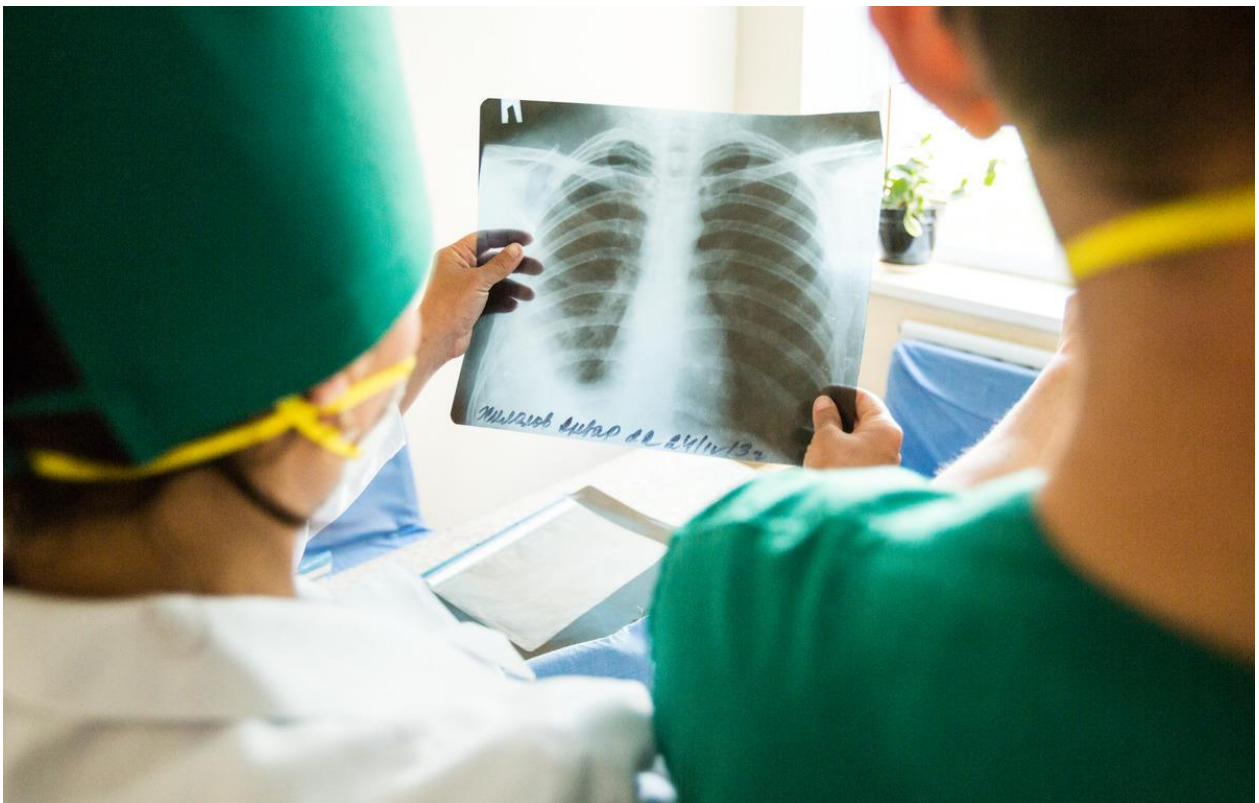


COVID-19 Information Note: “Catch-up” Plans to Mitigate the Impact of COVID-19 on Tuberculosis Services



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1. Introduction

1.1 Purpose of the Document

This document provides guidance to countries on preparing and updating plans to mitigate the impact of coronavirus diseases (COVID-19) on tuberculosis (TB) services. The overall goal is to restore and accelerate TB services to meet national and global targets to end TB. It includes considerations on setting priorities and planning for interventions based on the country's TB and COVID-19 situation, other contextual factors, and identification and mobilization of required resources.

The primary target audiences for the Information Note are National TB Programs and Principal Recipients of Global Fund grants. The document can also be used by other stakeholders interested in developing or improving their TB restorative and catch-up plans for COVID-19 and/or support national programs.

