

Eight-year-old Asma, a TB patient who nears completion of her treatment, attends a consultation appointment at the Government General Hospital Samanabad in Faisalabad, Pakistan.

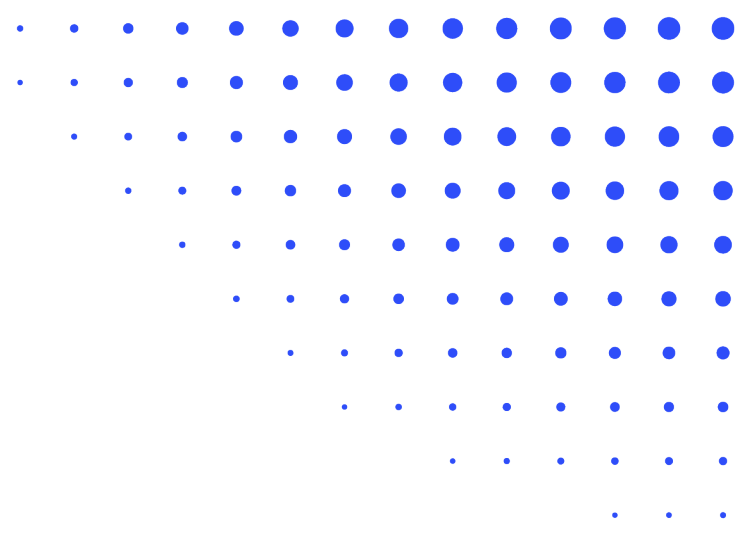
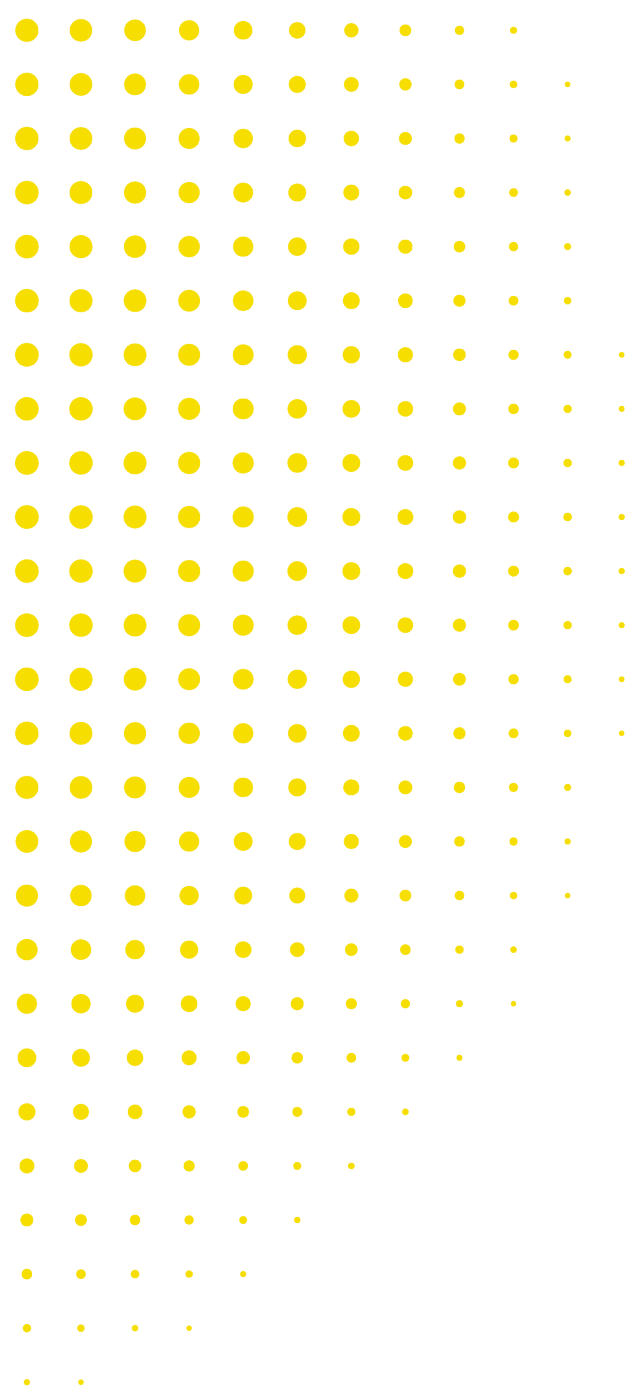
The Global Fund/Vincent Becker



