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ONE YEAR ON, NEW DATA SHOW GLOBAL IMPACT OF COVID-19 ON TB EPIDEMIC IS WORSE THAN EXPECTED

RECOVERY STRATEGIES CENTERED ON ACCELERATED TESTING AND CONTACT TRACING FOR TB AND COVID-19 MUST BE IMPLEMENTED

World TB Day is observed on the 24th of March and marks the day in 1882 when Robert Koch publicly announced the discovery of the bacteria that causes tuberculosis (TB). Over the last 139 years, despite progress made in tools for prevention, diagnosis, treatment and cure, TB has ravaged humans and emerged as the leading cause of death from a single infectious disease. More than 100 years later, we only have one vaccine against TB, and its effectiveness in adults is poor.

One in four people in the world has latent TB infection, meaning they are at risk of developing active TB infection at some point in their lives. Each year, 10 million people fall ill with TB disease, mostly in impoverished regions, and almost 1.5 million die due to this preventable and treatable infectious disease. Being airborne, TB is a global health security threat. In 2018, at the United Nations High-Level Meeting (UNHLM) on TB, all world leaders committed to taking specific actions against the disease to reach targeted milestones by the end of 2022.¹

DRAMATIC IMPACT OF COVID-19 PANDEMIC ON TB

Since March 2020, the COVID-19 pandemic has severely disrupted TB responses in low- and middle-income countries, stalling and reversing years of progress made against TB. In 2020, COVID-19 overtook TB globally as the most common cause of death from an infectious disease, but in low- and middle-income countries, TB deaths remain far higher than those from COVID-19.² As the number of people vaccinated against COVID-19 grows, the number of COVID-19 deaths decrease while TB will continue to kill roughly 4000 people every day.

There are many similarities between TB and COVID-19. Both are airborne infections transmitted through breathing, affecting primarily the respiratory tract, and causing similar symptoms such as cough, fever, and breathlessness. Therefore, the responses to both TB

¹ [https://undocs.org/en/A/RES/73/3](https://undocs.org/en/A/RES/73/3)
² [http://www.stoptb.org/assets/documents/covid/TB_COVID_DEATHS_ALL_Large.jpg](http://www.stoptb.org/assets/documents/covid/TB_COVID_DEATHS_ALL_Large.jpg)
and COVID-19 have many similarities, such as testing, tracing, masking, isolating and airborne infection control in health care and other settings.

When the COVID-19 pandemic started in high TB burden countries, TB program expertise and resources were used to respond to COVID-19. This included the diversion of medical staff with expertise in TB and lung diseases, the repurposing of TB hospitals, and the use of the TB rapid molecular testing and X-Ray equipment for COVID-19.3 At the same time, in several high TB burden countries, TB service delivery points closed and people had to face fear and stigma to access those that remained open. The lockdowns also prevented access to TB diagnostic and treatment services.

In May 2020, a modelling study4 conducted by the Stop TB Partnership in collaboration with Imperial College, Avenir Health, Johns Hopkins and the United States Agency for International Development (USAID) predicted the impact of COVID-19 related measures on TB. It estimated that even a few months of stringent COVID-19 responses such as lockdowns would have a lasting impact on TB in high-burden settings through their effect on TB diagnosis and treatment. It showed that, globally, a three-month lockdown followed by a protracted 10-month restoration could lead to an additional 6.3 million cases of TB between 2020 and 2025 and an additional 1.4 million TB deaths during this time. This suggested that global TB incidence and deaths in 2021 could increase to levels last seen between 2013 and 2016, respectively – implying a setback of at least 5 to 8 years in the fight against TB.

In March 2021, we now have data from several countries showing that the impact on TB diagnosis and treatment happened as was assumed in the modelling. However, the recovery has taken longer than expected, and as of March 2021, it is not complete in most high TB burden countries.

The Stop TB Partnership and USAID teams have data to suggest that nine high TB burden countries5 representing 60% of the global TB burden had a total decline of 1 million in TB diagnosis and enrolment on treatment in 2020 (when compared with 2019), ranging from 16%-41% (an average of 23%) in individual countries. The decline was seen more in Asian countries. Globally, in 2020 there was an estimated drop of at least 1 million in TB treatment enrolment, pushing the TB response to 2008 levels in terms of people diagnosed and treated. Twelve years of hard work and investments have been simply lost, and the impressive gains in recent years in reducing the people missing from TB care have been reversed.

