



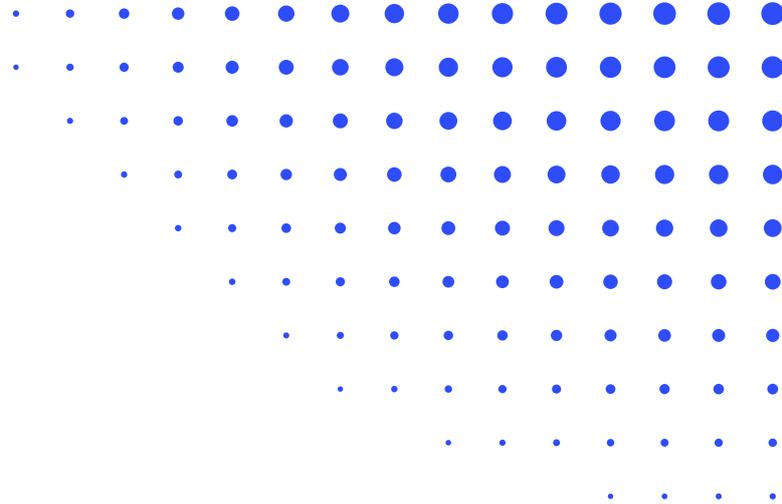
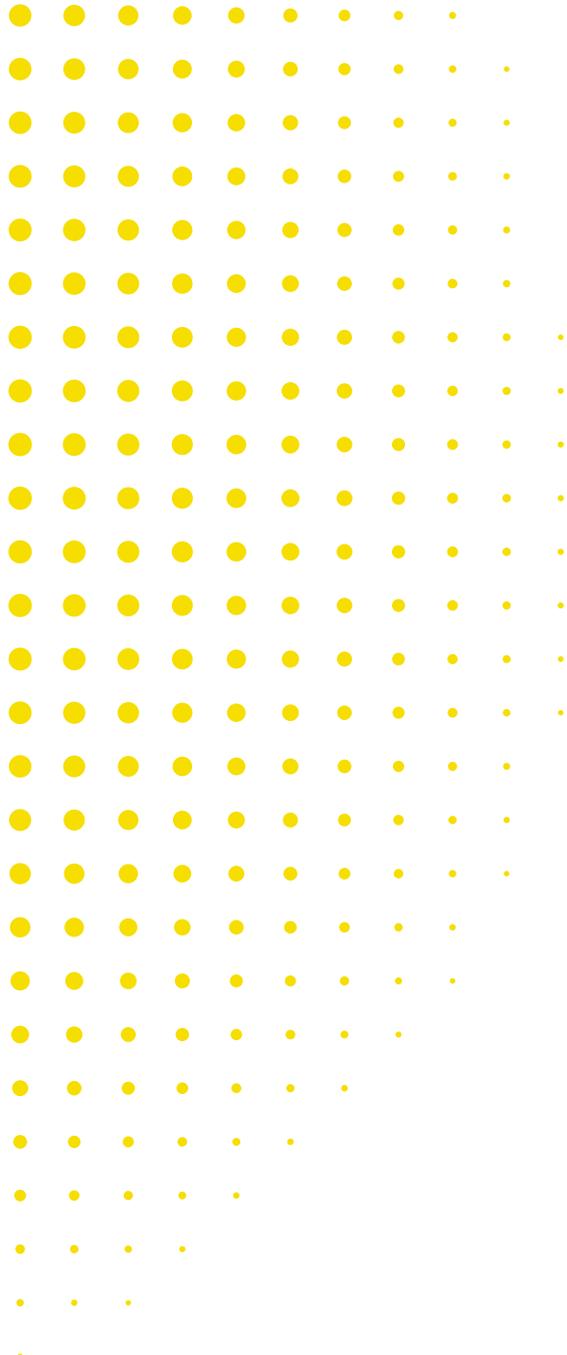
The Global Fund/Yousuf Tushar/Panos
A patient takes her TB treatment at her home in Dhaka, Bangladesh

The TB Quarterly Update

Innovative Approaches to Finding and Treating Missing People with TB

APRIL 2022





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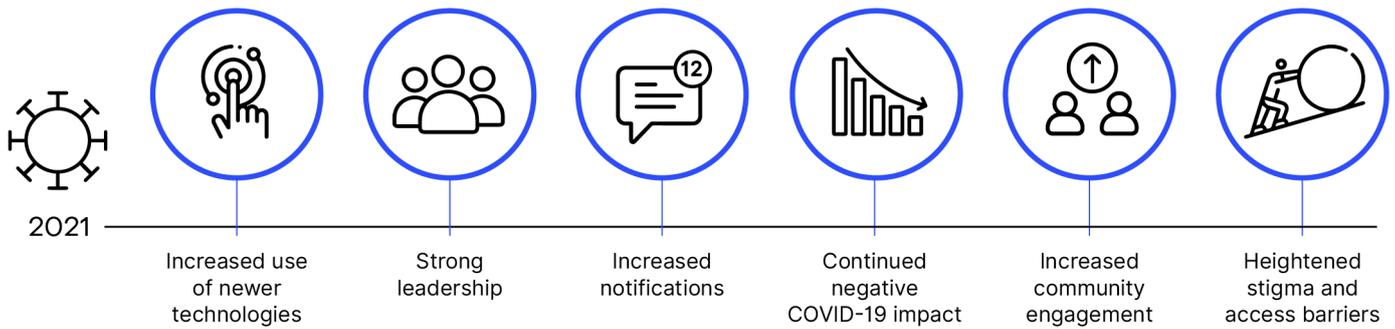
1. What's New

Annual Meeting: Global Fund TB Strategic Initiative 2021-2023

The Global Fund TB Strategic Initiative held its annual meeting on 22 and 23 February 2022 to provide countries with an opportunity to report on their progress with TB case finding in 2021, including challenges and achievements related to mitigating and removing barriers to finding missing people with

TB. Country-led efforts to reach the END TB and UN High-Level Meeting 2023 targets and overcome obstacles to implementation due to COVID-19 were also highlighted. Presentations from 19 priority countries¹ and five West and Central Africa (WCA)² focus countries provided both a platform for sharing and peer-to-peer learning.

Figure 1: Summary of 2021 – Progress and Challenges
Source: The Global Fund



Increased TB Notifications

Overall, the 19 priority countries showed marked improvement in 2021 compared to 2020. In 2021, there was a notable increase in TB case notification compared to 2020, with 15 out of the 19 priority countries reporting an increase. Nigeria, Bangladesh, and Uganda reported the highest increases in drug-sensitive TB (DS-TB) and drug-resistant TB (DR-TB) case notifications, while Viet Nam and Cambodia reported the biggest decreases, as they were heavily impacted by COVID-19 in the second half of 2021. Overall, DR-TB case notifications dropped slightly in 2021 compared to 2020, with total notifications still below 2019 levels. The five WCA countries also reported an overall increase in DS-TB and DR-TB case notifications in 2021 compared to 2020.

COVID-19 Related Challenges

Several COVID-19 related challenges were highlighted by both priority and WCA countries, particularly around TB case finding, TB care and community, gender, and human rights (CRG) responses. For TB case finding, key challenges included the closure of DR-TB treatment facilities and/or their conversion to COVID-19 sites, the postponement of active case finding activities and the disruption of sputum sample transportation. While the majority of the countries reported no disruption to the delivery of TB medicines and other consumables, contact tracing and TB preventative treatment (TPT) provision remained low. TB and COVID-19 related stigma were highlighted as another challenge, along with the negative economic impact that restrictive measures had on low-income people with TB. It was also noted that community and outreach activities were suspended due to the pandemic.

¹ India, Indonesia, Bangladesh, DR Congo, Kenya, Mozambique, Nigeria, Pakistan, Philippines, South Africa, Tanzania, Ukraine, Cambodia, Cameroon, Ethiopia, Ghana, Uganda, Viet Nam, Zambia,

² Burkina Faso, Chad, Congo, Niger, Mali

Lessons Learned

Other highlights presented during the meeting include the following:



Catch up plans have been developed by countries and several activities have already been conducted (e.g., active case finding, intensified TB screening at community level, house campaigns and others) to improve overall case finding, diagnosis, and treatment;



Several **country actions** have been catalytic in mitigating challenges and facilitating catch up due to COVID-19. These include strong leadership; use of latest data including ‘real time data’; the development of targeted approaches and interim guidance to ensure essential services; integrated TB and COVID-19 screening; recruitment of additional human resources; outreach activities and campaigns; awareness campaigns and infection control (personal protective equipment, masks and others);



Utilization of **newer digital tools and technology** looks promising—including portable digital X-ray and computer-aided detection (CAD) for TB screening in health facilities and communities;



Utilization of **molecular diagnostic technology for TB diagnosis, including integrated screening for COVID-19 and TB**, is also being scaled-up;



Communities have engaged to reduce **heightened stigma and access barriers** by helping to ensure an uninterrupted supply of medicines and conducting follow up.