1.2 Progress on the Global TB Response

Health programs supported by the Global Fund partnership have saved 38 million lives as of the end of 2019. Overall, the number of deaths caused by AIDS, TB and malaria each year has been reduced by nearly 50% since the peak of the epidemics in countries where the Global Fund invests. But while huge progress was made in 2019, the knock-on effects of the COVID-19 pandemic in 2020 are threatening to derail decades of progress in the fight against HIV, TB and malaria.

The 2018 UN High-level Meeting (UNHLM) Political Declaration on TB garnered unprecedented global momentum to accelerate the TB response, achieving the first milestone of finding and treating 7 million TB cases in 2018. With this trend, it was expected that the “missing people with TB” would be brought down sufficiently by 2022 to enable countries to reach the End TB targets. Though the UNHLM target for 2018 was met by most countries, further progress has stalled and is in fact at risk of being reversed by the COVID-19 pandemic. Similar setbacks are expected with the other UNHLM targets for pediatric TB and drug-resistant TB (DR-TB) diagnosis, and coverage of TB preventive treatment (TPT).

1.3 Impact of COVID-19 on TB Services

Modelling analysis project additional 6.3 million cases of TB and an additional 1.4 million TB deaths attributable to COVID-19 pandemic between 2020 and 2025. An additional 525,000 TB deaths are expected in 2020 compared to 2018 as a result of the COVID-19 pandemic. Global TB incidence and deaths in 2021 would increase to 2013 and 2016 levels respectively – a setback of 5-8 years in the fight against TB. COVID-19 has affected the whole cascade of care and prevention for TB.

TB diagnosis: TB case notification has shown a reduction in most high-TB burden countries. People with TB symptoms face difficulties in accessing health care facilities due to lockdowns and movement restriction, loss of income, the fear of catching COVID-19 infection in hospital settings, and diversion of TB services. TB staff, hospitals and beds, as well as GeneXpert, the rapid molecular test for TB, were reallocated to the COVID-19 response. Specimen collection and transportation mechanisms, active case finding, contact tracing and TB prevention activities are stalled in many places due to mobility restriction, fear of exposure to COVID-19, lack of personal protective equipment (PPE) and the need for observing physical distancing norms. There were also delays in TB notification as TB staff and supervisors were engaged in COVID-19 response activities.

TB treatment: Treatment services were also affected in most high-TB burden countries. Some patients had to interrupt their treatment as they were unable to reach treatment centers or there was a shortage of drugs, particularly in peripheral health facilities that faced transportation challenges. Treatment adherence and adverse drug reaction monitoring were adversely affected as health workers were deployed to the COVID-19 response. There are reports of disruptions in procurement, logistics and supply chains, especially of first-line TB drugs.

Other barriers in accessing services: Lockdowns restricted access to information and to economic, nutritional, counselling and psychosocial support. TB and COVID-19 share similar symptoms (cough and fever), which might be perpetuating and increasing the stigma and discrimination particularly among the most marginalized and vulnerable communities, who are disproportionately affected. Contact tracing and other public health actions including TB preventive treatment were interrupted.

Stretched domestic financing for TB: Domestic funding accounted for a substantial proportion of funding for many TB programs, and often supported procurement of life-saving TB drugs and critical human resources. Government financing of COVID-19 mitigation measures, including hospital care and financial packages for lost livelihoods, coupled with decreased revenues due to economic slowdown, compromises the ability of governments to meet their domestic funding commitments for TB. The shift of large tracts of the population into extreme poverty is likely to fuel the TB epidemic into the future. Currently, several countries are at heightened risk of interruption of TB drugs and other critical elements of the program due to domestic budget cuts, price hikes in essential supplies and added logistics costs.

Program management disruptions: As a consequence of the pandemic response, focused TB program reviews, supervision, and trainings got side-lined. Lack of real-time data in TB diagnosis and treatment is preventing identification of accurate local, regional, and national disruption in TB services and monitoring of the mitigation measures. There are delays in procurement-related activities due to shifting priorities and restrictions imposed by the lockdown.

