who are most vulnerable to disease. The initiative also focuses on reducing gender discrimination. For instance, in Mozambique, the Viva+ project supported by the Global Fund reached 100,000 women, girls, transgender women, and men who have sex with men with human rights education sessions that included modules focused on sexual and reproductive health and gender-based violence. This was hailed as a critical part of Mozambique's broad and sustained efforts to reduce the disproportionate burden of HIV on young women and girls, including female sex workers.

In countries included in the Breaking Down Barriers initiative, our investments in programs to reduce human rights-related barriers have increased more than tenfold – from slightly over US\$10 million in 2017 to over US\$130 million today.

Progress

In countries where the Global Fund invests, AIDS-related deaths have been reduced by 72% since the Global Fund was founded in 2002 and new infections have been reduced by 61%. In the absence of prevention measures and antiretroviral drugs, deaths would have increased by 169% and new HIV infections by 125% in the same period.

The fight against HIV is an inspiration and platform for defeating all other infectious diseases – those we face right now, including COVID-19, and those that will likely emerge in the future. Boosting the fight against HIV will unlock the dual benefits of saving millions more lives while simultaneously building more resilient, equitable and sustainable health systems that can make the world battle-ready for future health threats. ●



Key results for 2022

In countries where the Global Fund invests:

15.3M

People were **reached with HIV prevention services** in 2022, including 6.8 million members of key and vulnerable populations and 7.6 million young people (including 3.6 million adolescent girls and young women).

831k

Voluntary medical male circumcisions were conducted for HIV prevention in 2022.

338k

People **initiated oral antiretroviral pre-exposure prophylaxis (PrEP)** in 2022.

6. Save lives: decriminalize. UNAIDS. <https://www.unaids.org/en/topic/decriminalization>.
7. Associations between punitive policies and legal barriers to consensual same-sex sexual acts and HIV among gay men and other men who have sex with men in sub-Saharan Africa: a multicountry, respondent-driven sampling survey. C. E. Lyons, J. O. Twahirwa Rwema, K. Makofane, D. Diouf, I. Mfochive Njindam, I. Ba, A. Kouame, U. Tamoufe, B. Cham, M. Aliu Djaló, E.-P. Obodou, E. Karita, A. Simplice, R. G. Nowak, T. A. Crowell, S. Matse, S. Kouanda, J.-P. Enama, M. Kavanagh, G. A. Millett, C. Beyrer, S. Murray, S. Baral. The Lancet HIV, Volume 10, Issue 3, 2023, pages e186-e194. [https://doi.org/10.1016/S2352-3018\(22\)00336-8](https://doi.org/10.1016/S2352-3018(22)00336-8).



Case study

Malawi: Putting Children First in the Fight Against HIV

One of the most glaring inequities in the fight against HIV today is the failure to provide lifesaving treatment and support to the world's youngest citizens.

Around the world, a child dies from an AIDS-related cause every 5 minutes. And despite the availability of highly effective treatments that prevent pregnant mothers from transmitting HIV to their babies, UNAIDS estimates that in 2022, 130,000 children were born HIV-positive.

But in Lilongwe, Malawi's capital city, a renowned pediatric HIV clinic continues to show that prioritizing children and young people can be done and pays off.

Founded in 2004, the Baylor College of Medicine Children's Foundation Malawi is one of southern Africa's leading pediatric HIV centers.

With investments from the Global Fund, USAID and the AbbVie Foundation, Baylor Foundation Malawi provides lifesaving health services and support

to children living with HIV and AIDS and their families, including access to the latest child-friendly drug regimens and age-appropriate and child-friendly psychosocial support and care.

Baylor Foundation Malawi also runs a program called Teen Club, which supports children and adolescents aged 10- to 19-years-old living with HIV with health services, career and life-skills counseling as well as education on preventing and identifying gender-based violence.

With adequate health care and support, children who arrived at the Foundation unwell are now healthy adults and contributing to their communities.

Across sub-Saharan Africa, there has been renewed commitment to ending AIDS in children: The Global Fund is part of the Global Alliance to End AIDS in Children, an initiative led by 12 African countries, which has the goal of ending AIDS in children by 2030. ●

3-month-old Ndiwanga, whose mother is living with HIV, is being closely monitored at the Baylor Malawi Children's Clinical Center of Excellence in Lilongwe, Malawi. If all goes well, she will be confirmed free of HIV by the age of 2.

The Global Fund/Kondwani Jere



Miller Huila

Secretary, La Corporación Stonewall
Antioquia, Colombia

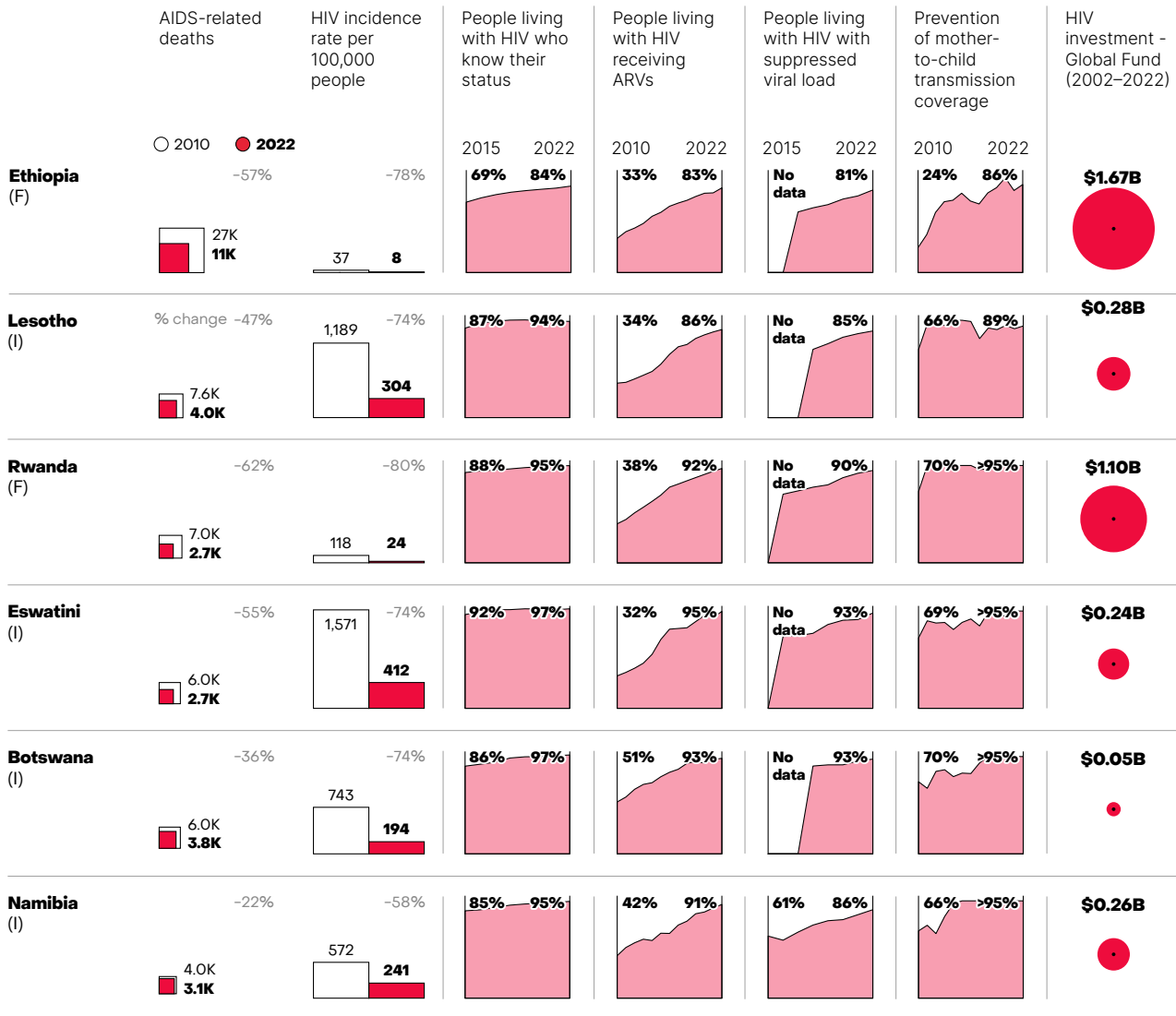
Miller Huila says it was her work with human rights organizations and other activists that allowed her to finally be herself. This work began with La Alianza Social LGBTI, an organization in Antioquia, Colombia, that brings together community groups and activists fighting to protect the rights of people from the LGBTQI+ community. At the time, Miller identified as a gay man and had struggled to be herself with her family, her friends and her community. Miller then became secretary of La Corporación Stonewall, an affiliated human rights group supported by the Global Fund that advocates for legislative changes, promotes youth participation, and provides community-based HIV testing, treatment and counseling. Since taking up this work, Miller transitioned and now identifies as a trans woman. Today she works as a peer educator and supports other people living with HIV to navigate the legal system and links people from the LGBTQI+ community to HIV testing, treatment and psychological support. Miller says that her work can be demanding, but her personal journey has given her strength. "I feel proud of who I am," she says.

Image: (RED)/Federico Rios



Investment and impact: HIV





For a detailed look at HIV results per country, visit the Global Fund Data Explorer at <https://data.theglobalfund.org/>. An interactive version of this chart is available with data for all Global Fund-supported countries at <https://www.theglobalfund.org/en/results/>.

All data is based on estimates published in the UNAIDS 2023 release <http://aidsinfo.unaids.org/>, other than Global Fund disbursements, which are available on the Global Fund Data Explorer. The denominator for the three 95s is People living with HIV.

1. Countries listed on this page were selected based on three criteria:

- Being among the top-10 countries with the highest number of AIDS deaths in 2010 (D).
- Being among the top-10 countries with the highest HIV incidence rate in 2010 (I).
- Being among the top-10 countries that received the largest amount of funding from the Global Fund from 2002 to end December 2022 to support HIV 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" are limited to countries that received an allocation for either the 2017-2019 or the 2020-2022 cycle, excluding countries only receiving funds through the nongovernmental organization (NGO) rule. Global Fund-supported countries received US\$27.8 billion from 2002 to end-December 2022 to support HIV and AIDS and a portion of HIV/TB programs. Additionally, they received US\$1.4 billion in cross-cutting support across the three diseases, resulting in a total of US\$29.3 billion. Countries/programs that did not receive an allocation over the 2017-2019 or 2020-2022 cycle received US\$1.3 billion since 2002, resulting in a total disease-specific investment of US\$29.2 billion.

3. The data for disease burden estimate and service coverage was not available for India and Nigeria from UNAIDS at the time of publication. India has received almost US\$1.4 billion in HIV and AIDS funding from the Global Fund and ranks 5th in terms of share of Global Fund investment in HIV and AIDS, while Nigeria has received more than US\$1.1 billion and ranks 9th in terms of share of Global Fund investment in this area.

4. In line with the Global Fund [results reporting methodology](#), these charts reflect the achievements of national health programs, representing the outcomes and 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>.

Retired nurse Tsetsegmaa walks 10 kilometers every day, delivering TB medication door-to-door to patients living on the outskirts of Ulaanbaatar, Mongolia.

The Global Fund/Kevin Keen



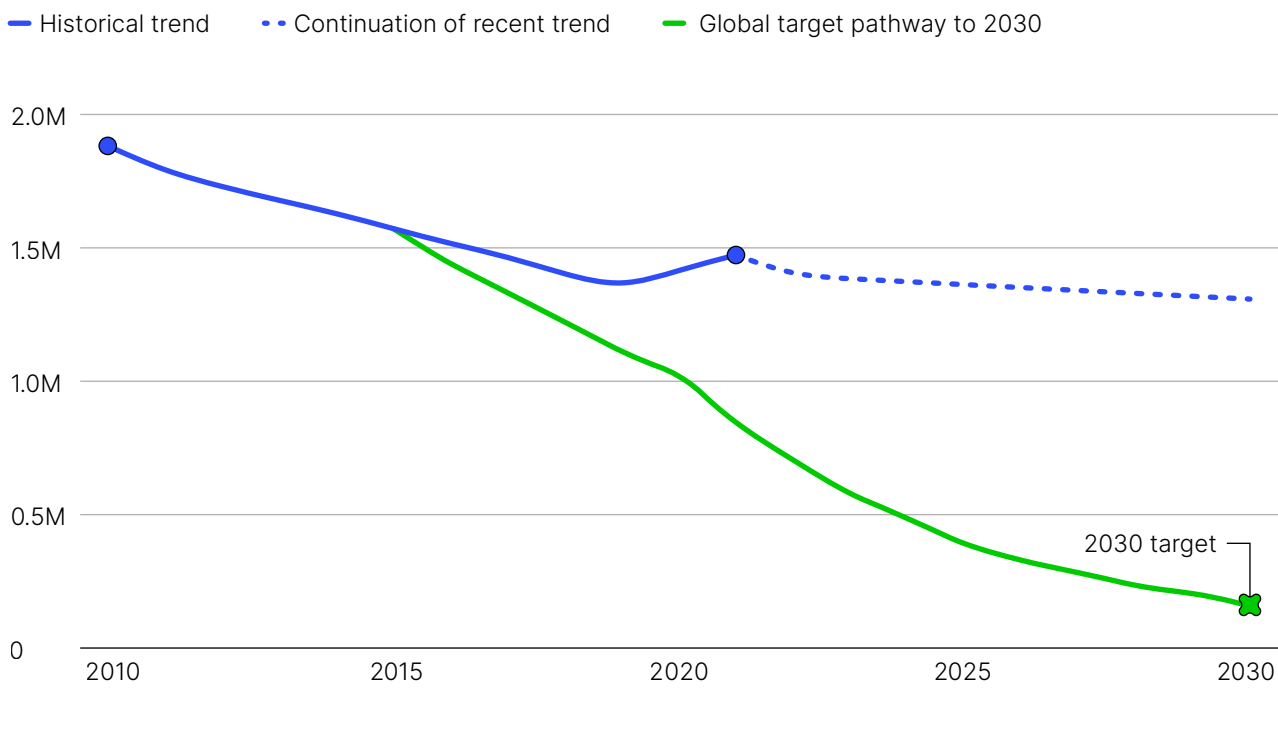


Tuberculosis: State of the Fight

This chapter captures the latest information available on the fight to end tuberculosis (TB). In 2022, TB programs registered strong recoveries from the impact of COVID-19. However, multiple challenges, including inequitable access to TB services, are keeping us off track to end the disease by 2030.

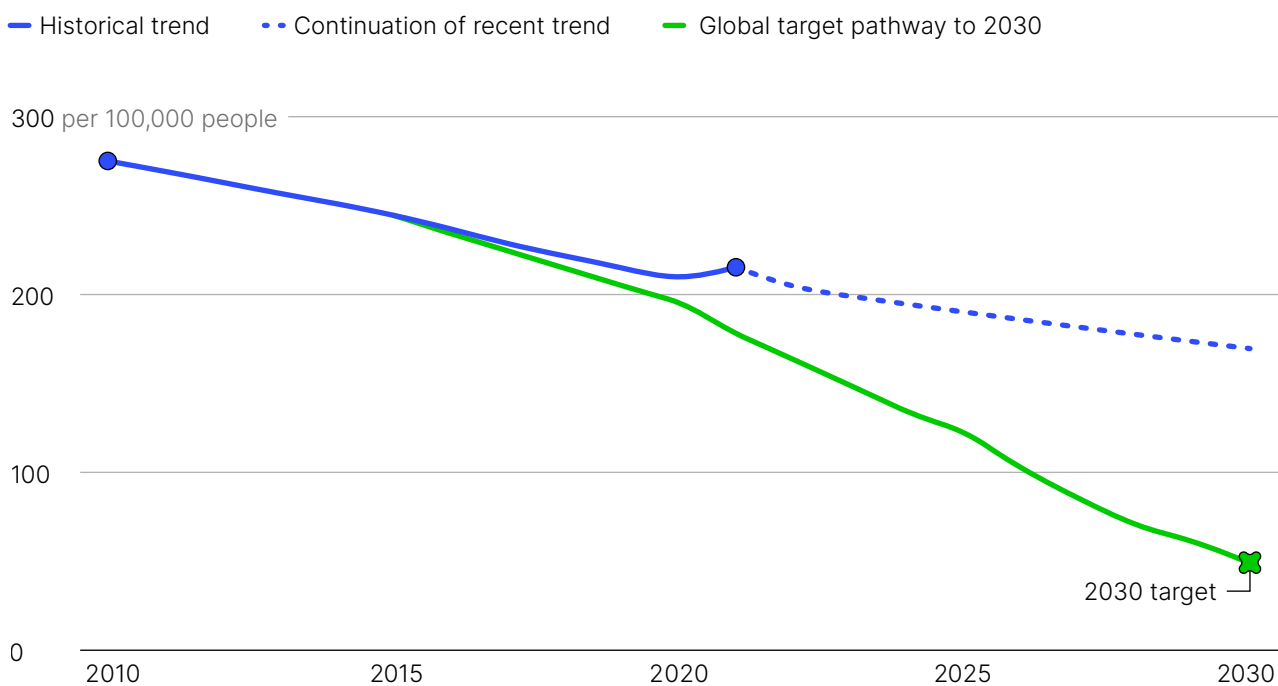
TB deaths: progress towards the WHO target*

In countries where the Global Fund invests



TB incidence rate: progress towards the WHO target

In countries where the Global Fund invests



*TB deaths include HIV-positive. "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 End TB Strategy. Countries eligible for Global Fund support in 2022.

The challenge

TB – a preventable and curable disease – kills one person every 20 seconds. The estimated number of deaths from TB (including people living with HIV) increased between 2019 and 2021, from 1.4 million to 1.6 million. And an estimated 10.6 million people fell ill with TB in 2021. This was an increase of 4.5% from 2020, a significant setback after many years of steady reductions.

But countries are fighting back. In 2022 most TB programs registered a sharp recovery after having been severely disrupted by the COVID-19 pandemic in 2020 and 2021. In 2022, there was a sharp increase in TB screening and testing in the countries where the Global Fund invests. 6.7 million people with TB were diagnosed and treated in 2022, surpassing the number reported in 2019 (5.8 million).

Despite this recovery in Global Fund-supported TB programs, many challenges remain. The perils of drug-resistant TB are becoming ever more present. Today's TB medicines have been used for decades, and strains of the disease that are resistant to one or more of these medicines are becoming more prevalent. Equitable access to treatment remains a huge challenge. In 2021, only about 1 in 3 people who fell ill with multidrug-resistant TB/rifampicin-resistant TB were accurately diagnosed and enrolled on treatment. A lack of accurate diagnosis and limited access to quality-assured treatments to respond to drug-resistant TB could fuel antimicrobial resistance worldwide, posing a major threat to global health security.

Millions of people continue to live with and die from TB without ever receiving a diagnosis – reaching these “missed” individuals is key to ending the disease for good. Finding them is essential not only to ensure that they receive care, but also to protect those close to them:

A person with active, untreated TB can spread the disease to as many as 15 to 20 other people in a single year.

The End TB Strategy targets to end TB by 2030 are also in jeopardy. COVID-19 severely impacted efforts to meet these targets by 2030, reversing years of slow but steady progress. There was only a 10% reduction in the global TB incidence rate between 2015-2021, against a milestone of a 50% reduction by 2025. There was a 5.9% worldwide reduction in the number of TB deaths between 2015-2021 against a 75% reduction milestone by 2025.

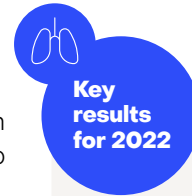
But we can end TB. We have the tools, and we move the needle through innovation. People and communities affected by TB are actively involved in shaping national prevention and treatment strategies. What we lack is the political will to end this disease for good. In 2021, US\$5.4 billion was spent worldwide on TB services, including prevention, diagnosis, treatment and care, falling well short of the US\$13 billion target set by the Stop TB Partnership Global TB Plan. Without serious political and financial commitment, our journey to meet the SDG target to end TB for good becomes even more daunting.

The Global Fund's response

The Global Fund's commitment to ending TB continues to drive progress despite these challenges. In 2022, the Global Fund continued to support countries to sustain their TB prevention and treatment programs and recover from the impact of COVID-19. The Global Fund provides the largest share – 76% – of all international financing for TB (US\$9.2 billion in programs to prevent and care for people with TB and US\$1.5 billion in TB/HIV programs as of 30 June 2023).

Testing and treatment

In 2022, many countries achieved accelerated progress in the fight to



Key results for 2022

In countries where the Global Fund invests:

6.7M

People were **treated for TB** in 2022.

59%

TB treatment coverage increased from 44% in 2010 to 59% in 2021, and the TB treatment success rate reached 86% in 2020. Global targets for coverage and treatment success rates: 90% by 2025.

end TB, reporting increases in the number of people tested and treated for TB. This recovery would not have happened without each country's commitment to delivering an inclusive, community-centered model of care that focuses on reaching those who are most vulnerable to infection.

Global Fund investments in lab infrastructure and tests also intensified TB case notification work. These efforts strengthened TB programs to rapidly counteract the impact of the COVID-19 pandemic on the coverage of TB services. These investments have also fostered powerful and agile health systems that can conduct integrated testing – screening for more than one disease at the same time – which is becoming a primary tenet of many countries' pandemic preparedness and response plans and is also key for making TB screening and testing more widespread.

Testing for more than one disease at once also contributes to reducing stigma in health care. On mobile diagnostic units that have been deployed among hard-to-reach communities in Kaduna State, Nigeria, and in three health facilities

in the city of Manila in the Philippines for example, screening and testing for malaria, hepatitis, and respiratory syncytial virus have also been included in the algorithm to avoid the stigma associated with being identified as person with presumptive TB or COVID-19.

The TB Strategic Initiative, funded by the Global Fund and implemented together with the Stop TB Partnership and WHO, has also been working with national TB programs and partners to stop the spread of TB and reach the global goal adopted by world leaders to end TB by 2030. Building on successes and lessons learned in the first phase of the initiative (2017-2019), the second phase (2021-2023) has made available US\$14 million to 20 priority countries and 5 countries in West and Central Africa. This funding is catalyzing further efforts to find and successfully treat people with TB who are facing barriers to treatment and care and who are currently missed at different points along the TB care cascade. It has also supported the implementation of matching funds for finding and treating missing people with TB.



In countries where the Global Fund invests:

118k

People were on **treatment for multidrug-resistant TB** in 2022; treatment coverage reached 28% in 2021 and the multidrug-resistant TB treatment success rate increased from 51% in 2010 to 63% in 2019. Global targets: 90% multidrug-resistant TB treatment coverage and success by 2025.

331k

People with **HIV and TB were on antiretroviral therapy** during TB treatment in 2022; coverage of antiretroviral drugs in people with HIV and TB increased from 45% in 2010 to 89% in 2021. Global target: 100% among detected cases.

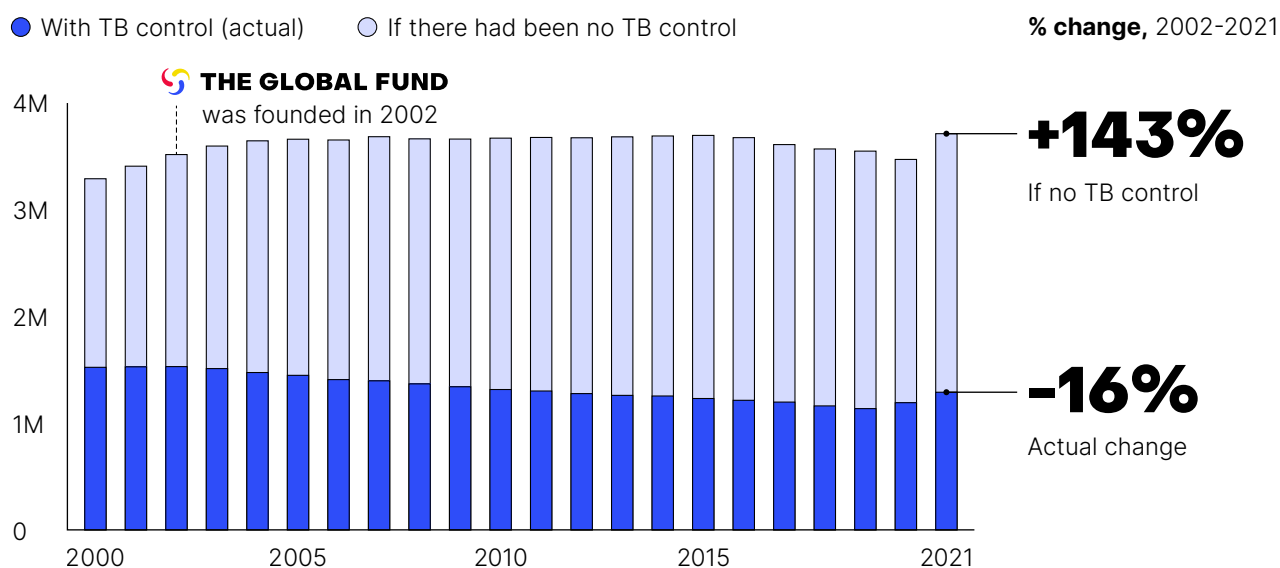


Salar (left) visits with Abdi at his home in Sheikhka, a remote village in Duhok Governorate, Iraqi Kurdistan. Salar is a member of the International Organization for Migration's Duhok-based Mobile Medical Team – a group that delivers essential medicine and health care to vulnerable people, including people living with TB.

