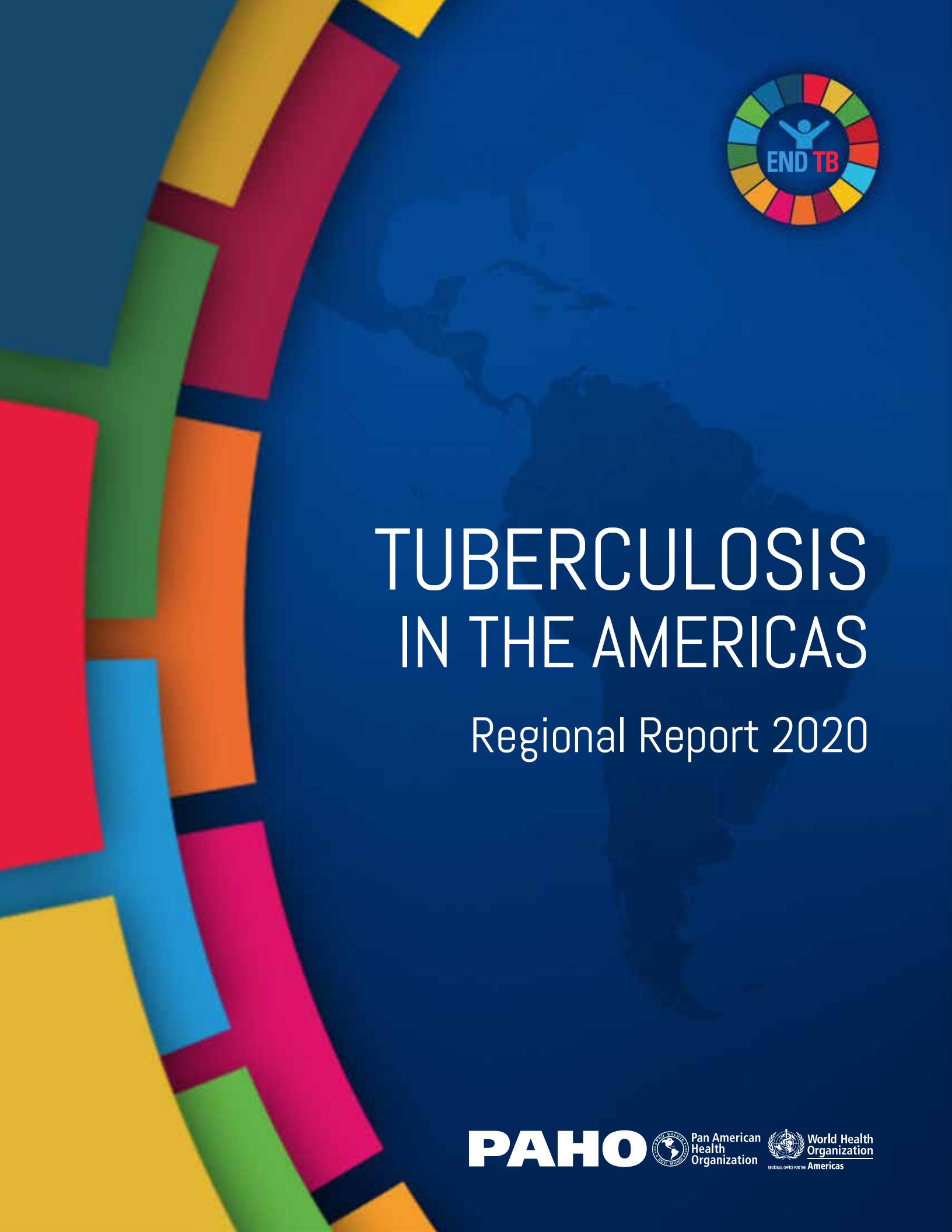

TUBERCULOSIS IN THE AMERICAS

Regional Report 2020

PAHO Pan American Health Organization
World Health Organization
REGIONAL OFFICE FOR THE Americas

TUBERCULOSIS IN THE AMERICAS

Regional Report 2020

Washington, D.C.
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ACRONYMS

DM	diabetes mellitus
DST	drug susceptibility testing
HIV	human immunodeficiency virus
MDR/RR-TB	multidrug-resistant or rifampicin-resistant tuberculosis
PAHO	Pan American Health Organization
RR-TB	rifampicin-resistant tuberculosis
SDGs	Sustainable Development Goals
TB	tuberculosis
USD	dollars of the United States of America
WHO	World Health Organization
XDR-TB	extensively drug-resistant tuberculosis

Introduction

Tuberculosis (TB) in the Region of the Americas continued to be a public health problem in 2019; it is estimated that there were 290,000 cases of all forms of the disease that year. Despite a slow decline in the number of deaths in recent years, TB incidence continued to rise slightly. Notwithstanding advances in the introduction and expansion of rapid molecular testing, the detection gap remained at around 52,000 cases, which favors continuity in the chain of transmission of the tuberculosis bacillus.

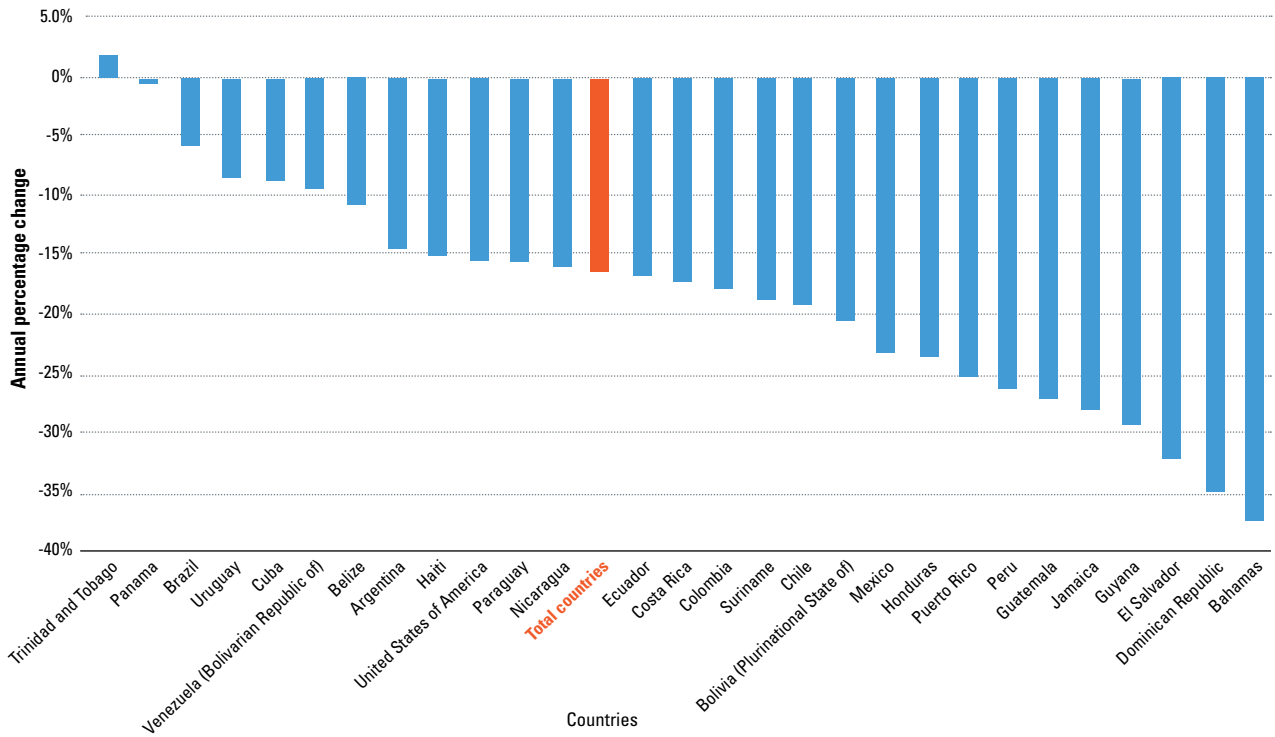
Case detection of drug-resistant TB and co-infection with human immunodeficiency virus (TB/HIV) showed no progress in 2019, and cases of comorbidity with diabetes continued to be detected, as well. Information on preventive therapy remained limited, and treatment outcomes did not change favorably.

The TB situation in the Region reflects the persistence of social determinants and risk factors that most directly affect vulnerable populations. However, some countries in the Region are closer to eliminating the disease as a public health problem. Efforts by national programs, most of which have their own resources, must be accelerated to meet the targets of the End TB Strategy and of the international commitments made by countries.

Since the beginning of the COVID-19 pandemic in the first quarter of 2020, the provision of health services in general, including TB services, was disrupted by lockdown measures, the population's fear of being infected in health services, and the redeployment of staff to pandemic-related care. This has affected TB prevention and control interventions in every country, threatening to reverse the progress made towards meeting international targets. Furthermore, the impact of the COVID-19 pandemic on the economy and on poverty levels represents the loss of more than a decade of progress, which will exacerbate the social determinants of TB.

