

The TB Quarterly Update Innovations

APRIL 2025





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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 from countries supported by the Global Fund, partners and other stakeholders, as well as updates on new innovations and tools coming onto market. If you have any information you would like to share, please reach out to TBQuarterly.Update@theglobalfund.org.

1. What's New

Médecins Sans Frontières' TACTIC: Reducing the burden of TB in children

In 2022, WHO issued a series of recommendations to improve TB care for children and adolescents. Médecins Sans Frontières (MSF) has provided pilot data to implement the WHO guidelines in more than a dozen countries across Africa and Asia through a worldwide project aiming to improve diagnosis and treatment of TB among children and prevent new cases. This initiative, called "TACTiC" for "Test, Avoid, Cure Tuberculosis in Children," is a three-year project (2023 – 2026) aiming to reduce TB deaths in children by increasing the number of children diagnosed and treated for the disease, especially in non-specialized facilities where TB often goes undiagnosed in children.

The TACTIC initiative has three pillars:

- Field implementation of the 2022 WHO recommendations. This includes supporting MSF teams,
 Ministries of Health and national TB programs to
 incorporate the recommendations into pediatric TB
 management.
- 2. Operational research assessing the feasibility and acceptability of implementing WHO treatment decision algorithms for <u>childhood TB</u> in Uganda, Niger, Nigeria, Guinea and South Sudan. A second study will document the feasibility and acceptability of implementing the four-month treatment regimen for children with non-severe drug susceptible TB in the Philippines and Uganda.
- Advocacy for better access to lifesaving health services for children with TB. This includes aligning national policies with the latest WHO recommendations, securing sufficient resources to facilitate implementation and advocating for more research and development to adapt diagnostic tools to children.

More information about TACTiC is available here.





The Stop TB Partnership's Global Drug Facility: Transforming the treatment landscape for children with drug-resistant TB

The Stop TB Partnership's Global Drug Facility (GDF) pediatric drug-resistant-TB (DR-TB) initiative (2018–2024) has significantly improved treatment options for children. Before the initiative, pediatric DR-TB medicines were scarce and unpalatable. As few children were diagnosed with and treated for DR-TB, low demand and a lack of incentives to develop child-friendly formulations resulted in a fragmented and uncoordinated global market. This initiative aimed to address these challenges by using risk sharing, stakeholder coordination and innovative tools (e.g., GDF's quantification tool and strategic rotating stockpile) to incentivize suppliers to develop and help introduce child-friendly TB formulations.

By 2024, all 11 medicines recommended by the WHO for treatment of DR-TB in children were developed and made available as child-friendly formulations. Despite a small global market size of approximately 1,000 treatment courses procured annually, the drugs have been successfully introduced in more than 70 countries.

The Global Fund supported this initiative by (1) prioritizing and expediting quality review of new formulations; (2) providing funding to continue pediatric TB treatment scale-up in countries unable to absorb the costs; and (3) ensuring continued drug availability and integration into national procurement plans. Other collaborating partners included the WHO, the Sentinel Project, national TB programs, the TB Procurement and Market-Shaping Action Team (TPMAT), pediatric TB medicine suppliers and healthcare workers. The initiative was also made possible through generous funding from the Government of Japan and USAID.

This initiative has improved access to better treatment for children with DR-TB worldwide and provided a model for other pediatric diseases and conditions. More information about the initiative's work is available here.

2. Knowledge Sharing and Learning Resources

Case study: Using OneImpact Communityled Monitoring to find the missing children with TB in Mozambique

Background

Mozambique's National Strategic Plan for TB 2020-2029 highlights the importance of community-based interventions to identify and treat at least 90% of people with TB. In 2020, Mozambique conducted a community, rights and gender (CRG) assessment, which revealed several barriers to accessing TB services, especially among vulnerable populations. Key barriers included stigma, income insecurity, travel distance, drugs stockouts and a general lack of access to information on TB. To support CRG assessment findings and recommendations, Ajuda de Desenvolvimento de Povo para Povo (ADPP), with support from the Stop TB Partnership Challenge Facility for Civil Society and Dure Technologies, adapted and introduced OneImpact community-led monitoring in Milage and Morrumbalal districts in Zambezia Province.