The TB Quarterly Update

APRIL/MAY 2024



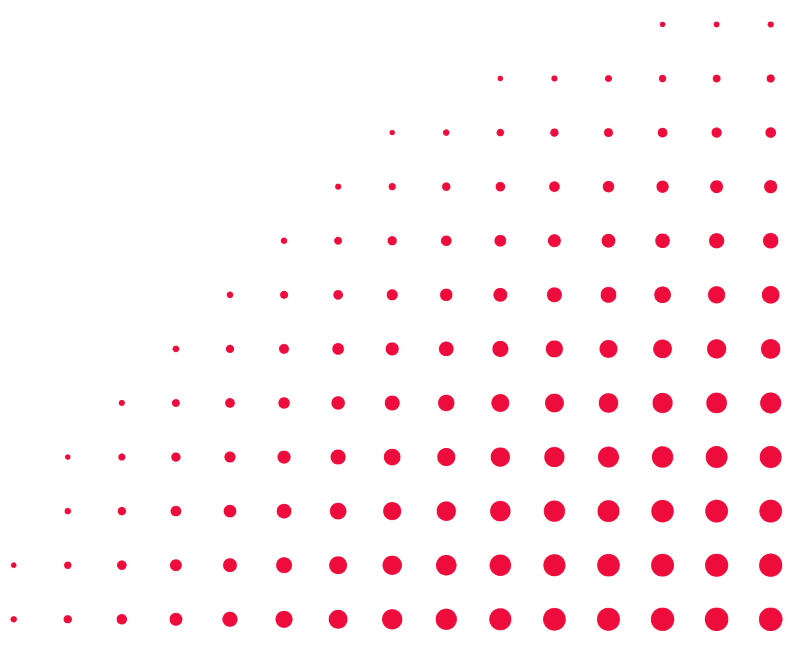


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About the TB Quarterly Update

The TB Quarterly Update is produced by the TB team at the Global Fund to share best practices, lessons learned and information on TB from countries supported by the Global Fund, partners and other stakeholders. If you have any information you would like to share, please reach out to Daisy.Lekharu@theglobalfund.org



1. What's New

NextGen Market Shaping Strategic Initiative

The Global Fund's Next Generation (NextGen) Market Shaping approach aims to ensure quality-assured health products are available, affordable and reliably delivered to support the delivery of the Global Fund's 2023-2028 Strategy and strengthen the impact of HIV, tuberculosis (TB) and malaria programs. Historically,

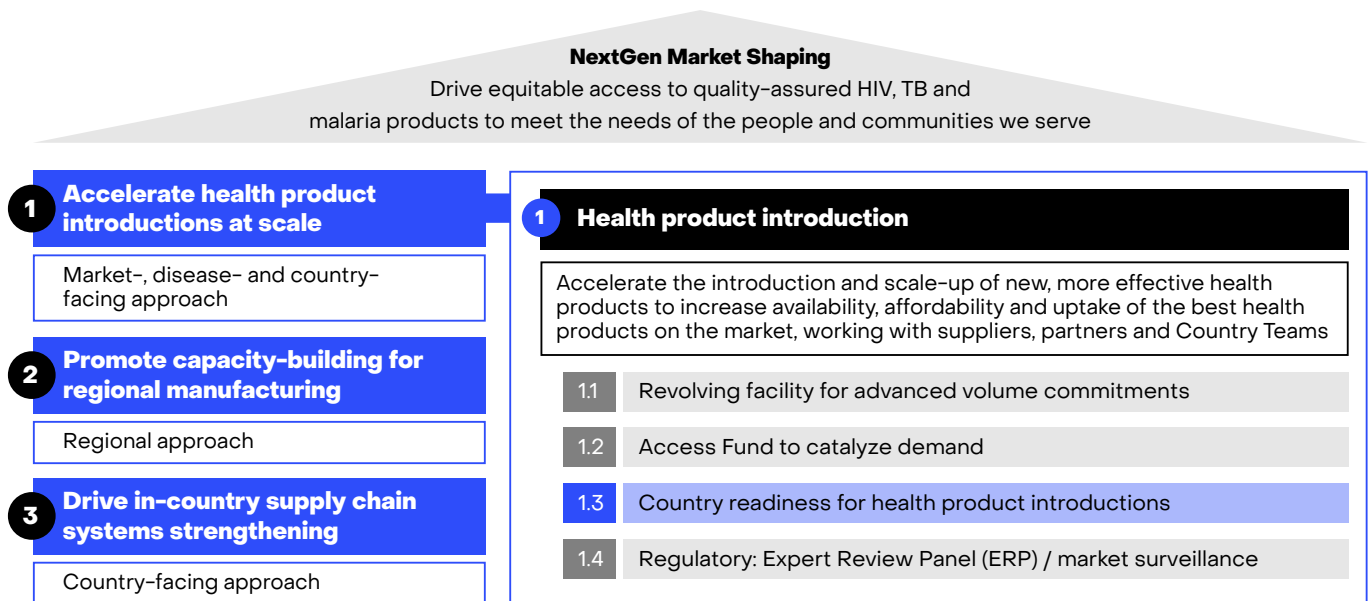
there have been significant delays before effective products become affordable and available at scale to the people that need them most in low-and-middle income countries. As one of the largest international procurers of HIV, TB and malaria products, the Global Fund has a strategic role to play in shaping markets to make these products available to Global Fund-supported countries as soon as possible.