1.4 Response to Date

Several national TB programs (NTPs) have taken urgent measures to mitigate the effect of the COVID-19 related lockdown and restrictions on TB services and helped to regain some lost grounds. Initial responses were focused on essential services such as ensuring uninterrupted supply of drugs for patients on treatment and maintaining diagnostic services. Innovative approaches were deployed, including the use of community health workers to aid in specimen collection and transportation and home delivery of TB medicines, transporting sputum specimens for testing along with the COVID-19 specimen, use of mobile phone services for treatment adherence monitoring, and real-time, community-led monitoring initiatives for COVID-19 and TB. Some countries conducted rapid national assessment and developed a TB response plan.

Since March 2020, the Global Fund has approved more than US\$700 million to 103 countries and 11 multi-country programs to fight COVID-19 through increased testing and tracing and protection of front-line health workers; adapt existing HIV, TB and malaria programs to protect progress; and reinforce systems for health so they don't collapse and they are prepared to roll out COVID-19 treatments and vaccines once available. By September 2020, 104 countries and 12 multi-country programs have benefitted from the Global Fund's COVID-19 Response Mechanism and grant flexibilities to support emergency measures, including procurement of PPE and GeneXpert machines.

2. Responding and Adapting to the COVID-19 Pandemic

2.1 Goal and Objectives

The overall goal is to **restore** and **accelerate** the diagnosis, treatment and prevention of TB. Specific objectives are to:

- Reverse the losses in diagnosis, treatment and prevention of TB to pre-COVID-19 levels during 2021.
- Accelerate TB diagnosis, treatment and prevention services to get back on-track to attain the UNHLM targets by 2022.
- Adapt TB care models to the new COVID-19 context and requirements.

2.2 Key Considerations

The following key considerations are important when planning and implementing a response to mitigate the impact of COVID-19 on TB services.

- Increase or at least maintain the commitments made by governments of domestic funding for TB for the period 2020-2022. Ensure that critical elements of the TB programs are maintained, and any shortages are addressed immediately. Where possible, mobilize additional resources and/or reprogram current resources to scale up programs to restore TB diagnosis, treatment and prevention.
- Maintain the ambitious performance targets agreed in the national strategic plans and the funding requests to the Global Fund (2021-2023). To do so, catch-up plans should aim to make up for the loss in 2020 while achieving the 2021 targets to get back on-track to meet the UNHLM target by 2022. Undertake rapid-assessments to inform national and sub-national plans that are tailored to address key gaps, considering the specific local context and feasibility, while promoting innovative interventions. Given the adverse impact of COVID-19 on TB notifications in particular, most country plans will need to focus on TB case finding as the topmost priority.
- Assess exacerbated legal, gender and other social barriers (including stigma and discrimination) to accessing TB and related support services, including from the perspective of TB key populations. Develop interventions and approaches, including community-led monitoring to overcome the identified barriers.

- Identify opportunities for the TB program to benefit from the COVID-19 response, including heightened attention to public health measures such as infection prevention and control, contact tracing, active case finding, preventive treatment, strengthened laboratory networks, and disease surveillance systems.
- Phase interventions considering urgency and feasibility – short-term (6-12 months), medium-term (1-2 years), longer-term (2022 and beyond). Some interventions, such as maintaining diagnosis and treatment services, if not already implemented, need to be implemented with no delay to minimize service disruptions. Others, such as establishing real-time surveillance system, require longer lead-times to implement. Preparing plans and securing investments for these interventions should be done as soon as possible.
- Document success and challenges when implementing innovative approaches and interventions, to inform and guide further scale-up and document lessons learnt. Where appropriate and feasible, consider operational research to determine their impact.

2.3 Strategy and Key Interventions

2.3.1 Planning and Programming to Respond to COVID-19

Conduct rapid assessment and consultations with in-country stakeholders, including affected communities, to develop national and sub-national restorative and catch-up plans. Customize the plans to address key gaps considering local context and feasibility of implementation, while promoting innovative and prioritized interventions to restore and accelerate TB diagnosis, treatment and prevention activities. If restorative/catch-up plans exist, consider updating them to include innovative interventions which can work in the specific context. Use data and consider modeling to inform decision-making on the most effective combinations of interventions.