Seventh Replenishment: The Global Fund Needs at least US\$18 Billion

In 2022, the world faces unprecedented global health challenges. New pandemics like COVID-19, climate change, and increased conflict are increasing health risks for the most vulnerable.

Even before COVID-19, progress against tuberculosis was off track to reach the Sustainable Development

Goal (SDG) targets of ending the disease by 2030. The COVID-19 pandemic has reversed hard-won gains. Critical testing, treatment and prevention services for TB have declined. Worse, deaths from TB have increased.

To get back on track in the fight against TB, HIV and malaria, build stronger systems for health and strengthen global health security, the Global Fund needs to raise at least US\$18 billion for the Seventh Replenishment. The funding would save 20 million lives, cut the death rate from HIV, TB and malaria by 64% and build a healthier, more equitable world and make it safer from future threats.

A successful Global Fund Replenishment will enable a marked acceleration in reducing both new TB cases and new TB deaths. With a Replenishment of at least US\$18 billion, the Global Fund, together with partners, could:

- **Reduce** (from 2020 to 2026):
 - New TB cases by 27%, from 8.5 million to 6.2 million;
 - TB deaths (including HIV+) by 59%, from 1.4 million to 570,000;
 - Incidence and mortality rates by 34% and 63% respectively.
- **Treat** 38 million people with first-line drugs and 1.5 million with second-line drugs between 2021 and 2026.
- **Increase** treatment coverage of people with TB (all forms of TB) from 57% in 2020 to 83% by 2026.



Yeumbeul, Senegal (June 18, 2020) - Ibrahima Sow, 32 years old, takes his medicine for TB at a treatment center that has remained open during the COVID-19 pandemic, and met the needs of patients. Sow said he got TB from his brother and came to the clinic straight away when he started coughing.

In contrast, if disruption of services seen in 2020 due to the COVID-19 pandemic continues, it would result in 24 million new cases of TB (all forms) and 5.2 million deaths that could have been averted over 2021–2026.

In late 2021, the Global Fund Board approved a new global disease split for the 2023–2025 allocation methodology that would enable a greater share of funding to go to TB while protecting HIV and malaria gains—but only if available resources exceed the amount of US\$12 billion. As TB is the disease that needs the largest boost in progress, it is therefore even more critical to reach at least US\$18 billion for the Seventh Replenishment. If the Global Fund has a full replenishment, TB funding would increase by 40%.

The economic costs of prolonging the fight against the three diseases far outweigh the additional investments needed. Millions more lives will be lost if we do not step up our investments. The Global Fund’s Seventh Replenishment is a moment for the world to recommit to protecting everyone from the deadliest infectious diseases.

For more details, see the [Global Fund’s Seventh Replenishment Investment Case](#).

World TB Day Highlights

The theme of this year’s World TB Day, ‘Invest to End TB. Save Lives,’ aimed to bring attention to the urgent need to increase funding for TB and accelerate efforts to end the global epidemic. A number of events marked the annual commemoration, including a [WHO World TB Day Online Talk Show](#) with Peter Sands, Executive Director of the Global Fund which was held on 24th March 2022; a UNITAID luncheon event on 22 March 2022 with ambassadors, donors and technical partners organized by UNITAID in collaboration with WHO, Stop TB Partnership and the Global Fund; a World TB Day Capitol Hill briefing held on 25 March 2022 and the [G20 1st Health Working Group Side-Event](#) on ‘Financing for the TB Response: Overcoming COVID-19 disruption and building future pandemic preparedness’, which was held from 29 to 30 March 2022.

New Guidelines for the Management of TB in Children and Adolescents

On the occasion of World TB Day, WHO released new guidelines for the management of TB in children and adolescents. The 2022 WHO Consolidated Guidelines and Operational Handbook on the management of tuberculosis in children and adolescents include recommendations that span the TB cascade of care—from screening, prevention and diagnostic approaches to treatment of both drug susceptible and drug resistant TB to models of care to optimize TB prevention and case detection efforts. The new recommendations recognize the impact of COVID-19 on TB services and the need to find more children and adolescents with TB. The operational handbook provides practical guidance to countries on the implementation of all the new and existing recommendations relevant to TB care in children and adolescents. The publications are available on the [WHO TB Knowledge Sharing Platform](#).

Stop TB Partnership’s TB REACH Launches Wave 10 Call for Proposals

On 31 March 2022, Stop TB Partnership’s TB REACH initiative launched their Wave 10 Stage 1 Call for Proposals. The Wave is supported by Global Affairs Canada (GAC), United States Agency for International Development (USAID) and the Foreign, Commonwealth and Development Office (FCDO) as part of their UK TB Global Fund Accelerator Programme. The TB REACH initiative serves as a competitive and fast-track mechanism to select and fund innovative approaches to increase the number of people with TB diagnosed and successfully treated.

For this Wave, TB REACH is seeking bold and innovative strategies to help the global community accelerate progress towards ending TB while simultaneously contributing to health systems strengthening (HSS). All proposed projects will need to describe how their efforts contribute to HSS, which is critical for achieving the broader development goals of universal health coverage (UHC) and global health security. Under the HSS theme, TB REACH proposals were invited to address either of the

following two focus areas (or a combination of both):

- Integrated Service Delivery (ISD)
- Expansion of TB Preventive Treatment (TPT)

ISD combines multiple interrelated healthcare services, allowing for people-centered care and to maximize resources and increase efficiencies in the health system. Proposals with interventions addressing multiple health areas and using innovative and new technologies for TB diagnosis or treatment are highly encouraged. TPT is a critical part of the Global Plan to End TB. It prevents TB from developing in persons who have TB infection and reduces the risk of ongoing TB transmission. TB REACH is seeking sustainable approaches to improve the identification, testing and

treatment of individuals at high risk for infection and development of TB disease.

All proposals must also have a plan for sustainability. Applicants are strongly encouraged to partner with their National TB Programs (NTPs), other programs within the Ministry of Health (MOH) and engage with Global Fund Country Coordinating Mechanisms (CCMs) and other partners. Innovations in screening, diagnosis or treatment approaches (i.e., artificial intelligence, specimen pooling, new treatment regimens and digital treatment support) are encouraged.

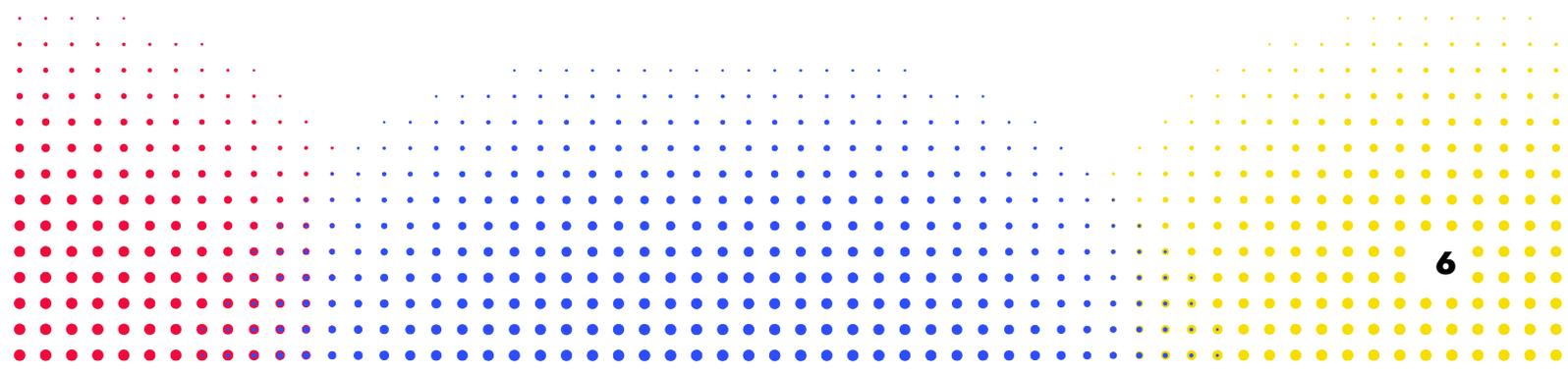
For more information on the launch, please visit [Stop TB Partnership's TB REACH](#).