Figure 1: The three NextGen Market Shaping strategic initiative pillars

Source: The Global Fund

The three NextGen Market Shaping strategic initiative pillars aim to support the Global Fund's 2023-2028 Strategy and catalyze impact across HIV, TB and malaria programs

Global Fund 2023-2028 vision and strategy implementation



Through the new NextGen Market Shaping Strategic Initiative (SI), the Global Fund will make catalytic investments to drive and support end-to-end market-shaping activities across the three diseases in order to meet the needs of the people and communities we serve. To accelerate health product introductions at

scale, the SI will support select readiness activities to address key barriers to uptake for products. These include activities at the regional level, where enhanced coordination can catalyze demand for products at the national level. At the national level, activities will support countries to rapidly introduce new tools, such

as advocacy and awareness building, to support early demand generation, operational deployment issues and updating national guidelines.

Access to accurate diagnosis remains a huge barrier to achieving the End TB strategy targets: Only 47% of people received a WHO-recommend diagnostic test in 2022.¹ We need new and improved diagnostics to find and accurately diagnose missing people with TB. The TB screening and diagnostic pipeline has a range of new products coming to market that may address some of

the issues currently affecting access to TB diagnostics. As a result, TB diagnostics will be the focus of the TB country readiness component of the NextGen Market Shaping SI. New products of interest include digital chest X-rays using artificial intelligence, urinary point-of-care tests (third-generation LAM), low complexity nucleic acid amplification tests (NAAT) platforms that are multidisease, and sampling techniques, such as tongue swabs and face mask sampling, coupled with near point-of-care platforms.

Figure 2: TB diagnostic pipeline of interest for GC7

Source: The Global Fund

Urinary point-of-care tests	New sampling techniques with near point-of-care tests	Low complexity diagnostics
<ul style="list-style-type: none"> • 3rd generation LAM tests in trials • Larger market if indication broadens to outside people living with HIV • Guideline Development Group 2025 may give guidance 	<ul style="list-style-type: none"> • Tongue swabs and mask strips • Potentially very large market, depending on the indication • Use in new near point-of-care platforms • Guideline Development Group 2025 may give guidance 	<ul style="list-style-type: none"> • Multidisease platforms • Similar space as GeneXpert and TrueNat • Additional competition to market with potential lower prices and better service and maintenance • Guideline Development Group Q2 2024 may give guidance on class with new products in late 2024

Dedicated efforts are needed to facilitate the entry of new products and manufacturers into the existing TB diagnostic market. This includes facilitating accessible pricing from early introduction by identifying the potential market, supporting countries to adopt and scale new diagnostics products as appropriate for their current diagnostic needs (including, for example, urinary point-of-care (urinary LAM) and near point-of-care multidisease molecular platforms).

The use of TB tongue swabs as a sampling mechanism, coupled with a new near point-of-care platform, is a completely new approach. This approach supports further decentralization of TB diagnosis and will need

focused planning, training and algorithm changing before it can be introduced into countries. The Global Fund will work with national TB programs, stakeholders and technical and implementing partners to prepare for the rapid introduction and scale-up of new TB diagnostic products. Find out more about the Global Fund's NextGen Market Shaping approach [here](#).

Supporting, mobilizing and accelerating research for tuberculosis elimination (SMART4TB)

SMART4TB is a cooperative agreement made possible by the United States Agency for International Development (USAID) that aims to transform TB prevention and care.

¹ WHO Global TB Report 2023



Supporting, Mobilizing, and Accelerating Research for Tuberculosis Elimination



In conjunction with local partners and communities, SMART4TB has several key TB diagnosis (ADAPT and ADAPT for Kids), prevention (BREACH) and treatment (PRISM and SMILE) clinical trials underway and planned. SMART4TB also works on implementation research, vaccine readiness, capacity strengthening for early-stage investigators in high TB burden countries and policy translation.