Raber Y. Aziz/IOM Iraq

Trends in TB deaths (excluding HIV-positive)*

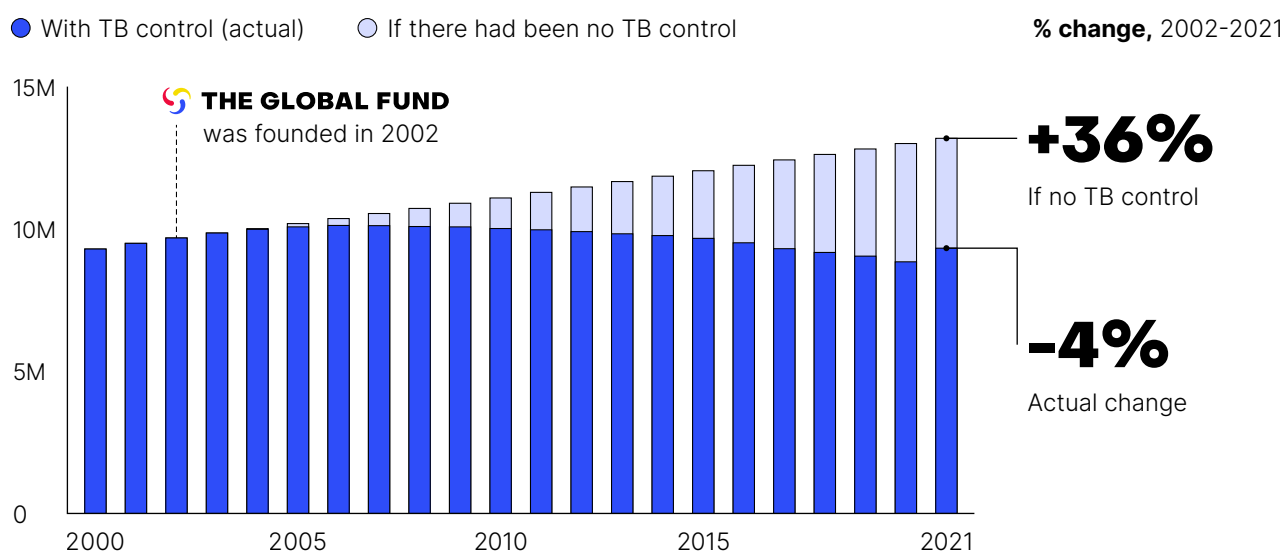
In countries where the Global Fund invests



*While major control efforts for malaria and HIV began with the launch of the Millennium Development Goals in 2000, TB control efforts began much earlier. The counterfactual and actual results therefore diverged from each other much earlier, making this graph look considerably different than its HIV and malaria counterparts.

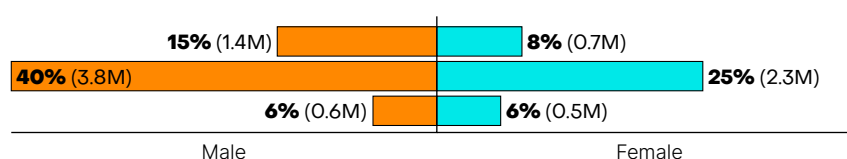
Trends in new TB cases (all forms)

In countries where the Global Fund invests



Age-sex breakdown, 2021
(9.3M new TB cases)

55+ years
15-54 years
0-14 years



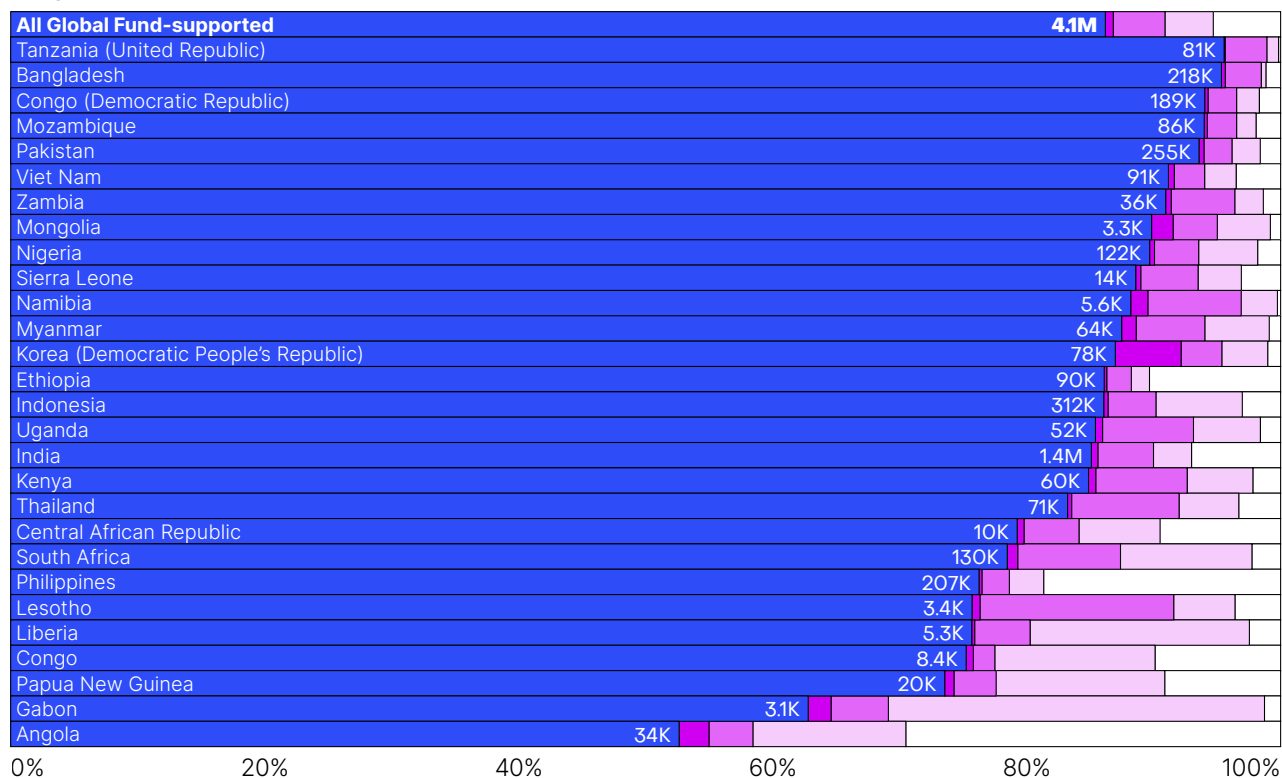
The TB burden estimates are from the WHO Global Tuberculosis Report 2022. The estimation of "no TB control" trends for TB deaths from WHO and for new TB cases is based on the assumption of a constant trend in new TB cases since 2000.

TB treatment outcomes

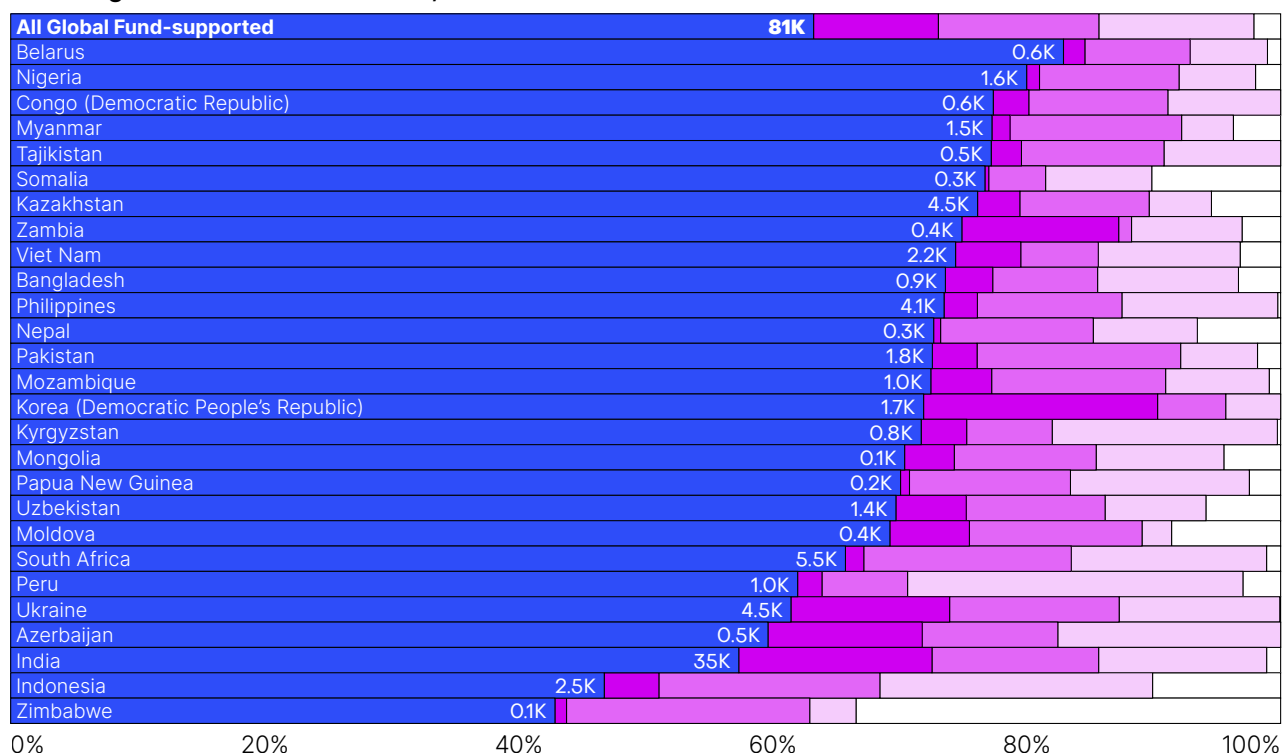
In WHO high-burden countries supported by the Global Fund

● Treatment successful ● Failed ● Died ● Lost to follow-up ○ Not evaluated

Drug-sensitive TB cases, 2020



Multidrug-resistant (MDR) TB cases, 2019



TB treatment outcomes for new and relapse TB cases, WHO list of high-burden countries. Source: WHO Global Tuberculosis Report 2022. No MDR-TB treatment outcome data is available for Angola.

Innovation in TB testing and treatment

To fight drug-resistant TB, the Global Fund is encouraging and supporting countries to transition to shorter and more effective oral treatment regimens. For example, the Global Fund supports the WHO recommendation for a 6-month all-oral, injection-free treatment regimen composed of four medicines – bedaquiline, pretomanid, linezolid and moxifloxacin (BPaLM). The 6-month BPaLM regimen, like other modified short-course regimens, represents a huge milestone in drug-resistant TB care: By drastically reducing the duration of treatment, patients are more likely to finish it, suffer fewer debilitating side effects and be cured of the disease for good. Reducing the duration of treatment can be especially valuable in reaching the most vulnerable to TB infection and disease, especially migrants and other mobile populations. What's more, the health system as a whole also benefits. Shorter treatment regimens help health systems save on costs linked to treatment follow-up tests and to packages of treatment adherence interventions that support care for patients on TB treatment.

Globally, 92 countries had transitioned to shorter 9-month drug-resistant TB regimens by 2021. Between 2021 and 2022, the number of people treated for TB in the countries where the Global Fund invests rose by about 26%, with those treated for drug-resistant TB rising by 8.6%. Finding everyone with TB and ensuring that everyone with the symptoms of the disease is offered a molecular diagnostic test and an effective treatment are key to saving lives. This is also a crucial step in fighting drug-resistant forms of TB and reducing the wider risk to global health security.

Prevention

To win the fight against TB, preventing those with TB infection from developing TB disease is fundamental. The Global Fund continues to invest in broadening access to better, shorter preventive therapy (anti-TB medicines given to prevent the development of the disease)

in low- and middle-income countries. An estimated quarter of the world's population is infected with latent TB infection – they have no symptoms, they are not contagious and most do not know they are infected. Without treatment, 5% to 10% of these people will become ill with TB in their lifetime, with a much higher risk for people living with HIV.

Investments to support infection prevention and control, especially in TB treatment facilities and outpatient health centers, including the provision of PPE for health care workers and community workers involved in TB case-finding activities, also contribute to the fight against TB.

About 45% of the Global Fund's TB investments support interventions in TB care and prevention, particularly for vulnerable groups, including people living with HIV. In countries where the Global Fund invests, 1.5 million people in contact with TB patients received preventive therapy in 2022. This number is four times higher than the 2021 result. In 2022, 2.2 million people also received isoniazid preventive therapy (IPT), an important intervention for preventing and reducing active TB in communities affected by HIV.

Innovation in TB prevention

Tuberculosis preventive treatment (TPT) is a vital tool to protect people from TB. TPT is especially important for people living with HIV, as they face a high risk of developing a severe and deadly form of the disease.

A short-course TPT called 3HP – a weekly course of rifapentine and isoniazid for three months – is now available in a new, fixed-dose combination. This new combination is transformative for patients seeking to adhere to their treatment and protect themselves from TB. The 3-month course significantly reduces the duration of treatment (previously at least 6 months, and sometimes even 36 months). The fixed-dose element also



Key results for 2022

In countries where the Global Fund invests:

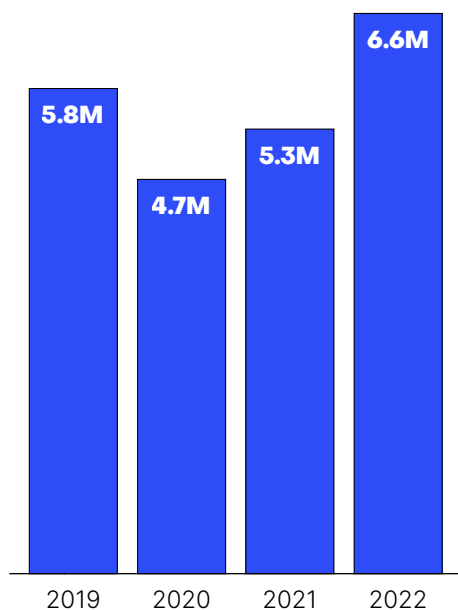
1.5M

People **exposed to TB** received preventive therapy in 2022.

2.2M

People **living with HIV** on antiretroviral therapy initiated TB preventive therapy in 2022.

People treated for TB



The graph includes countries with comparable results in all four years. Therefore the total results in 2019-2022 might be lower than the total number of services seen in the other parts of this report and in the interactive online platform. The results for 2019-2021 might also be slightly different from what was published in previous years due to retrocorrection.

drastically reduces the “pill burden” for patients – reducing the number of tablets from 9 to just 3 pills per week. Shorter TPT regimens are more cost effective, and because they have fewer side effects, patients are more likely to complete their treatment on the first try. In 2022, the Global Fund supported the rollout of the fixed-dose combination of 3HP in 14 countries.

Human rights and gender equality

The fight against TB must be equitable, rights-based and people-centered. Key populations – including people in prisons and other closed settings, people living with HIV, migrants, refugees and indigenous populations – are especially vulnerable to the disease and have significantly less access to services due to socioeconomic status, harmful gender norms, stigma, discrimination and systematic exclusion.

The Global Fund supports countries to design, fund, implement and scale up programs that remove human rights and gender-related barriers to TB, HIV and malaria services.

For TB, this means ending stigma and discrimination, including within the provision of health services at facilities as well as at the community level; ensuring rights-based TB services in prisons and other closed settings; advocating to end punitive laws, policies, and practices that hinder access to TB services; reducing TB-related gender discrimination, harmful gender norms and violence; and increasing access to justice and community legal empowerment.

The TB Strategic Initiative has supported the implementation of community, rights and gender assessments as well as TB stigma assessments to understand the extent to which national responses to TB (and HIV) consider gender equality and human rights. The assessments aim to support countries to improve the planning, implementation, monitoring and evaluation of human rights-based and gender-transformative TB programming and implementation. For TB programs specifically, there is a need to ensure confidentiality and privacy, mobilize and empower patients and community groups, address policies regarding involuntary isolation or detention for failure to adhere to TB treatment, and remove barriers to TB services in prisons.

Progress

In countries where the Global Fund invests, TB deaths (excluding people living with HIV) since the Global Fund was established in 2002 have been reduced by 16% as of 2021, while new TB cases (all forms) have dropped by 4%. In the absence of TB control measures, deaths would have increased by 143% and TB cases by 36% in the same period.

Increasingly, countries are focusing on sustainability to make progress in the fight against TB, with support from the Global Fund and partners as necessary. In a number of countries where the Global Fund invests, governments are gradually taking over procurement of health commodities, including first-line TB medicines and test cartridges. To enhance domestic funding for TB, the Global Fund is executing blended finance transactions with partners like the World Bank. The Global Fund reduces the cost of the loan to the country, and

in exchange, the country commits to using the proceeds to strengthen its TB programs. Looking ahead, countries are also leveraging integrated platforms to provide TB services, including lab sample transport and community service delivery platforms.

Despite this progress, we are still off track to end TB as a public health threat by 2030. To get there, we must do more. An all-in response to TB today actively contributes to building a safer, healthier and more equitable world tomorrow. ●

Francis, who lives in Inawabui, Papua New Guinea, was diagnosed with multidrug-resistant TB when he was 10 years old. After 18 months of daily treatment, he finally beat the disease.

The Global Fund/Roan Paul





Case study

India: Locally Developed Testing Technology Accelerates the Fight Against TB at Home and Abroad

With the world's largest burden of TB, India has a vital role to play in ending TB globally – and the country's leadership is paying off.

Despite setbacks due to the COVID-19 pandemic, TB case notifications actually increased in India in 2022, exceeding pre-pandemic levels. This means we found more people with TB and put them on treatment.

One of the tools contributing to this success is Truenat, an Indian-developed rapid molecular testing system by Molbio Diagnostics, a company based in Goa. Truenat uses portable devices to rapidly test and diagnose TB, detect drug-resistant strains of the disease and test for other diseases – including COVID-19. The Truenat device can function in difficult environments with minimal user input, making it an ideal diagnostic tool for primary health care settings with limited resources.

Although rapid molecular TB tests are endorsed by WHO as the standard of care, less than 40% of people in need of these tests globally have access to them, which is one of the largest shortfalls in the global TB response today.

But thanks to Truenat, millions more people could gain access to these critical tools. A new collaboration between the Global Fund, USAID, the Stop TB Partnership and Molbio Diagnostics will reduce the price of the Truenat test (from US\$9 to US\$7.90), making the testing technology more affordable and accessible in over 100 countries worldwide. ●



A laboratory technician at Nair Hospital in Mumbai, India, uses the Truenat diagnostic platform to test for COVID-19.

The Global Fund/Atul Loke/Panos

Dr. Khiếu Thị Thúy Ngọc

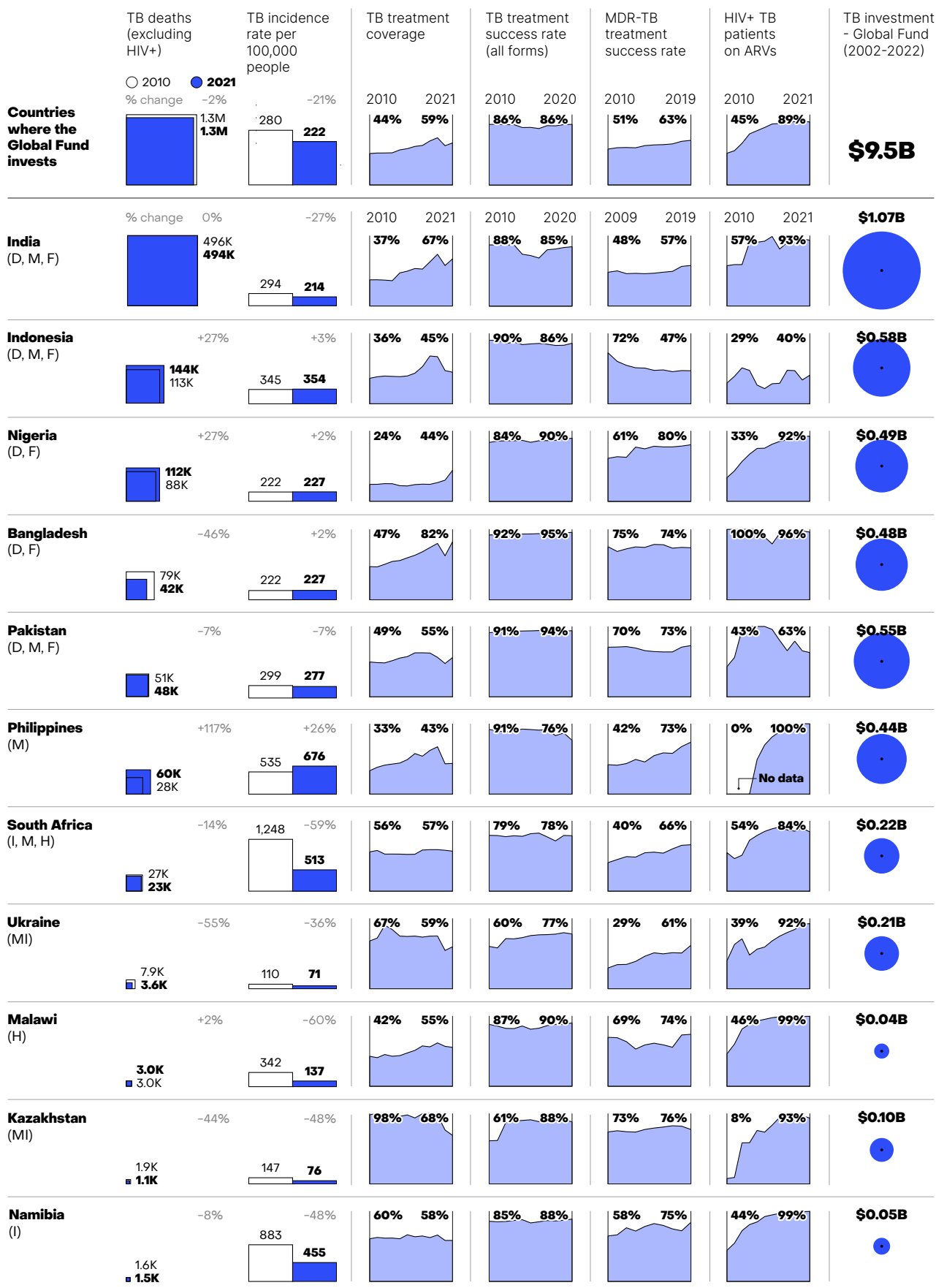
Deputy Laboratory Manager
National Lung Hospital, Viet Nam

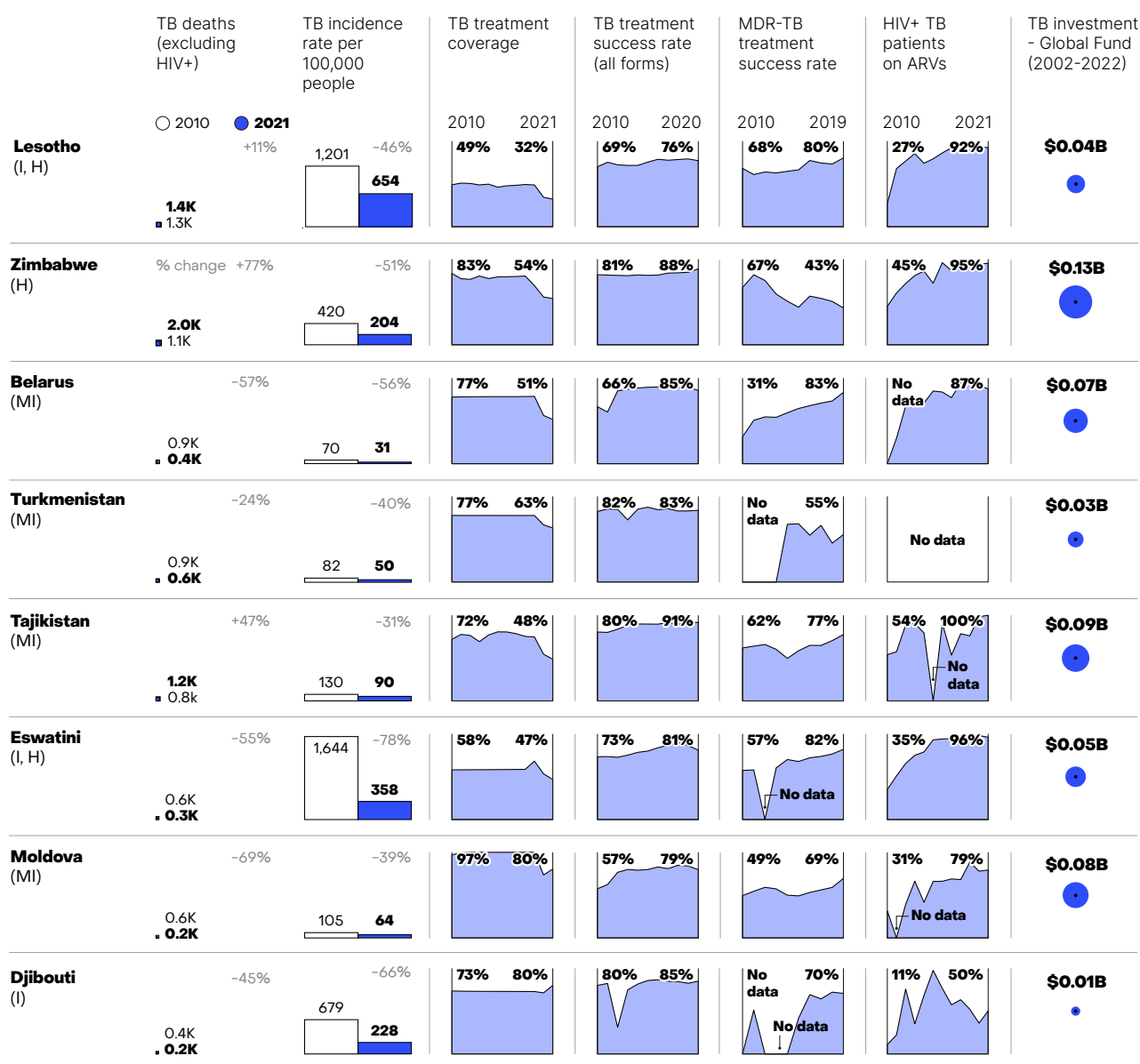
Dr. Khiếu Thị Thúy Ngọc is part of a generational fight against TB. Following in the footsteps of her mother, a doctor who spent 30 years working in Viet Nam's National Lung Hospital, Dr. Khiếu has spent her two decades-long career testing and treating people with the disease. Despite decades of advancement, Dr. Khiếu witnessed the impact of COVID-19 on the fight against TB first-hand. "After COVID-19 a lot of laboratory staff working in the tuberculosis hospital left their jobs – they were afraid of COVID-19 and TB. Now we have new staff that need training, experience and certification." But Dr. Khiếu is on the frontline of Viet Nam's effort to build back even better. In addition to facilitating testing at the National Tuberculosis Reference Laboratory, she travels across the country training new technicians and laboratory staff on TB testing and procurement planning, and certifies them to be able to use GeneXpert machines, which can rapidly diagnose the disease.