Rapid root-cause analysis will assist in the planning of customized intervention packages and phasing of immediate, intermediate and longer-term interventions. Local innovation by countries will guide further improvement and refinement of the mitigation measures. The People-Centred Framework for TB can guide the assessment and planning to fill the most critical gaps across the entire TB care cascade.

The epidemiological context for TB and COVID-19 differs between and within countries. Therefore, a differentiated response plan based on the epidemiology of both diseases, considering socio-economic conditions, would be the ideal approach.

Additionally, NTPs should be engaged in the COVID-19 response and leverage COVID-19 response plans to promote and strengthen TB services. Health care workers protection and care, including emotional burnout, has become more relevant during the pandemic and should be addressed in the plans. Where possible, additional allowances, adequate PPE, and health insurance coverage for health care workers responding to COVID-19 and TB may be considered.

2.3.2 Sustain Commitment and Resources to End TB

High level advocacy and communications campaigns are needed to gain the attention and commitment of stakeholders at all levels to reverse diverted resources to maintain and accelerate the TB response. This would include securing involvement of civil society and communities in the response and ensure inclusive and accessible health care, especially for the most marginalized and vulnerable populations. The multi-sectoral response to the COVID-19 pandemic needs to be replicated for TB. Collaboration between different government ministries like finance, home security, pharmaceuticals, agriculture, industry and corporate affairs, “a whole-of-government approach for COVID-19” is applicable and needed for the TB response too. A communications strategy, embedded with a COVID-19 communications plan where possible, needs to be designed and implemented to address

challenges related to health seeking behavior of people with TB symptoms, provide community level messaging for both diseases, address stigma, and mobilize community support to contribute to the response.

Step-up proactive advocacy efforts in countries to highlight the consequences of TB budget shifts: mobilize parliamentarians, medical professional associations, TB affected communities, civil society, media, and celebrities to reach out to decision makers. Addressing TB in the COVID-19 pandemic situation needs to be on the agenda item of every high-level meeting on COVID-19. Where possible, undertake analytic activities such as epidemiological modelling and resource needs estimates, to present credible information for advocates and financial decision makers.

Reprogram/repurpose currently available resources: use opportunities available through existing donor-supported programs, including Global Fund grants and strategic initiatives, as well as reprogramming options to restore and accelerate TB services. Optimization of staff time, use of community workers, short term contracting are options for immediate mitigation of staff shortages. Identify areas of complementarity in the COVID-19 response investment that will also support TB services.

Ensure inclusive and accessible health care: while addressing TB service restoration and acceleration of the TB response, it is also important to look for measures to mitigate increased vulnerability from household economic loss and lack of health care coverage, especially for the most marginalized populations. Through a multi-sectoral response, TB programs should maximize equitable access to TB/DR-TB services through linkages with social security systems and universal health coverage (UHC). To move towards UHC, TB programs should capitalize on wider health and social protection systems initiatives that are able to respond to emerging epidemics and provide integrated, people-centered health care services. Stigma reduction for TB and COVID-19 are important to overcome barriers to care.

2.3.3 Interventions to Restore and Accelerate TB Services

Short to medium-term, campaign mode, surge-up plans are needed to restore and scale-up TB services to quickly turn the trajectory and gain the ground lost due to COVID-19.

Innovations for TB Diagnosis

Campaigns to increase TB notification and treatment coverage: plan catch-up campaigns to recover the back-log of TB cases that were missed due to the COVID-19 pandemic. Campaigns can take different forms depending on the COVID-19 situation. This could be a one-off or periodic, facility-based or community-based campaigns to promote and increase TB testing and patient support services by mobilizing community volunteers, civil society organizations and the public at large. It could be part of other activities such as COVID-19 screening, testing, contact tracing; reproductive, maternal, newborn and child health (RMNCH) and immunization campaigns undertaken at community or household levels. These initiatives should be accompanied by media campaigns to inform and mobilize communities to avail themselves of TB services and to supplement efforts of health care workers. It should be planned with attention for logistics, to ensure tests, medicines, patient support and personal protection materials are available to all people availing the services. Where outreach campaigns may not be feasible due to COVID-19 restrictions or stretched health care system, consider use of community radio, television, SMS, social media, as suitable to the target populations.