Interventions

In 2022, case managers and OneImpact community coordinators administered a poll among 2,486 people in Zambezia province, covering 50% of the people with

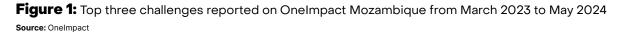
TB in the catchment area. The poll aimed to identify potential gaps in childhood TB services. With 88% of people with TB reporting that their childhood household contacts under 15 years had not been screened, ADPP immediately sounded the alarm among health facilities, prompting an immediate and collaborative response from health and community systems.

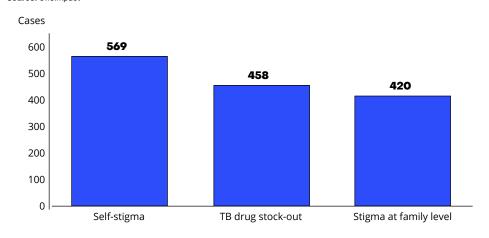
Results

As a result, health facilities, with support from ADPP, conducted eight community health fairs to disseminate information on quality childhood TB services and household-based screenings. Of the 1,157 people screened during the one-month period, 397 children younger than 15 years were linked to relevant TB services. These results demonstrated the efficacy of Onelmpact as an effective alert system to identify gaps in TB services and support rapid, evidence-based community and health responses.

Following this, the data collected from March 2023 to May 2024 through OneImpact's community-led monitoring initiative highlighted several main challenges:

- Self-stigma (569 cases)
- TB drug stockouts (458 cases)
- Stigma from family members (420 cases)





In addition, community-led monitoring data analysis from the OneImpact dashboard identified the top five health facilities from Zambezia province reporting drug stockouts in real-time: Milange (61), Morrumbala (47), Djasse (9), Boane (8) and Samora Machel (8).

ADPP continues to present an analysis of community-led monitoring data every month with the One Group, led by local TB champions or survivors, also known as OneImpact activistas. Meetings are attended by district health directors, district medical superintendents, district pharmaceutical nurses and TB nurses. Provincial TB staff also have regular access to this data in real time. With a 97% resolution rate, this model has been a key success factor of OneImpact Mozambique.

Lessons learned and next steps

When people affected by TB are informed and empowered, they can serve as key actors in the TB response. The OneImpact digital platform is an effective alert system for rapid, evidence-based community and health responses, providing unique and real time insights into service gaps and opportunities for health and community responses to find the missing children affected by TB.

Community-led monitoring data collected and analyzed during round 11 of the Challenge Facility for Civil Society has enabled improvements in the following areas:

- TB drug stock-outs: The analysis of the community-led monitoring data found misuse of drug registers at the health facility level, causing TB drug stockouts. Provincial staff addressed this issue by conducting a training for health facility staff on the correct use of drug registers to ensure the timely replenishment of drugs from respective warehouses, resulting in an overall reduction in TB drug stockout reports.
- Stigma: Due to specific data that indicated at which level stigma occurred (e.g., self, family, community, health facility, work), ADPP was able to target their advocacy interventions to focus on the following:
 - Self- and family-level stigma: Efforts focused on home visits to people on TB treatment, providing psychological support to overcome self-stigma

- and advising families to support and not reject family members with TB.
- Community-level stigma: Efforts focused on:
 (1) monthly community dialogues on human rights, stigma and discrimination involving civil society, community and religious leaders and community health committee members; (2) debates on community radio stations, providing a platform for TB survivors to share their experiences of overcoming stigma; and (3) public talks by project activists in schools, churches and prisons to promote human rights and combat stigma and discrimination.