Image: The Global Fund/Quinn Ryan Mattingly



Investment and impact: TB





For a detailed look at TB results per country, visit the Global Fund Data Explorer at <https://data.theglobalfund.org/>. An interactive version of this chart is available with data for all Global Fund-supported countries at <https://www.theglobalfund.org/en/results/>.

All data is based on estimates published in the Global Tuberculosis Report 2022 <https://www.who.int/tb/data/en/>, other than Global Fund disbursements, which are available on the Global Fund Data Explorer.

1. Countries listed on this page were selected based on six criteria:

- Being among the top-5 countries with the highest number of TB deaths (excluding HIV+) in 2010 (D).
- Being among the top-5 countries with the highest TB incidence rate in 2010 (I).
- Being among the top-5 countries with the highest number of MDR-TB cases in 2021 (MI).
- Being among the top-5 countries with the highest ratio of estimated number of MDR-TB to estimated number of new TB cases in 2021 (MI).
- Being among the top-5 countries receiving the highest amount of funding from the Global Fund from 2002 to end December 2022 to support TB programs (F).
- Being among the top-5 countries with the highest estimated HIV prevalence among incident TB cases in 2010 (H).

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

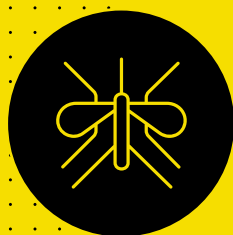
2. The aggregate numbers presented as "Global Fund-supported" are limited to countries that received an allocation for either the 2017-2019 or 2020-2022 cycle. These countries received US\$9.5 billion from 2002 to end December 2022 to support TB programs and a portion of joint HIV/TB programs. Additionally, they received US\$1.5 billion in cross-cutting support across the three diseases, resulting in a total of US\$10.9 billion. Countries/programs that did not receive an allocation over the 2017-2019 or 2020-2022 cycle received US\$802 million since 2002, resulting in a total disease-specific investment of US\$10.3 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/>.



Celina Jorge Tembe poses with her children in Boane, Mozambique. Months after losing her husband to malaria, her two daughters fell ill with the disease. Both girls were rapidly put on malaria treatment and made full recoveries.

The Global Fund/
Tommy Trenchard/Rooftop

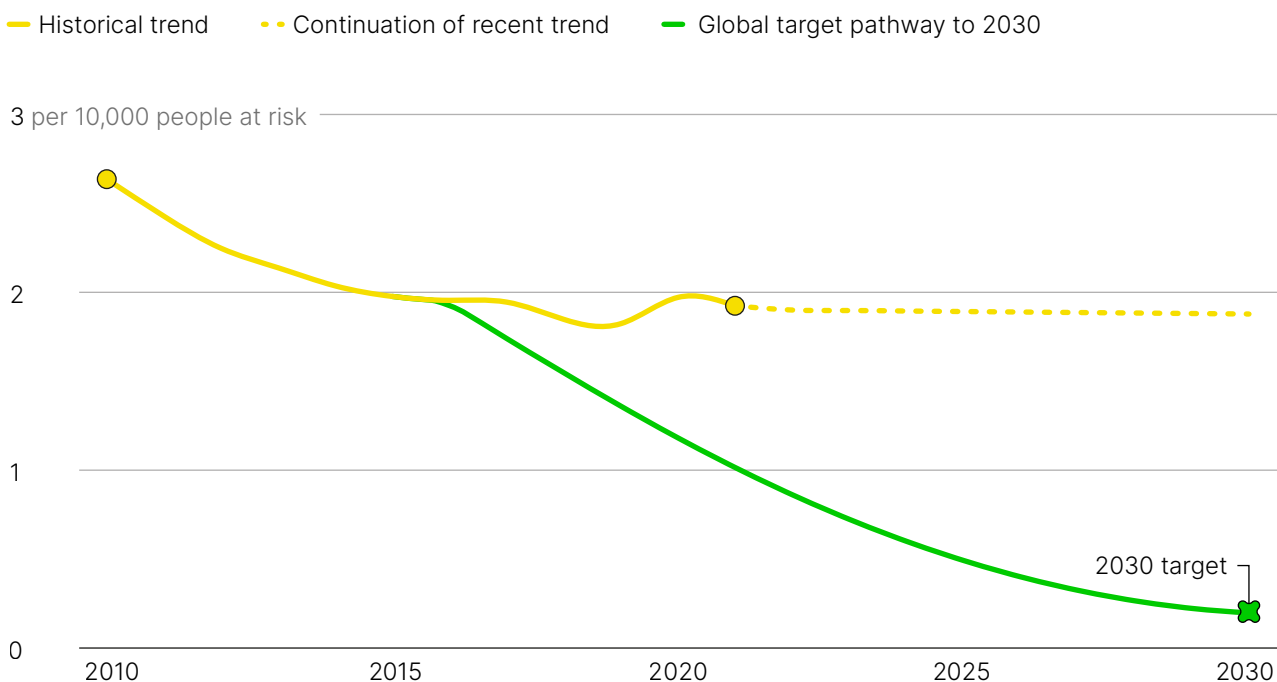


Malaria: State of the Fight

This chapter captures the latest information available on the fight against malaria. In 2022, malaria programs registered strong recoveries from the impact of COVID-19. However, multiple crises, including climate change, are fueling the spread of malaria and keeping us off track to end the disease by 2030.

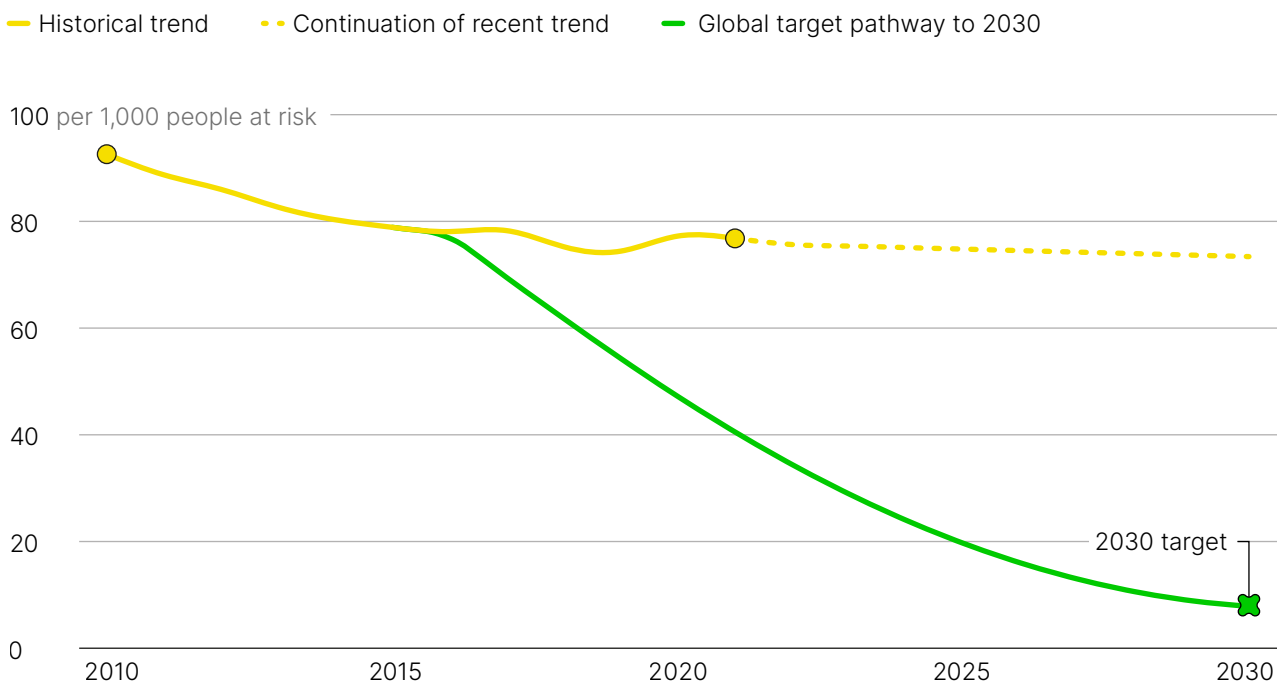
Malaria mortality rate: progress towards the WHO target

In countries where the Global Fund invests



Malaria incidence rate: progress towards 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 (2021 update). Countries eligible for Global Fund support in 2022.

The challenge

Malaria remains a daunting global health challenge. In 2019, 2020 and 2021, malaria cases and deaths increased globally, curtailing years of progress in the fight against the disease. In 2021, over 600,000 people died from malaria – most of them children under 5 in sub-Saharan Africa. There were an estimated 247 million cases of malaria in 2021.

New challenges, like increasing resistance to antimalarial drugs and insecticides, are jeopardizing both tried-and-tested treatment and vector control efforts. The emergence and spread of resistance to artemisinin and partner drugs is already happening in sub-Saharan Africa and Asia, and further monitoring is needed in Latin America.

Climate change looks likely to increase the burden of malaria by making environments more conducive to transmitting the disease. An increase in ambient temperature means that malaria-carrying mosquitoes can thrive in areas where they once could not. More frequent climate-related disasters, like flooding, create an ideal breeding ground for malaria-carrying mosquitoes. Glaring inequalities within and between countries mean that it is the most vulnerable who would suffer first and most.

With a staggering US\$3.8 billion funding gap between the amount invested and the amount needed to end the disease for good, ambitions of ending malaria as a public health threat by 2030 are at risk.

Global targets in jeopardy

To meet the SDG 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. While disruptions from COVID-19 severely impacted efforts to meet these targets, countries were already behind in their progress to meet them before the pandemic hit. In 2021, malaria case incidence globally was 59 cases per 1,000 population at risk, well behind the 2021 milestone of 31 cases per 1,000 population that would be required to meet the 2030 goal. Malaria deaths per 100,000 population at risk decreased from 15 in 2015 to 14.8 in 2021 (the 2021 milestone to meet the 2030 goal was much lower: 7.8 malaria deaths per 100,000 population at risk). The gap between the milestone and the reality has been widening over the last several years.

It is imperative to get back on track to fight malaria, to protect our gains and end malaria as a public health threat once and for all. And with the knowledge of these obstacles comes the power to defeat them. With investments to accelerate the deployment of innovative tools, scale up interventions and strengthen critical health system capabilities, like disease surveillance, community health workers and last-mile logistics, we are fighting back.

The Global Fund's response

The Global Fund provides 65% of all international financing for malaria programs and has invested more than US\$17.9 billion in malaria programs as of 30 June 2023.

Malaria has shown that we must stay ahead of it to eliminate it. Together with the U.S. President's Malaria Initiative (PMI) and other partners, in 2022 the Global Fund invested in tools, partnerships and innovations to combat insecticide and drug resistance and make our interventions more cost-effective. Harnessing innovation, strengthening disease surveillance systems and testing



In countries where the Global Fund invests:

321M

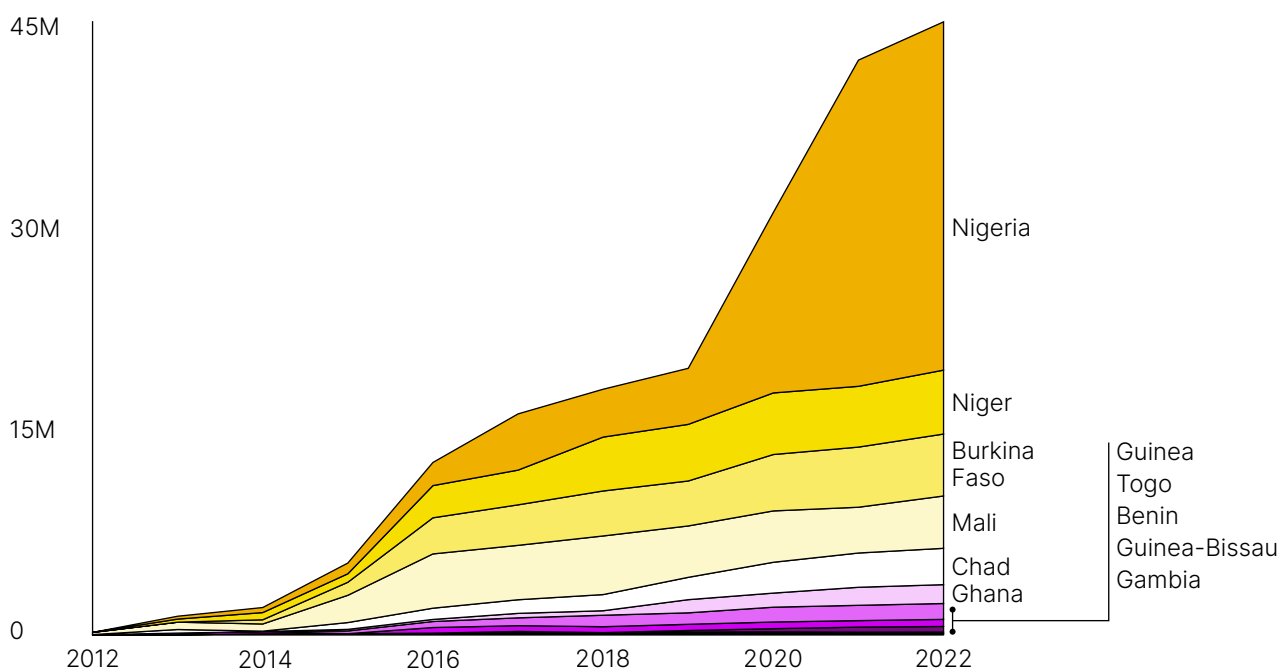
Suspected cases of malaria were tested in 2022.

165M

Cases of malaria were treated in 2022.

Children covered by seasonal malaria chemoprevention

In countries where the Global Fund invests



Source: WHO World Malaria Report 2022, Medicines for Malaria Venture. This graph shows total national results, which are higher than the result reported by the Global Fund for 2022 (37.1 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.

new products proven to be safe and effective – such as next-generation nets, insecticides, treatments or vaccines – are essential in this ongoing fight against the disease.

The Global Fund supported countries to fight malaria through an approach grounded in equity, designed to meet the needs of the most vulnerable populations in a way that works best in the local context. This goes beyond malaria epidemiology to address the important sociocultural, economic and political factors influencing individual and population-level risk and promoting access and engagement with health services.

Malaria and climate change

Climate change is responsible for more intense and more frequent extreme weather events. Fluctuations in rainfall, temperature and humidity create

conditions for malaria to spread into areas that are not adequately resourced to fight it and multiply the number of malaria cases in these areas.

The Global Fund is committed to supporting countries and communities respond to health crises sparked by extreme weather events or other triggers, such as conflicts. In Pakistan, the Global Fund responded rapidly to the flooding and resulting health emergency and provided US\$30 million in emergency support in 2022. In Mozambique, the Global Fund committed US\$1 million in emergency funding to mitigate the impact of the surge in malaria infections following floods caused by Cyclone Freddy in the southern provinces of the country. Methods to fight malaria in Mozambique have included treating standing bodies of water with larvicides, distributing mosquito nets and conducting indoor residual spraying in 10,000 homes.

Climate change will severely complicate our efforts to end malaria as a public health threat – and not just malaria, but other vector-borne diseases as well.

Surveillance and response systems

A robust surveillance system is critical for countries to be able to target interventions where they are needed most. This targeting must be flexible and nimble enough to monitor outbreaks and adapt to changes in epidemiology or seasonality. The Global Fund and global health partners have highlighted surveillance and data for decision-making as one of the key areas for increased investment to address this critical area. Investments in data repositories, which can link disease data to climate variables, are just the first step in making evidence-based decisions in real time. Strengthening the whole surveillance pathway, including investing in routine surveillance systems, Integrated Disease Surveillance and Response (IDSR) systems, and emergency response systems are essential in areas highly vulnerable to malaria, which are often the same areas at increased and

sustained risk for climate emergencies. These climate emergencies, unaddressed and without adequate surveillance and response systems, have the potential to undo the gains built over years of malaria control.

Prevention

Malaria prevention underpins malaria control efforts and is the most effective way to dramatically reduce cases and deaths. The Global Fund invests in multiple new and existing tools to prevent malaria, including insecticide-treated nets, indoor residual spraying, and seasonal malaria chemoprevention (SMC).

But investment in effective tools is only one piece of the puzzle – community health workers lead outreach campaigns that raise awareness in communities about these lifesaving prevention methods so people at risk can take full advantage of them. In countries where the Global Fund invests, there are about 2 million community health workers who are providing essential prevention, testing and treatment services for malaria – and other deadly diseases.



In countries where the Global Fund invests:

220M

Mosquito nets were distributed to protect families from malaria in 2022.

55%

Coverage of the **population with access to a long-lasting insecticide-treated net** increased from 30% in 2010 to 55% in 2021, and coverage of the population using a net increased from 26% in 2010 to 48% in 2021. Global target: Universal access to vector control for populations at risk.

37.1M

Children received **seasonal malaria chemoprevention** in 2022.



Children play near Lake Manchar in Sindh province, Pakistan, months after the country experienced unprecedented flooding in 2022. The floods resulted in a surge in malaria cases.

The Global Fund/Saiyna Bashir/Panos

The Global Fund partnership is also working to ensure that those most in need sleep under the protection of an insecticide-treated mosquito net. Thanks to sustained investments in mosquito net distribution campaigns and malaria mitigation funds awarded through the COVID-19 Response Mechanism (C19RM), the number of mosquito nets distributed in 2022 continued, with most countries where the Global Fund invests successfully completing their planned distributions. The challenges of the COVID-19 pandemic have also spurred a transformation in how mosquito nets are distributed in rural communities, with the result that even more families are now being reached than in previous years.

In the hardest-hit countries across the Sahel, the Global Fund supports the rollout of SMC campaigns, a cost-effective and targeted intervention for young children that can reduce malaria cases by more than 70%. In 2022, the number of children who received SMC increased by 2.7 million on the previous year, to 37.1 million.

Innovation in malaria prevention

Mosquito nets: Insecticide-treated mosquito nets help to keep people safe and protected from malaria, reducing illness, severe disease and death. Pyrethroid is the primary insecticide used on insecticide-treated nets today. However, the rise of pyrethroid resistance is compromising the effectiveness of these lifesaving nets. To help manage resistance, the Global Fund has supported the accelerated introduction of next-generation insecticide-treated mosquito nets through two catalytic investments: the New Nets Project (2018-2022) and the Net Transition Initiative (2021-2024).

Through the Net Transition Initiative, the Global Fund is investing US\$50 million from 2021 to 2024 to introduce new insecticide-treated nets to fight malaria-carrying mosquitoes that have developed resistance to traditional insecticides like pyrethroid.

In March 2023, WHO issued a strong recommendation for the deployment of nets treated with two insecticides (pyrethroid and chlorfenapyr). These dual active ingredient nets hold significantly higher potential to reduce malaria cases and deaths than pyrethroid-only insecticide-treated nets in sub-Saharan Africa, where insecticide-resistance is widespread, and the disease burden is highest. In two large, randomized controlled trials in Tanzania and Benin, these nets were shown to reduce malaria cases in children under 5 by almost half. Through the Net Transition Initiative, the Global Fund will support 13 countries to access over 39 million of these new dual active ingredient nets over the 2021-2024 period.

Both the New Nets Project and the Net Transition Initiative have made substantial progress in market-shaping efforts to foster the affordability and supply stability needed to ensure widespread access and scale-up of this lifesaving tool. And according to modeling analysis led by Imperial College London, both of these innovative projects will avert approximately 13 million malaria cases and 24,600 deaths, resulting in an estimated US\$28.9 million in savings for the health system over the 2018-2024 period.

Malaria vaccines: Building on existing clinical evidence, Gavi, the Global Fund and Unitaid committed nearly US\$70 million to fund pilots to introduce the RTS,S/AS01 (RTS,S) malaria vaccine – the first vaccine recommended to prevent malaria in children – through routine immunization programs in Ghana, Kenya and Malawi. RTS,S was recommended by WHO for wider use in October 2021. As of March 2023, and nearly four years since the start of vaccinations, over 4.3 million RTS,S/AS01 vaccine doses had been administered across Ghana, Kenya and Malawi. While the Global Fund does not fund the procurement of the vaccine directly, we support planning and data management



In countries where the Global Fund invests:

14.6M

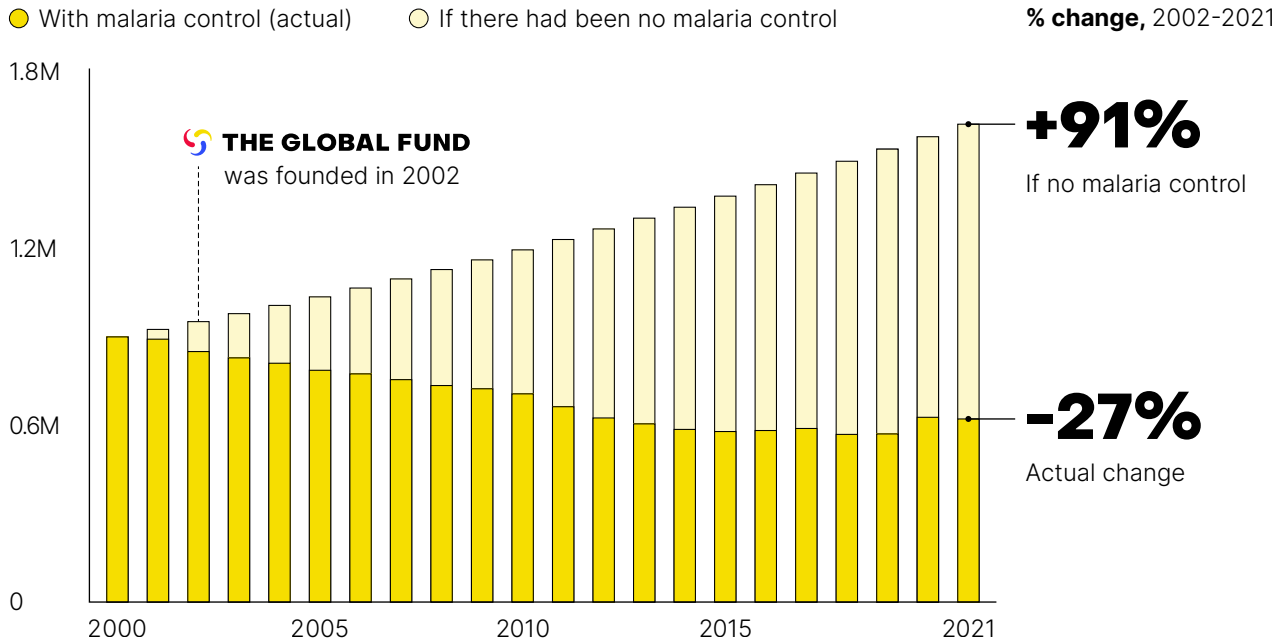
Pregnant women received preventive therapy in 2022.

8.5M

Structures were covered by indoor residual spraying in 2022.