Mobile TB services: they have an important role during the catch-up phase to accelerate TB testing and treatment and should be considered wherever the COVID-19 situation allows. Mobile vans fitted with digital portable or handheld x-ray machines, improved bacteriological

diagnosis and early drug resistance detection using rapid molecular tests, and concomitant testing for HIV, diabetes, and COVID-19 offers great opportunity for community-based early diagnosis. Exploring the potential of digital innovations, such as computer-aided diagnosis (CAD) of chest radiography for the screening and triage of TB, will be useful. Mobile TB testing should be planned to prioritize key populations in order to ensure equity and maximize benefit to the people. Mobile services are equally important tools for community awareness, linkage to existing TB community services, and stigma reduction messages.

Integrated TB and COVID-19 screening: screening TB patients for COVID-19 and COVID-19 patients for TB needs to be explored in settings where simultaneous exposure to both diseases is high. Integrated screening and testing for TB and COVID-19 should be practicable as both diseases present with similar symptoms, and people with these symptoms will likely consult with health care providers who can manage both diseases. This will entail development of diagnostic algorithms, planning and strengthening laboratory capacity to cater to both diseases, and observance of necessary infection prevention and control measures.

Decentralize TB testing to improve access: increase TB testing at the community and household levels using fully equipped mobile vans, expand active case finding activities, and strengthen specimen collection and transportation systems. The availability of portable molecular tests which can be used for both diseases (e.g, GeneXpert and Truenat), x-ray machines, and integrated contact tracing offer an opportunity to significantly improve access to TB and COVID-19 diagnosis and TB preventive treatment (TPT). Explore possibilities for sputum collection and transportation to be supported with call centres, mobile apps and courier services for ordering TB tests; home collection of samples; use of community health workers, support groups and volunteers.

Contracting services: contracting with non-government and private sector providers to fill the gap in availability of diagnostic services, including x-ray, should be considered, as suitable to the local context. Engage community groups to assist with provision of TB services and for community-led monitoring to assess barriers in accessing COVID-19 and TB care (utilizing digital platforms where possible), to inform program managers of service gaps for timely corrections.

Behavioral changes and measures widely used for COVID-19 such as use of masks, physical distancing, infection prevention and control, contact tracing measures could be critical in limiting transmission of TB as well. TB programs need to take advantage of these and reinforce these measures in health care facilities, in the community and during TB health education activities. E-learning techniques could serve to train large numbers of health care professionals rapidly, as well as to instruct the public, patients and their families on measures to prevent and seek care for TB and COVID-19.

Innovations for TB Treatment

Explore innovative options for distribution of medicines to people with TB to avoid treatment interruption caused by restriction in mobility, e.g. e-Pharmacy, use of volunteers and first-line TB and COVID-19 responders for home delivery of medicines. Allow flexibility to issue additional stock of medicines to ensure uninterrupted supply of drugs to people with TB. It may be possible to use the same specimen collection and transportation system to also deliver medicines to patients.

Accelerate the use of digital treatment adherence technologies and other digital tools. Call centers and mobile apps could be used to provide home-based support to patients for counselling, treatment monitoring and reporting adverse drug reactions. Use of digital technology will particularly be useful to monitor treatment adherence in situations where

physical contact is not possible and when patients are issued with additional buffer stocks of medicines.

Expedite the roll-out of WHO recommended all-oral treatment regime for both drug sensitive and drug-resistant TB. This will also help in doing away with the need for patients to frequently visit health facilities for injections.

Invest in community and non-government workers to support people with TB to complete their treatment. Look for opportunities to provide financial and nutritional support to patients and their families through government schemes or support through corporate social responsibility programs.

Innovations for TB Prevention

Contact tracing is a major component of the COVID-19 response. TB programs should use this opportunity for TB contact tracing and testing followed by treatment for either TB disease or infection. Contact tracing and screening apps for COVID-19 can be adapted and used for TB contact screening. Bi-directional reporting with real time data sharing, while ensuring confidentiality, needs to be established between the TB program and COVID-19 response team.