As OneImpact Mozambique is a leading champion for community-led monitoring, Challenge Facility for Civil Society plans to continue to support interventions in round 12. In 2024, prior to the Stop TB Partnership Board Meeting, ADPP led a workshop in Mozambique for the National TB Program and civil society members. Furthermore, as community-led monitoring conversations at country level lean toward integration, ADPP has been engaging in these discussions, demonstrating that OneImpact is: (1) an efficient platform to mobilize and empower people affected by TB to engage in the TB response; and (2) an effective mechanism to support institutionalization of community-led monitoring data. As the way forward, Onelmpact Mozambique now aims to verify and validate various other community interventions (e.g., a survey on TB stigma).

Case study: Reducing the TB treatment coverage gap in children in Burkina Faso and the Democratic Republic of Congo

Background

Each year, more than one million children fall ill from TB globally, with case detection remaining a key challenge. While childhood TB case notifications prior to the COVID-19 pandemic had increased worldwide, they declined sharply between 2019 and 2020 due to the pandemic and in 2021 childhood TB case notifications

recovered at a slower rate when compared to adults. Efforts continue to be hampered by: (1) limited primary health care staff expertise; (2) poor access to diagnostic tests, including chest X-ray; and (3) a lack of dedicated time for over-burdened healthcare staff.

In Burkina Faso, TB treatment coverage for children under 15 years old was 31% in 2023, while overall coverage was 88%. In addition, children under 15 accounted for only 4% of the 8,700 new and relapse TB cases reported by the national TB program. The reporting gap was more significant among children under 5, with a treatment coverage of only 26%. In the Democratic Republic of Congo (DRC), the national TB control program notified 33,540 childhood TB cases in 2023, representing only 13% of TB cases. This trend has persisted since 2019 and remains lower than WHO estimates for high-incidence countries. TB treatment coverage for children under 15 was 70% in 2023 and of the 258,000 new and relapse TB cases notified, 13% were children under 15.

In their 2022 guidelines, WHO included an interim general recommendation on the use of two integrated treatment decision algorithms (TDAs) to improve case detection in children. With support from the Special Programme for Research and Training in Tropical Diseases (TDR) and the Global Fund, the national tuberculosis programs in Burkina Faso and DRC implemented the TDA4child study, aiming to describe the diagnostic accuracy (sensitivity, specificity, negative and positive predictive values), feasibility, acceptability and impact of the TDAs on TB case notifications.

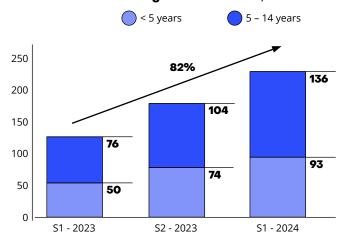
Implementation

The study was implemented in 13 health facility centers in Burkina Faso and 15 health facility centers in the DRC from November 2023 to June 2024. Preliminary results, shown in Figure 2 compare the number of children diagnosed and started on TB treatment during the same period prior to and after implementation of the WHO treatment decision algorithms.

Figure 2: TB in children and adolescents, best practices in HIA1 countries

Sources: Burkina Faso NTP and DRC NTP

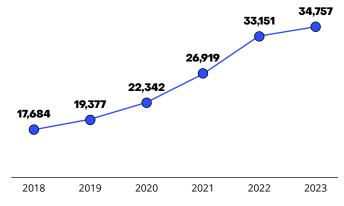
Trend in TB cases among children notified, Burkina Faso



Interventions:

- TDA4Child study in collaboration with WHO/TDR
- Test Xpert on stool
- Approach tailored on children implemented in 27 health facilities started in June 2023 (training, regular supply of anti-TB drugs in pediatric services, nasogastric tubes, communication costs for coordinating TB activities with pediatric services, regular monthly screenings for TB signs in malnourished children, incentives for TB screening results/additional TB cases in the pediatric services and nutritional centers

Trend in TB cases among children notified, DRC



Interventions:

- TDA4Child study in collaboration with WHO/TDR
- Test Xpert on stool: pilot was conducted over 5 months period from July through November 2022 in Kinshasa in 25 sites, stool was processed with the Simple One Step (SOS) stool method and samples were tested with Xpert MTB/RIF Ultra cartridges. Stool was easier to collect and reduced the need for gastric aspiration, an invasive procedure that is not widely available. Based on pilot results, the NTP has incorporated stool into the routine algorithm.
- · Application of clinical diagnostic algorithms
- Training of health staff