Trends in malaria deaths

In countries where the Global Fund invests

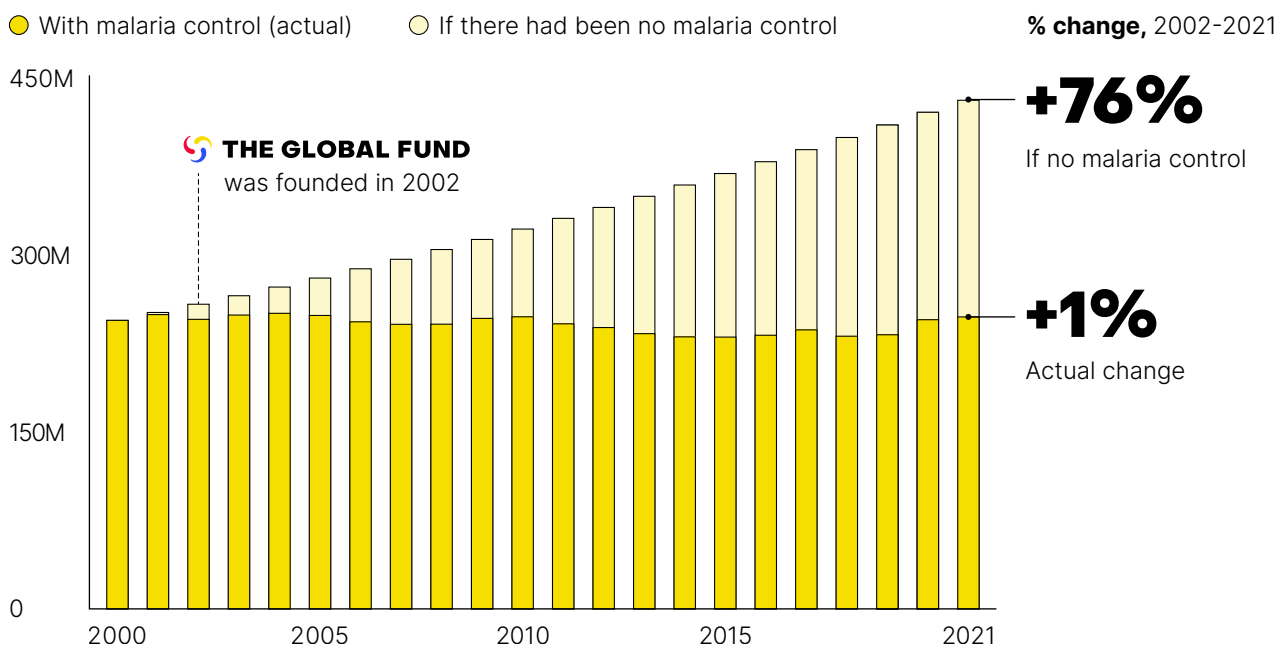


Age breakdown, 2021
(618K malaria deaths)



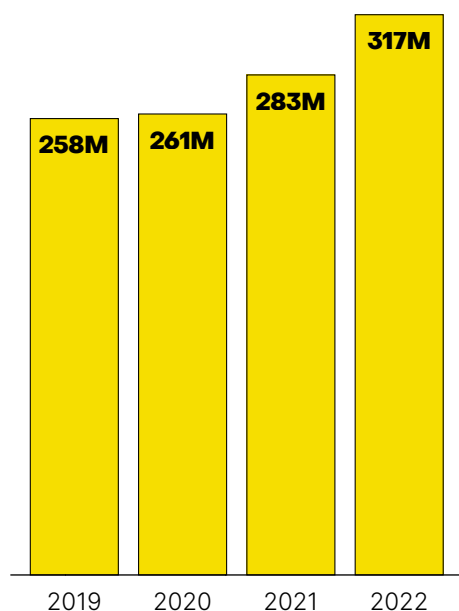
Trends in malaria cases

In countries where the Global Fund invests



Malaria burden estimates and estimation of "no malaria control" from WHO World Malaria Report 2022.

Suspected malaria cases that receive a parasitological test



The graph includes countries with comparable results in all four years. Therefore the total results in 2019-2022 might be lower than the total number of services seen in the other parts of this report and in the interactive online platform. The results for 2019-2021 might also be slightly different from what was published in previous years due to retrocorrection.

activities included in the country grants by the national malaria programs. This includes collection and management of data on malaria interventions and support for the development and updating of national malaria strategic plans and malaria program reviews.

A second malaria vaccine, R21/Matrix-M (R21), is currently under review by an independent global advisory group of immunization and malaria experts. The Global Fund welcomes a second malaria vaccine that is safe and efficacious, and approved by WHO, as it could help close the sizable gap between supply and demand and further reduce child illness and death from malaria.

To maximize impact and return on investment, a malaria vaccine should be provided as part of a comprehensive

malaria control strategy alongside proven and effective tools to prevent malaria, many of which are part of Global Fund-supported programs: insecticide-treated mosquito nets, indoor residual spraying, SMC, and the timely use of malaria testing and treatment.

Testing and treatment

Timely testing and early treatment for people affected by malaria is fundamental to preventing deaths. In 2022, the Global Fund worked with suppliers to maintain the price of antimalarial treatments despite increases in raw materials costs, securing a stable supply for patients across countries.

The more widespread malaria is in rural areas, the more crucial community health workers, village teachers and leaders are to the adoption of the right measures to detect and treat malaria. In addition to spearheading prevention efforts, community health workers in the countries where the Global Fund invests also test and treat people with uncomplicated cases of malaria and refer people with severe cases of malaria or other diseases for further testing and treatment. To extend access to care for malaria and other diseases, the Global Fund will start funding non-malaria commodities (for example, antibiotics to treat pneumonia in children under 5 and oral rehydration salts and zinc to treat diarrhea in children under 5). This is meant to support a more comprehensive case management approach at community level.

Making testing and treatment a priority not only helps to reduce the burden of malaria, but also 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 – so that community health workers can deliver other health services, including pre- and post-natal checks for young mothers, vaccination for infants, and help people with a broad range of other diseases, including diabetes. This makes the health system more resilient and better able to meet the needs of the community it serves.

To keep countries on track to achieve malaria elimination, the Global Fund is responding to the rise of artemisinin partial resistance and/or partner drug resistance (drugs combined with the artemisinin compound to boost treatment efficacy). Our Regional Artemisinin-resistance Initiative (RAI) in the Greater Mekong region has been supporting countries to fight the growing threat of resistance and end malaria for good: By 2021, all indigenous malaria cases in the Greater Mekong region had fallen by 76.5%, while *P. falciparum* indigenous malaria had fallen by 94.1%. However,

with the ongoing civil war in Myanmar, cases of malaria are increasing, highlighting how fragile malaria control and elimination efforts can be if they are not carefully maintained. Between 2020 and 2021, there was an increase of 400,000 cases in the region, with over half of those cases being in Myanmar.

What's more, there is worrying evidence to show antimalarial drug-resistance may now be emerging in Latin America and Africa. The Global Fund is closely monitoring these developments, and we are supporting knowledge exchange across different regions to support countries to apply the lessons learned in the Greater Mekong region to their own contexts.

Human rights and gender equality

For many countries, assessing and addressing human rights and gender-related barriers to malaria services is a new focus for their control or elimination programs. Barriers to



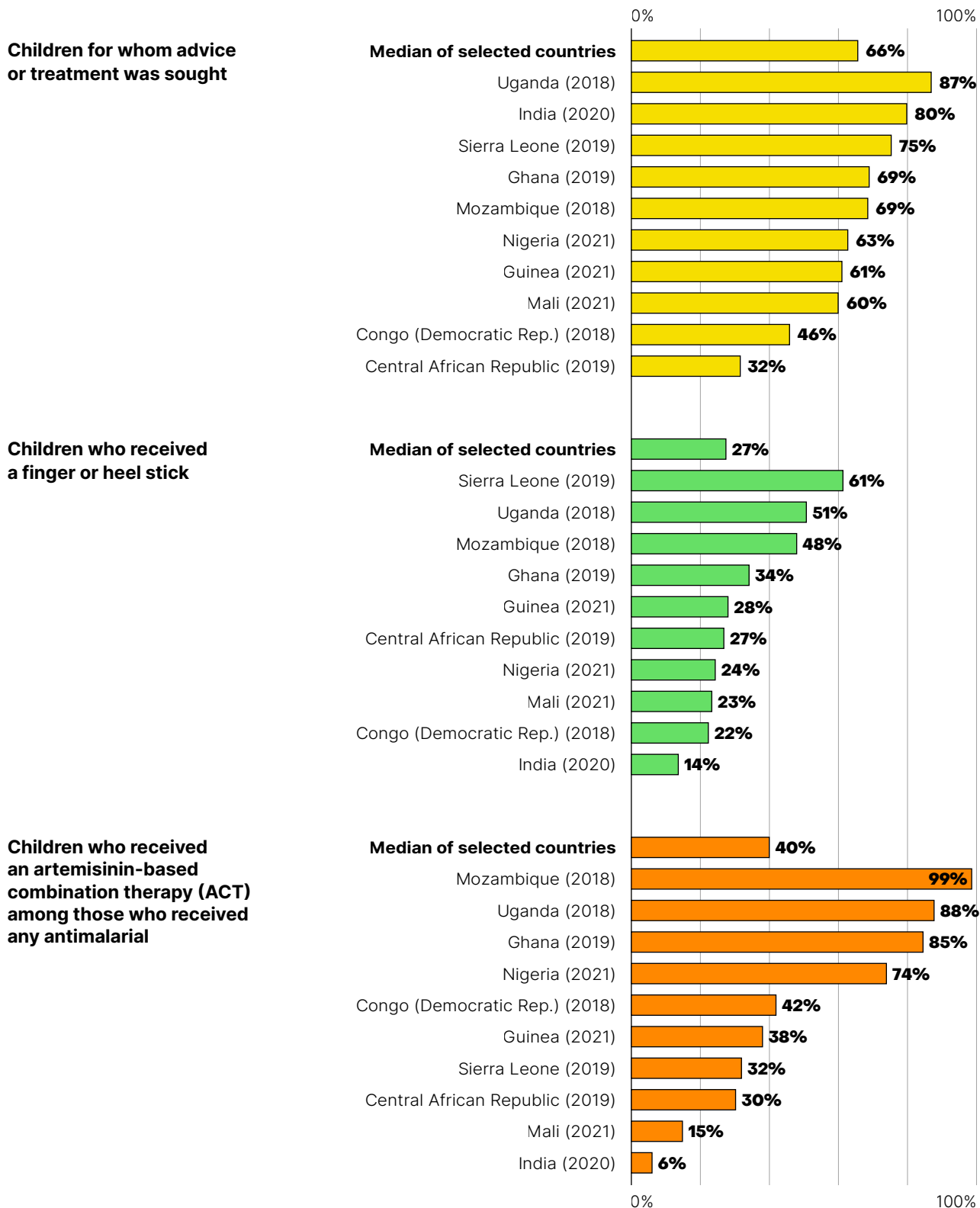
4-year-old Saw Ye Lin Aung (center) and his sisters Aye Cho Myint (11) and Naw Aye Khine (13) sit under a mosquito net in their home in Taung Kalay, Kayin State, Myanmar.

The Global Fund/
Quinn Ryan Mattingly



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/>.

malaria services are often associated with poverty and discrimination, often on the basis of income, education, ethnicity, age, and gender norms, as well other social, cultural, political, geographic and occupational factors that put people at risk. While many countries have correctly identified high-risk populations such as children under 5 and pregnant women in high-transmission areas, other high-risk or underserved populations have not been well-prioritized. Their challenges are often under-researched, and appropriate, equitable solutions have not been meaningfully included in the development of malaria policies, strategies or implementation plans.

The Malaria Matchbox Toolkit and other equity assessment tools are helping to turn that tide by supporting countries to identify the populations, groups or individuals most affected by malaria. These tools can also be used to help identify the key human rights and gender-related barriers disproportionately affecting malaria outcomes in those populations and how a malaria program can be adapted to address those barriers. While equity assessment tools are important, it is absolutely essential to achieve government buy-in for this approach to effectively ensure that the most at-risk populations receive the health care that they require.

Designing gender-responsive malaria programs

The Global Fund encourages countries to implement gender-responsive programs to fight malaria – in other words, programs that address the different situations, roles, needs, and interests of women, girls, men and boys.

Adolescent girls in sub-Saharan Africa are particularly vulnerable to malaria during pregnancy. They are also not always able to access antenatal care, thus missing out on IPTp, a preventive regimen for pregnant women at risk

for malaria that is most often only offered through antenatal programs. To ensure that adolescent girls have more opportunities to access the preventive care that they need during pregnancy, IPTp can be integrated beyond antenatal care into other activities targeting pregnant women within reproductive, maternal, newborn, child, and adolescent health services and HIV services.

In the Greater Mekong region and in Latin America and the Caribbean, the Global Fund supports malaria-fighting efforts that address the needs of miners and people who work deep in the forest – most often men – who are at high risk for malaria infection. In Suriname, malaria remains a threat in the gold-mining areas of the country. To progress toward malaria elimination, Global Fund-supported programs address human rights and gender-related vulnerabilities and barriers to accessing malaria services in these areas, where an estimated 81,000 people are still at risk.

Progress

Since 2010, the countries with the highest burden of malaria have achieved significant declines in the overall number of deaths and have been able to drive down incidence rates. In countries where the Global Fund invests, malaria deaths have gone down by 27% between 2002 and 2021.

More and more countries are also meeting the ultimate goal of eliminating malaria for good. In 2023, Azerbaijan, Tajikistan and Belize were certified malaria-free by WHO. These three countries are members of WHO's E2025 initiative, a group of countries that have the potential to eliminate malaria by 2025. E2025 is supported by the Global Fund and other partners. A total of 42 countries and one territory have been certified as malaria-free by WHO, and all certified countries have prevented the re-establishment of malaria. With sustained commitment and steady progress, a malaria-free world is possible. ●

**Case
study**

Nigeria: The World's Largest Mosquito Net Campaign

Nigeria has the world's largest burden of malaria, accounting for around 31% of all malaria-related deaths in 2021. While the number of lives lost to the disease has decreased by about 25% over the last two decades, more than 190,000 people still die from malaria in Nigeria every year.

The Global Fund, in collaboration with the government, nongovernmental organization partners and local communities, is fighting to ensure that everyone sleeps under the protection of an insecticide-treated mosquito net in Nigeria.

With Global Fund investments, and despite challenges posed by COVID-19, conflict, displacement and difficult terrain, more than 87 million nets have been distributed across the country over the last five years. In Kano, one of Nigeria's most populous states,

8.8 million nets were delivered to more than 18 million people in a two-week campaign at the end of 2022.

The campaign was a massive logistical undertaking. It moved 8.8 million nets from a state warehouse in the city of Kano to 44 local government storage facilities, then to more than 3,600 local distribution hubs and then – finally – to millions of individual homes.

Before the COVID-19 pandemic, families would collect their nets at a central distribution point within their communities, which often led to overcrowding and some families being missed. Now, in a new door-to-door approach, nets are taken to individual homes, resulting in more families receiving nets quickly and with ease. ●



Storage manager Abdulahi Saidu (right) and distributor Saadatu Muhammad take stock of mosquito net bales at a distribution hub in Dala, Kano State, Nigeria.

The Global Fund/Andrew Esiebo/Panos

Khounmy Xayaderm

Village Malaria Worker

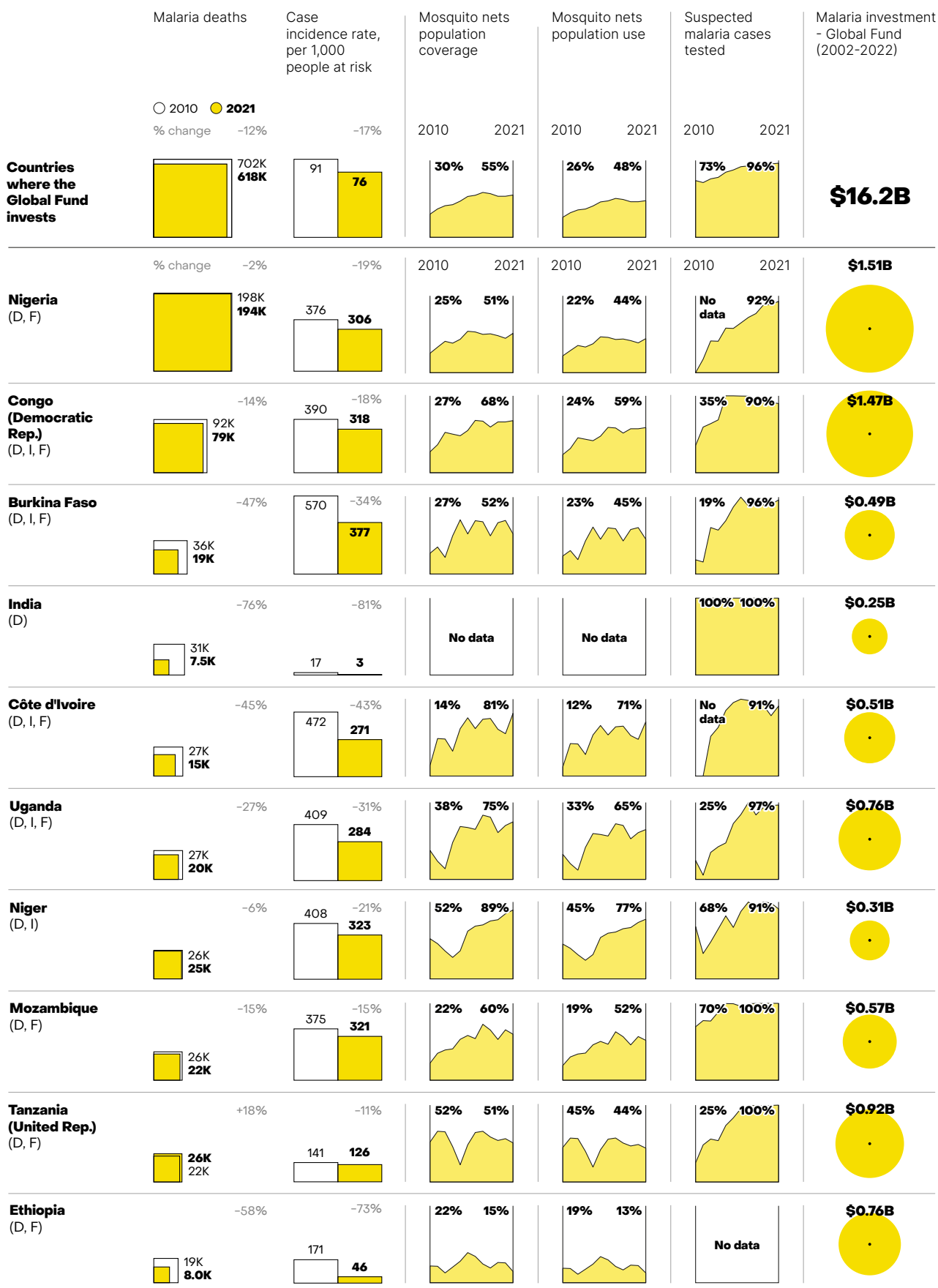
Lao People's Democratic Republic

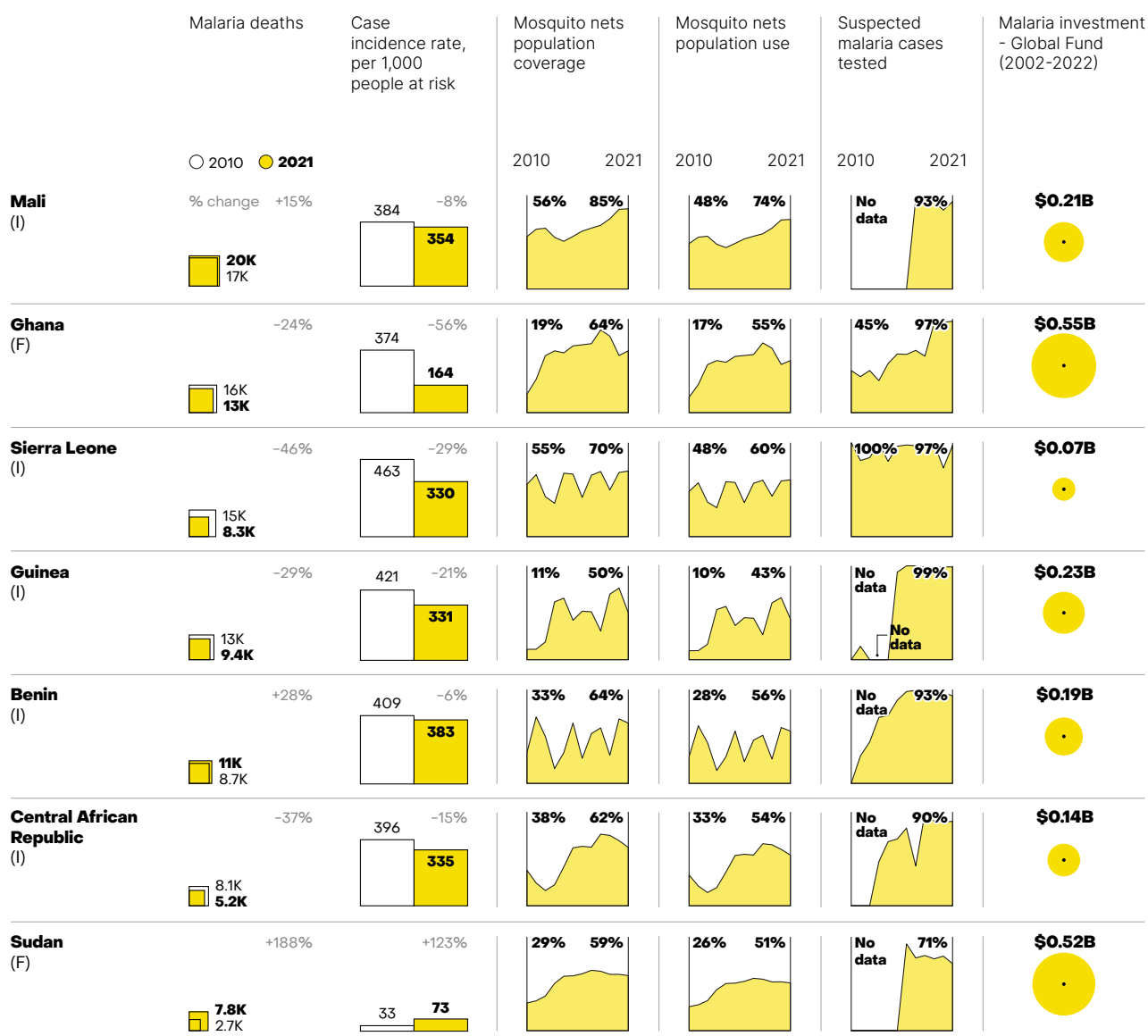
"I will keep working until it is eliminated," says Khounmy Xayaderm, a volunteer village malaria worker in Lao PDR. Raised on a nearby farm, Khounmy loved her rural upbringing, but she and her family suffered from severe malaria. Now a mother of two and a part-time farmer, Khounmy delivers education, mosquito nets, and testing and treatment services to remote communities most at risk for malaria. She also collects data on malaria cases and uses a mobile platform to feed the information into the national health system, which helps to inform the response to the disease. "I want to protect the community," she says. "I can do this by testing the people around me, giving them medicines, sending them to the health center and explaining how they can be protected – this makes me very proud." With Global Fund investments and by working with a range of partners including WHO and communities, Lao PDR has slashed the annual number of malaria cases from 462,000 in 1997 to approximately 2,300 in 2022.

Image: WHO/Enric Catala



Investment and impact: Malaria





For a detailed look at malaria results per country, visit the Global Fund Data Explorer at <https://data.theglobalfund.org/>. 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 2022 <https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2022>; 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](https://data.theglobalfund.org/).

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 2022 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" are limited to countries that received an allocation for either the 2017-2019 cycle or the 2020-2022 cycle. These countries received US\$16.2 billion from 2002 to end December 2022 to support malaria programs. Additionally, they received US\$1.4 billion in cross-cutting support across the three diseases, resulting in a total of US\$17.6 billion. Countries/programs that did not receive an allocation over the 2017-2019 or 2020-2022 cycle received US\$992 million since 2002, resulting in a total disease-specific investment of US\$17.2 billion.

3. In line with the Global Fund [results reporting methodology](https://data.theglobalfund.org/), 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/>. See <https://www.theglobalfund.org/en/methodology/> for a description of the Global Fund results methodology.

Members of an indoor residual spraying (IRS) team meet with their supervisor in Balaka District, Malawi. IRS is a key vector control intervention that helps to reduce the spread of malaria.

The Global Fund/Kondwani Jere





Resilient and Sustainable Systems for Health

This chapter captures the latest information available on the Global Fund's work to build resilient and sustainable systems for health (RSSH). In 2022, RSSH investments supported countries in their response to future threats and their fight against HIV, TB and malaria. However, multiple crises are keeping us off track to end the three diseases by 2030.