Among the 28 countries that reported preliminary data, the Americas saw an average decrease in TB case reporting of 14.8% in 2020 compared with 2019 (from 225,029 to 191,777 TB cases year-on-year). The percentage of decline varied from one country to another: in some cases it was high, such as in the Dominican Republic and the Bahamas, which recorded decreases of more than 35% (figure 1).

Figure 1. Percentage change in tuberculosis cases reported in 2020 compared with 2019



Source: Based on data reported by countries to the WHO Global TB Data Collection System.

1. Progress towards the targets of the End TB Strategy

The End TB Strategy aims to end the global TB epidemic, and is linked to the targets of the Sustainable Development Goals (SDGs), with three high-level global indicators (table 1).

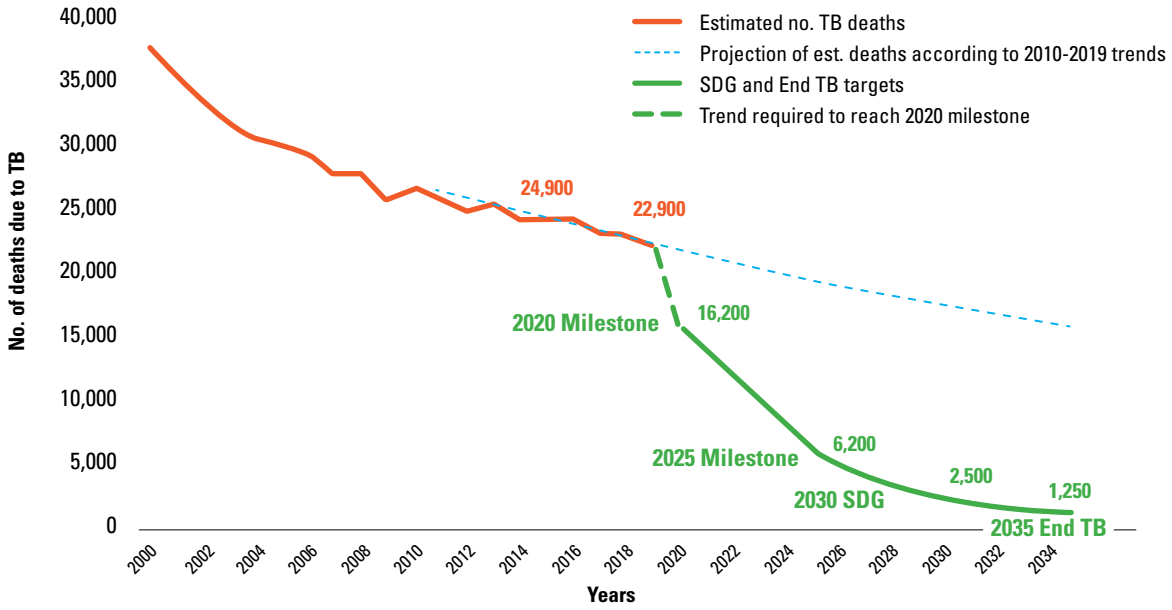
Table 1. High-level global indicators of the End TB Strategy in the Americas

Global indicators	Baseline	Current situation	Milestones		SDG targets	End TB targets
	2015	2019	2020	2025	2030	2035
Reduction in number of TB deaths, compared with 2015	24,900	22,900	35%	75%	90%	95%
			16,200	6,200	2,500	1,250
Reduction in TB incidence rate, compared with 2015	27.5	28.6	20%	50%	80%	90%
			22.0	13.8	5.5	2.8
Percentage of affected households facing catastrophic costs due to TB	N.A.	N.A.	0	0	0	0

Note: rate per 100,000 inhabitants. N.A.: not available; SDGs: Sustainable Development Goals; TB: tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

Between 2000 and 2019, TB deaths decreased by an average of 2.1% per year; to reach (by 2035) the reduction target of 95% compared with 2015, the annual rate of decline must be 4% (figure 2).

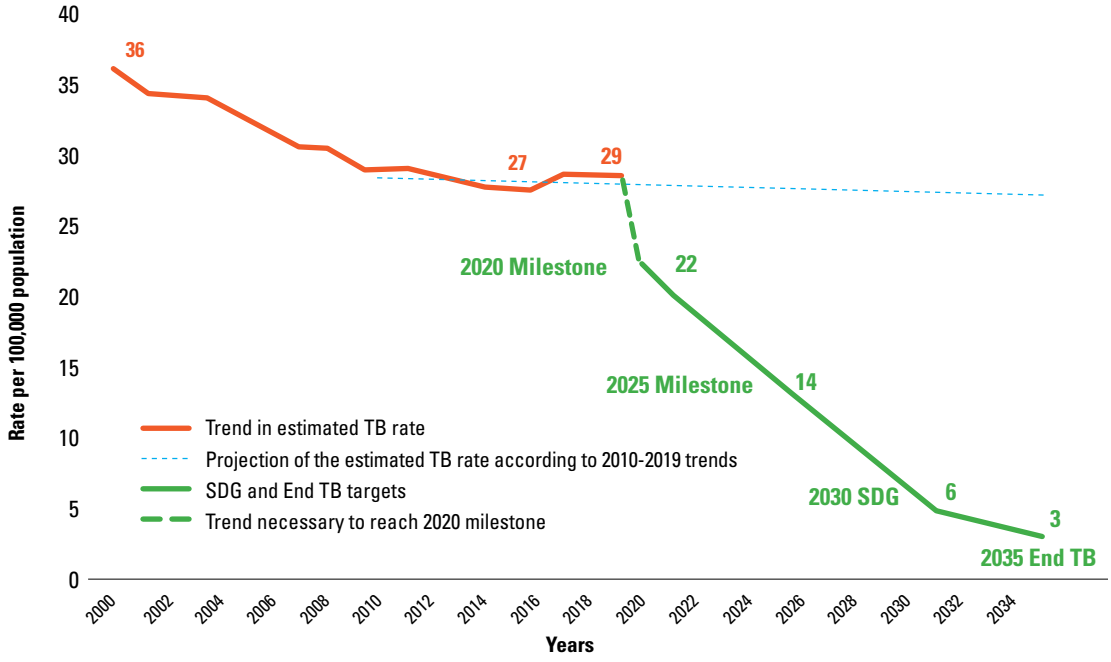
Figure 2. Trends and forecasts of the estimated number of deaths from tuberculosis, Region of the Americas, 2000-2035



SDGs: Sustainable Development Goals; TB: tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131.

The estimated TB incidence rate dropped by an average of only 1.6% annually between 2000 and 2018, and increased slightly in 2019. To achieve the 2020 target, the rate of decline should have been 23.1% (figure 3).

Figure 3. Trends and forecasts of the estimated tuberculosis incidence rate, Region of the Americas, 2000-2035



SDGs: Sustainable Development Goals; TB: tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131.

Most countries still do not have information on the percentage of households facing catastrophic costs due to TB. By 2019, three countries in the Region, following WHO recommendations, had initiated national surveys to monitor this indicator; in 2020, other countries began preparing protocols for their own surveys.

Regarding the 10 priority indicators of the End TB Strategy (table 2), TB treatment coverage and the percentage of TB patients who know their HIV status are the indicators showing the best values in 2019, with 80.0%, compared with the target of 100% by 2025. However, some indicators—such as treatment coverage with new TB drugs (12.0%), treatment coverage of latent TB infection in people living with HIV (26.0%), and the percentage of new TB patients who were diagnosed using the rapid tests recommended by WHO (25.0%)—still show very low values for 2019.

Table 2. Priority indicators of the End TB Strategy, 2019

INDICATORS		2019 FIGURES	TARGET FOR 2025
TB treatment coverage		80.0%	≥90%
Treatment success rate	New cases and relapses (2018 cohort)	76.0%	≥90%
	MDR/RR-TB (2017 cohort)	59.6%	
Percentage of families facing catastrophic TB costs		—	—
Percentage of new and relapsed TB patients diagnosed using rapid tests recommended by WHO		25.0%	≥90%
LTBI treatment coverage	Children under 5 years old	59.0%	≥90%
	People living with HIV	26.0%	≥90%
Contact tracing coverage		68.7%	≥90%
Coverage of TB patients with DST results		40.0%	100%
Treatment coverage, new TB drugs		12.0%	≥90%
Percentage of TB patients who know their HIV status		80.0%	100%
TB fatality rate		7.0%	≤6%

Note: country indicators detailed in the Annex.
LTBI: latent tuberculosis infection; WHO: World Health Organization; DST: drug susceptibility testing; TB, tuberculosis; MDR/RR-TB: multidrug-resistant or rifampicin-resistant tuberculosis; HIV: human immunodeficiency virus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131.

The COVID-19 pandemic has greatly jeopardized achievement of the End TB Strategy targets. Efforts need to be accelerated to achieve a reduction in the number of TB deaths and cases, and data on catastrophic costs need to be made available. Likewise, it is necessary to redouble efforts to continue improving TB programmatic indicators. The multisectoral accountability framework offers an opportunity to monitor and accelerate progress.