Country-level Technical Assistance



1. KENYA

The Ministry of Health through the Division of National Tuberculosis, Leprosy and Lung Disease Program is guided by the National Strategic Plan for TB (NSP) 2019 – 2023. Kenya is engaging in a number of initiatives to support implementation of the NSP and close gaps in the TB care cascade. Technical support will be provided across several strategic areas, including engaging private providers who are not yet participating through implementation of public-private (PPM) activities in line with the PPM action plan 2021-2023; enhancing facility active case finding through a program quality efficiency approach; developing an evaluation plan to measure the effectiveness and efficiency of Strategic Initiative interventions; strengthening community TB activities through improved monitoring and evaluation and development of a legal policy framework to address CRG issues; assessing and streamlining existing sample transportation networks and identifying bottlenecks and practical solutions to improve case detection of childhood and adolescent TB response and control in Kenya.





2. MOZAMBIQUE

Technical support to address TB in children and adolescents and strengthen public-private mix (PPM).

In 2019, Mozambique was one of 14 countries with a high TB, DR-TB co-infection load. The country faces several challenges in finding and treating missing people with TB, including low case detection among children and adolescents and limited inclusion of the private sector. To address these gaps, the National Tuberculosis Program aims to develop a roadmap to strengthen contact investigation, with a focus on improving the TB screening approach in children and adolescent TB case contacts and the link to preventive or curative treatment. Drawing on WHO's End TB Strategy, the country will also develop a PPM component, including a national PPM strategy and action plan to reinforce interventions to reach the missing people with TB.



3. ZAMBIA

Technical assistance to review TB case finding approaches.

Approximately 32% of TB cases are missed annually in Zambia, contributing to 0.5% of the global missing TB cases in 2020. Key challenges include low awareness of TB; low TB diagnostic coverage (only about 500 out of more than 3000 health facilities have onsite diagnostic capacity); low index of TB suspicion among health care workers, especially for childhood TB and DR-TB; suboptimal involvement of the community in case finding activities and weak structures for sample transportation. In collaboration with its partners and building on the country's existing innovations to accelerate finding all missing TB cases, the National TB and Leprosy Programme will undertake a review of TB case finding approaches. The aim of the assessment will be to identify gaps and barriers to TB case finding, provide recommendations for improvement, and develop approaches to embed quality improvements in TB case finding.



4. NIGER

Technical assistance to support data collection, monitoring and evaluation of the ReCAM strategy.

The incidence of TB in Niger is estimated at 84 new cases per 100,000 inhabitants, which is below the threshold of 100 new cases per 100,000 inhabitants. Still, despite the decline in incidence by more than half (56%) between 2000 and 2019, case notification has not improved significantly. The country has a new TB strategic plan (2022-2026) and aims to eliminate TB in Niger by 2030. To reduce the gap of missing cases in Niger, the National Tuberculosis Program (PNLT) has developed a strategy and an action plan called "ReCAM: Search for Missing Cases and Improvement of the TB Cascade in Niger" in four priority regions. Technical support will be aimed at supporting the PNLT in data collection and analysis, monitoring and evaluation of ReCAM project intervention structures.

2. Knowledge Sharing and Learning Resources

CASE STUDY: DEMOCRATIC REPUBLIC OF CONGO - ACTIVE CASE FINDING IN VULNERABLE POPULATIONS

Background

The Democratic Republic of the Congo (DR Congo) is ranked among the 30 high burden countries for TB, TB/HIV and multi drug-resistant TB (MDR-TB). Approximately 286,000 people (~185K-408K) fell ill with TB in DR Congo in 2020, with an estimated 41,000 deaths (~27K-58K) among HIV-negative people and an additional 9,100 (~ 6K-13K) among HIV-positive people (World Health Organization. Global Tuberculosis Report 2021).

According to the National TB Program (NTP), 202,129 new and relapsed TB cases were notified in 2020, with a TB treatment coverage of 70%. In 2021, the number of new and relapsed TB case notifications increased by 7.8%, with a total of 218,000 cases. In addition, the number of MDR-TB cases under treatment increased from 1,015 in 2020 to 1,236 in 2021. This increase occurred despite the COVID-19 pandemic—which was responsible for a disruption in the access to TB diagnosis due to the reduced availability of Xpert machines and challenges in ensuring timely prevention, treatment and quality TB care—and thanks to the mitigation measures put in place.

According to an analysis of the catastrophic costs of people with TB, 56% of households in DR Congo carry the economic burden of TB (First Catastrophic Cost Survey, DRC NTP, 2019).

Implementation

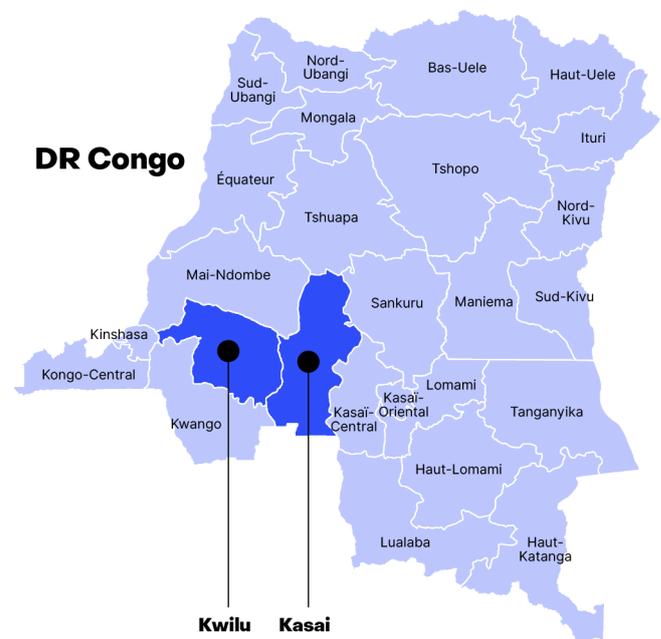
To address these challenges and to find missing people with TB in vulnerable populations, TB screening campaigns with mobile units were organized from 16 to 28 December 2021. Before the deployment of the mobile units, a study was carried

out to quantify the budget allocated to the detection of a case of TB in Kinshasa and 1,000 km from Kinshasa.

The NTP selected two provinces, Kasai and Kwilu (see Figure 2), to conduct mobile TB screening campaigns. In the Kasai province, three health areas were included: West Kalonda, Kanzala and the Tshikapa prison. In Kwilu province, the activities were implemented in the Kikwit urban prison and in Kazamba. These two provinces were selected due to road accessibility, the location of the prisons, a nearly identical TB incidence rate in the two provinces over the last two years and poverty levels.

Figure 2: Intervention Areas

Source: The National TB Program



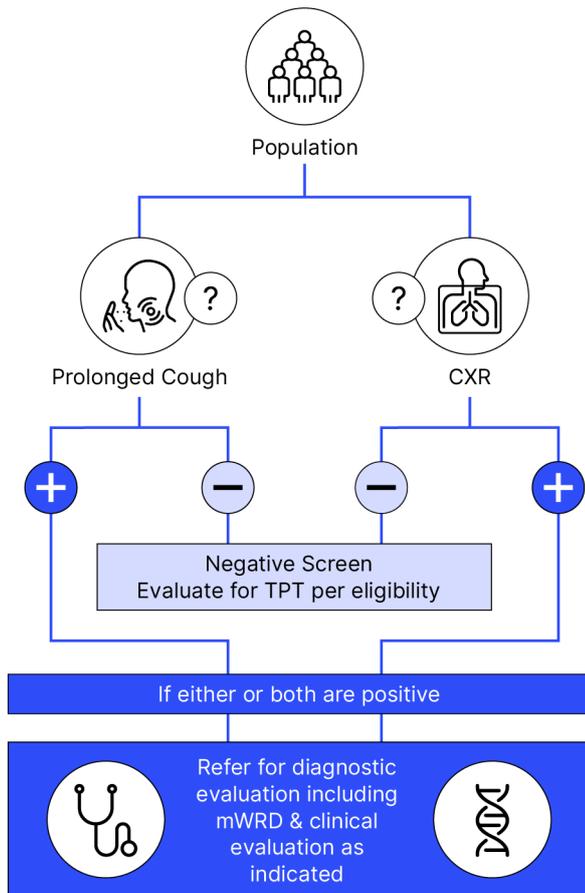
The NTP team informed the political and administrative authorities in advance to obtain the necessary approval to carry out the activity. Three days before the arrival of the mobile unit for active tuberculosis screening, the

provincial leprosy and tuberculosis coordinator in each province worked with local community health workers (CHWs) to inform and sensitize the population about TB. This awareness campaign continued every day, with those sensitized directed to the sites.

NTP staff and the national technical team worked closely with the local teams and TB screening was voluntary and free of charge for the population. The screening algorithm used was parallel cough screening and chest X-ray image (CXR). If TB was suspected (positive CXR or cough), a GeneXpert test was performed. It took an average of three to five minutes for chest X-ray screening, results interpretation and communication with the client, while some hours were required to obtain the result of the GeneXpert test.