SMART4TB is a five-year cooperative agreement spanning from 2022 to 2027. The ADAPT and ADAPT for Kids studies have already begun enrollment. The BREACH, PRISM and SMILE treatment and prevention trials are expected to launch later in 2024. The ADAPT trial is enrolling participants in Nigeria, the Philippines and Zambia. ADAPT for Kids is enrolling participants in Mozambique with plans for a site in Uganda. Sites for BREACH, PRISM and SMILE are currently under discussion. SMART4TB's ADAPT and ADAPT for Kids studies are both enrolling participants. These studies aim to get closer to an oral swab, a point-of-care diagnostic in both adults and children. In collaboration with the Rapid Research in Diagnostics Development for TB Network (R2D2 TB Network), Feasibility of Novel Diagnostics for TB (FEND-TB), FIND and the Unitaid-funded DriveDx4TB, ADAPT and ADAPT for Kids will first evaluate tongue swab samples on rapid molecular tests to generate data to inform WHO policy updates. On the therapeutics side, SMART4TB has several promising trials in development:

- **The BREACH study** for one-month, pan-TB preventive therapy.
- **The PRISM and SMILE studies** for shortening and improving drug-sensitive TB and drug-resistant TB treatment.

SMILE, PRISM and BREACH will include people living with HIV and children and PRISM and BREACH will also include pregnant participants to help close important research gaps for these populations. SMART4TB is engaging its three regional community advisory boards in the development of all of these research plans. Read more about the ADAPT study [here](#) and [here](#). Read more about ADAPT for Kids [here](#). Sign up for updates from SMART4TB [here](#).

Stop TB Partnership Board Meeting

The Stop TB Partnership (Stop TB) held its 37th annual board meeting from 5 to 8 February 2024 in Brasilia, Brazil. The meeting, co-hosted by the Ministry of Health of Brazil and the G20 Health Working Group, provided Stop TB with an opportunity to report on its progress in 2022 and 2023 – including achievements made by countries in increasing access to TB diagnosis and treatment, challenges in the efforts to end TB and priorities for advocacy and partners engagement in 2024. Notably, two new constituencies have been included on the Stop TB Board as part of its transformation to include countries and people affected by TB as at least 50% of its membership. The meeting also highlighted several innovations in TB, including advancements in TB vaccine development (e.g., 16 vaccine candidates are in the clinical development pipeline, five of which are currently in Phase 3) and reductions in key TB medicines and diagnostics globally, which have resulted in savings of more than US\$32 million for Stop TB's Global Drug Facility clients in 2023 alone. A presentation from the Global Fund highlighted significant funding gaps in Grant Cycle 7, particularly for diagnostics, as well as opportunities for engagement and country implementation support. Read more about the Stop TB Board Meeting [here](#).

World TB Day

The theme for World TB Day 2024, “Yes! We Can End TB!” was carried forward from last year. In Ethiopia, the day was commemorated with a march to raise awareness of TB in Addis Ababa’s urban slum communities. Outdoor TB screening was provided for attendees through a mobile clinic and testimonies were shared by TB survivors. The event also included the inauguration of the national TB

program’s seven-year national strategic plan (NSP), along with the launch of a new project targeting key and vulnerable populations and a nationwide campaign to find missing people with TB. In addition to community representatives, TB survivors and local partners, the event was attended by global TB leaders, including Executive Director of Stop TB Lucica Ditiu and representatives from USAID-HQ, Malawi and South Africa.

All photo credits: The National TB Program



Integrating post-tuberculosis lung disease in national TB programs: Sharing lessons learned and best practices from Kenya, Malawi, Tanzania and Uganda

Post-TB lung disease (PTLD) is a critical component to be addressed as part of the TB continuum of care. After several decades of fighting TB as a global emergency, the hidden and sizeable burden of PTLD, including recurrent TB, impairment and social costs after microbiological cure of TB, has not been unraveled. Approximately 40% of the individuals treated and cured for TB develop persistent PTLD symptoms, broadly presenting with shortness of breath, chronic cough, wheezing and recurrent lung infections. In resource-limited settings, the situation is exacerbated by the lack of international consensus on the management of PTLD, leading to sub-optimal or inappropriate clinical management. Four countries, including Kenya, Malawi, Tanzania and Uganda, have implemented PTLD work since September 2023. This work to integrate PTLD into the continuum of TB care has been led by the Global Fund in collaboration with the four countries' national TB programs; Kibong'oto Infectious Disease Hospital (KIDH); and key implementers, including Mwitikio wa Kudhibiti Kifua Kikuu na Ukimwi Tanzania (MKUTA), Tanzania; Respiratory Society of Kenya (Resok); Makerere University Lung Institute of Uganda; and Paradiso Trust of Malawi. The PTLD work was aligned to the October 2023 [WHO policy brief](#) that provided timely guidance to countries.