2. Mortality and incidence of tuberculosis

WHO estimated that in 2019 there were 290,000 new TB cases and relapses in the Region of the Americas. This figure represents an increase from 2018, when an estimated 282,000 cases were reported, and corresponds to 3% of the global burden of 9.9 million cases. In 2019, an estimated 10% of patients in the Americas had TB/HIV co-infection, and 3.7% had multidrug-resistant or rifampicin-resistant tuberculosis (MDR/RR-TB) (table 3).

Table 3. Tuberculosis in the Region of the Americas, 2019

	Estimated no. cases	Estimated no. deaths
All forms of TB	290,000 (269,000 – 311,000)	22,900 (22,000 – 24,600)
TB/HIV	29,000 (27,000 – 32,000)	5,900 (5,200 – 6,600)
MDR/RR-TB	11,000 (9,200 – 12,000)	1,000 (870 – 1,140)

TB: tuberculosis; MDR/RR-TB: multidrug-resistant or rifampicin-resistant tuberculosis; HIV: human immunodeficiency virus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131.

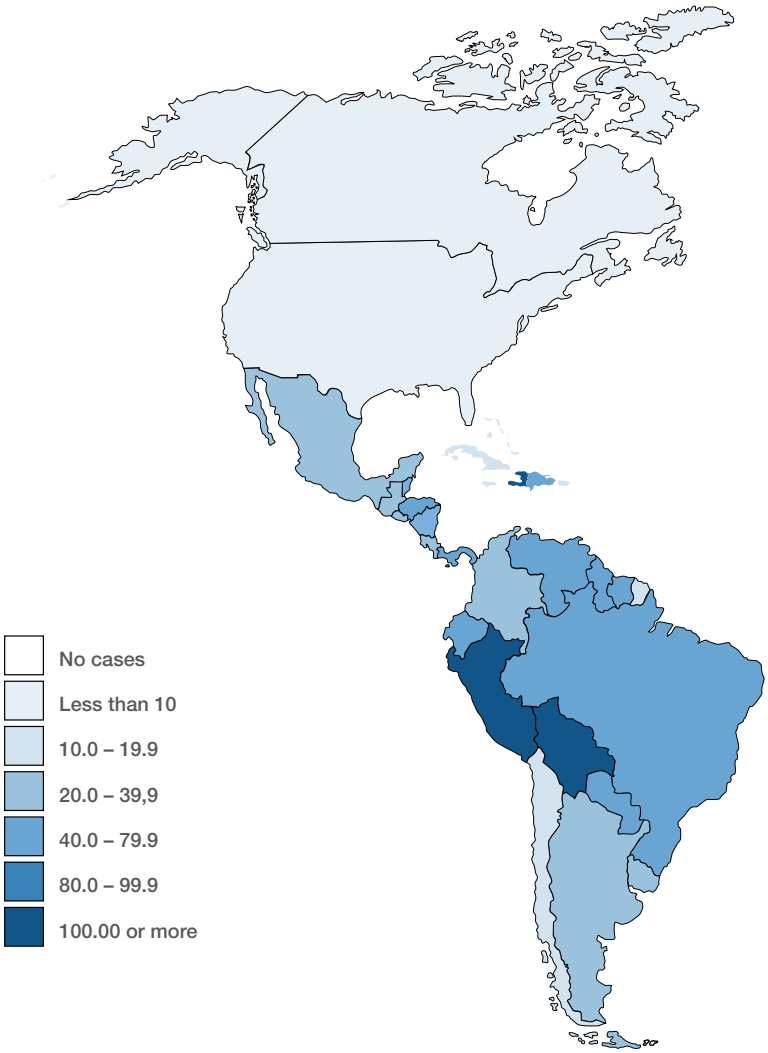
In 2019, an estimated 88.1% of TB cases in the Americas were in 12 countries. Just over half were concentrated in only three countries: Brazil (33.1%), Peru (13.4%), and Mexico (10.3%) (table 4 and figure 4).

Table 4. Countries with high tuberculosis burdens, Region of the Americas, 2019

Country	Estimated no. cases	Percentage	Estimated rate
Brazil	96,000	33.1%	45.5
Peru	39,000	13.4%	120.0
Mexico	30,000	10.3%	23.5
Colombia	19,000	6.6%	35.8
Haiti	18,000	6.2%	168.7
Argentina	13,000	4.5%	29.0
Venezuela (Bolivarian Republic of)	13,000	4.5%	45.6
Bolivia (Plurinational State of)	12,000	4.1%	104.2
Ecuador	7,900	2.7%	45.5
El Salvador	3,800	1.3%	58.9
Paraguay	3,300	1.1%	46.8
Guyana	620	0.2%	79.2
High-burden total	**255,620**	**88.1%**	**46.5**
Total in the Region of the Americas	**290,000**	**100.0%**	**28.7**

Note: High-burden countries are those with an estimated absolute number of TB cases greater than 10,000 per year, and those with an incidence rate of more than 45 per 100,000 population.

Figure 4. Estimated tuberculosis incidence rate, Region of the Americas, 2019

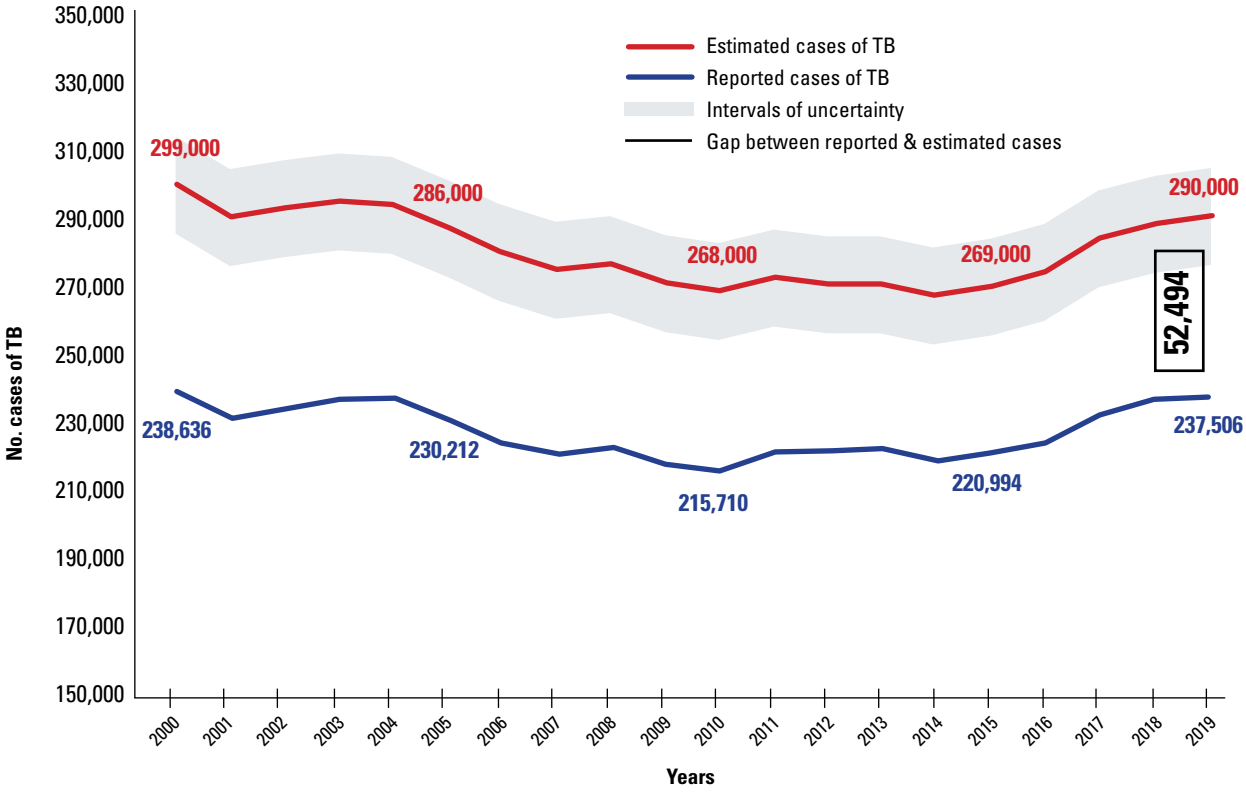


Note: estimated rate per 100,000 inhabitants.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

The incident cases (new and relapsed) of TB reported in 2019 on the continent were 237,506, representing 82% of the total estimated cases. The gap between estimated and reported TB cases, which was 52,494 cases, has not narrowed in recent years (figure 5). This gap is greater in the population under 14 years of age, in which only 57% of estimated cases in boys and 61% of estimated cases in girls have been reported.

The case reporting rate has remained unchanged over the past eight years: In 2019, 23.4 TB cases per 100,000 population were reported, compared with 23.5 in 2011. Preliminary data for 2020 point to a drop in case reporting due to COVID-19, and these data will have to be analyzed differently than in previous years.