Results

Burkina Faso

From November 2023 to April 2024, 751 children were screened in 13 health facilities. Of these, 28 (4%) began TB treatment: five based on positive Xpert MTB/RIF or smear tests, eight as contacts, and 15 using TDA scores (two without chest X-rays). The use of the TDAs resulted in an overall increase in TB notification of 86% among children aged 0-10 years compared to the same period the previous year, with a 94% rise in the 0-4 age group. Contact tracing among children diagnosed yielded new TB cases in both adults and children in 33% of instances. All 24 frontline workers across 13 sites (11/24 nurses) reported comfort in using TDAs. They reported that the use of TDAs facilitated the diagnostic process for childhood TB, improving both the timeliness and diagnosis decision, including among children suffering from malnutrition. Consequently, several months after the pilot, healthcare workers in many tertiary sites continue to use TDAs for TB diagnosis.

Democratic Republic of the Congo

TB notifications from 15 sites were compared across different years (January to April 2021, 2022, and 2023) against the study period (January to April 2024). On average, child TB notifications increased by 14% with the introduction of the TDA. The increase was higher in the 0-4 age group (25%), compared with the 5-14 age group (8%). Of the 547 children screened and enrolled, 218 (40%) started TB treatment, 63 (29%) received a positive

Xpert MTB/RIF or LF-LAM results, 69 (32%) as contacts, and 86 (39%) based on TDAs scores (including 11 with chest X-rays). Contact tracing yielded new TB cases in 50% of instances (38 children and 76 adults). Twenty frontline workers from the 15 sites found the TDAs easy to follow and helpful for timely and appropriate management decisions for children.

Lessons learned and next steps

The operational research conducted in Burkina Faso and DRC has helped to refine job aids for the TDAs, providing reassurance to health care workers when diagnosing TB. Monthly meetings with frontline workers revealed decision-making issues due to wording in the algorithms. As a result, the national tuberculosis programs developed posters and A4 guides on the signs and symptoms of presumed TB in children, ensuring TDAs and appropriate definitions were easily accessible during consultations. These studies also fostered collaboration among the study sites involved, raised awareness among health care providers and provided valuable evidence to support national scale-up.

Overall, the findings indicate a significant rise in childhood TB diagnoses, as well as notable effects on TB diagnosis among adult contacts. When systematically implemented, the algorithms could assist in narrowing the gap of undiagnosed and untreated children with TB. Next steps are to include TDAs in the national pediatric TB guidelines and training for all paediatric TB workers.



Dr Adama Diallo presenting the detailed preliminary results of the TDA4Child study at the WHO Global TB Symposium on 13 November 2024.



Supervision at the Primary Health care facility of 2ème Rue where Mr Mosengo (head nurse) has been trained for TDA4Child DRC. Dr Bibiche Kadima (Senior Study Coordinator of TDA4Child DRC, NTP) and Dr Nadine Khamut (co-Senior Study Coordinator of TDA4Child DRC, NTP) on one of their supervision visits.







Reviewing TDA and study material with frontline workers in DRC.



Frontline workers who participated in the TDA4Child Burkina Faso study.



Above and below: Practical sessions on the use of algorithms in Burkina Faso during a workshop on implementation research led by the NTP.



3. Other Updates

The Stop TB Partnership's Hello Kitty Campaign: Raising awareness for childhood TB

Launched in 2020 by the Stop TB Partnership, the Hello Kitty Campaign is a global initiative focused on raising awareness about TB in children. The campaign aims to address gaps in pediatric TB screening and diagnosis.

Hello Kitty serves as the face of the campaign, aiming to make the issue more relatable and accessible to people of all ages. Through Hello Kitty's involvement, the campaign has reached communities around the world by: (1) promoting TB awareness; (2) highlighting the importance of TB detection, treatment, and prevention in children and the need for stronger systems of health to fight the disease; and (3) encouraging people to take action. Activities include distributing branded materials and organizing visits to TB hospitals to engage local communities.

