

U.S. Agency for International Development Report to Congress on the Prevention of Tuberculosis

The U.S. Agency for International Development (USAID) submits this report to Congress pursuant to Division G of Public Law (P.L.) 116-94, Section 7019(e) of the Department of State, Foreign Operations, and Related Programs Appropriations Act, 2020 and the accompanying Senate Report 116-126.

Not later than 180 days after enactment of the act, the USAID Administrator shall submit a report to the Committee for Tuberculosis (TB)-prevalent countries, including, to the maximum extent practicable: (1) the number of individuals screened for TB disease and TB infection outside of health facilities; (2) the number of close contacts who are screened for TB infection; (3) the number of individuals, including close contacts, who are started on treatment for TB infection; and (4) the number of individuals who complete treatment for TB infection. This is USAID's second annual report on these indicators.

INTRODUCTION

Despite being preventable and curable, tuberculosis (TB), alongside COVID-19, is one of the leading infectious disease killers in low- and middle-income countries. Each year, an estimated 10 million people fall ill with TB, and 1.4 million die.¹ As a second-order impact of COVID-19, the World Health Organization estimates that an additional half a million people may have died from TB in 2020 alone -- bringing 2020 TB deaths to an estimated 1.9 million.

In September 2018, the United Nations General Assembly High-Level Meeting (UNHLM) on TB called for high-level attention and action on TB. This meeting established the ambitious target of diagnosing and enrolling an additional 40 million people on TB treatment and enrolling 30 million people on TB preventive therapy (TPT) by 2022, with a focus on countries with the highest burden of the disease.

As the U.S. Government's lead Agency on global TB efforts, USAID works with agencies and partners around the world on the shared goal of reaching every person with TB, curing those in need of treatment, preventing the spread of new infections, and stopping the progression to active disease. At the 2018 UNHLM, USAID launched the Global Accelerator to End TB (the Accelerator) to increase commitment from, and build the capacity of, governments, civil society, and the private sector to accelerate countries' progress in reaching the global targets. The Accelerator focuses on countries with high burdens of TB where the Agency can align with local communities and partners to deliver results. To ensure the Accelerator's effectiveness and increased transparency, USAID uses standardized data-collection and performance-based indicators that align with the targets.

¹ World Health Organization Global Tuberculosis Report, 2020.

USAID funds bilateral TB programs in 23 priority countries,² and of the 30 million people who comprise the UNHLM's prevention target, approximately 75 percent live in USAID's priority countries. USAID supports governments in increasing both commitment and capacity to scale-up preventive interventions, including by updating national TB prevention guidelines to reflect the latest international policy, conducting a cascade of training on TB prevention, expanding approaches to screen, and introducing TPT.

In 2020, COVID-19 and associated measures to control it severely disrupted TB diagnosis and care services in the world's highest TB burden countries, threatening to reverse years of progress. In USAID's TB priority countries, one million fewer people had access to diagnosis and treatment in 2020, compared to 2019 -- representing a 23 percent decline, with some countries experiencing declines of up to 50 percent. As a result, the pandemic's impact on TB is projected to sicken an additional 6.3 million people and cause an additional 1.4 million TB deaths between 2020 and 2025.

With the onset of the pandemic, many Ministries of Health redirected the limited funding available for TB to respond to COVID-19. Based on a USAID internal forecasting analysis conducted in January 2021 for USAID's TB priority countries, it is projected that the UNHLM prevention target will be at a 79 percent level of achievement by the end of 2022. COVID-19's continuing impact will likely further hinder reaching even this projected target and as a result, most of the indicators in this report show declines.

METHODOLOGY

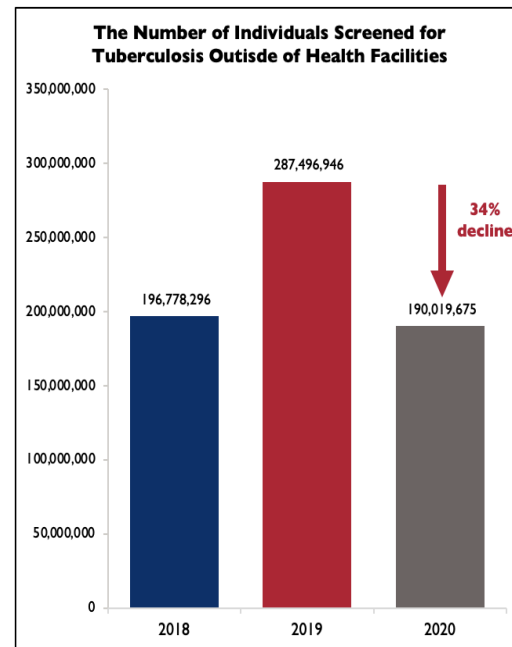
To the maximum extent practicable, USAID collected data on the four prevention indicators requested by Congress, outlined below. This report only covers USAID's 23 priority countries for TB, and all of these countries submitted some data. However, not all governments were able to report on the four indicators because these data are not routinely collected by their existing surveillance and reporting systems. The governments that reported on each indicator appear in the annex.