Figure 3: Screening Algorithm (from WHO Systematic Screening Handbook)

Source: WHO



The procedure used was as follows:

- Meeting and discussion with members of the Provincial Committee for Leprosy and Tuberculosis Control (CPLT) Kasai and Kwilu teams;
- Courtesies given to the political, administrative and provincial health authorities;
- Site visits in both provinces;
- Discussion of the scenarios to be adopted for active TB screening (i.e., search for prisoners showing signs and symptoms of TB, collect their samples for examination by Xpert, etc.) at Tshikapa prison given the inaccessibility of the mobile units due to uneven terrain between the main road and the road leading to the prison;
- Demarcation of sites using tents;
- Final briefing at the sites on the completion of the presumptive forms for active TB screening by the mobile units;
- Continued sensitization before the arrival of the mobile team from the central unit;
- Identification and registration of people sensitized for active TB screening;
- CXRs performed by the radiology technicians of the mobile units, followed by interpretation with a view to referral to Xpert for suspected cases;
- CXRs sent to the radiologist in Kinshasa for further interpretation of the radiographic image as required;
- Sputum collection of suspected cases by laboratory technicians of the central and provincial mobile teams;
- Sputum processing by the same teams for Xpert tests and carried out by the biologists of the National Reference Laboratory for Mycobacteria (NRLM) of the NTP, who form part of the mobile team at the central level;
- Performance of Xpert tests in the mobile units by the biologists;
- Test results returned to the provincial laboratory technicians, who recorded them and communicated them to the nurse supervisors who then gave them to the persons tested;
- End-of-day meeting moderated by the national supervisor and including all the members of the mobile teams of all levels (central, intermediate and peripheral) to formulate recommendations and make decisions on the initiation of anti-TB treatment.

Results

The main results are presented in Table 1 below. During the TB screening campaigns, 1,078 vulnerable people and 378 prisoners were registered. Among the 907 (62.3%) subjects who took the pulmonary X-Ray, 359 (40%) had a positive result (pathological CXR). In total, 409 (28%) subjects were oriented to the Xpert test and the test was realized for 394 (96%). Thirty-eight (9.6%) tested MTB positive, with three of them being Rifampicin resistant. The majority of clinically diagnosed TB cases (TB/C) were notified in children and were also cases of extra-pulmonary TB, such as Pott's disease. During the TB screening campaign, 51 people with TB (3.6% of the screened people) were notified and put on treatment. Three of them were RR-TB and started the MDR-TB treatment regimen. Eighteen prisoners among the 154 tested (11.7%) were confirmed with DS-TB and put on TB treatment.

One innovation used in the intervention was the calculation of the indirect cost per case. Findings from an evaluation of the indirect costs per case of TB (CXR and Xpert) in the various active screenings show that the more cases were detected in fewer days in Kinshasa, the lower the indirect cost per case. The more cases were detected in more days in Kinshasa, the higher the indirect cost per case. The indirect cost per TB case detected depends on: 1) the number of the campaign days; 2) the distance from Kinshasa; and 3) the presence of slums in the intervention zone. If the screening campaign outside Kinshasa is for a limited number of days it is three times the cost of the campaign in Kinshasa. If the number of days is more, a campaign outside of Kinshasa can cost nine times more than one in the city.

Table 1: Main Results

Source: The National TB Program

CPLT	SITES	REGISTERED / SENSITIZED	ORIENTED / X-RAY	X-RAY DONE	PATHOLOGICAL XRAYS			LABORATORY				PUT ON ANTI TB		
					IN FAVOR TB	IN FAVOR NO TB	TOTAL	ORIENT-ED FOR XPERT	XPRT DONE	XPRT -	XPRT +	T	RR	TB +
KASAI	KALONDA OUEST	294	248	202	121	31	152	127	122	120	4	1	3	10
	KANZALA	667	337	315	71	37	108	90	90	80	12	2	10	1
	PRISON DE TSHIKAPA	92	0	0	0	0	0	92	91	85	6	0	6	0
	S/ TOTAL	1053	585	517	192	68	260	309	303	285	22	3	19	11
KWILU	PRISON DE KIKWIT	276	276	276	27	17	44	55	55	43	12	0	12	0
	KAZAMBA	127	124	114	47	8	55	45	36	32	4	0	4	2
	S/ TOTAL	403	400	390	74	25	99	100	91	75	16	0	16	2
TOTAL		1456	985	907	266	93	359	409	394	360	38	3	35	13

Lessons Learned and Next Steps

TB mobile screening campaigns with CXR and Xpert allowed for the early identification of people with TB and early treatment, particularly in more affected areas and in prisons. However, the further one travels from Kinshasa for active TB screening with a mobile

unit over several days at a site with fewer TB cases, the higher the indirect costs per case. Therefore, active TB screening by mobile unit has a high indirect cost per case compared to routine screening, but it is necessary to help identify missing cases.

In light of the country’s experiences, the NTP has recommended the selection of a hybrid approach for more efficiency and depending on the context, according to the following categories:

- **Category 1:** Stationary CXR equipment based or fixed at the General Reference Hospital in a container for only TB hot-spot sites;
- **Category 2:** Mobile CXR equipment in a 4x4 vehicle in sites accessible by road; and
- **Category 3:** Ultra-Portable CXR equipment for sites accessible only by river or lake.

Next steps include:

1. Defining the national strategy using these three categories depending on the field context;
2. Improving the clinical and bacteriological follow-up of all people with TB put on first- or second-line anti-tuberculosis drugs;
3. Improving the clinical and radiological follow-up of all cases put on non-specific antibiotics; and
4. Repeating the TB diagnostic algorithm for all cases put on non-specific antibiotics in the event that there is no amendment of the lesions, symptoms and signs.



The National TB Program

A lab technician with two GeneXpert cartridges.



The National TB Program

View of the supervising physician, in the mobile unit, in full registration of people with abnormal x-ray images but negative Xpert to whom he prescribes non-specific antibiotics.



The National TB Program

Delivery of a spittoon to a presumptive TB patient by the CPLT Kasai laboratory technician.

Case Study: Niger - Program Quality Improvement and Interventions to Finding Missing People with Drug-Sensitive (DS) and Drug-Resistant (DR) Tuberculosis

Background

In 2020, over 8,000 missing TB cases were not accounted for in Niger. WHO estimated the country's TB treatment coverage at 56% (~39-88%), with an 83% treatment success for new and relapse individuals and a 77% treatment success rate for individuals previously treated in 2019. An analysis conducted during the country's national TB review identified four priority regions requiring special attention: Zinder, Maradi, Tillabéri, and Dosso.

The Niger TB Strategic Plan (2022-2026) aims to improve the following areas:

- (1) TB detection in the general population and among high-risk groups, which includes children, household contacts, prisoners, refugees, nomads, migrants, miners, people with diabetes and pregnant women; and
- (2) the TB cascade.

As of 2020, 25 GeneXpert MTB/RIF machines have been installed and the country plans to increase the network and reinforce sample transportation, particularly in the four priority regions.

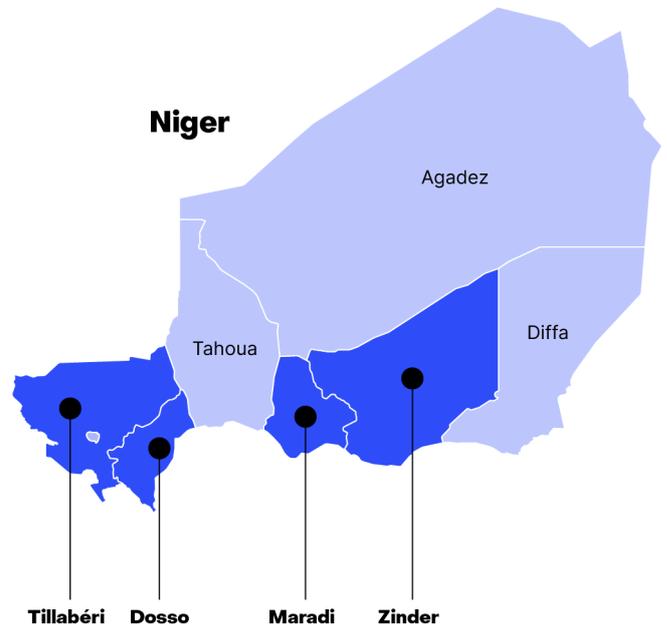
Implementation

The five Focused portfolios in WCA were awarded additional funds to reduce the gap between estimated and notified TB cases and improve the quality of the entire TB care cascade through innovative approaches. As one of the identified countries, Niger was awarded an additional US\$2 million for these activities. To reduce the number of missed people with TB, the Ministry of Health, through the National TB Program (PNLT) and with the support of two consultants, developed a new approach that improved the quality of TB case finding known as ReCAM (Recherche Cas manquants et amélioration de la cascade de la tuberculose au Niger).