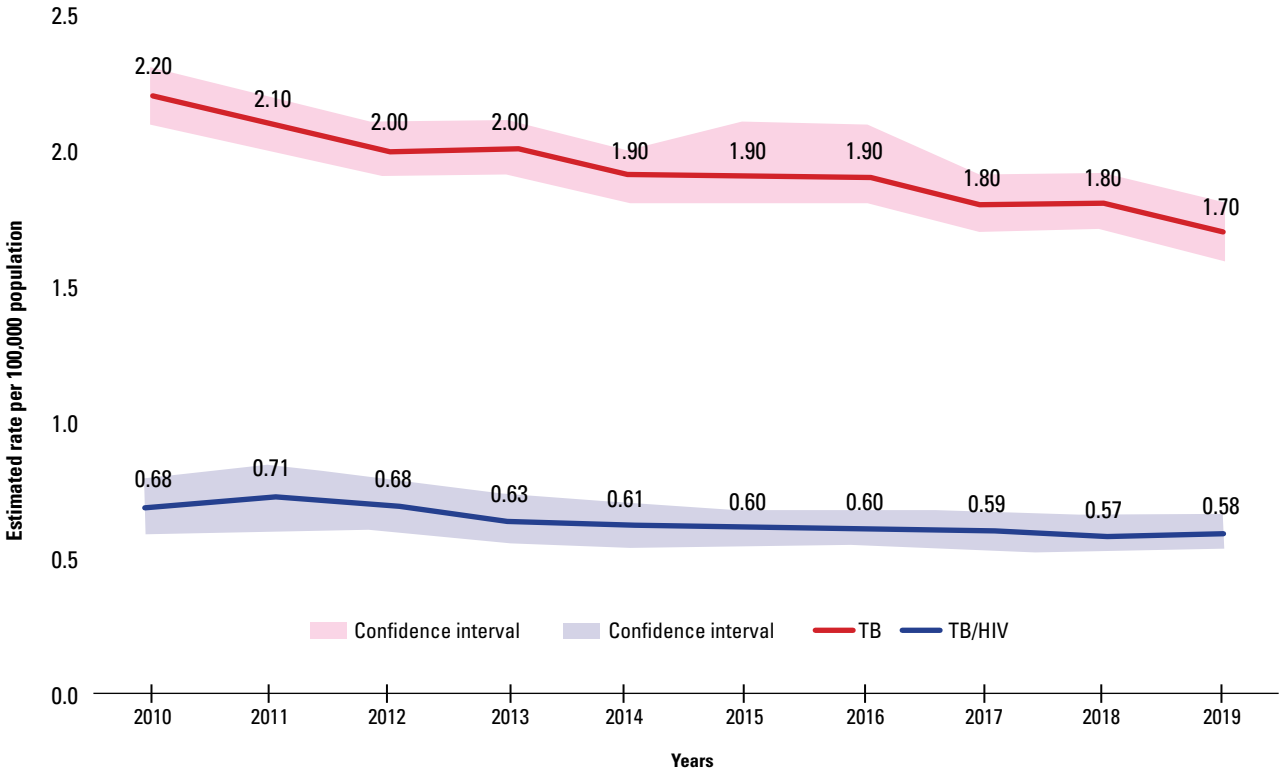
Figure 5. Trends in new cases and relapses of tuberculosis, estimated and reported, Region of the Americas, 2000–2019



TB: tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

The estimated TB mortality rate in the Region of the Americas has fallen from 2.20 deaths per 100,000 population in 2010 to 1.70 in 2019. The decrease in the estimated mortality rate in patients with TB/HIV co-infection in the same period has been smaller, from 0.68 to 0.58 per 100,000 population (figure 6). The estimated lethality of TB is 7% in the Region of the Americas, compared with 14% worldwide.

Figure 6. Estimated tuberculosis mortality rate, Region of the Americas, 2010–2019



Note: rates per 100,000 population.
TB: tuberculosis; HIV: human immunodeficiency virus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

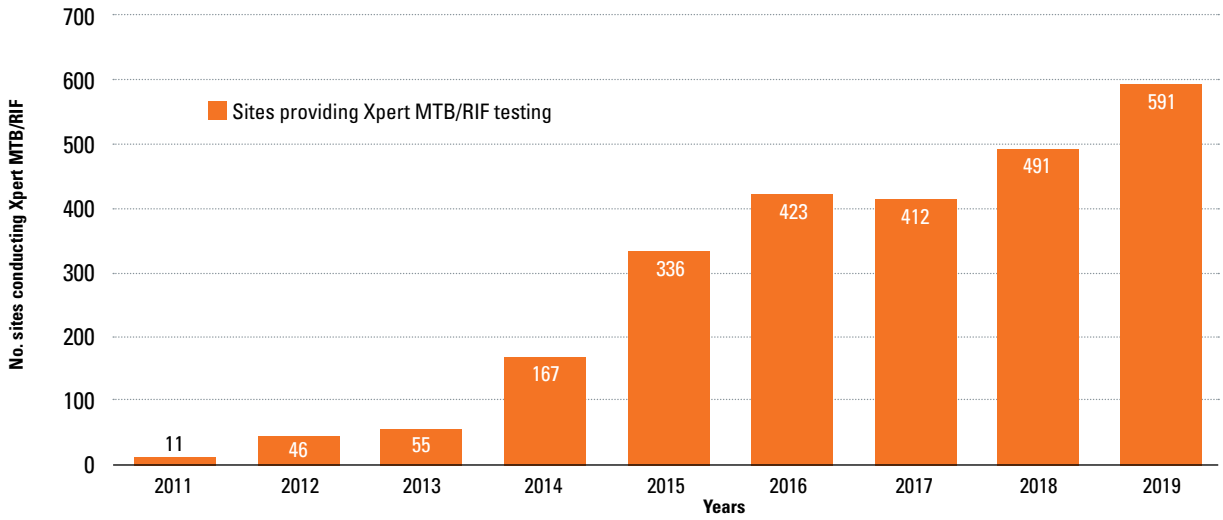
The gaps between estimated and reported cases indicate that it is necessary to promote screening and early detection in order to cut the chain of transmission and reduce mortality.

3. TB diagnosis

The availability of rapid molecular tests in the Region has risen significantly: The number of centers performing them rose from 11 in 2011 to 591 in 2019 (figure 7). The percentage of TB cases diagnosed with these tests rose from 13.1% in 2017 to 25.0% in 2019. However, smear testing remains the most widely used method for the initial diagnosis of TB in the Region of the Americas: There are currently 12,223 centers that perform such tests, compared with 591 that use rapid molecular tests.

The expansion of rapid molecular methods depends on many factors, including political decisions; guideline changes; updated and disseminated algorithms, which generate demand from medical staff; sustainable financial resources to purchase cartridges and maintain equipment; the efficiency of samples transport, which ensures access to testing; and connectivity, enabling timely notification of results.

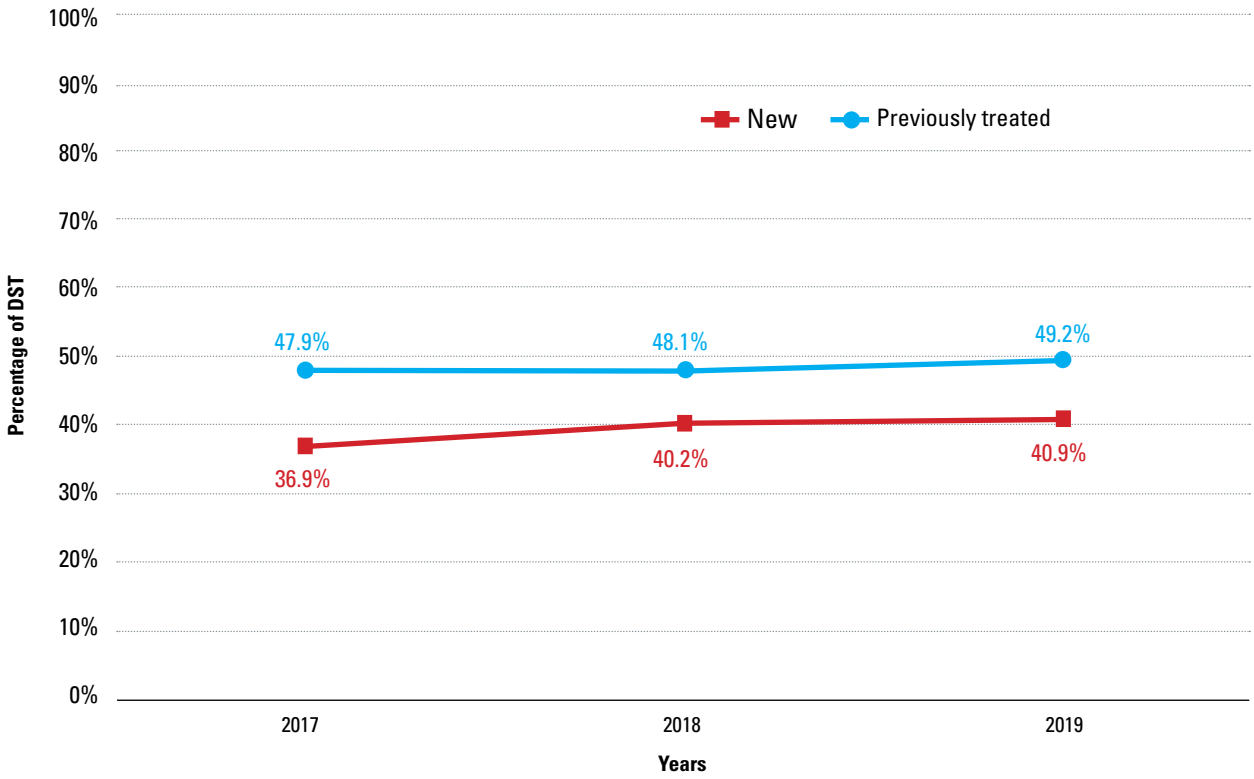
Figure 7. Centers performing rapid molecular diagnostic tests, Region of the Americas, 2019



Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

Universal access to drug susceptibility testing (DST) is key to improving the detection of MDR/RR-TB cases in the Region. In 2019, first-line DST was conducted for 40.9% of new cases, and 49.2% of cases already treated. Between 2018 and 2019, the percentage of patients with first-line DST showed practically no increase. Only 52.4% of MDR/RR-TB cases underwent second-line DST for quinolones (figure 8). Due to the COVID-19 pandemic, difficulties have arisen in operating TB laboratories because of staff shortages; therefore, in 2020 a reduction in this indicator can be expected.