Introduction

Resilient and sustainable systems for health (RSSH) are the foundation of healthy, productive communities. Strong health systems are also central to the fight against HIV, TB and malaria and to building pandemic preparedness and response (PPR). We must invest more in systems for health to defeat today's diseases and respond to current and future threats to global health programs.

Global Fund investments support countries to address gaps in their health systems, with the goal of making them stronger and more resilient. We invest in human resources for health, including community health workers; community systems; data systems and digitalization of health; strengthening leadership and governance, financial management, procurement and supply systems; and surveillance. The Global Fund also supports programs that break down the barriers – including stigma, discrimination, criminalization, gender inequality, lack of resources, and displacement – that prevent vulnerable and marginalized populations from accessing health care.

While much of the Global Fund financing in systems for health comes from core grants, a significant proportion of our work to make health systems resilient and ready for emerging pandemics is funded by the COVID-19 Response Mechanism (C19RM).

The challenge

The COVID-19 pandemic put enormous pressure on already strained health systems in low- and middle-income countries. Health systems buckled as many health care workers fell sick or died, essential health services were interrupted, supply chains collapsed, and critical resources were suddenly diverted to fight the new pandemic. In 2022, countries in which the Global Fund invests also faced other crises – including climate change, conflict, encroachment on human rights, and deepening inequities. Together with the impact of the

COVID-19 pandemic, these crises are weakening health systems and putting the most marginalized and vulnerable communities even more at risk.

The Global Fund's response

The Global Fund is the world's largest multilateral provider of RSSH grants and one of the primary investors in health systems, investing US\$1.5 billion a year in formal and community health systems between 2021 and 2023 through HIV, TB and malaria grants, direct RSSH grants and C19RM. The total C19RM financing available until December 2025 for direct RSSH and pandemic preparedness and response interventions amounts to approximately US\$2.2 billion.

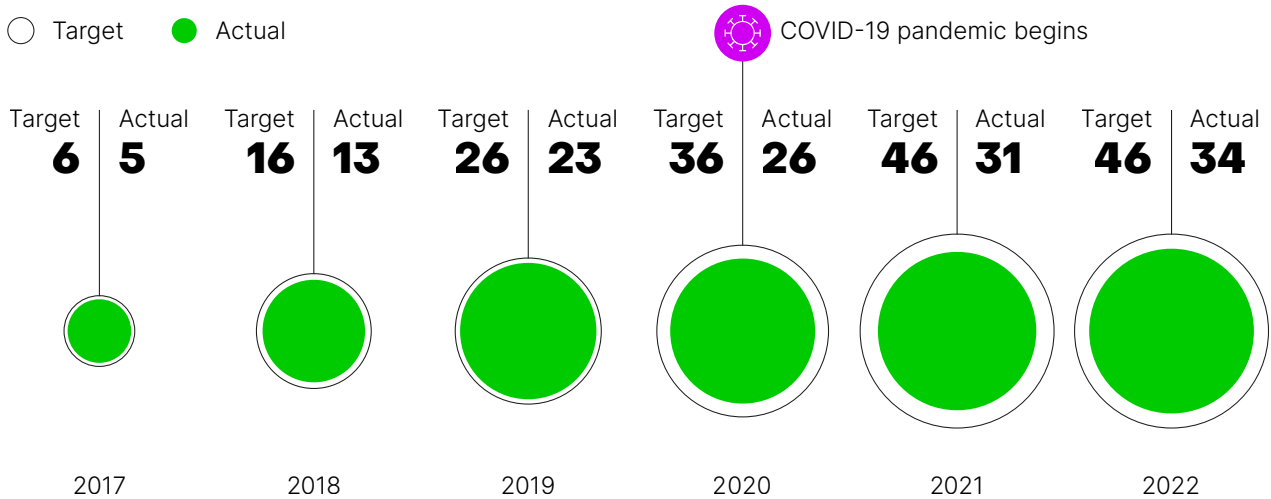
By reducing the burden of the three diseases and by financing key components of RSSH, the Global Fund supports countries to fight existing diseases while preparing for future health threats. Our community-focused programming and inclusive governance model enable our grants to reach remote and vulnerable populations, including those marginalized by poverty, stigma, discrimination or criminalization.

Community health systems and responses

At the center of the Global Fund's programming are the people and communities we serve. Communities are often the first ones to confront gaps in health services and face the challenges of strengthening systems for health. Community members' unique expertise, perspectives and lived experiences inform many of the answers to these challenges. Engaging with the communities most affected by HIV, TB and malaria underpins the Global Fund's investment and implementation approach. For example, the Global Fund has been supporting community and civil society participation in ongoing country dialogues, funding request development, grant-making and implementation oversight across the grant cycle.

Financial management systems meeting defined standards

Number of countries



Defined standards are measured as at least 80% of agreed actions for improvement of financial systems implemented. Countries targeted include High Impact and Core countries where the use of public financial management systems or donor harmonized systems are not feasible. The Global Fund supports grant implementers to strengthen their financial management systems for effective and efficient management of grants/programs. "Agreed actions" relate to agreed actions to strengthen the people, processes and information systems of financial management systems. Financial management systems meeting defined standards represents only one of multiple RSSH key performance indicators (KPIs). 2022 was the last reporting year for this KPI. The Global Fund will continue to support countries that are yet to attain the 80% milestone.

The Global Fund invests in advancing the leadership and commitment of communities, by enhancing their capacity to monitor and respond to health threats and prepare for future pandemics, and by integrating community systems and responses into long-term national health plans. This includes supporting the monitoring capacity, engagement, leadership and advocacy of communities most affected by the three diseases in Global Fund processes and related national ones. We support country and community health leaders to make systems for health sustainable.

The Global Fund invests in community systems strengthening to support both community-led and community-based responses. The goal of community systems strengthening is to develop the roles of key affected populations and communities, community organizations and networks, and public- or private-sector actors

that work in partnership with civil society at the community level, in the design, delivery, monitoring and evaluation of services and activities aimed at improving health. Over the 2021-2023 period, we have invested US\$281.7 million to strengthen community systems through core grants and C19RM financing.

Community-led monitoring is a crucial component of community systems strengthening and involves routine data collection on community-designed indicators about care and treatment. It enables communities to collect and own their localized data, identify real-time gaps, generate actionable evidence, and advocate to improve health services. With improved health and legal literacy, communities are engaging in forums and decision-making using community-generated data on service quality, accessibility, affordability and acceptability. Over the past two years, the Global Fund's strategic

•	•	•	initiative investments in community-led monitoring have delivered tangible results. We supported long-term technical assistance in Bangladesh, the Philippines, Côte d'Ivoire and Jamaica. In the latter two countries, community treatment observatories were also established and expanded. Almost 400 community members were trained in community-led monitoring principles, methodology and strategies to improve effective implementation. Our investments also supported the publication of innovative community-led monitoring toolkits. With PEPFAR, the Global Fund co-convened the first ever global meeting on community-led monitoring, bringing together stakeholders and implementing partners in countries, which resulted in time-bound commitments to strengthen monitoring programs.	disseminating evidence-based information, participating in disease surveillance and distributing lifesaving health products like mosquito nets.
•	•	•	Community systems strengthening also includes community-led research and advocacy to identify the needs for new prevention technologies for key populations affected by HIV and TB. We also focus on enhancing community engagement to create interlinked and coordinated systems that can deliver health services to key and vulnerable populations that do not have access to mainstream health programs.	Community health workers are the first to detect and respond to diseases. As trusted members of their communities, they often provide door-to-door care for the population. Community health workers are also vital to marginalized populations in refugee camps, among migrant workers, at the regular meeting places of sex workers or people who use drugs, in prisons, as well as among LGBTQI+ people. Furthermore, thanks to community health educators, young women – who are at risk of acquiring HIV because of gender inequality and discrimination – have access to information.
•	•	•	Community health workers A country's human resources for health has many different components – from health ministers, researchers and health educators to health workers at all levels (primary, secondary and tertiary), all the way to community health workers in the most remote village.	Community health workers have a key role in delivering health services. However, most of them are not adequately supported, equipped, protected, or even paid. Most (70%) of community health workers are women – who face gender inequality or the risk of violence – and peers of marginalized populations, who also often face stigma, discrimination or criminalization.
•	•	•	There are more than 2 million community health workers in the countries where the Global Fund invests, mainly serving rural and hard-to-reach populations. These community health workers are the backbone of the work we fund. In rural areas, community health workers provide a bridge between villages and primary health care centers and laboratories,	Over the 2021-2023 period, we have invested a total of US\$583 million in community health workers. This is more than double the investments we made in the previous period. These investments are projected to rise again – significantly – over the next three years, especially with the addition of C19RM funding dedicated to community health workers. Our funding supports training, supervision, supply of key materials, health products and digital tools, means of transport and protective equipment, as well as advocacy to give community health workers the legal protection and recognition they deserve.
•	•	•		As part of our investments in 2022, the Global Fund and the Africa Frontline First Initiative joined forces to launch the Africa Frontline First Catalytic

Volunteer health workers like Suzy Haylock (right, pictured with her partner Federico Calderon) are at the heart of Honduras' fight to eliminate malaria.

The Global Fund/
Tomas Ayuso/Panos





A patient receives the results of an examination at a Global Fund-supported mobile clinic in Tserovani, Georgia. The clinic screens people for COVID-19, diabetes, hepatitis C, HIV, hypertension and TB.

The Global Fund/
Anush Babajanyan

Fund – an initiative to finance community health in Africa, supporting countries to build tailored, resilient community health programs. The catalytic fund, hosted by the Global Fund, aims to improve community health programs that serve nearly 146 million people in eight African countries: Burkina Faso, Côte d'Ivoire, Ethiopia, Kenya, Liberia, Mali, Senegal and Zambia. By mobilizing US\$100 million over the next three years, this investment will transform the work of 220,000 community health workers.

Laboratory systems and disease surveillance

Improving laboratories reinforces the fight against the three diseases as well as the response to other infectious diseases, emerging pathogens and non-infectious conditions. Over the 2021-2023 period, we have supported countries with more than US\$1 billion in laboratory systems, diagnostics, reagents and other vital surveillance products and equipment,

which represents a sizable increase on previous years, funded in part by C19RM. To further support countries to strengthen their health systems and enhance their pandemic preparedness, we will continue to increase our investments in laboratory systems over the 2023-2025 allocation period.

For years, the Global Fund has invested in diagnostic capacities and laboratories to support our work fighting HIV, TB and malaria. This work involves supporting regional, subnational and national laboratories to coordinate TB drug-resistance surveillance and diagnosis among countries. The Global Fund has also been investing in whole genome sequencing. This sequencing technology can be used as a vital surveillance tool to rapidly determine TB transmission and help identify the type of *Mycobacterium tuberculosis* affecting one patient, including its complete drug-resistance profile, and therefore allows clinicians to identify the best treatment regimen

to combat the disease. As with many of the tools used to prevent TB, whole genome sequencing is critical to fight other diseases and to prepare for future health threats.

Procurement and supply chains

Our fight against the three diseases depends on health systems being able to deliver quality medicines and lifesaving health products from manufacturers to the last mile, on time and in the right condition. The Global Fund is one of the world's largest funders of the procurement of medical supplies for low- and middle-income countries, procuring on average over US\$2 billion in health products annually. Most of these purchases go through the Global Fund's Pooled Procurement Mechanism (PPM). In 2022, the PPM managed total orders of US\$1.47 billion, serving more than 83 countries and resulting in savings of US\$49.7 million.

In addition, every year the Global Fund invests US\$400 million in procurement and supply chain management for freight and insurance, warehouse and storage, in-country distribution, quality assurance and quality control. On-time and in-full deliveries of health commodities procured by the Global Fund matched or beat our targets in 2022 – with an average score of 84.25%.

Market-shaping and local capacity development

In 2022, the Global Fund adopted a NextGen Market Shaping Framework, which uses partnerships to drive equitable access to quality-assured health products and meet the needs of the people and communities the Global Fund serves.

The framework aims to reduce barriers to health product availability and affordability, improve the responsiveness and timeliness of health product service and delivery, and promote the overall resilience and sustainability of in-country

supply chains. Strengthening end-to-end health product markets for known diseases will enhance countries' readiness to deliver critically needed products for existing and emerging diseases.

The Global Fund is shaping health product innovations and accelerating their introduction at scale. In 2022, the Global Fund and its partners mapped promising new health products across the three diseases in preparation for translating WHO product recommendations into large-scale use. Together with Unitaid, we co-convened a partnership task force in October 2022 to promote transparency on the disease-specific product pipeline and prioritization.

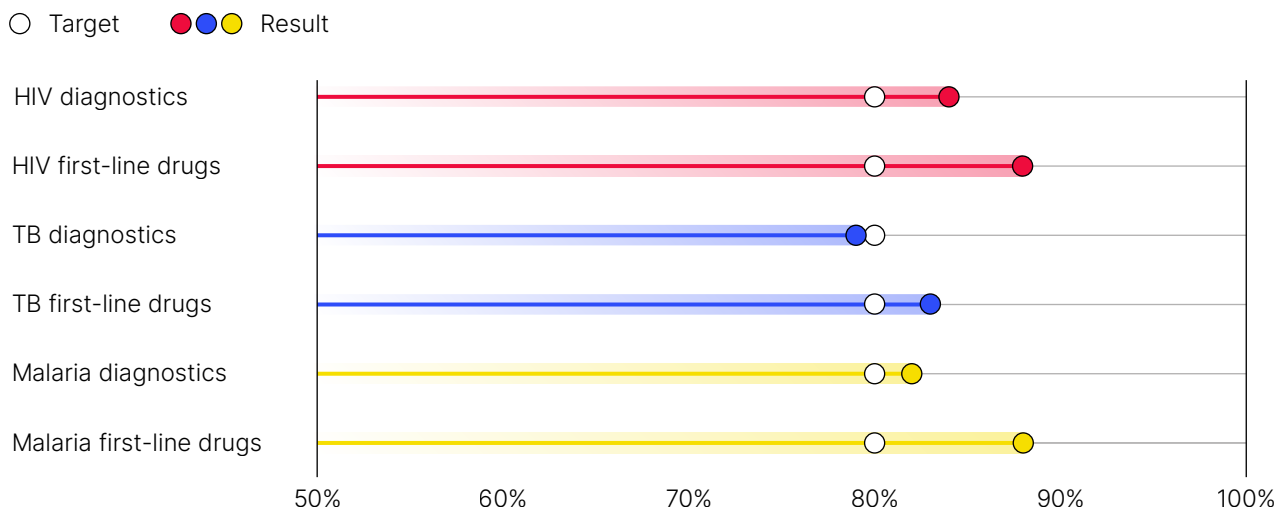
Given the multitude of actors involved in health product introduction – ranging from manufacturers, to regulators, to country decision-makers and more – coordination and collective planning are critical elements of success. For example, planning in 2022 in anticipation of WHO’s recommendation on dual active ingredient mosquito nets helped ensure the most effective use of available resources.

Working closely with partner organizations, including Unitaaid, WHO, Medicines for Malaria Venture and others, the Global Fund is supporting the regional production of health products. Producing health products closer to the people we serve supports countries' capacity to fight diseases and bolsters their pandemic preparedness.

The Global Fund secures a sufficient and equitable supply of health products by promoting a diverse and competitive supply base of these products, and by considering geographic supply risk and landed cost. In 2022, these efforts translated to important shares of PPM volumes procured in African manufacturing sites: 17% of artemether-lumefantrine (an antimalarial medicine), 19% of insecticide-treated nets and 98% of

Average on-shelf availability

Countries with ongoing supply chain transformations



Results from Spot Checks Q2-2022 data for 38 countries: Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Congo (Democratic Republic), Côte d'Ivoire, Ethiopia, Ghana, Guinea, India, Indonesia, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Pakistan, Papua New Guinea, Philippines, Senegal, Sierra Leone, Somalia, South Sudan, Tanzania, Thailand, Togo, Uganda, Viet Nam, Zambia, Zimbabwe. On-shelf availability is measured as the percentage of health facilities with tracer products available on the day of the visit compared to the total number of health facilities where the tracer products are expected to be available.

co-trimoxazole (the highest volume essential medicine procured).

Family-owned business A to Z Textile Mills Tanzania, through a joint venture with Sumitomo Chemical, supplies the Global Fund with long-lasting insecticide-treated nets to prevent malaria. In 2022, the Global Fund purchased 21 million nets worth US\$58 million from A to Z Tanzania through our PPM, which represents 19% of total insecticide-treated nets purchased in 2022.

The Global Fund focuses on driving sustainable in-country supply chains, and our Supply Chain Roadmap, developed in 2021, has served as a reference framework. To complement health product introduction at scale and capacity building for regional manufacturing, supply chain interventions ensure the efficient and continuous delivery of lifesaving health products to the people who need them. The interventions take into consideration

the flexibility of supply chains to support innovative delivery mechanisms required to provide equitable access.

Digital health and data systems

The ability of a country to run an effective health system, formulate policies that serve its population and respond quickly to emerging public health threats depends on a robust and well-functioning digital health ecosystem that ensures the availability, quality, and timeliness of its health data. The Global Fund views digital health and the corresponding data management as priority investments, including through infrastructure like connectivity, mobile phones, mobile applications, computers and data management systems, training and supervision of data workers and collectors (who are often community health workers) and monitoring and evaluation systems. The Global Fund has invested more than US\$150 million annually between 2021 and 2023 to strengthen digital health

and information systems in countries to improve data availability, quality and agility, improving how health data and intelligence is interpreted and acted on.

We support countries to digitalize health data, equip community health workers with digital tools to bring care to the last mile, and support healthtech entrepreneurs to adapt their solutions to meet health challenges. We invest in health management information systems (HMIS) in 95 countries with a cumulative investment of US\$727.4 million. These investments have supported the high availability of digital HIV, TB, and malaria programmatic data, making for increasingly agile data use in countries. The adoption of the DHIS2 software as the health management information system of choice for over 80% of the Global Fund's High Impact and Core countries⁸ has proven to be cost-effective and efficient.

We also invest in data and digital innovation. Through catalytic initiatives like the Data Science Catalytic Fund (DSCF), a US\$25 million initiative funded by the Rockefeller Foundation and the Global Fund, we have supported four countries (Burkina Faso, Ethiopia, Uganda and Rwanda) to improve the collection and use of last-mile community health data, as well as support healthtech entrepreneurs to develop solutions for the challenges they face.

Pandemic preparedness and response

The COVID-19 pandemic has demonstrated the need for countries to be prepared for serious health threats. The more resilient community and health systems are, the better able they are to prepare for and respond to pandemics. In more than two decades of fighting HIV, TB and malaria, the Global Fund has played an important role in supporting

8. High impact countries are ranked 1-10 in disease burden share in at least one disease, or they have a total allocation above US\$250 million. Core countries are ranked 11-30 in disease burden share in at least one disease, or they have a total allocation between US\$30 million and US\$250 million. As of February 2023, there are 56 countries in these categories.

Community health worker Marc Ilboudo uses a mobile application during a consultation with a child in Pousghin, Burkina Faso.

The Global Fund/
Olympia de Maismont



9. Global Fund contributions to health security in ten countries, 2014–20: mapping synergies between vertical disease programmes and capacities for preventing, detecting, and responding to public health emergencies. Matthew R Boyce, Aurelia Attal-Juncqua, Jessica Lin, Stephanie McKay, Rebecca Katz. February 2021. [https://doi.org/10.1016/S2214-109X\(20\)30420-4](https://doi.org/10.1016/S2214-109X(20)30420-4).

Fatimata Sy, president of l'Association sénégalaise pour l'avenir de la femme et de l'enfant (Asafe) leads a community dialogue on gender-based violence in Guédiawaye, Senegal.

Speak Up Africa

health systems and communities to become stronger and more agile.

A study published in *The Lancet*⁹ found that over one-third of Global Fund investments to fight HIV, TB and malaria contributed to core components of health security. When the COVID-19 pandemic arrived, these systems for health strengthened through the fight against HIV, TB and malaria were suddenly the cornerstone of the fight against COVID-19 in low- and middle-income countries.

The Global Fund's C19RM investments have added impetus to our investments in RSSH, filling existing gaps and building new systems that are helping make dozens of countries around the world battle-ready for future health threats. In total, approximately US\$2.2 billion in C19RM investments will be directed towards interventions that support

RSSH and pandemic preparedness and response.

In 2022, Global Fund investments continued to bolster all the key components of systems for health outlined in this chapter to reinforce countries' defenses and improve mechanisms for pandemic response. Through targeted funding, the Global Fund supports countries to improve their ability to test for infectious diseases and detect new pathogens and antimicrobial resistance through their surveillance systems. This includes strengthening laboratories, training medical staff and laboratory workers, expanding diagnostic capacity and genetic sequencing, and improving specimen transport. In particular, our support for communities and community health workers is strengthening pandemic preparedness in the last mile of many low- and middle-income countries.



**Case
study**

Indonesia: Harnessing Genome Lab Technology to Fight Disease Outbreaks

Over the last decade, there have been tremendous advancements in diagnostics across Indonesia. Recently, this has included the Biomedical and Genome Science Initiative, which is part of the government's Whole Genome Sequencing network.

Part of the initiative is to integrate whole genome sequencing technology – a laboratory method that helps to fight disease and prepare for future health threats by determining the DNA sequence of an organism's genetic details – across the country.

This genome sequencing method was used to fight COVID-19 in Indonesia and is now being used to develop more accurate treatment and care to help fight other diseases such as TB, cancer, genetic disorders, brain diseases and others. It is also significantly speeding up diagnosis time.

For example, in the northern city of Batam, prior to genome sequencing being available, samples were sent 1,100 kilometers away to a laboratory in Jakarta, and it would take weeks to get results. Today, the process of preparing the sample and conducting the sequencing and analysis can take as little as three days. This means that people are diagnosed faster and access better treatment based on their specific needs. It also means that disease outbreaks can be detected and responded to as early as possible.

In 2022, the Global Fund invested US\$30 million in Indonesia's Biomedical and Genome Science Initiative. The funds have been used to purchase new equipment and train staff in 17 laboratories to help ensure that facilities across the country can conduct whole genome sequencing. ●



Laboratory analyst Qodirin Afdhol prepares a sample at the Center for Environmental Health Engineering and Disease Control in Batam, Indonesia.

The Global Fund/Jiro Ose

Nasra Salimu

Community Health Worker

Tanzania

As a community health worker, Nasra Salimu knocks on doors and helps people stay safe from disease. When she is not seeing patients, she is a farmer – raising animals and working the land. “I am here for people who have TB symptoms like weight loss, night sweats, or those who have a cough lingering for more than two weeks,” she says. In countries with a large rural population, including in Tanzania, community health workers like Nasra serve as the first line of defense in the fight against infectious diseases. These health workers – most of them women – are not only fighting HIV, TB and malaria, but are also trained to spot unusual happenings that could lead to outbreaks and report them so decision-makers can rapidly respond. Over 2 million community health workers like Nasra form the first line of defense against disease in the countries where the Global Fund invests.

Image: The Global Fund/Vincent Becker



Health workers at the Mondulkiri Provincial Referral Hospital in Sen Monorom, Cambodia, label samples and log information as part of COVID-19 testing procedures.
WHO/Tytaart





COVID-19

This chapter captures the latest information available on the Global Fund's response to COVID-19. In 2022, our programs shifted from COVID-19 response and mitigation to long-term investments in resilient and sustainable systems for health, which support pandemic preparedness.



Oxygen canisters at the Nyamata Mobile Treatment Center in Bugesera District, Rwanda. In response to the COVID-19 pandemic, the country greatly increased the provision of oxygen to its health facilities.

The Global Fund/Brian Otieno

The challenge

In the countries where the Global Fund invests, the COVID-19 pandemic has posed many challenges. In 2020 and 2021, as the pandemic raged and the world scrambled to respond, health systems and supply chains were quickly overwhelmed and unable to cope with the surge in demand. Many countries struggled to procure the lifesaving health products they needed amid sudden global competition for PPE, diagnostic tools, treatments, medical oxygen and vaccines as they became available. A serious additional challenge has been the threat to existing services for HIV, TB and malaria. In 2020 and 2021, programmatic results across the three diseases suffered as a direct result of the disruptions caused by the COVID-19 pandemic. But the Global Fund partnership has fought back to contain the damage and hold on to our hard-won gains against HIV, TB and malaria over the last two decades.

Since March 2020, the Global Fund and partners have mounted an unprecedented effort to help countries respond to the COVID-19 pandemic. Our interventions have not only helped to mitigate the impact of the pandemic on the three diseases, but have also helped avert many infections and deaths while building defenses that countries can use to confront future health threats.