The main objectives of ReCAM are to:

Figure 4: Four Priority Regions

Source: The National TB Program



1. Implement systematic TB screening among high-risk populations, including people living with HIV (PLWHIV), household contacts of individuals with TB, prisoners, people with diabetes, nomads and refugees in the four priority regions. The addition of one ultraportable CXR with computer-aided detection (CAD), procured through catalytic funds, supports this objective to conduct TB screening campaigns in prisons and refugee camps.
2. Implement the program quality and efficient (PQE) approach in 172 health centers in the four priority regions.
3. Coordinate, monitor, evaluate and identify evidence-driven innovations to deliver high-quality services and improve efficiency in TB case detection at the health facility level.

The preparatory phase included field visits to the four priority regions and a national meeting organized by the Country Coordination Mechanism (CCM) secretariat to prioritize health centers and target populations, define algorithms and discuss how ReCAM complements other projects (particularly the Union's project, CETA, and the SongES's project, HALARTAR AL'UMMA, funded by Expertise France).

Participants included members of the following organizations:

- Division of Community Health;
- Ministry of Health
- Ministry of Justice;
- Ministry of Mines;
- WHO;
- UNICEF;
- National HIV Program;
- National Nutrition Program;
- National Non-transmittable Diseases Program;
- Damien Foundation;
- National TB Laboratory;
- National Laboratory Directorate; and
- civil society organizations.

The national meeting concluded by validating target populations and intervention areas and included a discussion on synergies with other projects to avoid duplication. Following the meeting, the operational plan and budget for the catalytic funds was validated by the Global Fund. The operational plan includes the following activities:

- (i) Screening for any TB symptom in all newly entering prisoners in seven prisons;
- (ii) A systematic parallel screening conducted annually for any TB symptom with CXR with CAD for all prisoners in the three larger prisons (Niamey, Zinder, Kollo);
- (iii) Screening for any TB symptom for household contacts with the support of community health workers (CHWs) in 58 TB centers in the four regions;
- (iv) Intensified TB screening in PLWHIV in 44 HIV centers;

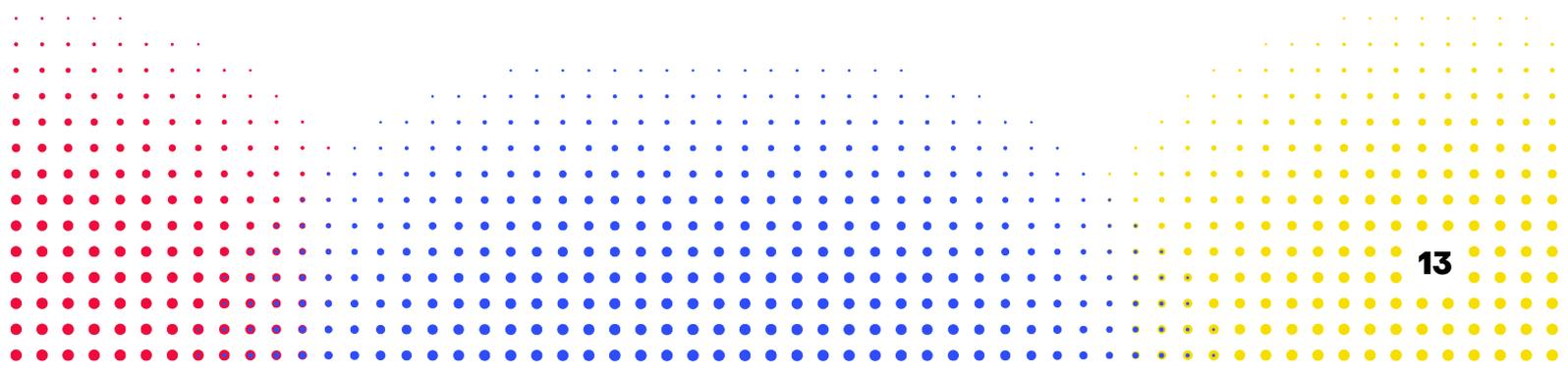
- (v) The PQE approach in 172 health centers with more than 10,000 clients per year, including verbal TB screening among people who are seeking health care for any medical reason or among those who are in health care (e.g., children, nomads, and people with diabetes); and
- (vi) A mass screening campaign with CXR and CAD in one refugee camp with more than 20,000 people.

Next Steps

A training of trainers (TOT) and a training for health staff will be conducted by June 2022. Other planned activities include: (1) the deployment of job aids and tools to collect data and analysis; and (2) a mentorship and monitoring program for health and community staff, organized with technical support from the Damien Foundation and the Global Fund TB Strategic Initiative. In terms of human resources, a national consultant will be recruited to support the PNLT with data collection with four ReCAM focal points who will work closely with each priority region. Additionally, the Region Directorate and the PNLT will implement the action plan and systematic TB screening campaigns.

The Niger PNLT aims to achieve the following results through the project:

1. An increase in the number of notified TB people by 15% in the four regions;
2. Strengthened systematic TB screening in high-risk groups; and
3. A completed cost-effective study with comprehensive data to inform scaling up.



3. Other Updates

WHO e-Courses and TB Knowledge Sharing Platform

WHO has developed three comprehensive, self-paced and free online courses to facilitate the uptake of WHO guidelines on rapid diagnostics for TB detection, DR-TB treatment and TB preventive treatment. Learning materials are intended for people who provide guidance to countries on implementing WHO recommendations on TB, including, national programme managers, managers of laboratory services, technical staff at ministries of health, WHO staff, staff of technical agencies, consultants and anyone else serving a similar role in countries and major subnational units. Content is presented through short video lectures, exercises, quizzes and additional reading material. All e-courses end with a final assessment. Learners that achieve a score of 80% or higher can download a record of achievement. E-courses are hosted on the End TB channel on the OpenWHO platform: [End TB \(openwho.org\)](https://openwho.org).

The [TB Knowledge Sharing Platform](#) provides easy access to: (1) WHO TB Guidelines; (2) WHO Operational Handbooks; and (3) a catalogue of training materials developed by WHO. These materials help facilitate the uptake of latest TB guidelines and policy recommendations. Content can be accessed via computer and on a smart phone.

Global Fund COVID-19 Response Mechanism (C19RM) Analysis

The Global Fund has provided support to 108 countries and 21 multicountry programs to fight COVID-19 through the [COVID-19 Response Mechanism \(C19RM\)](#). A recent analysis reviewed the investments from C19RM in 2021 which aimed at supporting people with TB and TB programs in 20 high-impact countries.³ The aim of the analysis was to: (1) review the investments under C19RM 2021 that could directly and indirectly benefit the national TB responses supported by the

Global Fund; (2) analyze the type of investments that have been prioritized by countries to mitigate the impact of COVID-19 on TB; and (3) highlight potential COVID-19 investments that could contribute to strengthening TB programs/integrated service delivery.

The investments were categorized into investments that directly support the TB program to mitigate the impact of COVID-19, with the majority applied to mitigation in the TB component of the grant. Additional investments in activities and tools that have the potential to contribute to strengthening the TB program either immediately or as the COVID-19 situation in countries stabilizes were also captured in the analysis.

Results of this analysis revealed the following:

- The direct investment in TB mitigation activities in the 20 countries showed similar trends to the overall C19RM investments. Over US\$92 million was approved in the 20 countries for TB mitigation activities, accounting for 32% of HIV, TB and malaria mitigation activities. Overall, TB accounted for 34% of HIV, TB and malaria activities in the total C19RM investment. (See Figure 5.)
- For the 20 countries analyzed, USD \$159M was the total final approved amount that could benefit TB programs, USD \$92M was a direct TB investment and an additional US \$ 67million was approved outside “mitigation for TB” investment area. (See Figure 6.)
- Case management, infection prevention control (IPC), diagnostic and lab systems were key areas where investments that also support TB were made outside of the “mitigation for TB” investment area.

These results aim to provide additional information to in-country partners so that they can accelerate their recovery from the COVID-19 pandemic and use this information to strengthen TB programs that receive financing from C19RM.