Figure 8. Proportion of drug susceptibility testing, Region of the Americas, 2017–2019



Note: New cases with an unknown history of previous treatment are included. DST: drug susceptibility testing.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131..

The increase in rapid molecular testing centers in recent years, and the recent acquisition of molecular diagnostic equipment for COVID-19, could ramp up the capacity for diagnosing TB with these kinds of rapid tests, incorporated into multipurpose platforms.

4. Drug-resistant tuberculosis

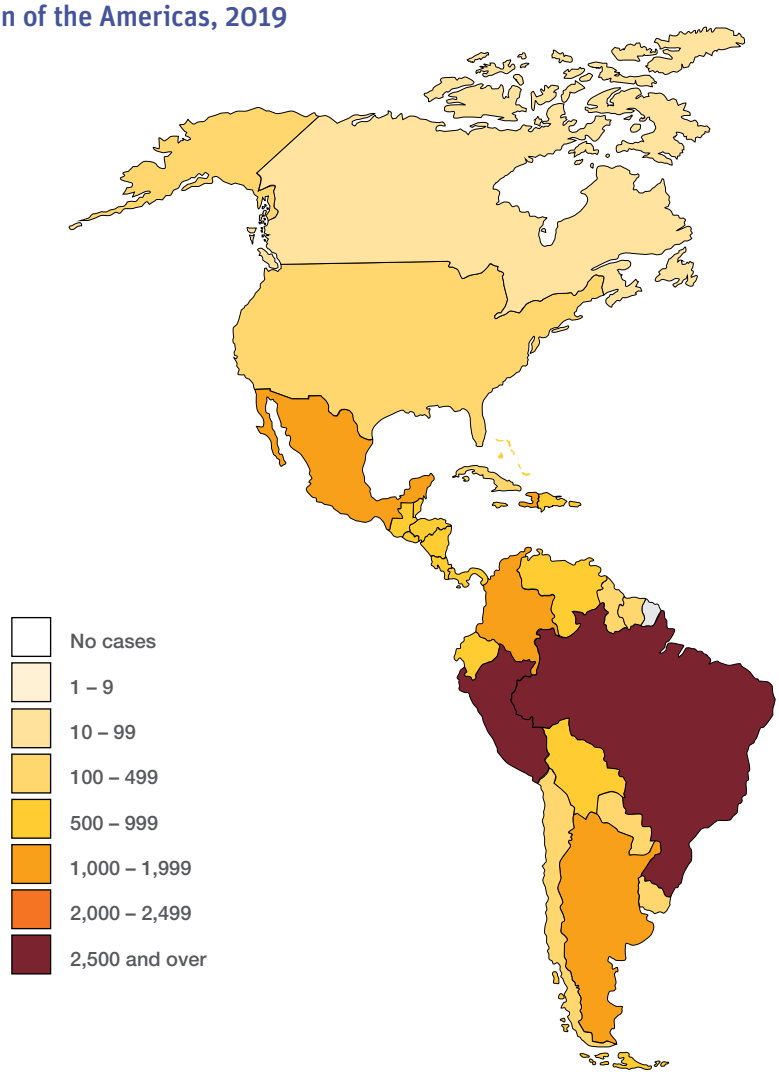
In 2019, 10 countries in the Region accounted for 90% of all estimated cases of MDR/RR-TB. Peru and Brazil were the most affected, with 28% and 24% of all cases estimated, respectively. The highest rates of MDR/RR-TB were reported by Peru (9.5) and Haiti (5.0) (table 5 and figure 9).

Table 5. Countries with the highest estimated burden of multidrug-resistant or rifampicin-resistant tuberculosis, Region of the Americas, 2019

Country	Number of MDR/RR-TB cases	Percentage	Rate
Peru	3,100	28%	9.5
Brazil	2,600	24%	1.2
Mexico	970	9%	0.8
Colombia	610	6%	1.2
Argentina	590	5%	1.3
Haiti	560	5%	5.0
Venezuela (Bolivarian Republic of)	370	3%	1.3
Bolivia (Plurinational State of)	350	3%	3.0
Ecuador	230	2%	1.3
Dominican Republic	220	2%	2.0
Countries with the highest number of MDR/RR-TB cases	9,600	87%	1.8
Region of the Americas	11,000	100%	1.1

Note: rates per 100,000 population.
MDR/RR-TB: multidrug-resistant or rifampicin-resistant tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131. .

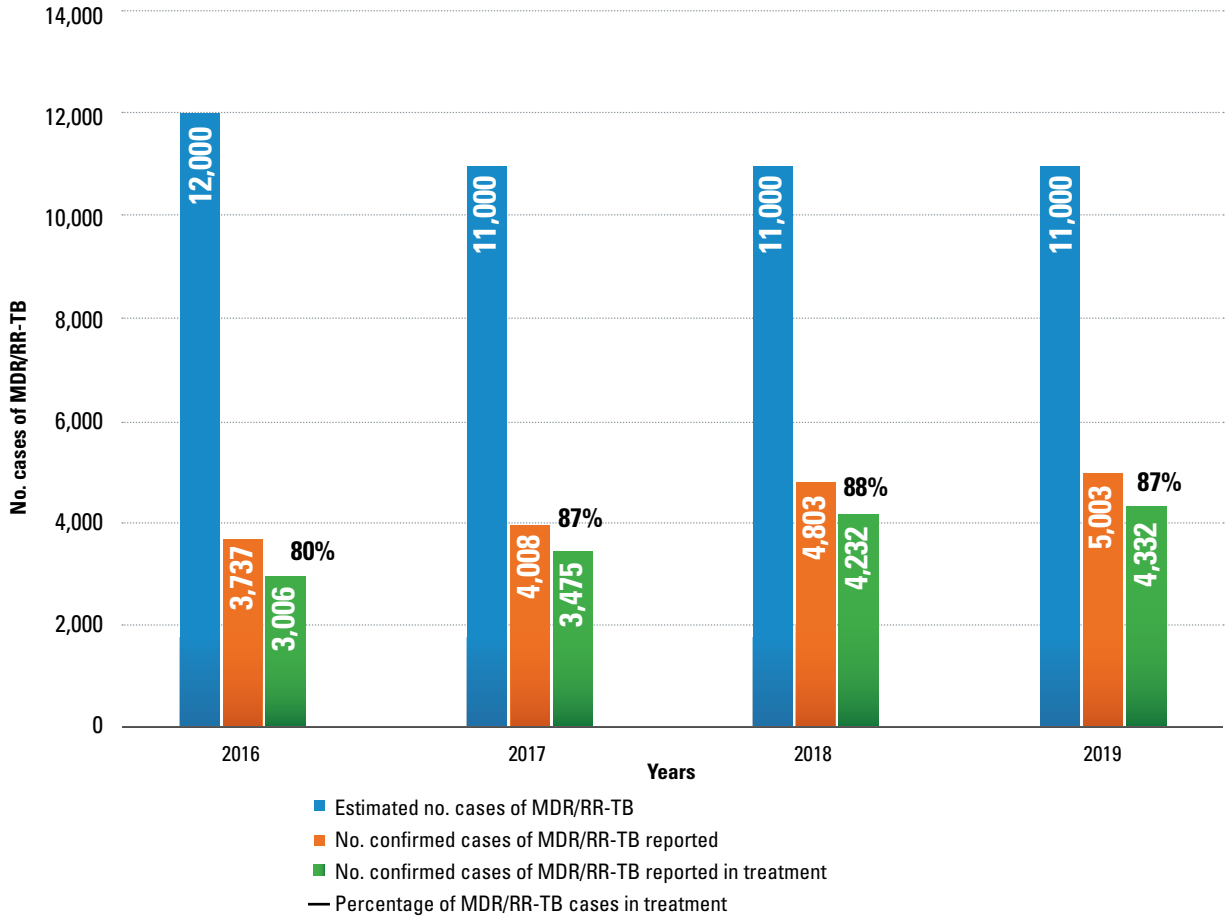
Figure 9. Estimated number of cases of multidrug-resistant or rifampicin-resistant tuberculosis, Region of the Americas, 2019



Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131..