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5 Bangladesh, India, Indonesia, Myanmar, Pakistan, Philippines, South Africa, Tajikistan, and Ukraine
Annual percentage change in TB diagnosis and enrollment for nine high-TB-burden countries

In addition to the decline in TB diagnosis and treatment, there is evidence of an increased risk of mortality in people with TB, which is an estimated three times greater for those also infected with SARS-CoV-2 compared to those without the co-infection. The clinical interactions of COVID-19 with TB mean that people affected by TB are more prone to develop residual lung damage and are therefore at a higher risk of adverse outcomes. The higher risk of adverse outcomes in people with TB co-infected with COVID-19 is a strong reason to prioritize people with TB for COVID-19 vaccination.

URGENT NEED FOR RECOVERY OF TB RESPONSES

The 2020 UN Secretary General’s report on progress on meeting the UNHLM targets recommended: “Ensure that TB prevention and care are safeguarded in the context of COVID-19 and other emerging threats.” In their report on progress towards UNHLM targets “A Deadly Divide,” TB communities called on the international community to “leverage COVID-19 as a strategic opportunity to end TB.”

6 https://undocs.org/en/A/75/236
India was one of the first countries where the dramatic decline in TB notifications (70% decline between weeks 10 and 15 of 2020) was noticed due to the real-time TB notification system “Nikshay,” available in the public domain. A high-level committee under the chairmanship of the Indian Minister of Health developed a rapid response plan by August 2020. The key components of India’s response plan involve integrating TB and COVID-19 in all outreach, including active screening programs and laboratory services. Efforts to locate TB and COVID-19 cases in all health care facilities intensified, and rapid molecular testing for TB expanded. Bi-directional screening of TB and COVID-19 took place in people displaying influenza-like illness and severe acute respiratory infections. Contact tracing systems and testing for TB linked to COVID-19 contact tracing were quickly set up. Private sector TB care facilities were reopened, and digital tools were rolled out to help people with TB stick to treatment regimens, among other measures. The high level of political commitment in India—from the Prime Minister—helped in the recovery process. The experience of India is described in a recent article co-authored by the Health Minister of India and the Executive Director of Stop TB Partnership, wherein a G20 agenda on TB is also proposed (about 50% of the world’s TB is in G20 countries).

The TB programs of several high TB burden countries have made efforts to recover. Some have been more successful than others.
Experiences from countries show that for recovery of TB responses to be successful, high levels of political commitment and significant increases in resources are a must. These resources need to prioritize massively increasing screening and testing for TB with investments in diagnostics and community systems.

INTEGRATED APPROACH FOR PREVENTION AND CARE OF LETHAL RESPIRATORY INFECTIONS – COVID-19, TB AND FUTURE AIRBORNE PANDEMICS

The world needs to recover from both the COVID-19 pandemic and the setback to TB responses, and then also needs to prepare for the next airborne pandemic. Carefully thought out and forward-looking interventions for prevention and care of airborne respiratory infectious will benefit the fight against both COVID-19 and TB, as well as any future pandemic arising from an airborne infectious disease. Such interventions should focus, at a minimum, on the following:

- **Implement massive community and primary health care level screening.** People with a cough and fever should be tested for both TB and COVID-19, using the latest laboratory tests and imaging techniques, and contact tracing should be initiated. For this to happen at scale, all primary health care units need to be equipped with diagnostics (Xpert, Truenat, RT-PCRs and Rapid Tests, ultraportable X-ray with automated reading), including adequately equipped mobile vans providing outreach into communities. Community workers and volunteers should also facilitate contact tracing and active screening of vulnerable populations in at-risk communities.

- **Mobilize, create, develop and support networks of TB survivors and TB communities** so they can reach out; offer treatment and mental health support; work against stigma and fears; and mobilize people for contact tracing, diagnosis and vaccinations.

- **Implement airborne infection prevention and control measures in all health care units and in congregation settings.** These include ventilation measures, upper-air ultra-violet germicidal irradiation, personal protective equipment and more. The experience and expertise of TB programs in this area will be of great benefit for scale-up.

- **Implement real-time surveillance data with early warning systems for data-driven and agile public-health decision making.** Such data should be generated from public and private care providers and laboratories, as well as affected community members.

An integrated approach will need additional resources. The Stop TB Partnership calls upon governments, the Global Fund to Fight AIDS, Tuberculosis and Malaria and development banks to invest in the recovery and strengthening of TB responses and integrated approaches to address TB, COVID-19 and future airborne pandemics.