Systematic contact tracing, community or home-based delivery of drugs and tests, with active engagement of community support systems and local self-governments should be considered. Special focus should be given to initiate TPT in the high-priority groups, people living with HIV and children under 5 years, to ensure that these return to pre-pandemic levels and are scaled-up in line with the ambitious UNHLM targets.

Community outreach activities, such as active case finding for TB, COVID-19 contact tracing and immunization campaigns could integrate contact investigation for TB in their activities. It is also in the interest of TB programs to ensure that BCG vaccination coverage is adequately maintained.

For the population groups that require testing for TB infection, explore options to improve access to tests. This could be through expansion and decentralization of testing facilities for TB infection or provisions for collection and transportation of samples for testing. Contracting the private sector for testing of TB infection may have potential in some settings. Testing should not be a barrier to start TPT in situations of elevated risk of progression or in children younger than 5 years and people living with HIV.

Invest and educate in the area of infection prevention and control. The attention received globally on airborne infection prevention and control measures needs to be utilized for TB prevention with sustained public health messaging on prevention measures like use of masks, handwashing, physical distancing, and ban on spitting, to influence community behavior. Adequate personal protective equipment for health care workers, trainings on its proper use, ensuring health care facilities have the necessary measures in place to protect health care workers and people seeking TB services, training and monitoring implementation of infection prevention and control measures in health facilities, including laboratories, are all critical to prevent the spread of TB. The pandemic has also emphasized the need for triaging patients with symptoms of infectious diseases. Health facilities need to establish or strengthen mechanisms to systematically identify people with presumptive TB and/or COVID-19 attending health care facilities, separate them from other clients, and enable fast-tracked rapid diagnosis and treatment initiation to prevent further transmission.

Establish or expand systems to provide social, mental health, nutritional and financial support to people with TB. Implementing activities to adequately scale up TB preventive services, including TPT coverage in line with the UNHLM targets, would need additional workforce.

Conduct vulnerability mapping to identify and map people at higher risk of TB and TB infection, preferably through digital data. Use of contact tracing apps, digital systems for location mapping, tracing, and monitoring are critical for early TB detection. These initiatives, along with focused active TB case finding will facilitate timely TB prevention and care. Necessary protections should be taken to ensure rights to privacy and confidentiality are maintained, requiring even more attention to protect vulnerable people.

Private Sector Engagement Innovations

In countries where private health care sector is prominent, they should take an important role in restoring TB services, with appropriate funding, linked to quality of performance, facilitated by information technology solutions. Where appropriate, accelerate engagement with private health care providers to support early and appropriate diagnosis, treatment and notification of TB patients. NTPs could consider smart purchasing of TB services (laboratory, chest x-rays, sample collection, drug delivery, treatment monitoring) to fill commodity and human resources gap, where needed, feasible and financially viable. While doing so, care should be taken to avoid adverse economic consequences to the health sector and patients.

Private sector could also contribute through their corporate social responsibility funds and by implementing or expanding workplace TB programs. The Global Fund and partners are also working with private companies to promote uptake of innovations in TB service delivery. Countries could consider adapting and scaling up these innovations.

2.3.4 Adapting TB Programming to the COVID-19 Situation, including Enhanced Surveillance

The COVID-19 pandemic has shown the limitations of the vertical, clinic-based and medicalized way of responding to TB. National TB programs need to adapt program management and monitoring system to make it effective in the COVID-19 pandemic era. Approaches that can help with this adaptation include:

- Shift the TB response model to a community and home-based model with increased reliance on better tools like rapid molecular tests and digital chest x-rays, possibly in combination with computer assisted x-ray readings, newer treatment regimens for DR-TB and TPT, and adoption of digital tools for virtual care and support. Home based care for DR-TB should come with a good support system for active drug safety monitoring and management (aDSM) at home, with provisions for proper medical back-up.
- Better integration with the wider health systems, including the private sector where appropriate, to leverage opportunities and synergize actions to benefit the TB response.
- Protect health workers and people seeking TB care from the risk of COVID-19 infection.

Enhanced TB surveillance to monitor the situation and inform actions: the present system of aggregated data at quarterly intervals for program monitoring need to change to case-based, digital system. This will enable real-time monitoring of key TB program performance and identify gaps and challenges to inform timely corrective actions.