Of the total reported cases of MDR/RR-TB, 87% started treatment in 2019, a percentage similar to that of the previous two years (figure 10). Most of these patients did not receive shorter all-oral treatments, which are more effective, safer, and recommended by WHO.

Figure 10. Estimated cases of multidrug-resistant or rifampicin-resistant tuberculosis, reported and in treatment, Region of the Americas, 2016-2017



MDR/RR-TB: multidrug-resistant or rifampicin-resistant tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131.

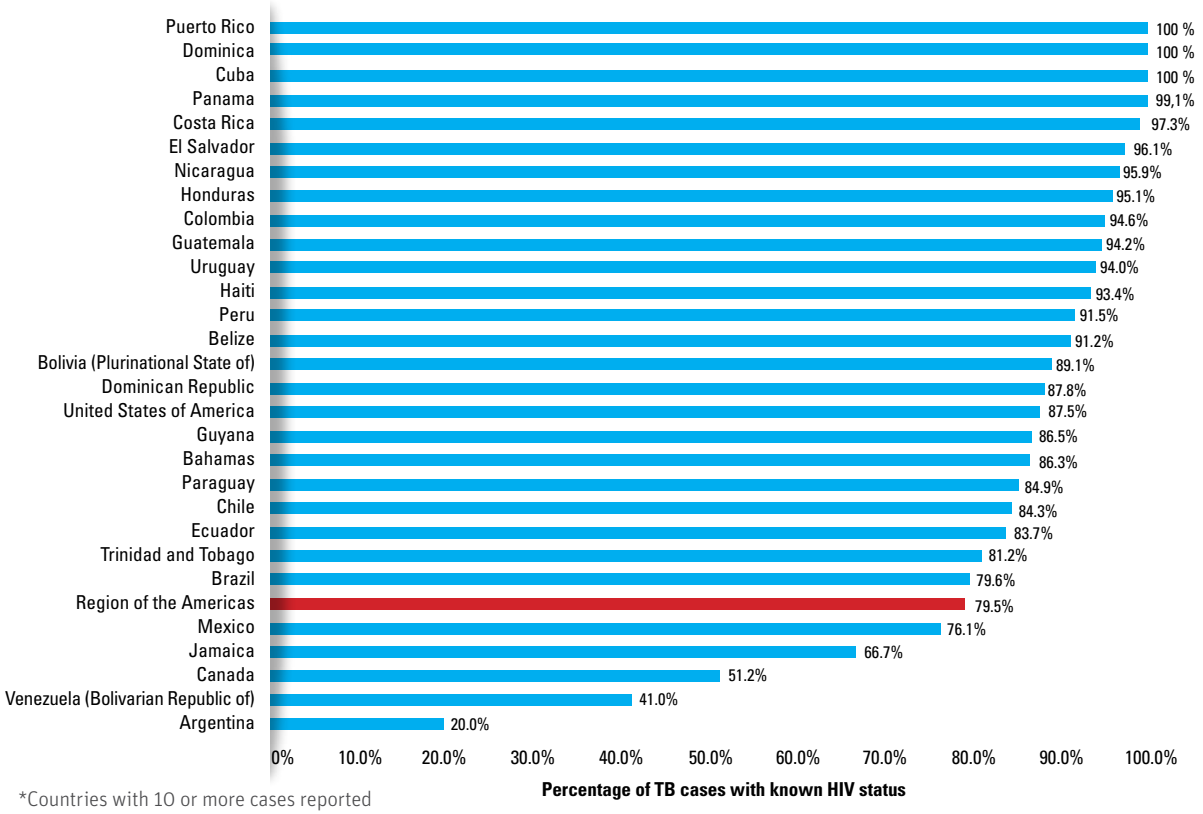
In 2019, 13 countries in the Region reported a total of 138 cases of extensively drug-resistant tuberculosis (XDR-TB). Peru reported almost two-thirds of this total, with 89 cases (64.4%), followed by Ecuador, with 13 cases (9.4%), and Brazil, with 12 cases (8.6%). These figures were similar to those of 2018, when 137 cases of XDR-TB were reported.

WHO estimated that in 2019 there were 11,000 cases of drug-resistant tuberculosis in the Region of the Americas. Of the 5,003 cases (45.4%) diagnosed, 87% started treatment. Greater efforts are needed to achieve the 100% target recommended by WHO.

5. TB/HIV co-infection

In 2019, the proportion of reported TB cases in the Americas with documented HIV testing was 80%, which is lower than the recommended 100%. Most countries were above the regional average, but some—such as Argentina, Canada, and Venezuela (Bolivarian Republic of)—have large gaps to fill or problems with their records (figure 11).

Figure 11. Proportion of reported tuberculosis cases with documented human immunodeficiency virus status, Region of the Americas, 2019



*Countries with 10 or more cases reported

Note: Only countries reporting 10 or more TB cases are included. TB: tuberculosis; HIV: human immunodeficiency virus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020.
Available at: https://www.who.int/publications/i/item/9789240013131.

In 2019, there were an estimated 29,700 cases of HIV-associated TB (11% of total estimated TB cases), of which 20,132 (68%) were reported. The countries with the highest number of estimated cases of TB/HIV co-infection were Brazil (11,000 cases), Mexico (3,500 cases), Haiti (3,000 cases), and Peru (2,400 cases). The highest rates of TB/HIV co-infection were found in Haiti (26.7 per 100,000 population) and the Dominican Republic (10.2 per 100,000 population) (table 6).

Table 6. Countries with the highest number of estimated cases of tuberculosis and human immunodeficiency virus co-infection, Region of the Americas, 2019

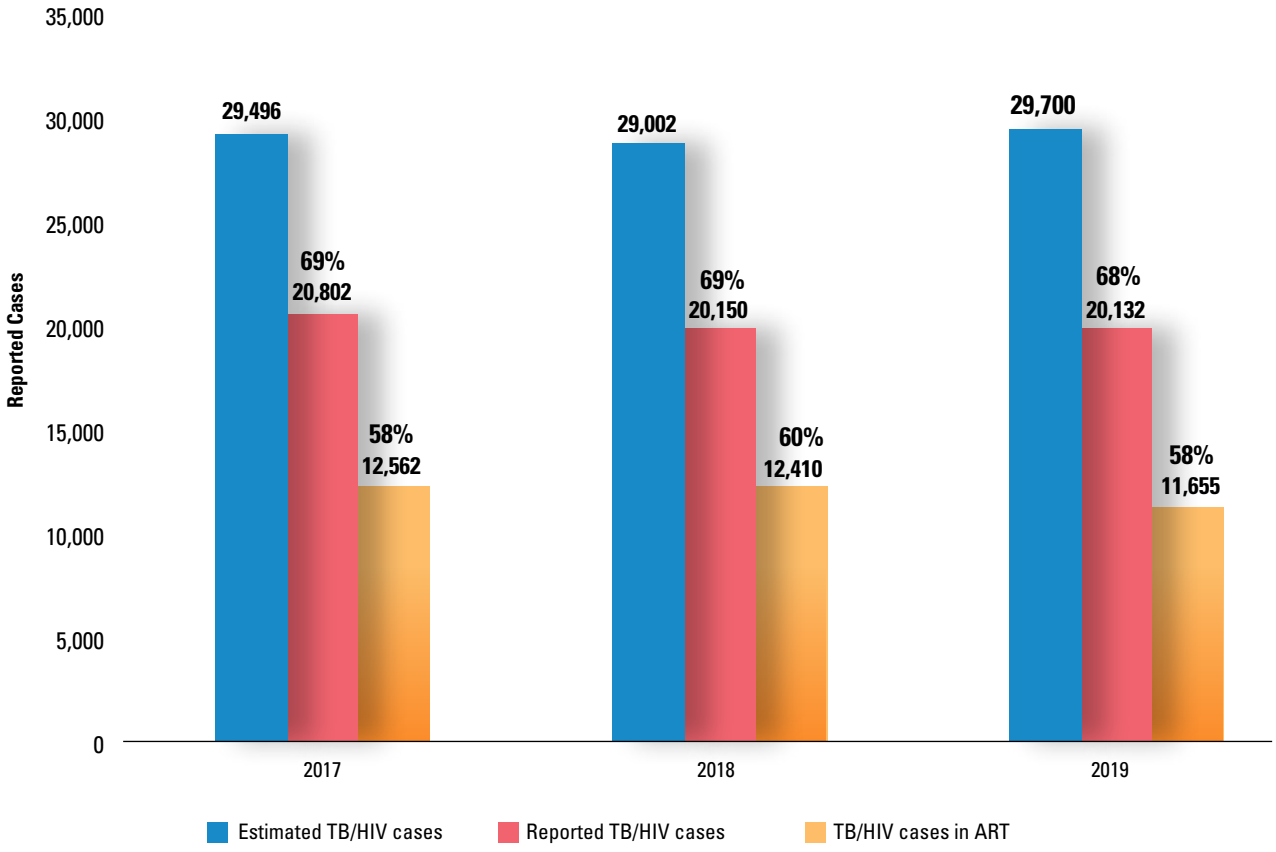
Country	Cases of TB/HIV co-infection	Co-infected cases in the Region	TB/HIV co-infection rate	Cases in ART
Brazil	11,000	38%	5.2	49%
Mexico	3,500	12%	2.7	68%
Haiti	3,000	10%	26.6	81%
Peru	2,400	8%	7.4	55%
Colombia	2,100	7%	4.2	56%
Ecuador	1,100	4%	6.3	100%
Dominican Republic	1,100	4%	10.2	75%
Venezuela (Bolivarian Republic of)	1,000	3%	3.5	82%
Argentina	800	3%	1.8	4.7%
Bolivia (Plurinational State of)	580	2%	5.0	—
Countries with the highest burden of TB/HIV co-infection	26,580	92%	4.9	—
Region of the Americas	29,700	100%	2.9	58%

Note: rates per 100,000 population. ART: antiretroviral therapy; TB: tuberculosis; HIV: human immunodeficiency virus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

In 2019, only 58% of reported cases with TB/HIV co-infection received ART (figure 12). This is a very concerning figure, given the recommendation to provide this therapy to 100% of these cases.