The Global Fund's response

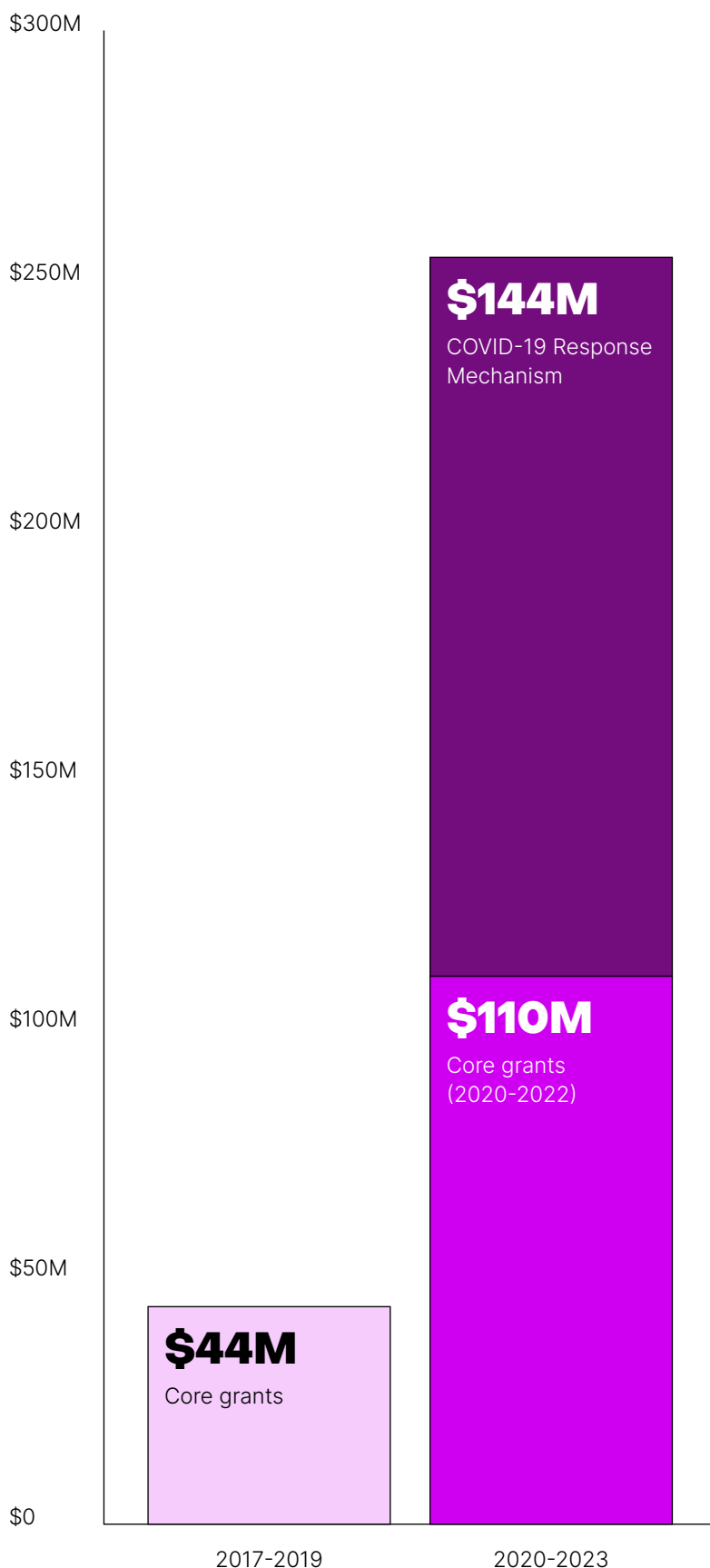
The Global Fund's response to the COVID-19 pandemic and beyond has evolved over more than three years. With some overlap between components, it has covered control and containment of COVID-19; mitigation of the effect of COVID-19 on HIV, TB and malaria programs; and long-term investments in health systems strengthening to support pandemic preparedness.

Control and containment

At the beginning of the COVID-19 pandemic in March 2020, the Global

Fund Board formally approved a maximum of 5% of any existing funding in grants to be used for urgent COVID-19 procurement.	diagnostic equipment and RDTs as they became available.	•	•	•
In April 2020, the Global Fund and a coalition of health partners – including WHO, Gavi, Unitaids, the Coalition for Epidemic Preparedness Innovations (CEPI), FIND, the Bill & Melinda Gates Foundation, Wellcome, UNICEF, and the World Bank – created the Access to COVID-19 Tools-Accelerator (ACT-Accelerator), to coordinate the pandemic response and the delivery of lifesaving tools – including PPE, diagnostic tests, therapeutic treatments, and vaccines – to low- and middle-income countries and support them to strengthen the health systems underpinning their response. The Global Fund set up the COVID-19 Response Mechanism (C19RM) – and has awarded over US\$5 billion to fight COVID-19, mitigate the pandemic's impact on HIV, TB, and malaria, and strengthen systems for health.	The Global Fund procured most of these commodities through our dedicated PPM, which allowed for important and rapid price reductions thanks to our market-shaping capabilities. For example, we achieved a significant price reduction for antigen rapid diagnostic tests (Ag-RDTs) from US\$5 to under US\$1 per test. This helped to generate significant savings that enabled countries to reinvest in strengthening their national testing systems. In addition, the Global Fund delivered high volumes of diagnostic tools at scale before each peak of the pandemic.	•	•	•
Throughout the emergency phase of C19RM until mid-2022, the Global Fund made awards for the procurement of lifesaving health products, including: US\$1.017 billion for diagnostic tests, both polymerase chain reaction (PCR) and rapid diagnostic tests (RDTs); US\$767 million to protect health and community health workers with PPE – including masks, aprons, suits, caps, and gloves; US\$617 million for medical oxygen; and US\$261 million for therapeutic treatments and supportive hospital equipment.	Medical oxygen had been a neglected product in global health, even before the COVID-19 pandemic. In Africa, only two countries – Nigeria and Ethiopia – had an oxygen roadmap, and none had sufficient stock or capacity to meet even pre-pandemic needs. Since the COVID-19 pandemic, medical oxygen has become one of the key health products procured by the Global Fund; C19RM funding has boosted oxygen systems, with US\$617 million awarded for oxygen cylinders and bulk-storage tanks, oxygen production machines called pressure swing adsorption plants (PSAs), oximeters and other oxygen-related products.	•	•	•
In the beginning, 75% of C19RM investments focused on COVID-19 control and containment, and the Global Fund responded quickly to countries' procurement needs. Through our Pooled Procurement Mechanism (PPM), we carried out mass procurement of health products for low- and middle-income countries. C19RM investments supported countries to acquire PPE, and diagnostic tools such as PCR tests, electronic	Our swift action to provide countries with COVID-19 diagnostics, PPE, treatments including oxygen, and urgent enhancements to health systems undoubtedly helped avert millions of infections and thousands of deaths from the new virus. However, together with our modeling partners, we have concluded that given the dynamics of the pandemic, and the multiplicity of different interventions, trying to attribute precise figures to the impact of the Global Fund's interventions involves making too many assumptions to be valuable.	•	•	•

Investments in laboratory systems



The increase shown in this graph only includes investments that specifically focus on laboratory systems strengthening, and excludes other laboratory-related investments.

Nevertheless, a modeling analysis of 79 countries for which estimates¹² related to the COVID-19 pandemic were available captured great outcomes achieved thanks to Global Fund investments. The modeling showed that for these countries, investments delivered by the Global Fund between May 2020 and November 2022, totaling just over US\$405 million (US\$330.6 million for diagnostic tests, US\$60.9 million for PPE, US\$12.9 million for oxygen and US\$0.79 million for dexamethasone) could have delivered the following results:

- Diagnosing 3.4 million severely symptomatic patients presenting at hospitals with COVID-19. These patients were then isolated and treated.
- Enabling 49.6 million symptomatic people in communities to access RDTs for COVID-19 so they could isolate themselves if the result was positive.
- Protecting 65.4 million health care worker days by providing health workers with adequate PPE to protect themselves from COVID-19.
- Providing 17,000 severely ill, hospitalized COVID-19 patients with the recommended amount of therapeutic oxygen.
- Providing 15,500 critically ill, hospitalized COVID-19 patients with a full course of dexamethasone.

Beyond these numbers were also numerous testimonies of the difference that the Global Fund partnership made by taking rapid actions to procure tests, treatments and medical supplies; protect frontline health workers with PPE; adapt lifesaving HIV, TB and malaria programs; and make urgent reinforcements to critical components of health systems, such as supply chains and laboratory networks. These investments became fundamental in supporting countries to turbocharge

12. Global impact of the first year of COVID-19 vaccination: a mathematical modelling study. Watson OJ, Barnsley G, Toor J, Hogan AB, Winskill P, Ghani AC. Lancet Infect Dis, September 2022. <https://pubmed.ncbi.nlm.nih.gov/35753318/>.

their response to COVID-19 with speed and at scale.

Mitigating the impact of COVID-19 on HIV, TB and malaria programs

Since 2020, the Global Fund has awarded US\$768 million to mitigate the impact of the COVID-19 pandemic on HIV, TB and malaria programs. These investments have enabled programs for the three diseases to maintain essential services despite COVID-19 disruptions. This has been achieved by adapting and integrating services, decentralizing them from health facilities to communities; leaning into health and community systems; and removing COVID-19-related barriers, such as incremental procurement and supply management costs for life-saving commodities.

By 2022, HIV and malaria program results had climbed back to their pre-pandemic levels. It is on TB programs that mitigation measures had the most remarkable effect. TB programs were initially the worst affected by COVID-19 – patients were lost to treatment, new cases went undetected, and there was a measurable increase in deaths from TB. In 2020, the Global Fund awarded an initial US\$45 million through C19RM for TB mitigation. In 2021-2022, we awarded a further US\$302 million for TB mitigation and US\$115 million for multi-disease testing platforms under COVID-19 control and containment. C19RM funding has enabled integrated screening and testing, strengthened multi-disease lab systems and enhanced diagnostic networks.

Laboratory scientist Ocung Guido examines specimens at Uganda's Supranational Reference Laboratory.

The Global Fund/Jiro Ose



As a result of these efforts, TB programs have erased the losses recorded in 2020, surpassed the 2021 results and exceeded the pre-pandemic results of 2019.

Preparing for pandemics: long-term strengthening of systems for health

In 2022, as the COVID-19 pandemic evolved, the demand for COVID-19 health products started to drop. The Global Fund began to support countries in planning for C19RM reinvestments toward strengthening their systems for health. Such long-term investing is meant to boost countries' ability to respond to existing and future health threats, including HIV, TB and malaria. In order for reinvestments and their implementation to succeed, in November 2022 the Global Fund Board approved the extension of C19RM to December 2025. Approximately US\$2.2 billion of C19RM funding was made available for health systems strengthening, including pandemic preparedness, to be invested in priority areas decided by countries in consultation with the Global Fund.

Countries are investing in priority areas including medical oxygen and respiratory care, surveillance, laboratory strengthening, capacity building of community health workers, and health

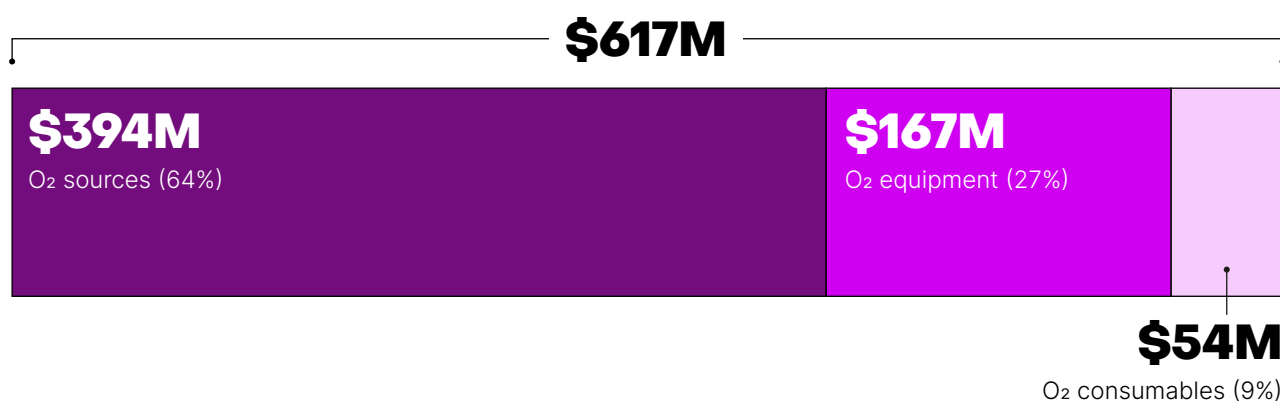
products and waste management. These priorities were set based on country demand, international frameworks and countries' ability to strengthen systems for health to prepare for the next pandemic, complementing the Global Fund's existing investments in resilient and sustainable systems for health through regular grants. For example, a solid medical oxygen infrastructure, by enhancing a country's ability to meet its oxygen needs, strengthens the overall health system, preparing it to fight existing and emerging health threats. This is the case in Kenya, which has launched a new countrywide push to build a modern and sustainable oxygen infrastructure with US\$41 million in C19RM funding. Likewise, investing in laboratories pays dividends far beyond dealing with existing health needs: Our support of Indonesia's state-of-the-art genomic surveillance lab system is boosting the country's systems for health and thus its pandemic preparedness.

Technical assistance initiatives

To address capacity gaps and bottlenecks during implementation, the Global Fund established initiatives called Centrally Managed Limited Investments (CMLIs) to provide targeted in-country technical assistance. CMLIs provide support to facilitate the implementation of activities

COVID-19 Response Mechanism award

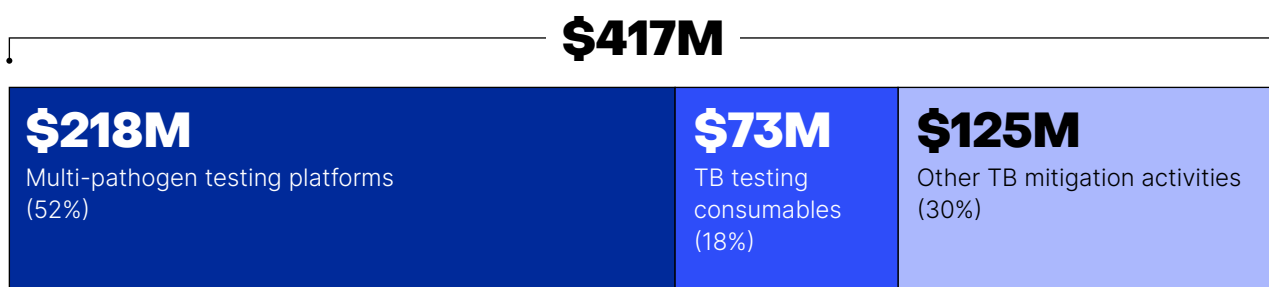
In 2021 on oxygen and respiratory care



Figures are rounded. Data from C19RM Detailed Budget Data as of 20 June 2023, which includes all Portfolio Optimization Wave 1 Awards. O₂ sources include pressure swing adsorption plants and cylinders, O₂ equipment constitutes all health equipment needed for oxygen patient delivery (ventilators, concentrators, oximeters) and O₂ consumables include one-time use products needed for oxygen patient delivery, often procured together with equipment.

COVID-19 Response Mechanism award

In 2021 on TB mitigation



Figures are rounded. TB testing consumables include the procurement of cartridges for the GeneXpert machines. Other TB mitigation activities include mobile testing vans, additional operational and campaign costs and community health workers (outreach activities).

funded with C19RM investments. Although none of them are large in financial terms, together they represent a maximum set-aside of 2% of total C19RM resources, and each one facilitates implementation of the priority areas of C19RM investment. The main CMLIs are:

- Project BOXER, which provides oxygen management and technical assistance. It now covers 51 countries. It is particularly important in the installation and management of PSA (oxygen production) plants. For instance, in Côte d'Ivoire, the Global Fund worked collaboratively with the Ministry of Health to assess PSA plant capacity and configuration. This saved equipment costs, which were reinvested in more sustainable and impactful infrastructure for oxygen delivery.
- Project STELLAR offers technical support in policy and governance, access to testing, data management and laboratory system strengthening in 23 African countries. As focus began to shift away from COVID-19, other diseases and more general applications for pandemic preparedness and response were integrated into the project.
- Project SONAR focuses on surveillance and has developed an Early Warning Surveillance Maturity Model to help standardize measurement across nine countries

through an adaptable, replicable model to detect and prevent outbreaks and the next pandemic.

- Project BIRCH is dedicated to technical assistance for community health workers and health systems in at least 11 African countries. It covers community health worker programming and capacity building, activities to strengthen community health, support to regional and national institutions for coordination, and peer learning between countries, setting benchmarks and bolstering advocacy. This enables community health workers to play a vital role in enhancing prevention, detection, and response to outbreaks, as well as maintaining HIV, TB and malaria services.
- The Community-led Monitoring Project gives on-demand, short-term technical assistance for setting up community-led monitoring mechanisms and adaptations to COVID-19. This project has backed 22 technical assistance initiatives in 13 countries.

The Global Fund remains steadfastly focused on supporting countries to reinvest C19RM funds to build more resilient, sustainable, and inclusive health and community systems to prevent and detect infectious disease threats and respond effectively whenever and wherever they occur. ●

**Case
study**

Rwanda's Digital Health Investments Provided the Foundation for a Rapid COVID-19 Response

In Rwanda, years of investments in digital health have not only strengthened health systems, but they have also helped the country rapidly respond to the COVID-19 pandemic.

For example, DHIS2 is a prominent health management information system platform that is used to collect, validate, analyze and present patient data. This open-source, web-based platform has a number of benefits, including that it is generic and has a flexible user interface that allows a user to design the contents of a specific information system with ease and without highly technical computer programming skills.

Rwanda has been using DHIS2 since 2012 to strengthen local and national health systems. This includes support to the national TB program to help ensure people with TB have access to treatment and are able to complete it.

When COVID-19 hit, Rwandan health officials, with the support of the Global Fund and other partners, were able to harness investments made in digital health to fight the pandemic. Specifically, DHIS2 was used to rapidly develop a vaccine management system

that helped oversee the logistics of vaccine distribution. An electronic immunization registry was developed through a built-in DHIS2 tool called Tracker, which captures and maintains patient-level vaccination information and generates digital vaccine certificates.

When the first COVID-19 vaccines arrived in Rwanda in early February 2021, the country was ready and able to react quickly. Thanks to previous investments in digital health platforms, Rwanda already had a tracking system in place, so the distribution of vaccines could begin immediately to protect people from the virus. ●



In Kigali, Rwanda, drive-through testing was done to respond to COVID-19.

Ministry of Health Rwanda/
Andre Rugemanshuro

Dr. Diocreciano Matias Bero

Health Researcher

National Institute of Health, Mozambique

Dr. Diocreciano Matias Bero recognizes that most people are turned off by what gets flushed down the toilet – but studying this waste is his passion. “No one wanted to know about smelly samples,” he says. “But that’s where we have the most precious information.” In 2022, Dr. Bero and his team established an early warning disease detection program using wastewater. Originally developed to identify COVID-19 outbreaks, the program now collects wastewater samples that are studied for the early detection of a range of other diseases, including influenza and cholera. Dr. Bero explains that the early warning system tells decision-makers that a pathogen is circulating before cases spread widely within the community. Decision-makers, including those at the Ministry of Health, can then respond rapidly with preventive measures to avoid large-scale outbreaks. Dr. Bero and his team currently test in four locations in the city of Maputo, with the aim of expanding the program across Mozambique. Wastewater sampling is being used as an effective early warning system for disease outbreaks in countries around the world. Global Fund investments are currently supporting these systems in Mozambique as well as Ethiopia, Kenya and Uganda.

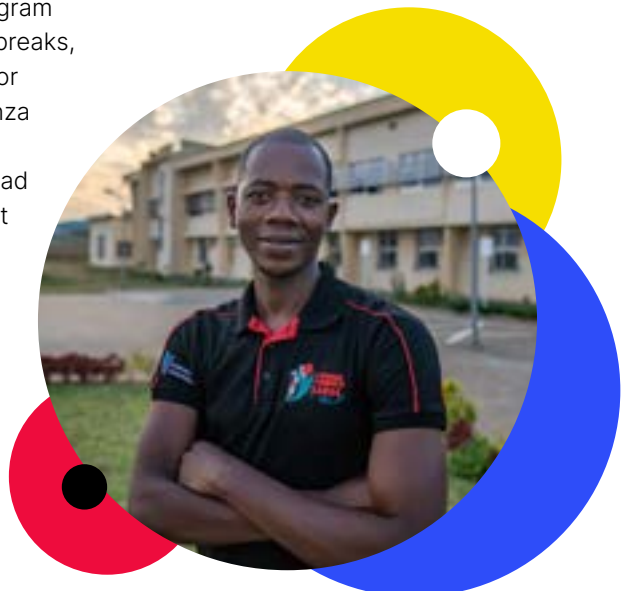
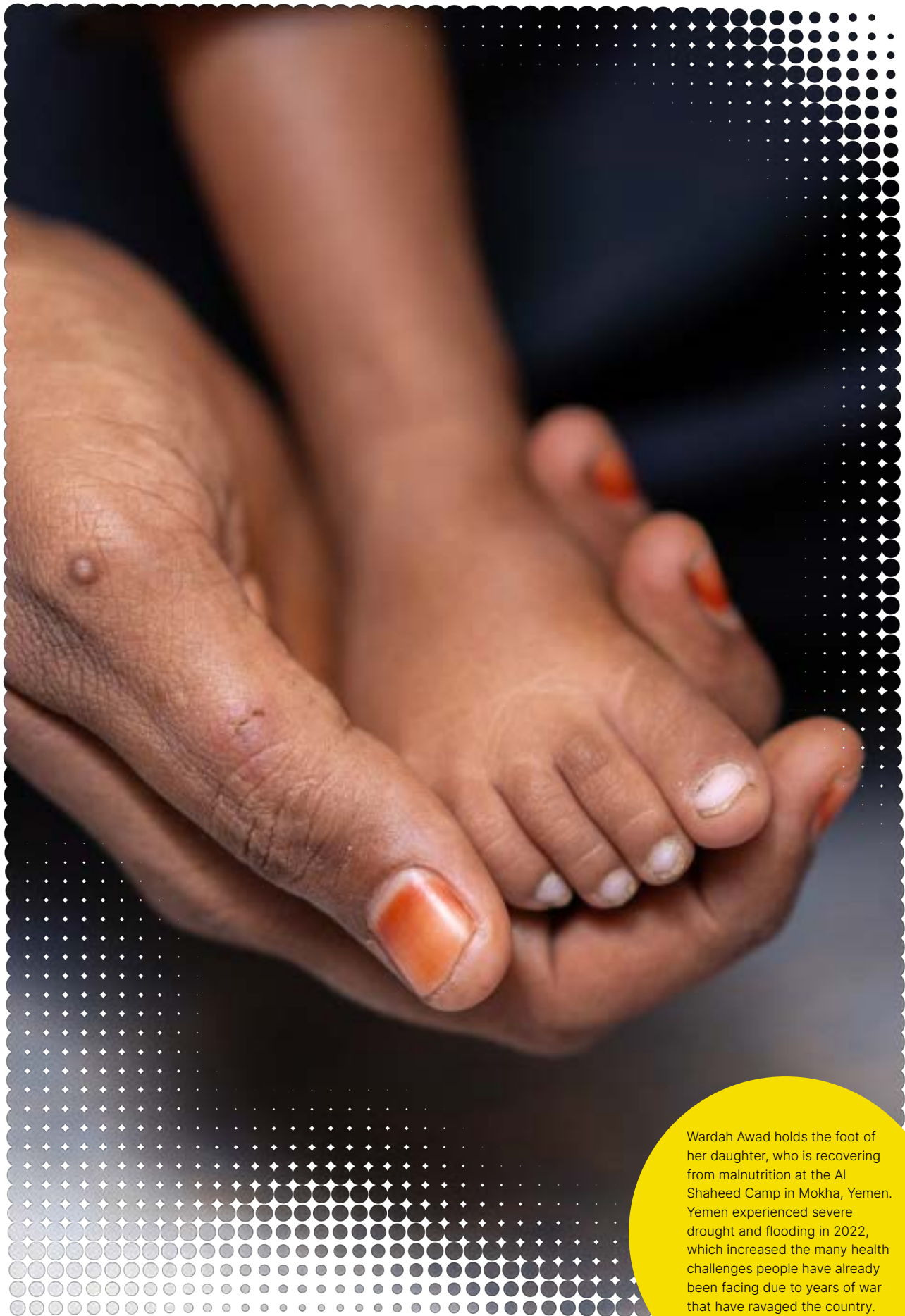


Image: The Global Fund/Tommy Trenchard/Rooftop



Wardah Awad holds the foot of her daughter, who is recovering from malnutrition at the Al Shaheed Camp in Mokha, Yemen. Yemen experienced severe drought and flooding in 2022, which increased the many health challenges people have already been facing due to years of war that have ravaged the country.

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An abstract graphic featuring a large yellow circle on the left containing the title 'Colliding Crises'. To its right is a large blue circle, and below that is a large red circle. Several smaller circles in blue, red, yellow, and black are scattered across the page. A dotted grid pattern is visible in the background, particularly on the left side.

Colliding Crises

As the COVID-19 pandemic declined in 2022, the world witnessed the emergence or deepening of other crises that affected global health. These multiple, interconnected and colliding crises that include climate change, conflict, and debt, as well as an alarming erosion of human rights, made our efforts to get back on track against the three diseases much more challenging.