³ Bangladesh, Cambodia, Cameroon, Congo, Ethiopia, Ghana, Indonesia, Kenya, Myanmar, Nigeria, Pakistan, Peru, Philippines, South Africa, Tanzania, Uganda, Ukraine, Vietnam, Zambia, Zimbabwe

Figure 5: All Countries vs. 20 Countries in the C19RM TB Analysis

Source: The Global Fund

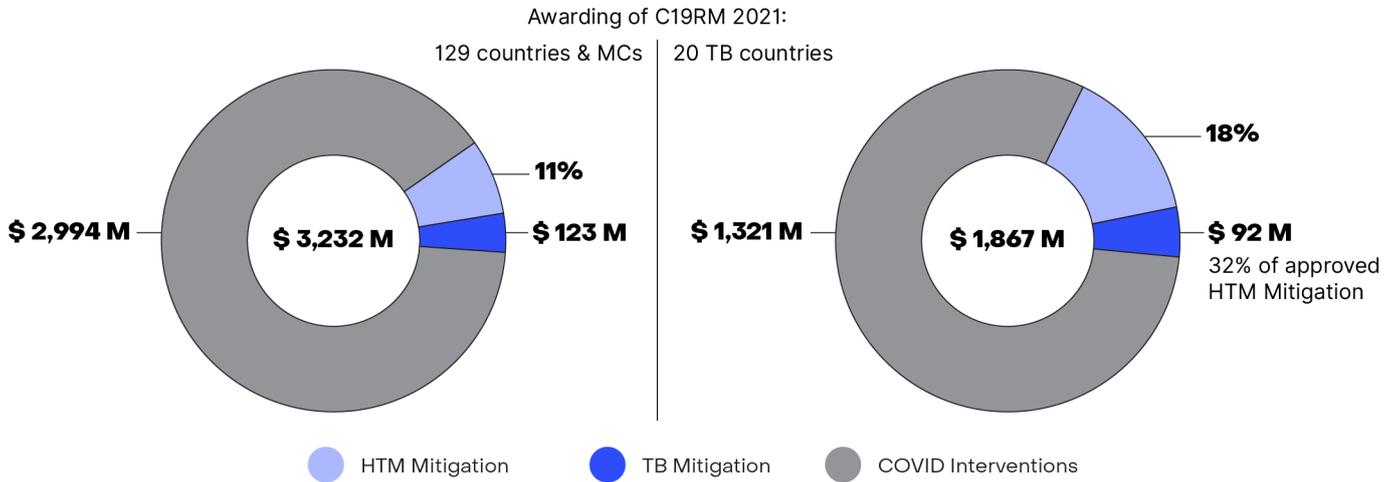
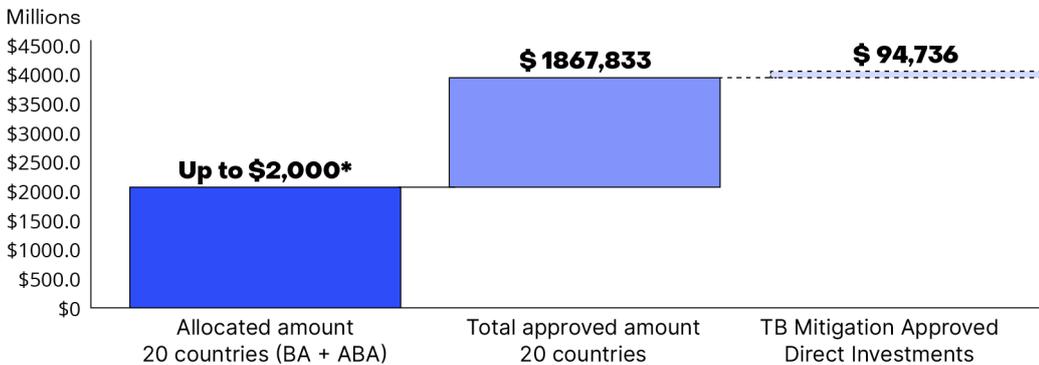


Figure 6: C19RM Total vs. TB Investments in 20 countries

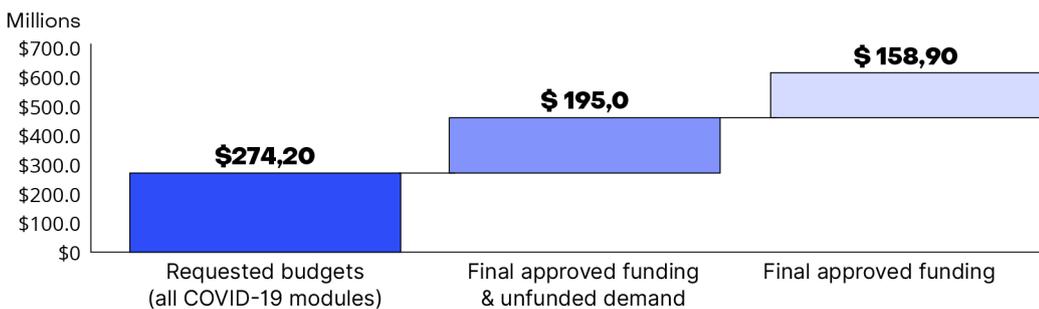
Source: The Global Fund

C19RM Investments in 20 Priority countries (USD)



* Note: 20 countries combined had up to \$2 billion to request under Base Allocation (\$1Bn) + Above Base Allocation (\$1Bn). Awarded amounts and percentages varied from country to country.

C19RM Analysis for 20 Priority countries (USD)



4. Voices



Interview with Dr. Stavia Turyahabwe, Assistant Commissioner - Tuberculosis Leprosy Control, Ministry of Health Uganda

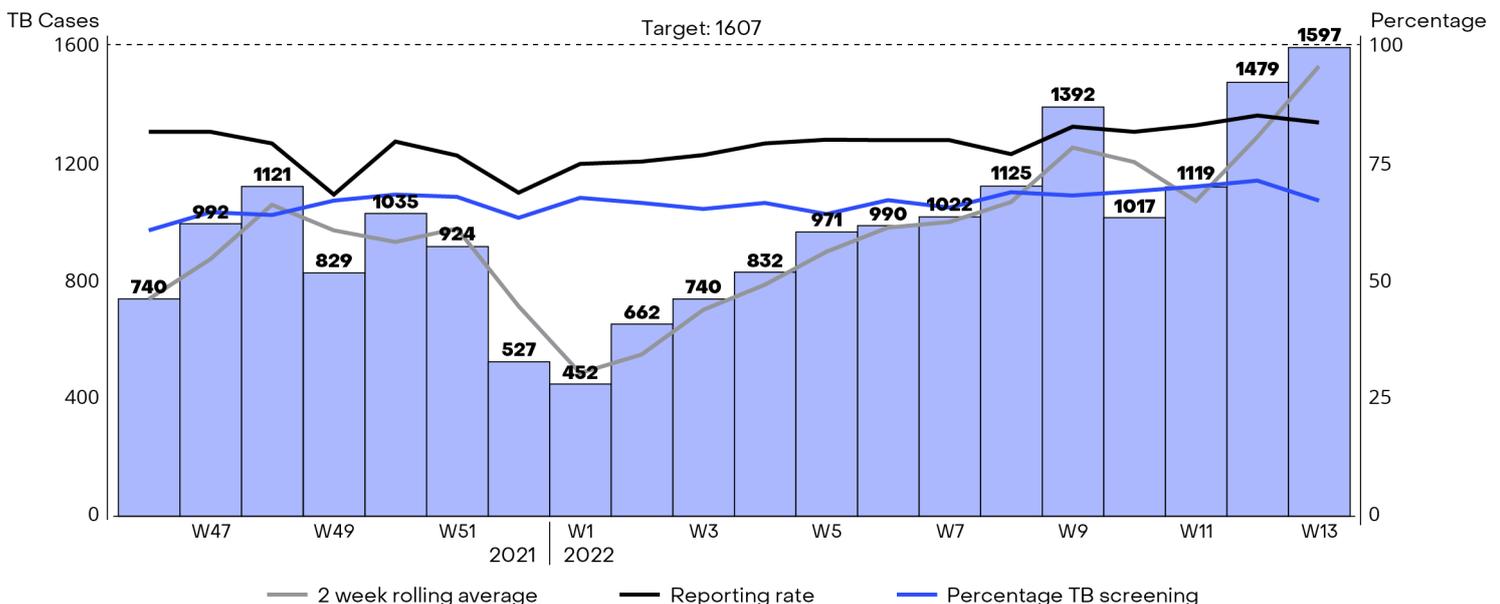
1. What are some of the key drivers of Uganda's recent success in finding and treating missing people with TB?

To find the missing people with TB, Uganda implemented the Active Case Finding (ACF) Toolkit in 50 districts with a high burden of missing TB cases. The ACF Toolkit aims to improve health facility systems and processes throughout the TB care cascade to effectively screen, investigate and initiate timely TB treatment using quality improvement approaches. Implementation of the toolkit was initially launched

in nine districts and led to a 15% increase in TB case notification in 2019 and 2020. The intervention was subsequently scaled up to 50 districts for national reach. The program began targeted engagement of district teams on a weekly basis to understand the progress being made in the different TB cascade areas. Every week the district teams met virtually to review the previous weeks' performance and forge a way forward. Through this engagement, screening for tuberculosis in patients attending outpatient clinics across the country improved from <20% in early 2020 to over 65% by end of 2021 as shown in Figure 7 below.