² USAID's priority countries for TB are the Islamic Republic of Afghanistan; the People's Republic of Bangladesh; Burma; the Kingdom of Cambodia; the Democratic Republic of Congo; the Federal Democratic Republic of Ethiopia; the Republics of India, Indonesia, Kenya, Malawi, Mozambique, The Philippines, South Africa, Tajikistan, Uganda, Uzbekistan, Zambia, and Zimbabwe; the United Republic of Tanzania; Kyrgyz Republic; the Federal Republic of Nigeria; Ukraine; and the Socialist Republic of Vietnam.

Indicator One: The number of individuals screened for TB disease and TB infection outside of health facilities.³

To collect consistent data on Indicator One, USAID defined technical terms as follows:

- “Outside of health facilities” refers to TB-screening activities in the community, including in and outside home settings (e.g., as part of contact investigation), routine outreach, and event-based screening carried out by community health workers or any other trained or qualified health personnel.
- “Screening” is, at a minimum, verbal screening (for signs and symptoms) to identify symptomatic individuals whom community health workers or health personnel then refer for further clinical evaluation or testing for TB disease. This also includes screening or assessment for TB infection, combined with or without testing for TB infection by tuberculin skin test (TST) or interferon-gamma release assay (IGRA).



Globally, an estimated 30 percent of TB cases are not properly reported or remain undiagnosed. These “missing cases” remain the predominant challenge in reducing the burden of TB. Active and intensified case-finding strategies are a critical component of USAID’s approach to address this challenge. Case-finding strategies should also include interventions to detect TB infection, as they provide effective ways to identify individuals recommended for TPT.

In USAID’s TB priority countries, screening for active TB disease and infection dropped by 34 percent between 2019 and 2020, losing all gains made from 2018 to 2019. Similarly, TB case notifications in these countries dropped by 23 percent, due to COVID-19’s disruption of TB services. Many countries significantly curtailed, and some countries even halted TB case-finding and screening activities due to COVID-19 lockdowns and movement restrictions. The pandemic also resulted in stoppage of community based case-finding and screening interventions and led to severe disruptions in the provision of services outside of health facilities.

³ For Indicator One: For 2018, the governments of 18 out of 23 USAID priority countries had data available to report; for 2019, the governments of 16 countries had data available to report; for 2020, the governments of 20 countries had data available to report. See annex for list of countries.

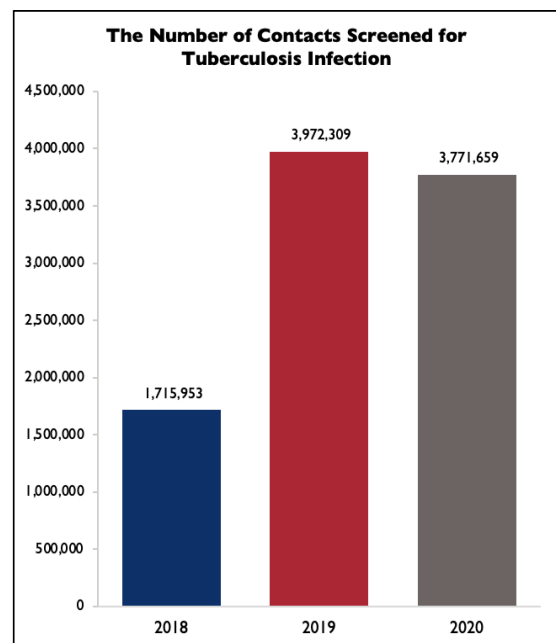
Countries face serious challenges in recovering from these setbacks and accelerating their preventive efforts to achieve the UNHLM targets. Efforts to get back on track will require integrating TB and COVID-19 screening activities (as both diseases have similar symptom manifestations) in communities. These activities can range from systematically organized TB screenings and contact investigations among high-risk groups; household contacts; individuals with underlying clinical conditions; individuals in congregate settings, like correctional facilities, nursing homes, and homeless shelters; and other risk groups determined by local epidemiological situations.