The campaign continues to inspire people globally to support efforts aimed at ending TB in children and creating a TB-free future for all. Read more about the Hello Kitty campaign here.











4. Voices

Success story: Tackling adolescent TB in Zambia

Approximately 8,500 children fall ill with TB every year in Zambia. Children face greater challenges accessing TB care and are more likely to die from the disease compared to adults—with stigma and social vulnerability identified as key barriers. Early TB diagnosis and treatment of childhood TB remain critical to achieve the goal of ending TB by 2030.

Meet CM, a 16-year-old female living in a densely populated township in Livingstone, Zambia. Since 2023, CM had been unwell. She experienced fevers, night sweats, weight loss and an intermittent cough. Despite several visits to local clinics, her illness could not be identified, leading her mother to believe she was bewitched. After more than a year, CM was eventually diagnosed with HIV at a local health facility. She was immediately referred to the general hospital, where she was further diagnosed with TB, advanced HIV and syphilis. In April 2024, CM was admitted to a government hospital, where she was immediately initiated on ART and life-saving TB treatment through the national TB program.

However, following her discharge, CM defaulted on TB treatment for three months, leading to hospital readmission in July 2024. Health care workers reinitiated first line TB treatment with intensified counselling. Six months later, CM successfully completed her TB treatment with minimal side effects.

CM explains the role of the dedicated health care worker who supported her, "If it had not been for this nurse's good heart, I would have not seen this new year 2025."

CM's clinical team at the government hospital delivered a range of comprehensive services to support her treatment plan. This included family counselling, weekly home visits, transportation assistance and lobbying for nutritional care. Home visits and bi-weekly phone calls by the attending nurse: (1) reinforced family involvement in treatment adherence; (2) worked to address misguided beliefs, stigma and discrimination; and (3) helped to

Key barriers and challenges:

- Poor social and financial support
- High levels of stigma
- Low literacy levels and lack of information about TB
- Low index of suspicion of TB among health care workers

ensure continuity of care when CM temporarily moved in with her sister.

One of the attending nurses, Ms. Mweembe, adds, "My heart always leaps with joy when I look at this girl who came to this hospital without hope of seeing another day. Now she is full of life and determined to make a difference in her family and community."

As a result of these interventions, CM's life has been transformed. Her weight, which had dropped to 23kg due to illness, increased to 40kg. Her mental health has been restored and she even hopes to return to school soon.

No longer ashamed to share her story with the world, CM believes that TB is not the end of life. She is empowered to speak out as a TB advocate, helping to support more timely access to childhood TB services and effective TB responses in Zambia and worldwide. With accurate diagnosis and treatment, she says restoration can be achieved.

CM is proud to stand as a true champion of the slogan, "Yes! We can end TB!"

She adds, "I want to tell my story to my fellow adolescents and encourage them that indeed TB is curable. I am the living testimony."

CM's story demonstrates not only the importance of family involvement in positive treatment outcomes, but also the vital role of a team of dedicated and motivated health care staff willing to deliver exceptional patient-centered care.

Key steps taken by the NTP in Zambia to strengthen TB care for children:

- Including families as key stakeholders in the country's DOT plan.
- Scaling the use of stool samples for Xpert testing in children unable to produce sputum, allowing for more timely diagnosis of TB.
- Training health care workers in primary health facilities on childhood TB screening, diagnosis and management.
- Engaging various stakeholders on nutritional and social support for all TB patients in alignment with the country's Multi-Sectorial Accountability Framework.

A dedicated well-trained workforce coupled with a strong stakeholder collaboration is key to ending TB in the country.



Dr. Mubanga AngelNational TB and Leprosy Program Manager,
Zambia



Mweembe Chiyala
TB/HIV Nurse Practitioner,
Livingstone Teaching Hospital

Success story: Subira Mwantindili, TB survivor and community health volunteer—supporting the path to TB recovery in Tanzania

TB survivor and community health volunteer Subira Mwantindili is committed to supporting TB patients on their path to recovery.

