In the News

WHO Report: Years of Progress in Global Tuberculosis Upset by COVID-19 Pandemic

Joan Stephenson, PhD

In 2021, the number of people worldwide who were ill with tuberculosis (TB), including drug-resistant TB, increased after many years of gradual decline—a setback attributed to the COVID-19 pandemic’s effect, according to a new report from the World Health Organization (WHO).

Progress against the disease “has slowed, stalled or reversed, and global TB targets are off track,” the report notes. The report also highlights a particularly concerning finding: about 450,000 of those new cases involved rifampicin-resistant TB, a 3% increase from 2020.

An estimated 10.6 million people worldwide fell ill with the infection in 2021, a 4.5% increase from 2020. About 86% of the individuals who developed TB were in 3 WHO regions—South-East Asia, Africa, and the Western Pacific.

The number of deaths from TB also increased, with 1.6 million TB deaths in 2021, compared with an estimated 1.5 million deaths in 2020 and 1.4 million deaths in 2019. “Globally, the annual estimated number of deaths from TB fell between 2005 and 2019, but the estimates for 2020 and 2021 suggest that this trend has been reversed,” the report says.

These setbacks are partly attributed to the decreased availability of essential TB services after the COVID-19 pandemic emerged in 2020.

“The COVID-19 pandemic continues to have a damaging impact on access to TB diagnosis and treatment and the burden of TB disease,” the report notes. Ongoing conflicts across Africa, Ukraine, and the Middle East have also contributed to the disruption in providing TB services to vulnerable populations.

Case notifications—reports to national health authorities of people newly diagnosed with TB, paving the way to treatment and contact tracing—decreased from 7.1 million in 2019 to 5.8 million in 2020. In 2021, there were 6.4 million newly diagnosed cases, a figure still considerably below prepandemic levels.

These reductions “suggest that the number of people with undiagnosed and untreated TB has grown, resulting first in an increased number of TB deaths and more community transmission of infection and then, with some lag-time, increased numbers of people developing TB,” the report notes. The WHO estimates that more than 4 million cases were missed in both 2020 and 2021.

Five of the countries with a high burden of TB that experienced substantial reductions in TB case notifications in 2021 compared with 2019—India, China, Indonesia, the Philippines, and Myanmar—accounted for more than 90% of the shortfall, suggesting a large number of undiagnosed and untreated cases in those nations.

Another setback attributed to the pandemic was a 17% reduction in the number of individuals who received treatment for drug-resistant TB, from 181,533 to 150,469 between 2019 and 2020 (about one-third of those in need), with some improvement (161,746 provided treatment) in 2021. In addition, the number of people receiving preventive treatment for TB infection (mostly individuals living with HIV) declined from 3.6 million in 2019 to 3.2 million in 2020, partially recovering to 3.5 million in 2021.

The ongoing COVID-19 pandemic “is responsible for this sobering situation with the tuberculosis epidemic,” resulting in a “very concerning drop” in TB-related services, said Tereza Kasaeva, MD, PhD, director of WHO’s Global TB Program, in an online briefing about the report’s findings. On average, 20% of such services were unavailable because of the pandemic, she said.

Open Access. This is an open access article distributed under the terms of the CC-BY License.
In some of the countries, especially those with a high burden of the disease, more than 40% of the services were closed, she said, adding that delayed access and interruptions in treatment resulted in the worsening of TB globally and in countries with a high burden of the disease.

The report cites some encouraging findings in areas such as the provision of TB preventive treatment for people living with HIV and uptake of new WHO-recommended tools and guidance. For example, in addition to a rebound in the number of individuals given preventive treatment in 2021 to levels close to those in 2019, TB preventive treatment for people living with HIV exceeded the WHO's global target of 6 million in 2018 to 2022, reaching more than 10 million in only 4 years. India and 6 African countries (Nigeria, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe) together accounted for 82% of individuals started on preventive treatment in 2021.

The report also notes that countries are increasing their use of rapid diagnostic tests for TB. Several rapid molecular tests are recommended by the WHO as the initial diagnostic test for TB, including some that can detect drug resistance simultaneously. Such tests are viewed by the agency as important tools to improve early detection of TB, including drug-resistant infections.

Also encouraging is the increased uptake of treatment regimens recommended by the WHO, including all-oral regimens (supported by counseling and monitoring for adverse events). In 2021, more countries were using all-oral longer regimens to treat drug-resistant TB (109 countries, compared with 92 in 2020); 92 were using shorter regimens (compared with 65 in 2020), which can reduce length of treatment to only 6 months instead of 20 months or longer.

For preventive treatment, the report notes, access to shorter regimens (1-3 months) containing the drug rifapentine has increased from 25 657 individuals in 37 countries in 2020 to 185 350 people in 52 countries in 2021.

The WHO's End TB strategy set targets for 2030 of an 80% reduction in the global TB incidence rate from the 2015 rate and a 90% reduction in the absolute number of TB deaths. However, the report notes that global spending on essential TB services declined during the pandemic, from $6.0 billion in 2019 to $5.4 billion in 2021, considerably below the WHO's 2022 goal of $13 billion. This decline in spending likely reflects such pandemic-related factors as smaller numbers of people reported as diagnosed with TB between 2019 and 2021, fewer visits to health facilities and greater reliance on remote support during treatment, and redirecting resources toward the COVID-19 pandemic.

The report calls for increased investments to support intensified efforts that are "urgently required" to reverse pandemic-driven setbacks and increase access to and provision of TB services, as well as meet the need for new diagnostics, drugs, and vaccines.

"The need for action has become even more pressing in the context of war in Ukraine, ongoing conflicts in other parts of the world, a global energy crisis and associated risks to food security, which are likely to worsen some of the broader determinants of TB," the report says.

ARTICLE INFORMATION
Published: November 15, 2022. doi:10.1001/jamahealthforum.2022.4994
Open Access: This is an open access article distributed under the terms of the CC-BY License. © 2022 Stephenson J. JAMA Health Forum.
Corresponding Author: Joan Stephenson, PhD, Contributing Editor, JAMA Health Forum (Joan.Stephenson@jamanetwork.org).
Author Affiliation: Contributing Editor, JAMA Health Forum.
Conflict of Interest Disclosures: None reported.