Indicator Two: The number of close contacts screened for TB infection.⁴

To collect consistent data on Indicator Two, USAID calculated the indicator as follows:

- The number of those “screened”⁵ for TB infection is the number of individuals who are in close contact with TB-positive patients screened for active TB disease (based on country-specific protocols), less the number of contacts diagnosed with active TB disease.

Similarly to Indicator One, COVID-19 had a negative impact on screening for TB infection among close contacts, as the rate decreased by five percent between 2019 and 2020. With the onset of the pandemic, many country TB programs pivoted to respond to COVID-19 and started utilizing existing TB contact investigation (TBCI) approaches as platforms to build out COVID-19 contact tracing activities, thus managing to somewhat mitigate the impact of COVID-19 and lessen the reduction in close contacts screened.⁶



⁴ For Indicator Two: For 2018, the governments of 17 out of 23 USAID priority countries had data available to report; for 2019, the governments of 15 countries had data available to report; for 2020, the governments of 20 countries had data available to report. See annex for list of countries.

⁵ Because individuals who have TB infection (as opposed to those ill with active TB disease) do not exhibit any signs and symptoms, programs that prevent TB and care for cases of the disease do not commonly use the terminology “screening” for TB infection. In addition, active TB-screening protocols and the types of data collected vary by country.

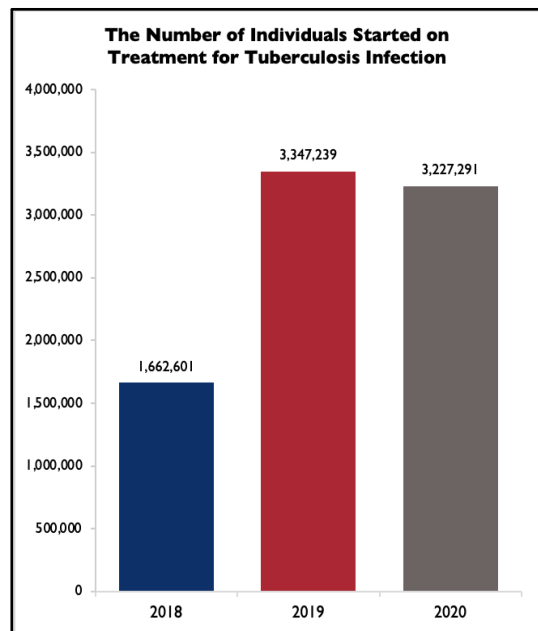
⁶ To note, for India, both the 2019 and 2020 figures include child (<6) household contacts as there was no national policy to treat adolescent and adult contacts for TB infection. However, we anticipate that with the adoption of the national guidelines and scaling up of TB infection implementation among all contacts there will be a significant increase (estimates are about 2 million additional adolescent and adult contacts) of this indicator in the next year’s report.

With the ultimate goal of reducing community TB transmission and initiating those with TB on treatment to improve outcomes, screening for active TB disease through TBCI improves early case detection and helps identify individuals to enroll in TPT. As growing evidence shows TBCI's effectiveness in addressing both of these, USAID encourages National TB Programs to implement systematic and routine TBCI, screen for active TB disease (versus TB infection), and increase access and delivery of TPT to appropriate individuals, including close and other household contacts.

Indicator Three: The number of individuals, including close contacts, started on treatment for TB infection.⁷

To collect consistent data on Indicator Three, USAID defined technical terms as follows:

- The "number of individuals started on treatment for TB infection" is those who are eligible for TPT (i.e., individuals ruled out for active TB disease and who meet other criteria), as specified in national guidelines or protocols on TB-preventive treatment. This also includes all household contacts (including children under five) of notified, bacteriologically confirmed new and relapsed pulmonary TB cases, and people who are living with HIV (PLHIV).