The four countries were supported to conduct needs assessments for PTLD services; develop practical guidelines with specific standard operating procedures for assessing individuals for PTLD who had been treated and cured for TB; identify individuals with PTLD for partial remission (PR); and address PTLD through a public health approach.

A webinar was held on 23 April 2024 to disseminate the findings from the assessments and the implementation in the four countries; share policy updates and best practices, including tools developed from country implementation; and discuss next steps for scaling up and support. It was an excellent opportunity to exchange experiences and cross-learning about the integration of TB and PTLD in routine settings, given that the countries

have drafted new tools, strategies and plans to update their national strategic plans and scale up and integrate PTLD in routine settings at all levels.

The aim of PTLD interventions is to improve the quality of TB care to maximize the health and well-being of individuals suffering from PTLD. The overall intention of the interventions is to reduce TB's individual, social and economic burden by building a baseline for programmatic post-TB treatment care and support, screening for recurrent TB and other bacterial infections, and administering pulmonary rehabilitation.

Key takeaways from the webinar:

1. Presentation of PTLD implementation experiences and next steps from Kenya, Malawi, Tanzania and Uganda highlighted the successful approaches and integration of PTLD into TB services.
2. Updates on policy from WHO, along with reflections from Stop TB, USAID, the KNCV Tuberculosis Foundation and other stakeholders provided valuable insights into the broader PTLD strategic landscape.
3. The webinar facilitated an in-depth discussion on best practices and lessons learned, fostering cross-country learning and collaboration on how to implement and integrate PTLD into TB services.
4. Key themes such as resource allocation and community engagement for a sustainable patient-centered service delivery model emerged during the presentations and discussions.
5. Commitment to ongoing collaboration and knowledge exchange among stakeholders was reaffirmed, underscoring the shared commitment to advancing control efforts on TB and PTLD.
6. The webinar served as a catalyst for renewed momentum in the fight against TB and PTLD, highlighting opportunities for enhanced coordination and resource mobilization with the aim of ending TB and improving quality of life.
7. The diverse range of experiences shared underscored the need for tailored approaches to address the multifaceted challenges of TB and PTLD.
8. Insights from the presentations and discussions emphasized the importance of leveraging existing health care delivery systems and community network engagement for effective PTLD interventions.

All photo credits: The Global Fund



Country-level Technical Assistance

CORT (Coordinating Team) is the mechanism to coordinate, support and provide access to technical assistance on TB to countries with Global Fund grants. The mechanism of CORT was established with the TB Strategic Initiative (2021-2023) and has been a successful mechanism to ensure quality assurance,

coordination and timely technical assistance to countries. All countries supported through the Global Fund can avail support through CORT.

The following countries received support through CORT until April 2024:



1. NIGER

Technical assistance was provided to conduct epi-review and Funding Request development.



2. BOTSWANA

Technical assistance was provided through USAID for the development of the national strategic plan (NSP) and to support specific components to develop the TB components of the funding proposal, including laboratories, costing, community, rights and gender, etc.

2. Knowledge Sharing and Learning Resources

CASE STUDY: Implementation of a person-centered care model for TB patients at Kalingalinga Clinic in Zambia

Background

Kalingalinga Clinic, located in a high-density community in Lusaka, Zambia, has been struggling with poor TB treatment outcomes for the past five years. The treatment success rate has ranged from 68% to 82%, which is lower than the national performance of 89% to 91%. Between October 2020 and September 2021, loss to follow-up accounted for 14% of the treatment outcomes. Among the lost to follow-up, those that never started treatment accounted for 70%.