The COVID-19 pandemic situation should be utilized for building and strengthening the TB disease surveillance system incorporating epidemiological and program monitoring data and analytics. Necessary infrastructure and trained manpower need to be developed at all levels – national, provincial/state, and district levels. Preferably and whenever possible, this should be integrated into existing health management information system. Some of the requirements include:

- Real-time surveillance of key TB program performance with dashboards and mobile apps to make these data available for use.
- Use dashboards at all levels (national, sub-national, health facility levels) to present gaps in TB response for timely corrective actions.
- Use data and modeling to show benefits of action and risks of inaction.
- Track availability of diagnostics and TB drugs along the entire supply chain.

2.3.5 Technical Assistance

Technical support to develop or update catch-up plans for COVID-19 can be available through organizations including the World Health Organization, Stop TB Partnership, USAID, The Union, KNCV and others. If you need more information, contact your Global Fund Country Team.

3. Resource Materials

1. Political declaration of the High-Level Meeting of the General Assembly on the Fight Against Tuberculosis. <https://digitallibrary.un.org/record/1649568?ln=en>
2. Situation Report for COVID-19 by Country. MRC Centre for Global Infectious Disease Analysis, Imperial College London. <https://mrc-ide.github.io/global-lmic-reports/>
3. The potential impact of the covid-19 response on tuberculosis in high-burden countries: a modelling analysis. Stop TB Partnership, Geneva: Stop TB Partnership, Geneva; 2020. http://www.stoptb.org/assets/documents/news/Modeling%20Report_1%20May%202020_FINAL.pdf
4. Information note: Tuberculosis and COVID. World Health Organization; May 2020 <https://www.who.int/docs/default-source/documents/tuberculosis/infonote-tb-covid-19.pdf>
5. The impact of COVID on the TB epidemic: A community perspective; September 2020 <http://www.stoptb.org/assets/documents/resources/publications/acsm/Civil%20Society%20Report%20on%20TB%20and%20COVID.pdf>
6. People-centered framework for tuberculosis programme planning and prioritization, User guide. <https://www.who.int/tb/publications/2019/WHO-CDS-GTB-19.22/en/>
7. WHO Handbook for the use of Digital Technologies (2017) <https://apps.who.int/iris/bitstream/handle/10665/259832/9789241513456-eng.pdf;jsessionid=9F9A0EE71B6C9E72812B670B74EC2CF4?sequence=1>
8. Information note: Digital Health technologies, virtual care and community-based monitoring solutions for TB programmes

http://www.stoptb.org/assets/documents/covid/Digital%20Technology%20Solutions%20for%20TB%20Programs%20during%20the%20time%20of%20COVID-19_v11.pdf

9. Stop TB One Impact Community Monitoring tool

<https://stoptbpartnershiponeimpact.org/>

10. Digital Adherence Technology Implementation Toolkit

<https://kncvtbc.atlassian.net/wiki/spaces/ADHERENCE/overview>

11. WHO Consolidated Guidelines on DR-TB Treatment (2020)

<https://www.who.int/publications/i/item/9789240006997>

12. TB Stigma Assessment Implementation Handbook

<http://www.stoptb.org/assets/documents/communities/STP%20TB%20Stigma%20Assessment%20Implementation%20Handbook.pdf>

13. TB Stigma Reduction Tools: <https://www.kncvtbc.org/en/stigma-3>

4. List of Abbreviations

aDSM: Active drug safety monitoring and management

BCG: Bacillus Calmette–Guérin vaccine

COVID-19: Coronavirus disease 2019

CRG: Community, Rights and Gender

DR-TB: Drug-resistant TB

HMIS: Health Management Information System

MDR-TB: Multi-drug resistant Tuberculosis

NT: National Tuberculosis Program

PPE: Personal Protective Equipment

PHC: Primary Health Care

PLHIV: People Living with HIV

RMNCH: Reproductive, Maternal, Newborn and Child Health

TA: Technical Assistance

TB: Tuberculosis

TPT: Tuberculosis preventive treatment

UHC: Universal Health Coverage

UN: United Nations

UNHLM: UN High-level Meeting

WHO: World Health Organization