To tackle TB/HIV co-infection, it is necessary to achieve closer coordination between TB and HIV programs and to implement TB/HIV collaborative activities, which have been recommended for the past several years.

Figure 12. Proportion of estimated, reported, and treated cases of tuberculosis and human immunodeficiency virus co-infection, Region of the Americas, 2017–2019



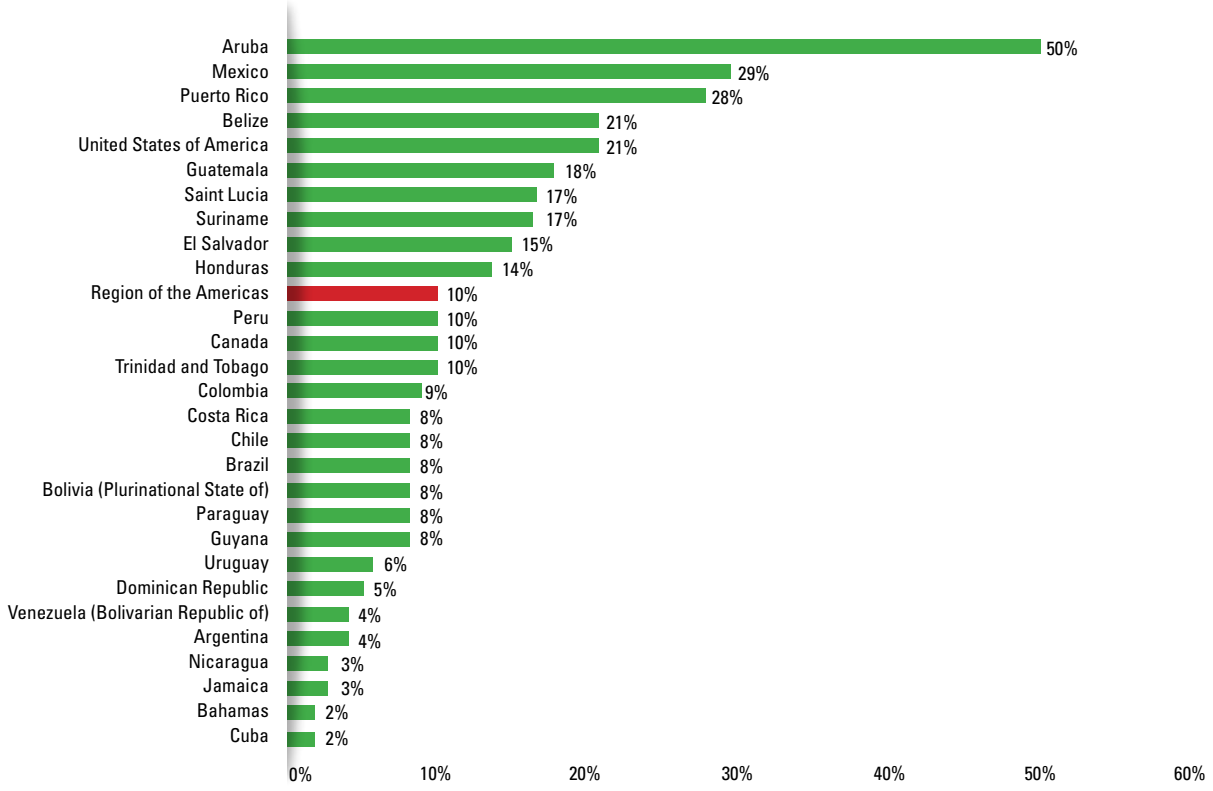
ART: antiretroviral therapy; TB: tuberculosis; HIV: human immunodeficiency virus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131..

Less than 80% of TB patients are screened for HIV, and only 58% of reported cases with TB/HIV co-infection received ART in 2019. Coordination between TB and HIV programs must be strengthened, to ensure 100% achievement of these indicators.

6. Comorbidity of tuberculosis and diabetes mellitus

Among TB patients who were tested for diabetes mellitus (DM) or who had already been diagnosed with DM, 10% had TB/DM comorbidity. The highest percentages of comorbidity corresponded to Aruba (50%), Mexico (29%), and Puerto Rico (28%) (figure 13). Detection of this comorbidity has been increasing in different countries, and this demands a joint approach involving both TB and DM programs.

Figure 13. Proportion of cases with diabetes mellitus out of total reported tuberculosis cases, Region of the Americas, 2019

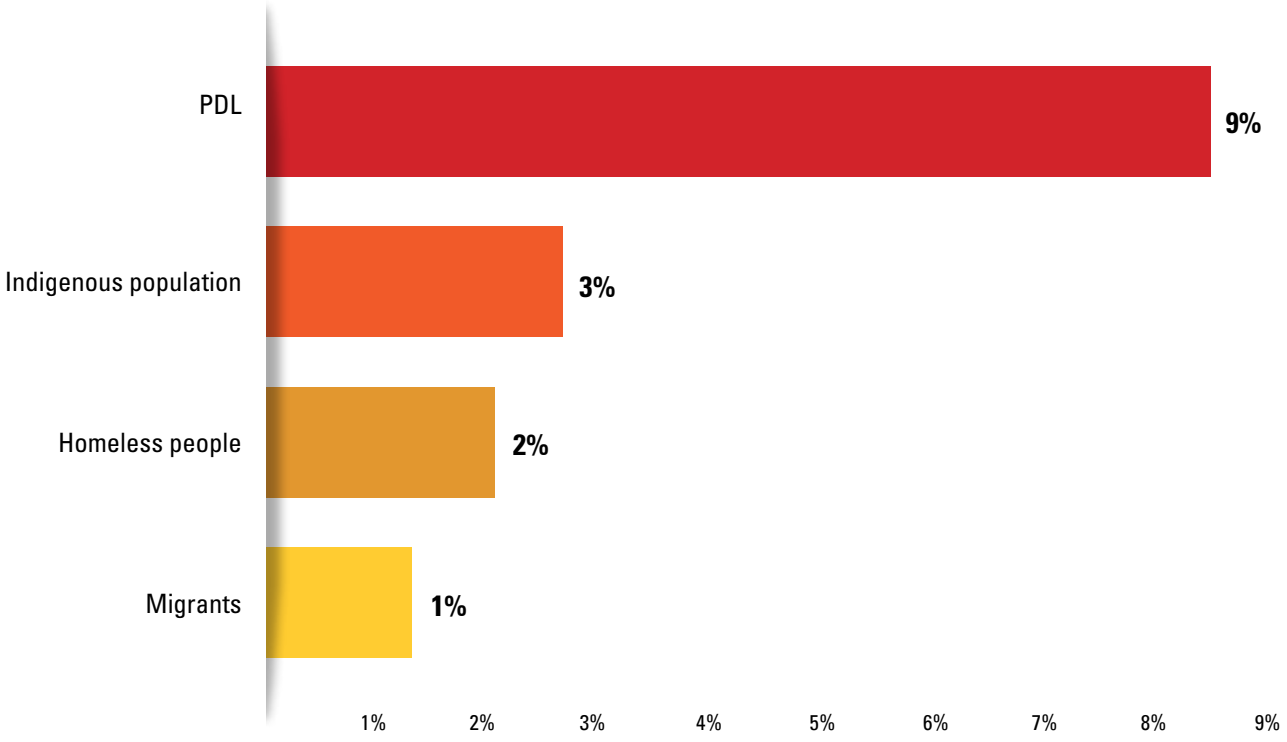


Note: Includes people living with TB who were tested for DM or who already knew their DM status. DM: diabetes mellitus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

7. Vulnerable populations and risk factors

Populations vulnerable to TB include people in poverty, persons deprived of liberty (PDL), indigenous populations, homeless people, and migrants, among others (figure 14).