Implementation

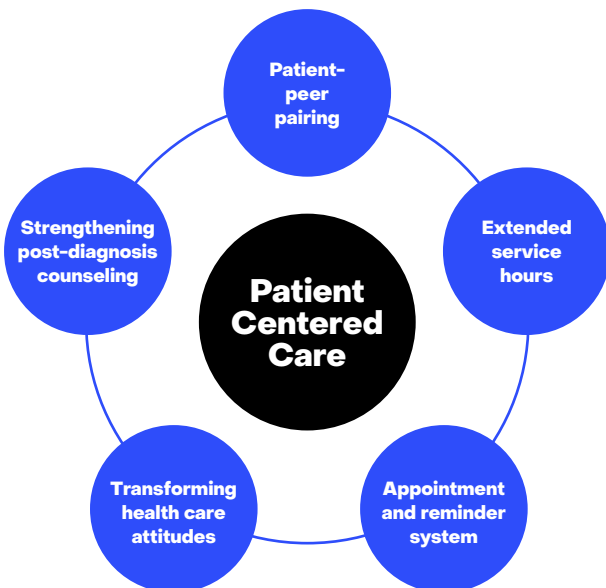
In April 2023, the Ministry of Health, through the USAID TB Local Organizations Network (TBLON) project, supported the clinic to initiate a quality improvement (QI) project on improving treatment outcomes. The QI team identified several critical barriers to treatment

completion, including knowledge gaps among patients, insufficient post-diagnosis counseling, stigma, lack of support and poor staff attitude towards patients. To tackle these barriers, the team implemented a five-component “person-first” model, which focused on each patient’s individual needs and preferences.

- 1. Strengthening post-diagnosis counseling:** A dedicated counseling space was identified, and skilled counselors, community health workers and staff were selected to provide post-diagnosis TB counseling. This addressed the initial patient hesitancy and fostered a supportive environment crucial for the patient’s treatment journey. It also facilitated personalized health education, allowing information on TB, its treatment and potential side effects to be tailored to an individual’s understanding and preference.
- 2. Patient-peer pairing:** Patients were matched with community health workers with similar backgrounds and experiences who could accompany them throughout their treatment journey. This effort facilitated psychosocial support throughout treatment, recognizing and addressing each patient’s unique needs.
- 3. Transforming staff attitudes:** Recognizing the impact of staff attitudes on patient choices, orientation sessions were provided for chest clinic staff and community health workers. Training materials on person-centered care principles were used and developed by the patient-centered care study team at the Centre for Infectious Disease Research in Zambia. This training improved chest clinic staff and community health workers’ approaches to patient interaction and fostered positive and respectful interactions with patients. To keep the chest clinic team motivated to sustain this new attitude, they were regularly provided with patient feedback as well as information on the changes noted in interim and final TB treatment outcomes.

Figure 3: The five-component “person-first” model

Source: The Global Fund



4. **Appointment and reminder system:** An appointment register was introduced. Patients received timely reminders via phone calls for their clinic appointments. A missed appointment tracking system was also put in place, guaranteeing that follow-ups were made within 24 hours of a missed appointment. Furthermore, an “appointment champion” – a dedicated community health worker responsible for overseeing this system – was appointed. These enhancements improved adherence and empowered patients to actively participate in their health care.
5. **Extended service hours:** Acknowledging the constraints of traditional clinic hours, the clinic schedule was revised to introduce weekend TB services. Additionally, after-work TB services were introduced by integrating TB services into other departments. This provided flexibility for patients to access TB services at times convenient for them.

Results

The results of this model were remarkable. From April to December 2023, the clinic diagnosed and linked to treatment 263 TB patients (achieving 100% linkage to treatment). The treatment success rate for the April to June 2023 cohort was 95%. The loss to follow-up rate decreased from 14% to 0%. But the most remarkable

outcome was the satisfaction of the patients. They felt valued and cared for by the clinic staff and their community health workers, appreciated the flexibility and convenience of the clinic services and enjoyed the support and companionship of their community health workers.

As one female patient said:

"I was scared when I found out I had TB, but the clinic made me feel comfortable and hopeful. They gave me Brenda (a community health worker) who was like a sister to me. She helped me with everything, from taking my pills to going to the clinic. She was always there for me, even when I wanted to give up. She made me laugh and smile. She saved my life." [Mrs. M]

Lessons learned and next steps

Several valuable lessons were learned from this project. It became clear that each TB patient is unique and that satisfying their individual needs is crucial to treatment success. It was also understood that the staff’s attitudes and behaviors had a significant impact on patient outcomes. The importance of being culturally sensitive and respectful to the diverse patient population was fully appreciated. This model remains maintained at the clinic and has been scaled up at three other facilities in the same sub-district, where it is showing promising results.