In USAID's TB priority countries, this indicator decreased by four percent between 2019 and 2020. While less drastic than the reduction in Indicator One, it similarly reflects COVID-19's disruptive impact and further exacerbates the significant challenges that remain in expanding TPT among children and adult contacts. The TPT enrollments among PLHIV were disrupted to a lesser extent, given the level of available HIV funding for those interventions, and that those were integrated with provision of antiretroviral therapy (ART) through established and innovative differentiated service delivery models. TB infection management involves a comprehensive package of interventions: identifying and testing individuals; delivering safe and effective treatment so patients complete treatment; and continuously monitoring and evaluating this process. Given the urgent needs to mount an effective COVID-19 response and

⁷ For Indicator Three, the governments of all 23 USAID priority countries had data available to report in 2018, 2019, and 2020. See annex for list of countries.

prioritize maintaining TB treatment services, most countries deprioritized TB prevention and TPT due to limited human resources and other means.

Indicator Four: The number of individuals who complete treatment for TB infection.⁸

To collect consistent data for Indicator Four, USAID defined technical terms as follows:

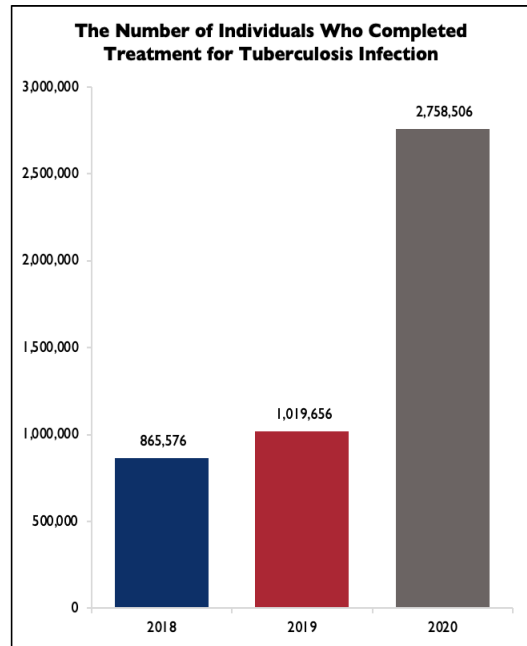
- "The number of individuals who complete treatment for TB infection" is the number of individuals who completed a recommended (based on national guidelines and protocols) TPT treatment. Current TPT treatment periods range from three months (with shorter regimens) to 36 months for PLHIV in settings with a high-burden of TB.⁹

Historically, the initiation or coverage of TPT was the only TB prevention indicator governments recorded.

In the past several years, however, the global

community has made a concerted effort to monitor TPT outcomes and the completion of TPT treatment as well. An individual's level of protection from a course of TPT depends on the extent to which he or she adhered to proper treatment protocols and duration. Many factors influence the complex behavior of adherence to treatment, including personal motivation, individual beliefs about health and medicine, the perceived risks and benefits from treatment, comorbidities, competing demands that conflict with taking medicine, family environments, the complexity and toxicity of drug regimens, and trust and relationship with health providers. As such, adherence to, and the completion of, TPT remains one of the biggest challenges in expanding the intervention.

In USAID's priority countries for TB, the Agency's programs tailor their interventions to encourage adherence to, and completion of, treatment to the local context and the specific needs of risk groups. Countries have maintained the scaling up of TPT, especially among PLHIV through targeted investments by PEPFAR, and this resulted in TPT completion rates increasing



⁸ For Indicator Four: For 2018, the governments of 17 out of 23 USAID priority countries had data available to report; for 2019, the governments of 16 countries had data available to report; for 2020, the governments of 20 countries had data to report.

⁹ Given the differences in the reporting and treatment periods, the cohort of people reported under Indicator Three (started TPT treatment) is not necessarily the same cohort of people who completed treatment for TB infection reported under Indicator Four.

almost two-fold between 2019 and 2020. Countries in Africa, where COVID-19's impact has been in some aspects less severe to date than in other high-burden TB countries, such as India, mostly account for this increase. In addition, innovative approaches adopted by countries -- such as multi-month dispensing of medicines, decentralization of service delivery models, telemedicine, and remote adherence support -- have resulted in higher TPT completions.

CONCLUSION

Even prior to the COVID-19 pandemic, the world was not on track to meet the UNHLM target of enrolling 30 million people in TPT by 2022, and COVID-19's impact has further stalled progress. TB screening declined as a result of curtailments of pandemic-related community interventions, and there was a slight decline of those started on treatment for TB infection, due to the likely deprioritization of TPT. However, Indicator Four, the number of individuals who complete treatment for TB infection, increased with COVID-19, due to a renewed focus and prioritization on the adoption of innovative approaches to complete treatment during the pandemic, such as multi-month medicine dispensing, telemedicine, and remote treatment adherence support.