Figure 7: TB Screening, Reporting and Case Identification Trends- Week 47 2021 to Week 13 2022

Source: Uganda National Program for Tuberculosis and Leprosy



2. What are some of the lessons learned from the impact of COVID-19 pandemic on the TB programs and how has the country been able to catch up? What activities measures were taken for catch up implementation?

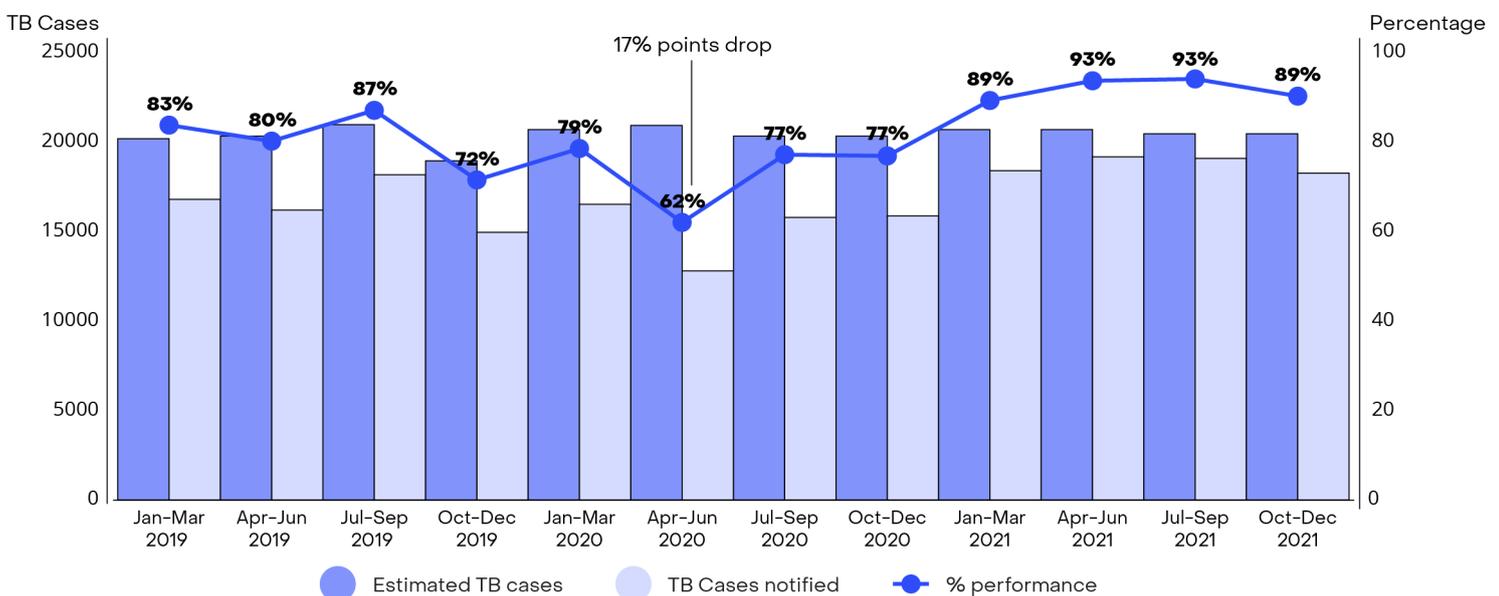
Since the emergence of COVID-19 in March 2020, Uganda has continued to report new cases with three main surges occurring in April to May 2020, June to July 2021 and December 2021 to February 2022. During the initial two surges, the government instituted a host of preventive measures to contain the spread of COVID-19. These included restrictions in the movement of people, which caused significant interruptions in the access and delivery of essential health services, including TB services. During the surges, there was stigma associated with falling ill with COVID-19. As a result, people who had respiratory symptoms that could have been due to

TB were afraid to seek care at health facilities. Health workers were also afraid to attend to patients due to the perceived risk of infection. This was complicated by the limited availability of personal protective equipment (PPE) like face masks, gloves and gowns. The increasing infections strained the health system through an overstretched health workforce, limited diagnostic equipment (e.g., X-pert machines) and the conversion of critical spaces like DR-TB wards to serve COVID-19 patients.

These factors resulted in a drop in TB case notification nationally: from 16,403 (79%) between January and March 2020 to 12,871 (or 62% of estimated TB cases) between April to June 2020 (see Figure 8). In May 2021, the Ministry of Health’s National TB and Leprosy program (MOH-NTLP) conducted a catch-up campaign in 50 districts (34% of districts) to increase case detection and create community awareness about TB.

Figure 8: TB Case Notification Trends

Source: Uganda National Program for Tuberculosis and Leprosy



A rapid assessment of the effects of the COVID-19 pandemic on TB service delivery by Makerere University School of Public Health was conducted in the urban districts of Kampala, Mukono and Wakiso in September 2020. Findings revealed a sharp decline in the rate of accessing TB services in urban health

facilities compared to rural facilities. Support from both health workers and family members promoted adherence to treatment during lockdown periods and adherence levels to COVID-19 standard operating procedures were suboptimal in most health facilities.

Furthermore, an evaluation of mortality among individuals co-infected with TB and COVID-19 at high volume health facilities in Uganda between March 2020 and March 2021 revealed a higher mortality among patients infected with both TB and COVID-19 (211/1,000 deaths), compared to deaths among general people with TB patients (73/1,000) and COVID-19 patients (8.2/1,000). The MOH-NTLP implemented several interventions to mitigate the impact of COVID-19 on TB programming. This included adapting technical guidance on the continuity of TB services during COVID-19 response and advocating and promoting availability of COVID-19 Infection Prevention and Control (IPC) measures, such as the provision of face masks, gloves and other PPE. They also supported health facilities through mentorship to integrate TB and COVID-19 screening at all care entry points. TB and COVID-19 algorithms were disseminated and bi-directional screening and testing for both TB and COVID-19 was promoted at all health facilities.

Implementing partners were engaged to support the continuation of TB activities including: (1) the delivery of drugs to homes; (2) support with compilation; (3) provision of airtime to health facilities to aid in client follow up; (3) drug refills; and (4) empowerment of community volunteers to provide home-based care in observance of COVID-19 SOPs. Multi-month dispensing of drugs to stable patients was practiced and community-level active case finding was also promoted by integrating TB and COVID-19 contact screening and investigation in community screening activities. A community TB catch-up campaign was organized in May 2021 during which community sensitization on TB, community TB screening and contact tracing was carried out in 50 high burden districts. Through this intervention, an additional 1,500 TB cases were notified, significantly improving performance in TB case notification in April to June 2021 (Figure 7 above). Going forward, the program is mobilizing resources to carry out Community Awareness, Screening, Testing, Prevention and Treatment Approach to Ending TB, and Achieving

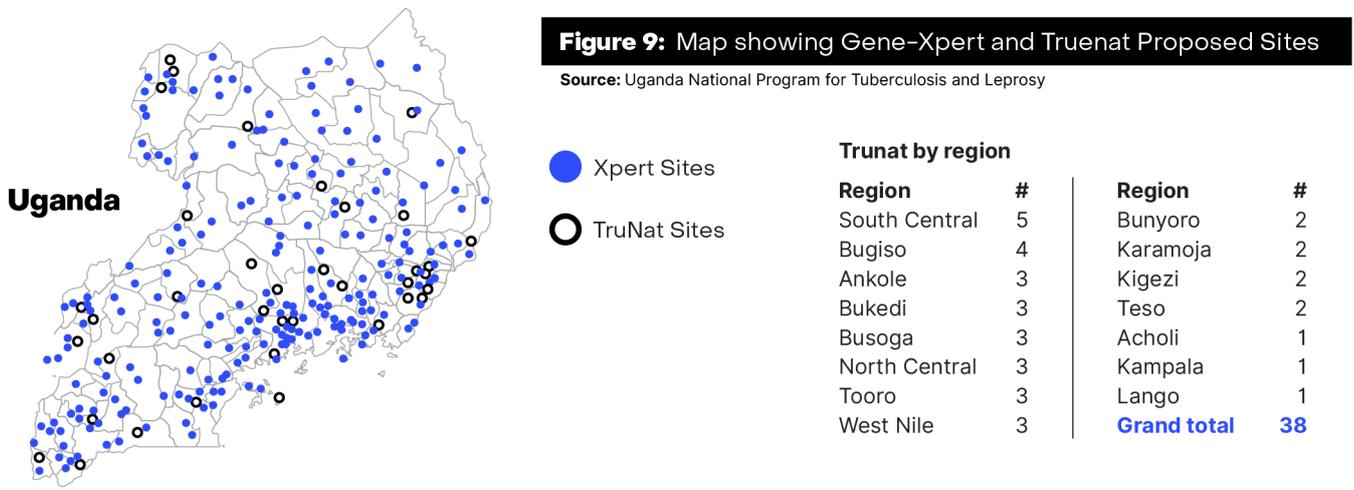
Zero Leprosy (CAST-TB) campaigns in all districts on a bi-annual basis (see page 19).