3. Other Updates

Trainings, e-learning resources and other educational opportunities

WHO End TB eLearning platform

To support uptake of the latest guidelines and policy documents at country level, WHO has developed the [WHO End TB eLearning platform](#). Online courses are designed for specific target audiences and focus on key topics relevant to TB prevention, diagnostics, treatment and care. These online courses are also free of charge,

can be taken by the learner at their own pace and are available in multiple languages. The majority of the courses are hosted on the [End TB Channel in OpenWHO](#). Through this platform, content can be accessed offline and materials are available as downloadable videos, presentations and documents. Learners can also adjust and adapt materials to suit local contexts. In addition, an online course entitled “Harnessing the power of routine health facility data: Tuberculosis” has been released by the WHO Academy and can be found [here](#).



To find out more:



OpenWHO End TB Channel



WHO Academy

USAID e-learning resources

- **TB Contact Investigation (TBCI) for Frontline Workers:** The TBCI online course introduces frontline workers to the fundamentals of TBCI – including conducting effective interviews, referring contacts of those with TB for screening, testing and treatment and recording and reporting of TBCI indicators. The course is self-directed, permitting anyone to work through its content and resources at their own pace, and can be accessed in English, French and Portuguese [here](#).
- **Finding TB Cases among People Living with HIV:** This new e-learning course provides essential information for health care staff and community health workers on how to scale up TB screening and diagnostic activities among people living with HIV. There are five modules (one optional), and the course is available online [here](#).

PeerLINC: a new mechanism for technical support in TB treatment

On 25 March 2024, TB Alliance in collaboration with the Tropical Disease Foundation, Inc. and the Department of Health, the Philippines, launched the PeerLINC Knowledge Hub. PeerLINC stands for “peer-to-peer learning for innovative cures” and was developed to ensure timely, cost-effective and easy access to training, capacity building and technical support for countries worldwide looking to implement innovative, effective TB treatments. The hub also provides technical support in a range of other TB-related areas (e.g., clinical, diagnosis, laboratory, community engagement, health economics), along with materials, tools, guides and best practices. Training is offered in-person by the PeerLINC team in the Philippines and in implementing countries or remotely through virtual meetings. Training and ongoing support are provided at no cost for countries, and travel costs will also be covered for the first few countries who participate in the training. PeerLINC funding has been provided to TB Alliance by the Department of Foreign Affairs and Trade, Australia. To learn more about PeerLINC or request support, read [here](#).

4. Voices on Innovation

“TB innovation and research is one of the strategic objectives of the national TB program, making Ethiopia among the few countries fighting drug-resistant TB by increasing access to innovative and more effective treatment. Since rolling out the BPALM regimen, more than 240 patients have enrolled on this shorter, cheaper and effective treatment, with hundreds already benefiting by completing their treatment successfully. The national TB program will continue to implement innovative strategies to achieve national targets for ending TB.”



Dr. Taye Letta,
National TB Program Manager,
Ethiopia

“The collaboration between the Global Fund, KNCV Tuberculosis Foundation and the NTP managers of TB high burden countries showcases the transformative power of partnership. This powerful cooperation enables not only scale up and optimization of innovative tools and shorter treatment regimens, but it also ensures effective, country-driven implementation of high-quality technical assistance.”