Introduction

In 2022, the world confronted a cascade of colliding crises. In Pakistan, for example, climate change had a huge impact on the epidemiology of infectious diseases such as malaria. The war in Ukraine disrupted the delivery of health services, but also led to the skyrocketing of food and fuel prices around the globe. Many low- and middle-income countries saw their fiscal spaces shrink, resulting in fewer resources to dedicate to health. And in many countries across the world, human rights barriers grew.

The Global Fund's Strategy, "Fighting Pandemics and Building a Healthier and More Equitable World," aims to respond to these challenges by putting a greater focus on equity, sustainability, program quality and innovation while taking determined action to tackle human rights and gender-related barriers to health. It leverages the fight against HIV, TB and malaria to build more inclusive, resilient and sustainable systems for health better able to deliver health and well-being, and to respond to future health threats.

A boy takes shelter behind a tree in Ambovombe, Madagascar. The country faces the highest risk of cyclones in all of Africa, confronting, on average, three to four such storms each year.

© UNICEF/Andrianantenaina



1. Climate change

The challenge

The Global Fund is gravely concerned about the disproportionate effect of climate change and environmental degradation on the health and well-being of the most vulnerable and disadvantaged communities. We are confronted by the prospect of new global health crises triggered by the impact of climate change on food, water and energy, as well as potential zoonotic spillover, the process by which diseases affecting animals transition to humans.

Climate change threatens the Global Fund's core mission to end AIDS, TB and malaria. According to WHO, climate change is the single biggest health threat facing humanity. Its impact on human health is being felt through heat stress, increased infectious diseases, food insecurity, threats to livelihoods, involuntary migration, displacement and extreme weather events. Extreme weather events such as floods, droughts, and cyclones are becoming more frequent and intense, disrupting access to lifesaving health infrastructure and services, threatening the gains made in fighting diseases such as malaria, TB and HIV. In 2022 alone, almost 89 million people were affected by droughts in Africa. Over 16% of the deaths from disasters were in Africa.¹³ While Africa has contributed just about 2% to 3% of global emissions, it stands out disproportionately as the most vulnerable region in the world.¹⁴

Almost 600 million people will be chronically undernourished in 2030.¹⁵ Food insecurity influenced by climate change can increase risk factors and susceptibility to infectious diseases like HIV and TB. Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year from malnutrition, malaria, diarrhea and heat stress.¹⁶ The health impacts of climate change disproportionately affect low-income and more vulnerable countries and

communities. These countries and communities also contribute the least to global emissions and they are least able to protect themselves from that impact. Many people affected by the impact of climate change are already highly vulnerable to HIV, TB and malaria – they are often the most economically disadvantaged in society, and as a result, they are often also more likely to lack access to clean air, safe drinking water, sufficient food and secure shelter. They may also be more vulnerable to violence. More than half of the projected excess mortality attributable to climate change will impact Africa, which has a disproportionately high share of the global malaria and HIV burden.^{17, 18} Climatic hazards act as drivers of involuntary migration and displacement that can increase the risk of infectious disease, as well as act as a contributing factor to violent conflict.¹⁹ The World Bank estimates that by 2050, as many as 216 million people could be forced to internally migrate due to the impacts of climate change; of these, almost half (105 million people) would be in the African region.²⁰

Climate change and malaria

Ninety-five percent of malaria infections and 96% of malaria deaths occur in the WHO African Region. Children under 5 account for around 80% of these deaths, with pregnant women being the most at-risk adults. With a changing climate, the spread of infectious diseases is becoming more complicated to predict. Malaria is one of the most climate-sensitive diseases. Of the 250,000 additional deaths per year due to climate change predicted by WHO, 60,000 could be from malaria.²¹ Climate variability and change directly affect malaria transmission dynamics and shift geographic distribution as well as seasonality of malaria transmission suitability. Climate-related disasters have also been associated with an upsurge in malaria cases in climate-vulnerable countries. This is what we saw in Pakistan following the catastrophic floods of 2022. In the

13. 2022 Disasters in numbers. Centre for Research on the Epidemiology of Disasters (CRED), 2023. https://cred.be/sites/default/files/2022-EMDAT_report.pdf.
14. Responding to climate change. United Nations Environment Programme. <https://www.unep.org/regions/africa/regional-initiatives/responding-climate-change>.
15. In Brief: The State of Food Security and Nutrition in the World 2023. Urbanization, agrifood systems transformation and healthy diets across the rural-urban continuum. FAO, IFAD, UNICEF, WFP and WHO, 2023. <https://doi.org/10.4060/cc6550en>.
16. Climate change and health. WHO, 30 October 2021. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>.
17. World Malaria Report 2022. WHO, 8 December 2022. <https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2022>.
18. Global and regional trends. UNICEF, July 2023. https://data.unicef.org/topic/hiv_aids/global-regional-trends.
19. Sixth Assessment Report. Intergovernmental Panel on Climate Change, 20 March 2023. <https://www.ipcc.ch/assessment-report/ar6>.
20. Groundswell Part 2: Acting on Internal Climate Migration. The World Bank, 2021. <https://openknowledge.worldbank.org/entities/publication/2c9150df-52c3-58ed-9075-d78ea5-6c3267>.
21. Thematic brief: Climate change and malaria. RBM Partnership to End Malaria. https://endmalaria.org/sites/default/files/Climate%20Change%20and%20Malaria_EN.pdf.

Dr. Francesco Daniel tests 5-month-old Emilia for malaria using a rapid diagnostic test at the Boane Health Center in Maputo province, Mozambique. The result came back negative.

The Global Fund/Tommy Trenchard/Rooftop



3-month period between mid-June and September 2022, 539,500 cases of malaria were reported in the country, compared to fewer than 400,000 cases for the whole of 2021. A similar upsurge in malaria cases was registered in Mozambique after the country suffered a series of cyclones in the last few years. Furthermore, extreme weather events destroy health infrastructure and can make entire communities homeless. Heavy rainfall and storms can wash away malaria-carrying mosquito breeding sites, but as the floodwaters recede, these vectors can reestablish habitats in new areas. Stagnant floodwaters left in a storm or flood's wake make for perfect mosquito-breeding grounds, while many people may lose their homes and, with them, mosquito nets to protect themselves from malaria.

In addition, as rainfall patterns change and temperatures increase, malaria vectors are shifting. An increase in ambient temperatures in higher altitudes allows for malaria transmission in areas that were previously not endemic, where the population may have less or no immunity. The *Anopheles stephensi* mosquito, which can transmit both the *Plasmodium falciparum* and *Plasmodium vivax* parasites, is now spreading in the Horn of Africa and threatening East and West Africa.²² The vector is

set to complicate the fight against malaria in Africa: Its behavior will require new vector control tools, and case management approaches will need to adapt to include *Plasmodium vivax*. *Anopheles stephensi* is an urban-adapted mosquito species. This vector and other elements of a changing climate are shifting malaria to areas that are not adequately prepared or resourced to prevent, detect and treat the disease. By 2050, climate change alone might expose some areas in South America, sub-Saharan Africa and China to a 50% higher probability of malaria transmission.²³ Africa, with more than 90% of the malaria burden and already facing the severe impacts of climate change, will suffer the biggest brunt of this deadly mix.

HIV, TB and climate change

Climate change impacts TB and HIV through a complex array of factors that disproportionately affect the most vulnerable. Its impact on these diseases is more indirect when compared to malaria, but further global efforts are needed to better understand the direct and indirect pathways through which different climate hazards affect TB and HIV. Extreme weather events destroy health care facilities and disrupt reliable and quality health care services that are essential for HIV and TB prevention, diagnosis and treatment. Climate-

22. WHO initiative to stop the spread of *Anopheles stephensi* in Africa. WHO, 2022. <https://apps.who.int/iris/handle/10665/363318>.

23. Thematic brief: Climate change and malaria. RBM Partnership to End Malaria. https://endmalaria.org/sites/default/files/Climate%20Change%20and%20Malaria_EN.pdf.

induced displacements are increasing throughout vulnerable countries with high HIV/TB burdens and have been associated with a disruption of HIV and TB prevention and treatment services as well as increased infection risks among vulnerable populations. The interruption of HIV and TB treatment has significant consequences, and it can lead to drug resistance. Climate-induced food insecurity as well as other climate-sensitive diseases are associated with poor health outcomes of people with HIV and TB.

Climate-fueled migration strains health systems. Displacement of large numbers of people can lead to overcrowding and poor living conditions, which can expose people to diseases such as TB. Prolonged drought conditions that result in crop failures lead to increased food insecurity for a community. Food insecurity is associated with an increased risk of HIV acquisition and non-adherence to antiretroviral drugs. Poor nutrition and undernutrition lead to a weakened immune system and increase susceptibility to infectious diseases like TB. Already, approximately 20% of TB cases are attributable to undernourishment, which significantly increases the chance of developing active TB disease. Many people may not be able to afford or adhere to treatment on an empty stomach. There are already reports of people who are abandoning HIV treatment in the face of hunger.²⁴

The Global Fund's response

The Global Fund is supporting climate resilient, environmentally sustainable and low carbon efforts at global and country-levels. How we integrate climate change and environmental sustainability issues into the programs we support is country and context-specific, based on country ownership and demands. The Global Fund Strategy addresses the threat and impact of climate change and provides an opportunity for us to increase our efforts in this area and look at

innovative ways to address, mitigate and adapt to the effects of climate change on the programs we support. The Global Fund has been supporting countries that are most vulnerable to the effects of climate change, including those most heavily hit by malaria.

Continuing to build resilient and sustainable systems for health will be the first line of defense in the fight against health threats from a changing climate. A climate-resilient health system²⁵ will be more capable to respond and adapt. The Global Fund invests more than US\$1.5 billion a year in countries to build resilient and sustainable systems for health and will look for opportunities to support countries in managing multiple climate risks to health systems and services. The communities we serve are at the center of everything we do. Engaging and empowering communities and civil society is crucial to understanding context-specific climate risks to health, and identifying and scaling up locally led climate solutions to build health systems and services that can withstand the increasing impacts of climate change.

For example, we will continue to encourage and support countries to improve their health care waste management systems by undertaking the safe and environmentally friendly disposal of health care products at local and regional levels. We also support countries to develop reverse logistic systems aimed at collecting, handling and returning unusable health products and related waste to centralized disposal sites. We strengthen countries' end-to-end supply chain systems and capabilities to increase efficiency and reduce environmental footprints. The Global Fund is also exploring innovative financing approaches to support countries to build climate-resilient systems for health. This involves working in partnership with other organizations and donors to maximize impact.

24. Why hunger is driving thousands to abandon the drugs that keep them alive. The Telegraph, 4 July 2023. <https://www.telegraph.co.uk/global-health/science-and-disease/hiv-treatment-side-effects-tb-africa/>.

25. WHO defines a climate-resilient health system as one that is "capable to anticipate, respond to, cope with, recover from and adapt to climate-related shocks and stress, so as to bring sustained improvements in population health, despite an unstable climate." Operational framework for building climate resilient health systems. WHO, 2015. <https://www.who.int/publications/i/item/9789241565073>.

We are investing to support countries to respond to the impact of extreme weather events on the diseases we fight. In 2022, massive flooding in Pakistan led to a severe hike in cases of malaria, while drought-linked displacement in Somalia has continued to affect TB services. We committed US\$30 million to Pakistan and US\$1.9 million to Somalia in emergency funding to support these health systems faced with climate disasters.

Within our new grant cycle allocation period (2023-2025), a key focus will be on how we can make health systems more resilient to future pathogens, as well as the current and future impacts of climate change. We encourage countries to integrate health and climate data in systems to better understand interlinkages, especially for malaria. We support countries to develop systems to better detect outbreaks. These interventions include a One Health approach, which positions human health interventions within the context of a broader planetary health agenda, encompassing animal, human, plant health and the shared environment.

We recognize that we have both an opportunity and a responsibility to minimize our impact on the environment, not only because climate change impacts our ability to end AIDS, TB and malaria as public health threats and improve global health, but also because it is essential for the health sector to show its leadership and contribution to limiting global greenhouse gas emissions from the health care value chain. We are eager to work closely with partners to build resilience to climate shocks and play our part to reduce our impact on the environment.

We will continue to undertake important steps to contribute to environmental and climate change solutions, including supporting countries to 1) strengthen their management of health care waste; 2) strengthen national supply chain systems; and 3) support clean and reliable energy for health care facilities and services. We will also continue to keep a keen focus on reducing emissions at the Secretariat level.

A camp in Bentiu, South Sudan, where 120,000 internally displaced people are staying, is surrounded by floodwaters.

MSF-HOLLAND/
Christina Simons



2. Conflict and challenging operating environments

The challenge

In 2022, the world faced unprecedented global health challenges that put the most vulnerable communities at risk due to conflict, disaster and insecurity. Despite those challenges, we remained determined to reach the most vulnerable people with prevention and treatment services, wherever they were. That meant directing a sharper focus on challenging operating environments (COEs) – countries or regions that experience infectious disease outbreaks, natural disasters, armed conflicts or civil unrest, weak governance, climate change-related crises and/or mass displacement. Despite hosting less than 14% of the world's population, COEs account for approximately 33% of the global disease burden for HIV, TB and malaria.

In conflict and following natural disasters, infectious diseases, lack of treatment and food insecurity can often kill more people than the violence or crisis itself. As security declines, traditionally vulnerable people are even more at risk, particularly adolescent girls and young women, children, the elderly, and key populations such as gay men and other men who have sex with men, sex workers, people who use drugs, trans and gender diverse people and people in prisons and other closed settings. Attacks on gender equality and violations of human rights increase. Huge numbers of people flee or are forcibly displaced. At the end of 2022, 108.4 million people worldwide were forcibly displaced as a result of persecution, conflict, violence, human rights violations and events seriously disturbing public order.²⁶ In 2023, the fighting in Sudan is the latest in a litany of conflicts and wars that are tearing apart communities across the world. Ukraine, Ethiopia, the Democratic Republic of the Congo, Yemen, Afghanistan and South Sudan are just a few others.

The Global Fund's response

The Global Fund prioritizes health needs in COEs to increase coverage of HIV, TB and malaria prevention and treatment services, reach key and vulnerable populations and save lives. COEs, because of their complex needs and the obstacles they present, account for approximately 30% of the Global Fund funding allocation. We have disbursed more than US\$15 billion in COEs since 2002. Our COE Policy, created in 2016, aims to adapt the Global Fund's approach, partnership model and implementation modalities to COEs.

Through innovation, increased flexibility and partnership, the Global Fund seeks to accelerate the response to HIV, TB and malaria in COEs, while building resilience through stronger community and health systems and by addressing gender-related and human rights barriers to services. Even in crisis, we must endeavor to leave no one behind. By working with partners, including humanitarian ones, who have expertise and comparative advantage in emergencies, we can adapt our model and provide a speedier response in humanitarian settings, while at the same time strengthening service delivery and improving technical assistance. Our policies recognize the need to adapt approaches to each context while maintaining responsible fiduciary oversight of funds and enhancing the timeliness of our investments, reducing administrative burden for partners, and facilitating more effective service delivery to populations in need.

This approach places the Global Fund at the intersection of development and humanitarian work. Every year, the Global Fund updates a list of COEs based on the External Risk Index (ERI). The current list of COE countries eligible for allocations in the next grant cycle (2023-2025) includes Afghanistan, Haiti, Somalia, Ukraine and Venezuela.

26. Global Trends. UNHCR, 14 June 2023. <https://www.unhcr.org/global-trends>.

Habiba Ibrahim Nour and her four children arrived in the Ladan camp for displaced people in Dolow, Somalia, after traveling for 10 days to seek relief from drought. Upon arrival, all of Habiba's children were sick with malaria and showed signs of malnutrition.

© UNICEF/Sewunet



The Emergency Fund

While country allocations are used to support HIV, TB and malaria programs and build resilient and sustainable systems for health, including in countries with chronic crises, the Emergency Fund, established in 2014, provides quick and flexible financing in emergencies to ensure the continuity of existing programs and services for HIV, TB and malaria. The Global Fund disbursed US\$132 million through the Emergency Fund between 2014 and April 2022.

Humanitarian–Development–Peace Nexus

In 2021, the Global Fund committed to aligning with the Humanitarian–Development–Peace Nexus, a recommendation by the Organisation for Economic Cooperation and Development (OECD) that was passed in 2019 to increase humanitarian, development and peacebuilding collaboration in complex emergencies and other crises-hit environments. Moreover, the Global Fund collaborates with the Nexus Academy of the United Nations and the International Network on Conflict and Fragility in driving the Nexus approach across Global Fund portfolio management. This commitment has built on existing collaborative responses that have been successful in the most demanding

environments, such as the Middle East Response (MER) initiative. As part of MER, the Global Fund partnered with the International Organization for Migration as Principal Recipient to successfully deliver HIV, TB and malaria services. There are other humanitarian service collaborators, such as the World Food Programme, UNICEF, the United Nations High Commissioner for Refugees (UNHCR), the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Médecins Sans Frontières, the International Committee of the Red Cross and the International Federation of Red Cross and Red Crescent Societies.

In a world that is becoming increasingly fragmented, businesses and development organizations are being called upon to become more adept in investing in areas of conflict. It is a tough challenge, not just because of the danger conflict poses to people, but also because conflict can quickly decimate the infrastructure that is needed to deliver development programs.

Investments in these areas are core to the Global Fund's mission of ending the three diseases. In areas of conflict our mission remains the same: Be nimble and flexible enough to continue programs and save lives.

3. Economic challenges

The challenge

The COVID-19 pandemic deeply affected the world economy. Other crises, including conflict and the effects of climate change, compounded this challenge. In 2022, the debt crisis, coupled with food and energy crises, worsened across low- and middle-income countries. These challenges left the most vulnerable people exposed to infectious diseases. Low- and middle-income countries have faced socioeconomic impacts that will have long-lasting consequences, possibly reversing decades of progress in poverty eradication. That also means that countries have fewer resources to dedicate to health programs.

The Global Fund's response

In these challenging times, a strong partnership between the most impacted countries and the Global Fund is more important than ever. Our approach to financial sustainability is multi-dimensional. It includes the Sustainability, Transition and Co-financing Policy, which incentivizes countries to progressively increase domestic financing for health and the three diseases as well as absorb specific program costs. This strengthens health systems, maintains and scales service coverage, and accelerates the fight against the three diseases. A minimum of 15% – up to 30% in some countries – of Global Fund allocations are subject to these co-financing requirements. We support countries with technical assistance to improve national financial planning and strengthen national governance, as well as to align and implement programs to fight diseases through national systems and complement domestic investments efficiently.

4. Human rights

The challenge

Health is a human right, but in 2022 and 2023, we have witnessed a trend of a global pushback on human rights, as well as a shrinking role for civil society. People should have access to the health services they need, regardless of who they are or where they live, and without regard to their race, religion, age, gender identity or sexual orientation.

The Global Fund's response

The Global Fund works with international partners such as PEPFAR and UNAIDS, as well as local partners, to see that all the people in need of health services can access them.

We invest to tackle the root causes of global health inequities – human rights-related barriers to access, structural gender inequalities, and broader inequities. By building people-centered and inclusive systems for health, centered on the communities they serve, we can save millions of lives, deliver on the SDG 3 goal of health and well-being for all, and provide a platform for resilient economic and social development. By confronting the injustices that make some people especially vulnerable to diseases and unable to access the health services they need, we are accelerating progress in the fight against infectious diseases.

Achieving the SDG 3 target of ending AIDS, TB and malaria by 2030 demands accelerated progress toward universal health coverage, which requires greater engagement and leadership of affected communities, and an intensified focus on tackling health inequities, human rights barriers and gender inequalities. ●

**Case
study**

Pakistan: Tackling Climate-fueled Extreme Flooding and a Surge in Malaria

It was a severe heat wave followed by heavier-than-usual monsoon rains and melting Himalayan glaciers that led to Pakistan's unprecedented floods in 2022.

According to WHO, during the height of the emergency, more than a third of the country was underwater, with 33 million people affected and more than 1 million homes destroyed.

Then there was a massive surge in malaria, with more than 1.6 million confirmed cases in 60 of Pakistan's districts in 2022 – a fourfold increase from the 400,000 cases recorded the previous year. Additionally, there was a higher proportion of the deadlier *Plasmodium falciparum* malaria cases, which are predominantly found in parts of Africa and in lower proportions in Asia.

The Global Fund responded rapidly to the flooding and resulting health emergency. In the immediate aftermath, Global Fund investments supported

emergency health camps and mobile clinics that provided vital health services, including malaria testing and treatment. Global Fund support was also used to provide clean water, emergency food packs and generators.

Today, investments are being made to support ongoing malaria control activities across Pakistan, including community-based testing and treatment, distribution of insecticide-treated nets, indoor residual spraying and education campaigns for communities with the highest burden of the disease. Investments have also been used to repair and renovate laboratories and clinics that were damaged or destroyed during the floods.

The Global Fund will continue to invest to mitigate the impact of climate change on the fight against malaria and remains ready to support Pakistan through future monsoon seasons. ●



In Sehwan, Pakistan, a mobile health unit arrives in an area affected by severe flooding to provide health services, including malaria testing and treatment.

The Global Fund/Saiyna Bashir/
Panos

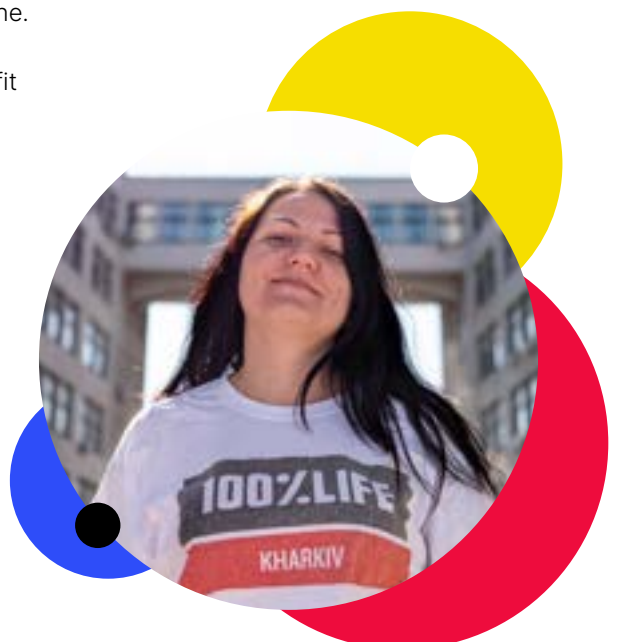
Yulia Malyk

TB Outreach Worker

Ukraine

Despite living under constant shelling and bombardments, Yulia Malyk has continued working as a social worker in Kharkiv, Ukraine. Yulia provides community-based health outreach services to prevent, diagnose and treat people with TB through the non-profit organization 100% Life, one of the Global Fund's partners in Ukraine. Despite the dangers caused by the war, and cuts to phone services, internet, running water and heating, Yulia regularly heads out on foot, traveling across the city to provide vital TB services. Yulia says the constant stress, inadequate nutrition, and poorly ventilated shelters have put people in her community at even greater risk of contracting TB. "People here are more concerned with their survival than with their health," she says. "But I'm grateful that I can help. This is one of the things that motivates me." Since the beginning of the war in February 2022, 100% Life, with support from the Global Fund, has reached more than 1,116 TB patients with vital support in Kharkiv.

Image: The Global Fund/Ashley Gilbertson



Mirleni is a Venezuelan migrant living in Colombia. Upon arriving in Colombia six years ago, she got pregnant and then found out she was HIV-positive. With support from doctors at La María Hospital in Medellín, she began antiretroviral therapy and her son was born HIV-free.

(RED)/Federico Ríos



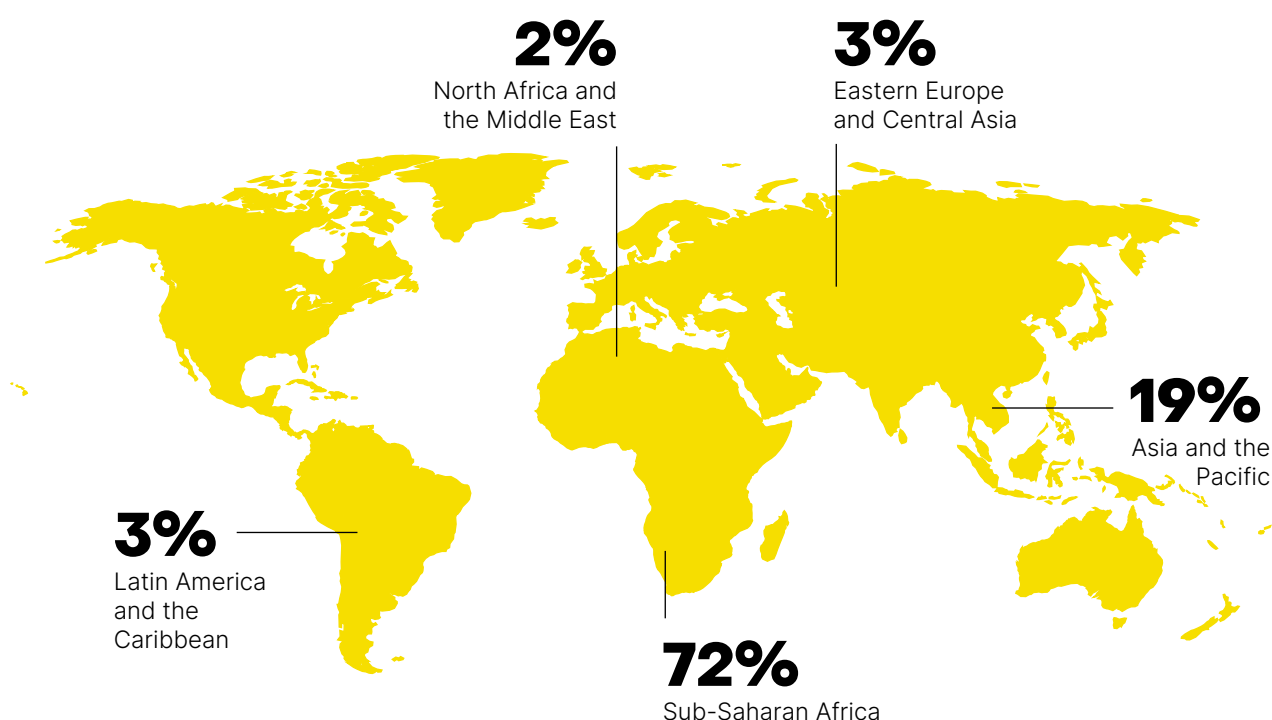
A decorative graphic featuring a grid of small dots on the left side. Overlaid on this grid and extending to the right are several colored circles: a large yellow circle, a smaller yellow circle, a large red circle, a medium blue circle, and a small black circle.