As a trained member of MKUTA, a Tanzanian NGO that received a Global Fund grant during Grant Cycle 6, Subira provides a range of community-level TB services in the Mwakibete ward of Mbeya city. Her role includes (1) offering TB education; (2) identifying, screening, and linking TB patients to health facilities; (3) providing treatment adherence support; and (4) conducting contact tracing.

In August 2024, during her routine work screening families, Subira met seven-year-old Martha Richard

Mtwana. Martha, who lives with her aunt, had been abandoned by her parents. She was also frequently ill and suffered from prolonged coughing, fevers and weight loss, which left her extremely weak.

During the home visit, Martha showed worrying symptoms, including a persistent cough, poor appetite, and difficulty breathing. Subira immediately collected samples for testing and accompanied Martha and her aunt to a nearby health care facility. After a clinician conducted an initial examination, Martha was referred to the Mbeya Regional Referral Hospital (MRRH) for further investigation.

At MRRH, Martha's sputum sample was analyzed using GeneXpert, confirming her positive TB diagnosis. Treatment was initiated immediately.

Subira continued to provide close follow-up support, ensuring that Martha adhered to her TB medication and

received proper nutrition. She also sensitized Martha's family and neighbors about TB stigma and prevention, which led to increased support and contributed to the effective management of Martha's treatment.

Today, Martha's health is improving. She remains under her aunt's care and continues to receive ongoing support from Subira.



SUPPORTING COMMUNITY-LED RESPONSES

A Community Health Volunteer's Impact-A Child's Path to Recovery from Tuberculosis

Susan, a former TB patient and Community Health Volunteer (CHV) in Mbeya City, Tanzania, trained in providing tuberculosis (TB) services at the community level.



In August 2024 as part of her routine work of screening families met a young girl Mary who was frequently ill with prolonged coughing and fever.



Susan visited the family, conducted TB screening and collected samples for testing. Went through an initial examination and referred them to the Mbeya Regional Referral Hospital.



Tanzania Grant Objectives

- Increase TB treatment coverage from 53% in 2018 to 90% in 2025 by addressing barriers to access, utilization, and the needs of KVP for TB care and prevention services.
- Expand access to quality TB diagnostic services, including adoption of new diagnostic technologies
- Maintain children with TB among the notified cases at 15% and to increase the ratio of ages at '0-4':5-14 years from 1.3 in 2019 to 1.5 by 2025



Sputum sample was analyzed using the GeneXpert machine confirming that Martha had TB. Treatment was immediately initiated



Susan provided follow -up support, ensuring Martha adhered to her TB medication, received proper nutrition, and the family educated about TB stigma and prevention.



The CHV also ensures that the rest of the family is tested for $\ensuremath{\mathsf{TB}}\xspace$.

🍊 While advances in TB treatment offer hope, persistent gaps in preventing and diagnosing TB in children highlight the neglect faced by children, especially those battling TB. Médecins Sans Frontières projects that implement WHO's treatment decision algorithms have seen increased clinician confidence to start TB treatment using clinical symptoms, leading to more lives saved.



Dr. Moussa Mamane Oumarou Farouk Intersectional TB Focal Point. Médecins Sans Frontières, Niger





The Global Fund to Fight AIDS, Tuberculosis and Malaria

Global Health Campus Chemin du Pommier 40 1218 Le Grand-Saconnex Geneva, Switzerland

+41 58 791 17 00 theglobalfund.org

About the NextGen Market Shaping Strategic Initiative

The NextGen Market Shaping Strategic Initiative, financed by the Global Fund, supports the implementation of innovative approaches and mechanisms for the introduction and scale up of new tuberculosis tools in Global Fund-supported countries. This initiative is part of the Global Fund NextGen Market Shaping approach, which outlines a holistic set of interventions to shape innovation and accelerate new product introductions at scale, promote capacity building for regional manufacturing and drive environmentally sustainable procurement and supply chains.