While COVID-19 has had a devastating impact on TB diagnosis and care, the fact that any progress was made in prevention efforts shows TB programs' ability to adjust and adapt to provide uninterrupted services to those in need -- and this comes despite resource challenges, as TB remains underfunded and some country TB resources were diverted to respond to COVID-19. The mitigation of COVID-19's impact also demonstrates how, through integrated approaches, existing TB platforms can be utilized to respond to both TB and emerging infectious diseases like COVID-19 -- effectively using limited resources to achieve results for both diseases.

Ultimately, however, TB prevention and overall TB recovery efforts will require continued political commitment and increased resources to regain lost progress and swiftly accelerate interventions to meet the UNHLM targets.

ANNEX

	Indicator One	Indicator Two	Indicator Three	Indicator Four
2018	The governments of 18 out of 23 USAID priority countries had data available to report: Afghanistan, Bangladesh, Burma, Cambodia, the Democratic Republic of Congo, India, Indonesia, Kenya, Kyrgyz Republic, Malawi, Mozambique, Nigeria, the Philippines, South Africa, Tajikistan, the United Republic of Tanzania, Uzbekistan, and Zambia	The governments of 17 out of 23 USAID priority countries had data available to report: Bangladesh, Burma, Cambodia, Ethiopia, India, Indonesia, Kenya, Kyrgyz Republic, Malawi, Mozambique, Nigeria, South Africa, Tajikistan, the United Republic of Tanzania, Ukraine, Uzbekistan, and Zambia	The governments of all 23 USAID priority countries had data available to report.	The governments of 17 out of 23 USAID priority countries had data available to report: Afghanistan, Bangladesh; Burma; the Democratic Republic of Congo, Ethiopia, India, Kenya, Kyrgyz Republic, Malawi, Mozambique, Nigeria, the Philippines, the United Republic of Tanzania, Uganda, Ukraine, Viet Nam, and Zambia
2019	The governments of 16 countries had data available to report: Afghanistan, Bangladesh, Burma, the Democratic Republic of Congo, India, Indonesia, Kenya, Malawi, Mozambique, Nigeria, The Philippines, South Africa, Tajikistan, the United Republic of Tanzania, Ukraine, Uzbekistan, and Zambia	The governments of 15 countries had data available to report: Bangladesh, Burma, the Democratic Republic of Congo, Ethiopia, India, Indonesia, Kenya, Malawi, Mozambique, Nigeria, South Africa, the United Republic of Tanzania, Ukraine, Uzbekistan, and Zambia	The governments of all 23 USAID priority countries had data available to report.	The governments of 16 countries had data available to report: Afghanistan, Burma, the Democratic Republic of Congo, Ethiopia, India, Indonesia, Kenya, Kyrgyz Republic, Malawi, Mozambique, Nigeria, the United Republic of Tanzania, Uganda, Ukraine, and Viet Nam, Zambia
2020	The governments of 20 countries had data available to report: Afghanistan, Bangladesh, Burma, Cambodia, India, Indonesia, Kenya, Kyrgyz Republic, Malawi, Mozambique, Nigeria, the Philippines, South Africa, Tajikistan, Uganda, the United Republic of Tanzania, Uzbekistan, Viet Nam, Zambia, and Zimbabwe	The governments of 20 countries had data available to report: Afghanistan, Bangladesh, Cambodia, the Democratic Republic of Congo, Ethiopia, India, Indonesia, Kenya, Kyrgyz Republic, Malawi, Mozambique, Nigeria, Tajikistan, Uganda, Ukraine, the United Republic of Tanzania, Uzbekistan, Viet Nam, Zambia, and Zimbabwe	The governments of all 23 USAID priority countries had data available to report.	The governments of 20 countries had data to report: Afghanistan, Bangladesh, Burma, Cambodia, the Democratic Republic of Congo, India, Indonesia, Kenya, Kyrgyz Republic, Malawi, Mozambique, Nigeria, South Africa, Uganda, Ukraine, the United Republic of Tanzania, Uzbekistan, Viet Nam, Zambia, and Zimbabwe