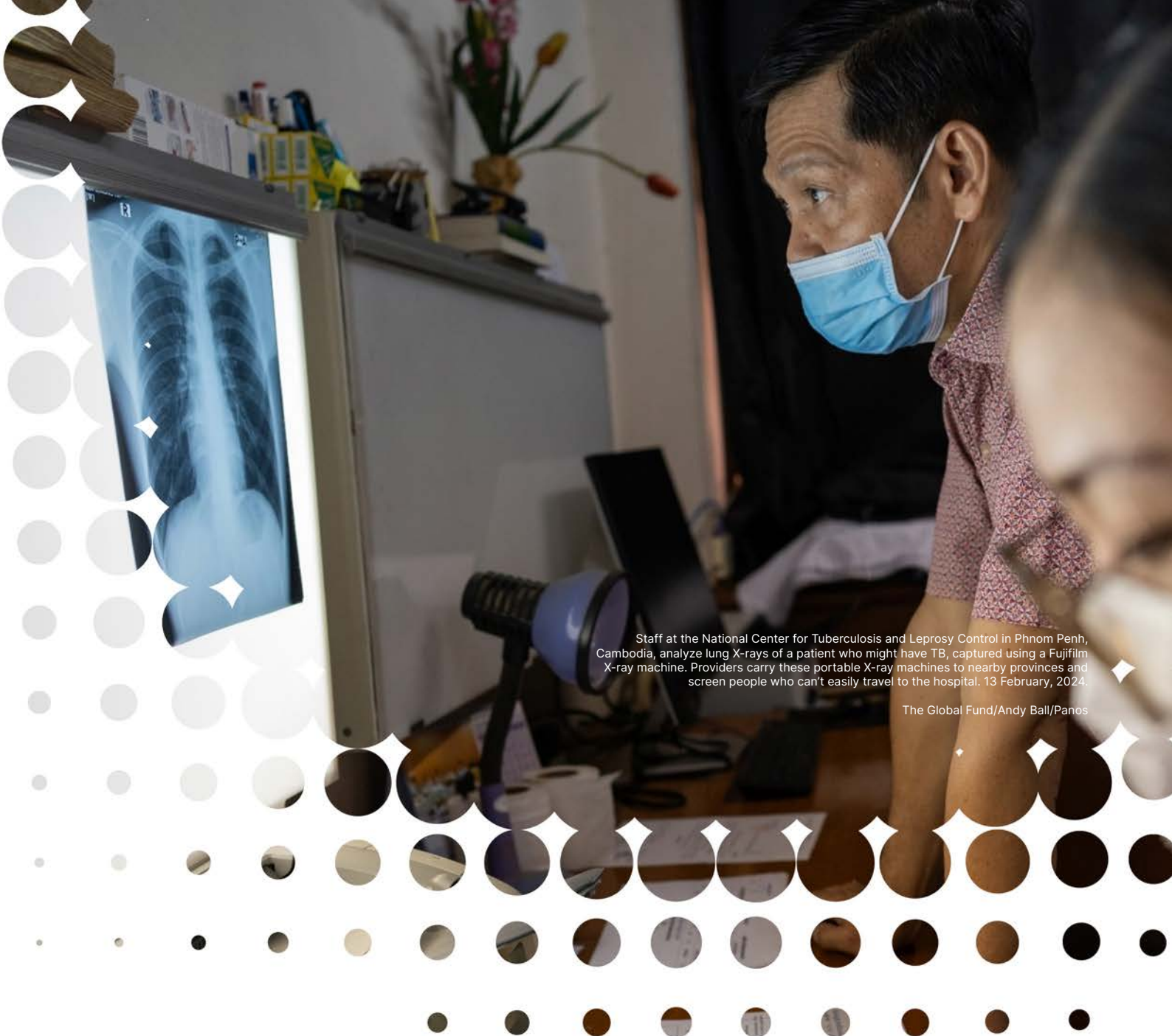
Dr. Gidado Mustapha,
Executive Director,
KNCV Tuberculosis Foundation

Darlin Mohammed, 45, has had TB five times. The first episode was in 1993, followed by diagnoses in 2012, 2014, 2017 and 2020. Darlin’s post-TB symptoms became progressively worse with each episode, and after her last treatment she experienced severe coughing, wheezing and extreme weakness. She could barely walk. She was referred by Temeke Hospital to the asthma (respiratory) unit at Muhimbili Hospital, where she was given several antibiotic treatments with no relief. The doctors said that if the last attempt of antibiotic treatment did not work, she would be advised to remove one lung. Eventually she was contacted by the District Tuberculosis Coordinator at a health facility in Tambuka Reli who told her about the lung rehabilitation program. She joined the program, but quit after one week because her symptoms exacerbated. When trainers from MUKIKUTE – an organization managed by former TB patients who work as TB treatment supporters – encouraged her to come back, she improved after two weeks, gaining the ability to walk longer distances and run freely.

“I wanted to join MUKIKUTE as a peer educator because of the help and moral support I received. I am very happy and full of energy. I help my fellow PTLT patients enrolling in the rehabilitation program, where I am one of the trainers.”



Darlin Mohammed,
TB Survivor and Peer Educator,
MUKIKUTE, Tanzania



Staff at the National Center for Tuberculosis and Leprosy Control in Phnom Penh, Cambodia, analyze lung X-rays of a patient who might have TB, captured using a Fujifilm X-ray machine. Providers carry these portable X-ray machines to nearby provinces and screen people who can't easily travel to the hospital. 13 February, 2024.

The Global Fund/Andy Ball/Panos



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About the Global Fund

The Global Fund is a worldwide partnership to defeat HIV, TB and malaria and ensure a healthier, safer, more equitable future for all. We raise and invest more than US\$5 billion a year to fight the deadliest infectious diseases, challenge the injustice that fuels them, and strengthen health systems and pandemic preparedness in more than 100 of the hardest hit countries. We unite 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. Since 2002, the Global Fund partnership has saved 59 million lives.