Finally, district leaders were engaged in TB control through the COVID-19 Taskforce. Weekly incident management team meetings were instituted using virtual platforms and involving district teams, implementing partners and other stakeholders from the emergency TB response regions of Acholi, Lango, Karamoja, Bugisu, Bukedi and Teso. These activities helped to strengthen district leadership, supervision and monitoring of TB services.

3. What are country plans to implement and scale up new tools for screening and diagnosis of TB?

Uganda has installed 295 GeneXpert machines in 271 sites. The GeneXpert technology has been placed in all districts and hubs, as well as in congregate settings such as prisons and refugee camps. Access to GeneXpert testing has been enhanced through an integrated specimen referral system that picks samples from lower facilities and send results back to clinicians to support patient management. The country also received support from USAID-Stop TB Partnership to install 38 Truenat machines. Additionally, with support from Global Fund, 11 TB-LAMP devices have been procured, which increases the number of sites with TB-LAMP from 5 to 16.

According to the current NTLP National Strategic Plan, there is a need to cover all health facilities, from Health Center IV (HCIV) and above, with WHO-recommended rapid molecular diagnostics. Currently 52% HCIVs and 3% of Health Center III (HCIIIs) have GeneXpert. This leaves a gap of 100 HCIVs and 612 HCIIIs that still require a WHO-approved rapid diagnostic test (WRD) (see Figure 9). WHO approval of alternative tools such as TB-LAMP and Truenat is an opportunity to scale up rapid molecular diagnostics, as they are simpler to implement in resource-limited settings. There is therefore a need for government and partners to increase funding for diagnostics to meet the NSP and global targets.



Furthermore, Uganda rolled out use of mobile digital CXR fitted with computer aided detection (CAD) technology to improve access to radiology services for TB diagnosis. A total of 12 mobile digital X-ray units with CAD4TB, acquired through support from the Global Fund and other partners, have been installed at health facilities to support TB screening at the health facility and for community screening, targeting TB hotspots and populations at increased risk of TB. Additionally, the MOH-NTLP recently acquired two mobile TB clinics, each fitted with a digital X-ray, laboratory unit and multipurpose room for clinical consultation. The mobile units have been deployed in the regions to support TB screening activities in the communities. The MOH-NTLP national scale-up plan is to acquire and place a digital X-ray machine with CAD4TB technology in each of the 146 districts and 10 additional mobile clinics to cover all the 15 health regions, to improve access to radiology services for TB diagnosis.

4. How have communities been engaged to reduce access barriers to TB case services?

The TB program has made significant progress in engaging communities in the disease response. With funding from the Global Fund and partners, the program conducted a catch-up campaign to find missing people with TB. The activity was implemented over four days in May 2021 as part of COVID-19 mitigation measures. Within the four days alone, more than 1,500 TB patients were diagnosed and initiated

on treatment. In total:

- 150 key districts leaders were oriented on the campaign package during the regional level orientation and were able to cascade the orientation to 50 districts.
- 10,560 implementers (2,640 health workers and 7,920 village health teams) were oriented on the campaign requirements and engaged the communities.
- Approximately 1,383,561 people were reached with key messages.
- 118,582 people were screened, 36,246 people with presumptive TB were identified, and 1,511 TB cases were confirmed, with individuals enrolled on TB treatment.

In December 2021, the program organized the Fourth National TB Leprosy Stakeholders Conference, where communities were also engaged. The second hybrid conference during the COVID-19 pandemic brought together more than 200 physical participants and more than 1,000 virtual participants across the country. National performance, evidence from implementation research, and program work were shared with the participants.

During the conference, the Right Honorable Minister of Health Dr. Jane Ruth Aceng launched the six-month CAST-TB campaign in Uganda. In this approach, Village Health Teams (VHTs), who had been trained and oriented on TB in over 70,000 villages in the country, would conduct a five-day door-to-door visit to sensitize

house members about TB and leprosy, identifying people likely to have active TB/leprosy and linking them to the health care system. Health care workers from the nearby health facility would be equipped to provide the required orientation and supplies required by the VHTs.

The Government and its partners have also oriented all district health officers on sub-national level TB control and, in March 2022, equipped district supervisors with motorcycles for supervision, monitoring and coordination of the TB response.

Finally, Uganda joined the rest of the world in March 2022 to commemorate World TB Day. As part of this year's commemoration activities, the first ever TB marathon was organized at the Ministry of Health headquarters on 13 March 2022 to increase community awareness on TB and raise funds for the construction of a TB ward at Iganga Hospital. The event, which attracted over 600 participants, included the participation of the Right Honorable Kasule Lumumba Minister for General Duties from the office Prime Minister, representing the Right Honorable Prime Minister of Uganda. Other high-level dignitaries included Ministers of Health, directors of health services, the CDC director in Uganda, the Uganda CCM chairman and the WHO representative on Uganda.

World TB Day 2022 activities also included a week-long active TB screening activity for registered bus operators working in Kampala City. The event was organized in collaboration with the USAID Local Partner Health Services (LPHS-TB) project, the Ministry of Works and Transport (MoWT), Kampala Capital City Authority (KCCA), the Ministry of Health, and the association of bus operators and targeted bus drivers,



The National TB and Leprosy Programme. The Right Honourable Minister of Health signing the CAST TB approach with key stakeholders at the conference on 10 December 2021.



The National TB and Leprosy Programme. The Right Honorable Minister of Health handing over 50 motorcycles to district leaders at the MoH NTLP offices Wandegeya on 10 March 2022.



The National TB and Leprosy Programme. A TB marathon held on World TB Day was the first ever event in Uganda's national commemoration activities and launched a fundraising drive for a TB isolation ward.



The National TB and Leprosy Programme.



The National TB and Leprosy Programme. Permanent Secretary Ministry of Health Dr. Diana Atwine, together with Permanent Secretary Ministry of Works and Transport at the launch of the screening at Namayiba bus terminal.



The National TB and Leprosy Programme.

conductors, and support team members. TB samples were referred to the nearest GeneXpert site for testing and those diagnosed with TB were linked to TB services and enrolled in TB care. In summary, a total of 1,858 people were screened from the three bus terminal clusters, of which 767(41%) presented with signs and symptoms of TB and 15 (1.9%) of those were diagnosed with TB. All individuals diagnosed with TB were enrolled in care.

MORE VOICES

“While more men have TB, women are disproportionately affected. Women face greater stigma and discrimination, which exacerbates their social and economic insecurity. We risk the lives of millions of people by not considering gender inequalities in the TB response. Let us challenge the current approaches that impede a gender-sensitive and equitable TB response.”



Blessina Kumar,
CEO,
Global Coalition of TB Advocates

“Approximately 41% of the people with TB in Burkina Faso are missed. The significant reduction of this gap has been identified as a major challenge by the National TB program (NTP). Within this context and with the technical and financial support from the TB Strategic Initiative, our country has developed and is implementing an active case finding strategy called REATB. Two consultants were recruited in 2021 to support the development of a strategy and simplified procedures for the TB response in security affected areas. These innovations have been adapted to the Burkina Faso context and we hope will bring us closer to achieving our goals.”



Dr Combarry Adjima,
NTP Manager,
Burkina Faso



The Global Fund/Vincent Becker

Private sector chemists who sell TB treatment in India are now working more closely with the public health sector, for example by sharing patient data. This helps increase case notification and treatment adherence and is expected to have a huge impact in a country that accounts for 27% of new TB cases globally in 2017.

About the TB Strategic Initiative

The **TB Strategic Initiative**, funded by the Global Fund and implemented by the Stop TB Partnership (Stop TB) and the World Health Organization (WHO), has been working with national TB programs and partners since 2018 to stop the spread of TB and reach the global goal adopted by world leaders to end TB by 2030. This ambitious joint effort, initially launched in 13 countries, aims to address specific barriers to finding missing people with TB, especially among key vulnerable populations, through a combination of innovative approaches, knowledge-sharing and best practices. Now in its second phase (2021 - 2023,) the TB Strategic Initiative will catalyze further efforts to find and successfully treat people with TB facing barriers and that are currently missed at different points in the TB care cascade in 20 priority countries.