Investing for Impact

The Global Fund unites the world to save lives, defeat HIV, TB and malaria, and ensure a healthier, safer, more equitable future for all. We bring together world leaders, communities, civil society, health workers and the private sector to find solutions that have the most impact, and we take them to scale worldwide. We invested a record-breaking US\$5.2 billion in 2022 to fight the deadliest infectious diseases, challenge the inequity which fuels them and strengthen health systems in more than 120 countries.

Global Fund investments by region

In 2021-2023 as of June 2023



The sum of percentages across regions does not add up to 100% due to rounding.

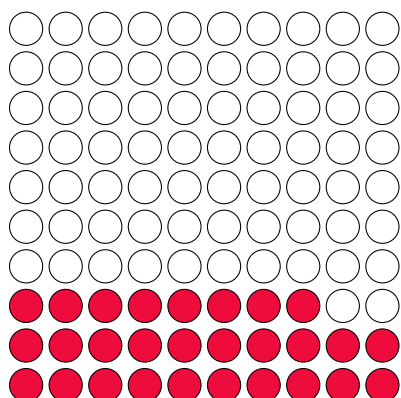
low- and middle-income countries, where fiscal space is shrinking sharply. This incurs the risk of low- and middle-income countries being unable to invest sufficiently in areas of human development, such as health and education, and to sustain the gains that they have made in their investments in HIV, TB and malaria programs up until now.

In these challenging times, a strong partnership between the most impacted countries and the Global Fund is more important than ever. Our approach to financial sustainability is multi-dimensional. It includes the Sustainability, Transition and Co-financing Policy, which incentivizes countries to progressively increase domestic financing for health and the three diseases as well as absorb specific program costs by making a proportion of grants contingent on

domestic financing performance. This strengthens health systems, maintains and scales up service coverage, and accelerates the fight against the three diseases. A minimum of 15% – up to 30% in some countries – of Global Fund allocations are subject to these co-financing requirements. Ninety-nine countries in the Global Fund portfolio have co-financing commitments in the 2021-2023 period.

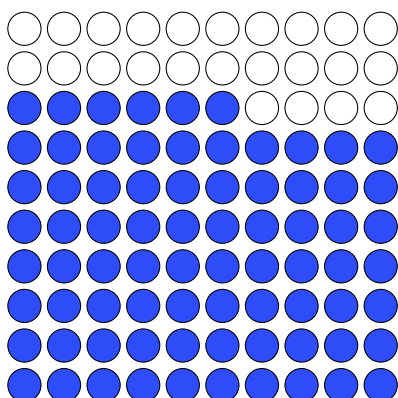
We support countries with technical assistance to improve national financial planning and strengthen national governance, as well as to align and implement programs to fight diseases through national systems and complement domestic investments efficiently. The Global Fund's Co-Link project supports countries to use national public financial management systems to process grants from the Global Fund, instead of using parallel

International grants provided by the Global Fund in 2022



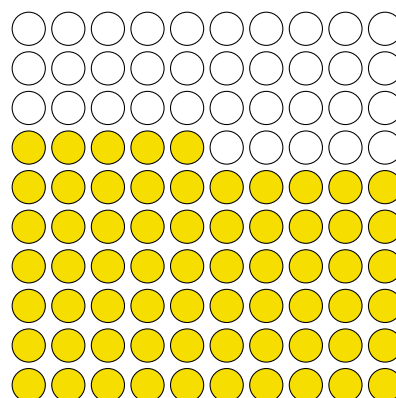
 **28%**

of all international
financing for **HIV**



 **76%**

of all international
financing for **TB**



 **65%**

of all international
financing for **malaria**

financial management systems. This is critical to improving financial sustainability by strengthening countries' domestic resource management and oversight capacity.

Sustainability also entails increasing efforts to address human rights and gender barriers to access and mobilizing the capacity available within civil society and community-based organizations. The Global Fund works with countries to implement interventions through grants that will strengthen systems for health and target critical barriers to sustainability. By providing support to implement social contracting mechanisms, the Global Fund supports governments to use public finances to deliver services through civil society and community organizations.

Keeping the issue of domestic health financing on the global health agenda is critical, particularly in Africa, as this is where over 70% of Global Fund resources are invested. The Global Fund's continued support of the African Union (AU) domestic financing agenda, catalyzed by the AU African

Leadership Meeting Declaration, which aims to increase domestic resource mobilization and efficiency in health spending, has been central to advocacy efforts for sustainable health financing in Africa. The Global Fund's advocacy efforts have also helped to increase the political visibility of health financing at global, regional and national levels.

The Global Fund is supporting national health financing dialogues in nine African countries through the Regional Economic Communities (RECs). The agenda for these dialogues is shaped by the findings from the preceding scoping assessments on the state of domestic financing and ongoing financing reforms. The common results of these dialogues have been accelerated agendas for health financing reform – driven by a diverse stakeholder base including partners, civil society organizations, parliamentarians, and the private sector, working more closely with a strengthened ministry of health and ministry of finance alliance. This new partnership will give the nine countries a direction to confront common challenges facing mobilization

Fund's catalytic funds. These catalytic investments inspire innovation and encourage ambitious, evidence-based programming approaches to increase our impact in strategic priority areas.

One major focus of catalytic funding are community health workers, the cornerstone of resilient and sustainable systems for health. However, in sub-Saharan Africa, community health workers face an estimated US\$5.4 billion annual funding gap. Through coordinated investments from governments, private and philanthropic actors, we can help better protect communities by investing more in community health workers. In 2022, the Global Fund and the Africa Frontline First Initiative joined forces to launch the Africa Frontline First Catalytic Fund – a US\$100 million initiative to finance community health in Africa, supporting countries to build tailored, resilient community health programs. For the Global Fund's Seventh Replenishment, the Africa Frontline First Catalytic Fund received US\$25 million in strategic investments from the Johnson & Johnson Foundation and the Skoll Foundation.

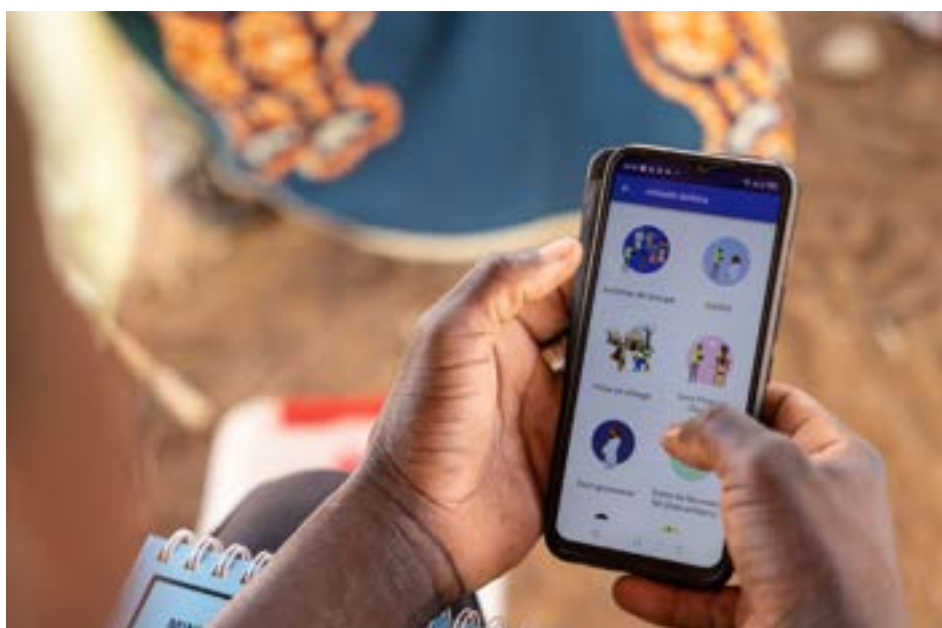
Digital health is key to improving health systems and delivering quality care to

communities, and harnessing data is key to the fight against existing infectious diseases. With cyclical investments of close to US\$500 million, the Global Fund is one of the largest investors in digital health across low- and middle-income countries. Complementing core grant investments in the digitalization of health systems, the Global Fund has also introduced several targeted digital health catalytic funds to accelerate progress in specific areas.

Since 2021, with the support of a US\$15 million grant from the Rockefeller Foundation, the Data Science Catalytic Fund (DSCF) has supported the digitalization, collection and use of data at the community level in Rwanda, Uganda, Ethiopia and Burkina Faso. The DSCF aims to scale up innovative digital tools to support community health workers, while streamlining data collection and management at the national level. The DSCF has also leveraged the expertise and capabilities of a group of technology leaders – including Microsoft, Mastercard, and Google – to provide partner countries with technical assistance on topics such as data standards and interoperability. In recognition of the importance of building local private sector capacity for operational and financial sustainability,

A community health worker in Burkina Faso uses the mHealth Burkina mobile application to register and consult client data more efficiently. The deployment of mHealth Burkina in Burkina Faso started in early 2022 and is now being used in nine regions and 12 health districts by more than 4,000 community health workers.

The Global Fund/
Olympia de Maismont



the DSCF has invested in the HealthTech Hub Africa – a pan-African accelerator aimed at fast-tracking technological solutions and improving public-private partnerships to support global health needs.	Cameroon, Mozambique, Nigeria, Tanzania and Uganda. This initial funding catalyzed total investments of more than US\$110 million in HIV self-testing. As a result, HIV self-testing in these five countries accelerated massively, from 7,000 self-tests distributed in 2020 to 4.7 million in 2023. The partnership was renewed in 2022 with an additional US\$33 million in catalytic funding from CIFF to incentivize the scale-up of HIV pre-exposure prophylaxis (PrEP) as well as post-exposure prophylaxis (PEP) to the most at-risk populations across Kenya, Mozambique, Nigeria, South Africa, Uganda and Zambia.	•	•	•
Building upon the DSCF, a new Digital Health Impact Accelerator (DHIA) Catalytic Fund was designed and launched in 2022 to accelerate the digital transformation of health systems in sub-Saharan Africa. Anglo American and the Anglo American Foundation invested US\$15 million in the DHIA to support digitalization efforts at the last mile and improve integrated patient-centric care. The Patrick J. McGovern Foundation invested US\$1 million, and private sector partners including Dimagi, Medic, Medtronic LABS, the Novartis Foundation, Orange and Zenysis made in-kind commitments valued at more than US\$23 million.	Vietnamese philanthropist Ms. Le Nu Thuy Duong has supported innovative TB programs throughout Viet Nam. In 2019 she committed US\$1 million, and in 2022 she committed an additional US\$3 million. Her commitments have been further bolstered by matching funds from the Bill & Melinda Gates Foundation, resulting in US\$11 million in total commitments to the Global Fund. Ms. Duong's support has helped expand the critical fight against TB led by the government of Viet Nam.	•	•	•
The Rockefeller Foundation, the Abbott Fund and IQVIA through (RED) committed US\$25 million to a Laboratory Systems Integration Fund to strengthen laboratory systems in countries, build stronger regional collaboration, and strengthen information systems for data sharing. This will support a dozen low- and middle-income countries across Africa, Asia and Latin America to detect and respond to potential local health threats before they become global pandemics.	Goodbye Malaria and Nando's continued their more than 10-year commitment to scaling up the MOSASWA regional grant, a trilateral agreement between the governments of Mozambique, South Africa and Eswatini, which aims to work collaboratively across borders to accelerate malaria elimination in the southeast African region.	•	•	•
The Global Fund's Emergency Fund helps to ensure the continuity of HIV, TB and malaria programs in emergency contexts, including situations of conflict or climate disasters. At the Seventh Replenishment, GlaxoSmithKline pledged US\$2.27 million to the Emergency Fund to support critical HIV and TB programs in Ukraine.	Leveraging best practices from the private sector plays an important part in improving disease prevention and building resilient and sustainable systems for health. SC Johnson, Johnson & Johnson, and Coca Cola's Project Last Mile continued to leverage and adapt in-kind expertise and best practices to support countries to improve access to HIV prevention products and services, find missing TB patients, and strengthen entomological	•	•	•
From 2020 to 2022, the Children's Investment Fund Foundation (CIFF) partnered with Unitaid and the Global Fund, investing US\$25 million to scale up self-testing for HIV in five countries:		•	•	•

surveillance capabilities for malaria in over 15 countries. Roche also provided technical support to improve systems for transporting laboratory samples and facilitate their integration into wider systems for health, as well as to enhance waste management practices.

Since 2019, the Global Fund and the Thomson Reuters Foundation have worked in partnership to support the Global Fund's flagship Breaking Down Barriers initiative. We work together to amplify the voices of marginalized groups as they demand equitable access to health services. Our work has included an innovative dual-track training model for civil society and journalists, access to legal support through the TrustLaw network – the world's largest pro-bono legal service – and ongoing opportunities for one-to-one mentorship. In the coming years, our partnership with the Thomson Reuters Foundation will increasingly focus on the vital role and voice of young leaders who aspire to change the public narrative on human rights and build more just and equal societies.

The Global Fund's private sector partnerships with ViiV Healthcare and Fondation CHANEL supported two successful community-led gender equality and health partnerships that have achieved remarkable results in a short time. In 2022, the HER Voice Fund awarded funding to 91 grantees to further strengthen the voices of adolescent girls and young women in 13 African countries. In 2022, Voix EssentiELLES worked with women and girls in Senegal, Burkina Faso and Côte d'Ivoire through grassroots, women-led community organizations to engage in decision-making around sexual and reproductive health policies and programs.

How we operate

Equally important to achieving our vision of a world free of the burden of HIV, TB and malaria is how we invest

our resources and how we conduct our business.

Commitment to transparency

The Global Fund operates with a high degree of transparency and accountability in all our work and has zero tolerance for corruption or misuse of funds. In 2022, we were included in the "Good" category of a leading international aid transparency index – Publish What You Fund's 2022 Aid Transparency Index.

Our [Data Explorer](#) provides free and open access to the Global Fund's data. In 2022, we published over 100 country summaries on this platform, describing in-country challenges and progress, as well as the programs and services supported by the Global Fund's investments. These resources were developed as part of our ongoing efforts to sustain and improve transparency.

The Office of the Inspector General (OIG),²⁹ established in 2005 as an independent entity reporting directly to the Board, safeguards the assets, investments, reputation and sustainability of the Global Fund by ensuring that it takes the right action to accelerate the end of AIDS, TB and malaria. Through audits, investigations and advisory work, it promotes good practice, enhances risk management and reports fully and transparently on abuse.

Ethical conduct

The Global Fund has a responsibility toward the people we serve and to our donors to work with the highest levels of integrity. We are committed to upholding the highest ethical standards among our staff and our partners who manage our programs. Within the Secretariat, the Ethics Office not only supports ethics-related matters to the Global Fund's employees, but also offers support on matters related to grant implementers, suppliers, Local Fund Agents and Country Coordinating Mechanisms. It also provides support

29. For full details and updates on the OIG, please visit <https://www.theglobalfund.org/en/oig>.



Global Fund operating expenditures remained within the Board-approved ceiling for 2020-2022.

The Global Fund/Vincent Becker

in relation to the Board, committees, and advisory bodies. Within the Global Fund Board, the Ethics and Governance Committee ensures that the Global Fund and our stakeholders adhere to appropriate standards of ethical behavior. It oversees implementation of the procedures and operations related to our governance structure and our core governance functions.

Evaluation and learning

In 2022, the Global Fund established a new independent evaluation and learning function to ensure that evaluations are relevant, timely and of high quality, providing findings and recommendations that drive the Global Fund closer to achieving the goal of ending AIDS, TB and malaria.

The evaluation and learning function is a shared responsibility between Global Fund governance bodies and the Global Fund Secretariat. Independent evaluation is delivered by two entities: 1) a new Evaluation and Learning Office established in the Office of the Executive Director; and 2) a new Independent Evaluation Panel, independent from the Secretariat and accountable to the Board through the Strategy Committee in providing assurance of quality and independence over Global Fund independent evaluation activities.

The Global Fund is shifting toward a learning culture. To get there, findings must be rigorous, and recommendations need to be practical and actionable by the Secretariat. Two evaluations of critical importance to the Global Fund are underway: an end-term evaluation of the 2017-2022 Strategy and an evaluation of the Global Fund Resource Allocation Methodology. These will be published in 2024. The Global Fund has built in ways for colleagues to engage earlier in the whole process, to better craft follow-up actions during and after the evaluations.

Finances

The Global Fund's 2022 financial statements reflect an effective and efficient use of resources to support programs in more than 100 countries. As of 31 December 2022, operating assets exceeded operating liabilities by US\$4.6 billion. Full financial data is available in our Annual Financial Report. 2022 also experienced a high level of grant expenditure of US\$4.6 billion and record disbursements of US\$5.2 billion³⁰ for the core HIV, TB and malaria portfolio and C19RM activities, representing more than any previous year in the Global Fund's history. In 2022, overall operating expenditures cost US\$327 million. This remains within the three-year Board-approved ceiling for 2020-2022. ●

30. When including Strategic Initiative disbursements, this figure would amount to US\$5.3 billion.



Note on Methodology

The Global Fund is committed to accurate and transparent reporting of programmatic results and impact, and we make data available on the Global Fund website, in reports, information papers and numerous other publications. Everyone in the Global Fund partnership contributes to our collective efforts against HIV, TB and malaria, and it is critically important that we measure and report our joint progress as effectively and transparently as possible.

report. The programmatic results are reported routinely to the Global Fund by the supported programs. The data collected by our technical partners³¹ are also used for cross-checking and triangulation and for furnishing national data for selected services³² to align with the Global Fund partnership's approach in results reporting.³³ For the remaining services, the results in some countries may include only subnational data, as comparable results are not available from the technical partners.

The Global Fund reports the full national results and impact of the countries where we invest, rather than reporting solely on the specific projects we fund. This reflects a core principle of the Global Fund partnership's approach: We support national health programs and strategies to achieve national goals. By reporting full national results, we avoid attempting to extricate the Global Fund's impact when it is so closely tied to the impact of other partners. In this way, we monitor and track the collective impact of the Global Fund partnership and the programs that we support toward achieving the 2030 target to end AIDS, TB and malaria. The Global Fund Results Report 2023 presents selected programmatic results (e.g., people on antiretroviral therapy, people treated for TB, mosquito nets distributed) achieved by supported programs in 2022. The programmatic results are also available for 2022 and previous years in a web annex on the Global Fund Data Explorer and for 2022 in an interactive

The Results Report 2023 also presents time-trend data for selected key programmatic coverage, outcome and impact measures. The data on the burden of the three diseases include new HIV infections, new TB cases, malaria cases, and deaths from the three diseases as well as the counterfactual trends representing hypothetical scenarios of absence of key health services. The data on service coverage and outcomes include antiretroviral therapy coverage, viral load suppression, TB treatment coverage and success rate, and mosquito net coverage and use. Reaching the 2030 global targets³⁴ for these services is critical to achieve the SDG 3 target of ending AIDS, TB and malaria by 2030. As the Global Fund does not itself estimate disease burden and impact, the main data sources for these measures are the latest published reports or databases of our technical partners, including WHO and UNAIDS.³⁵ The technical partners generate

31. AIDInfo. <https://aidsinfo.unaids.org/>; WHO Global Tuberculosis Programme. <https://www.who.int/tb/data/en/>; World Malaria Report 2022. <https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2022>.

32. People on antiretroviral therapy for HIV, mothers who received medicine to prevent transmitting HIV to their babies, people treated for TB, people treated for drug-resistant TB and HIV-positive TB patients on antiretroviral therapy during TB treatment.

33. The Global Fund's current approach to results reporting was implemented in 2017.

34. The path that ends AIDS: UNAIDS Global AIDS Update 2023. <https://thepath.unaids.org/>; WHO Global Tuberculosis Report 2022. <https://apps.who.int/iris/rest/bitstreams/1474924/retrieve>; WHO World Malaria Report 2022. <https://apps.who.int/iris/rest/bitstreams/1484818/retrieve>.

35. AIDInfo. <https://aidsinfo.unaids.org/>; WHO Global Tuberculosis Programme. <https://www.who.int/tb/data/en/>; World Malaria Report 2022. <https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2022>.

The Global Fund also made investments as part of the COVID-19 Response Mechanism (C19RM) to mitigate the pandemic's impact in the countries where it invests. The public health impact of this investment is estimated by the MRC Centre for Global Infectious Disease Analysis at Imperial College

Additional notes on the Global Fund's approach in reporting on programmatic results and impact can be found on our website.

Glossary

ACT-Accelerator

Access to COVID-19 Tools Accelerator: A global collaboration of leading public health agencies to accelerate the development and equitable distribution of tests, treatments and vaccines – and the strengthening of health systems – that the world needs to fight COVID-19.

Ag-RDTs

Antigen rapid diagnostic tests.

ARVs

Antiretroviral drugs: Medication that allows people living with HIV to live healthy lives, and that prevents them from passing the virus on to others.

C19RM

COVID-19 Response Mechanism: Through C19RM, the Global Fund supports countries to mitigate the impact of COVID-19 on programs to fight HIV, TB and malaria, and initiates urgent improvements in health and community systems.

COEs

Challenging operating environments: Countries or regions characterized by poor governance, disasters or conflict and requiring flexible approaches to deliver needed services and medicines.

Co-financing

Additional domestic financing of health and HIV, TB and malaria programs. See the Global Fund Sustainability, Transition and Co-financing Policy.

Differentiated service delivery

Differentiated service delivery is a responsive, client-centered approach that simplifies and adapts HIV testing and treatment services to better serve individual needs and reduce unnecessary burdens on the health system.

Drug-resistant TB

Forms of TB that do not respond to one or more antibiotics.

DSCF

Data Science Catalytic Fund: In Rwanda, Uganda, Ethiopia and Burkina Faso, the Global Fund works with the Rockefeller Foundation to strengthen national health information and surveillance systems through the DSCF.

Gavi

Gavi, the Vaccine Alliance.

Key populations

People who experience a greater epidemiological vulnerability to HIV, TB and malaria, and may have reduced access to services due to a combination of biological and socioeconomic factors. They include, but are not limited to, gay men and other men who have sex with men; transgender people; people who inject drugs; sex workers; people in prisons; refugees and migrants; people living with HIV.

MER

The Middle East Response (MER) initiative: MER is a Global Fund program designed to provide essential HIV, TB and malaria services to key and vulnerable populations including refugees, internally displaced persons, and women and children in Iraq, Palestine, Syria, Yemen, Jordan and Lebanon.

PCR tests

Molecular polymerase chain reaction tests.

PEP

Post-exposure prophylaxis: The use of antiretroviral medicines to prevent HIV among people who are HIV-negative after a possible exposure to the virus.

PEPFAR

U.S. President's Emergency Plan for AIDS Relief.

Plasmodium falciparum

This is the deadliest species of Plasmodium that causes malaria in humans.

Plasmodium vivax

This is the most widely geographically distributed species of Plasmodium that causes malaria in humans.

PMI

U.S. President's Malaria Initiative.

PPE

Personal protective equipment.

PPM

Pooled Procurement Mechanism: A key initiative that the Global Fund uses to aggregate order volumes on behalf of participating grant implementers to negotiate prices and delivery conditions with manufacturers.

PrEP

Pre-exposure prophylaxis: The use of antiretroviral medicines to prevent HIV among people who are HIV-negative.

RAI

Regional Artemisinin-resistance Initiative. RAI was launched in 2013 in response to the emergence of drug-resistant malaria in the Greater Mekong region.

RDTs

Rapid diagnostic tests.

RSSH

Resilient and sustainable systems for health: These systems for health encompass the national health system, services provided by communities, the private sector and other providers.

UNAIDS

United Nations Joint Programme on HIV/AIDS.

USAID

U.S. Agency for International Development.

WHO

World Health Organization.



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