Figure 14. Percentage of tuberculosis cases reported in vulnerable populations, Region of the Americas, 2019

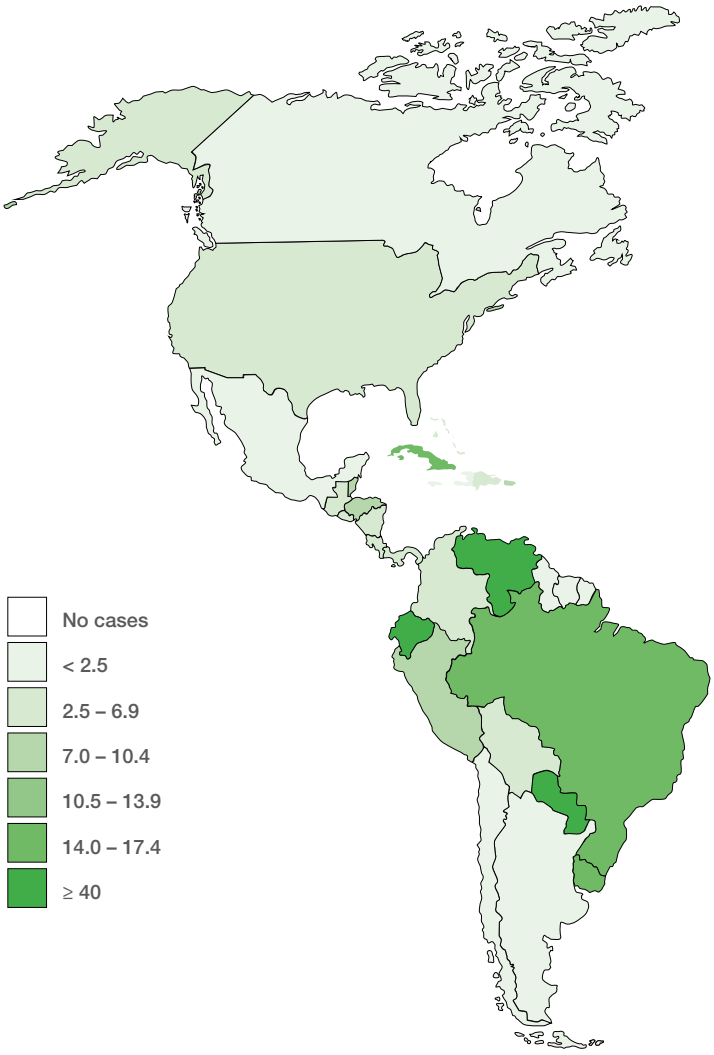


Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

7.1. Persons deprived of liberty

Prisons are a high-risk location for TB transmission, due to overcrowding, and infrastructure and hygiene problems. The incidence of TB among PDL is much higher than that of the general population in several countries; indeed, PDL represent 44.1% of all TB cases in El Salvador, and 16.1% in Venezuela (Bolivarian Republic of) (figure 15).

Figure 15. Percentage of tuberculosis cases reported in persons deprived of liberty, Region of the Americas, 2019

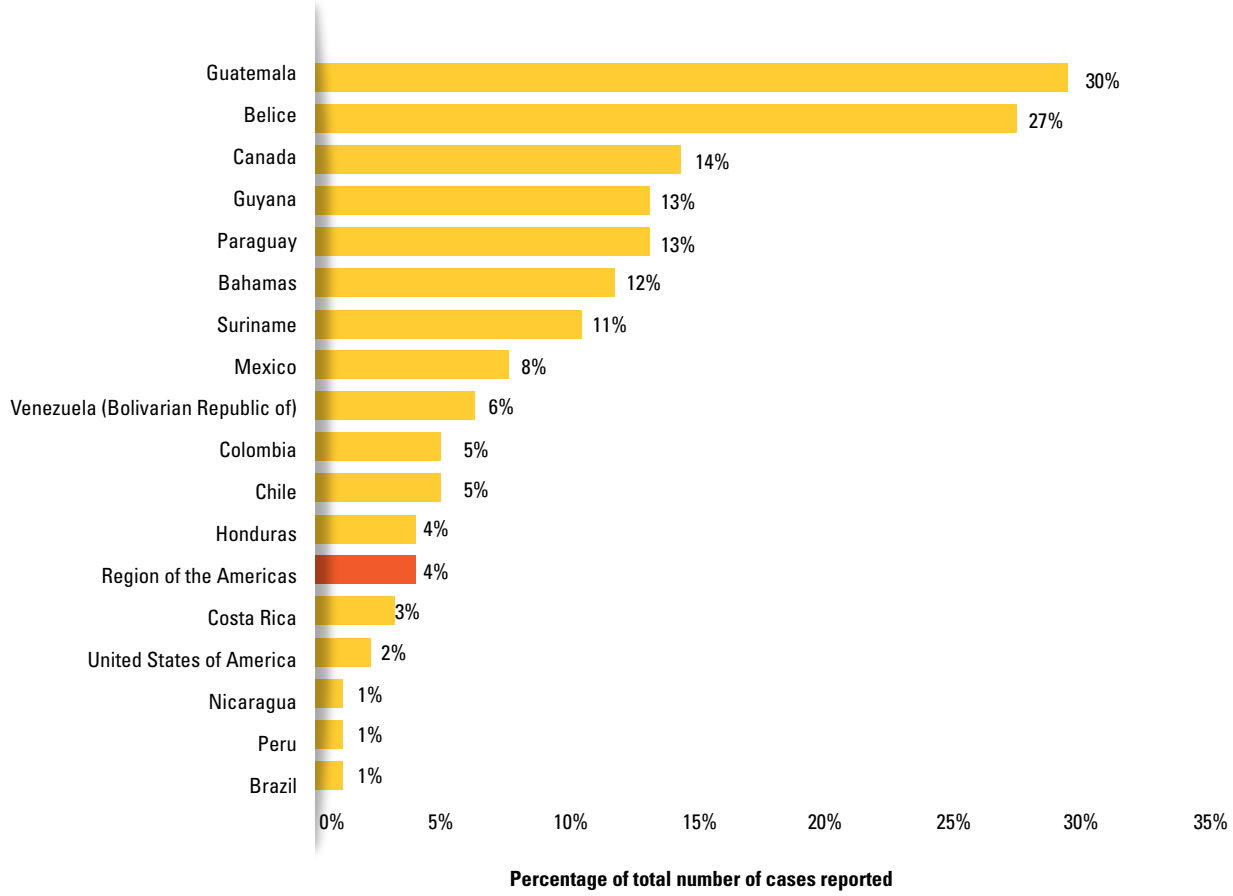


Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

7.2. Indigenous populations

Indigenous populations in the Americas have social determinants that involve an increased risk of TB. These populations concentrate a significant proportion of all TB cases in certain countries, such as Guatemala (30%) and Belize (27%). On the contrary, it is striking that countries such as Nicaragua, Peru, and Brazil only report 1% of their TB cases in this population (figure 16).

Figure 16. Percentage of people with tuberculosis who identify as indigenous, Region of the Americas, 2019

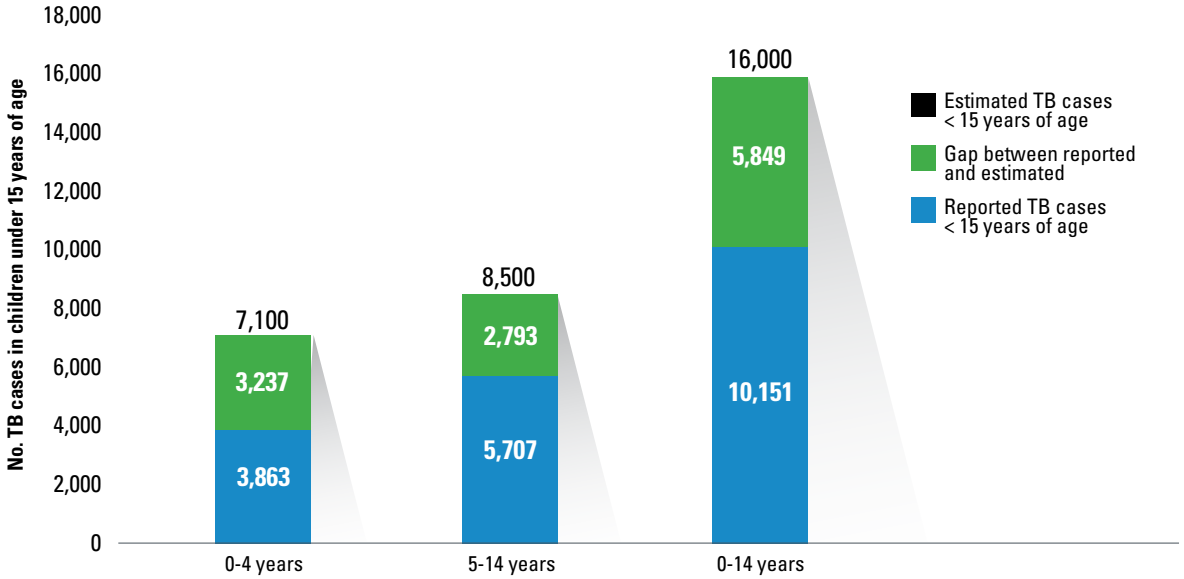


Note: The percentage indicated is out of the total number of cases reported.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131. .

7.3. Children under 15 years of age

In 2019 it was estimated that there would be 16,000 cases of TB in children under 15 years of age (5% of total estimated cases). However, only 10,151 cases were reported (figure 17), indicating that there is still important work to be done with this vulnerable population.

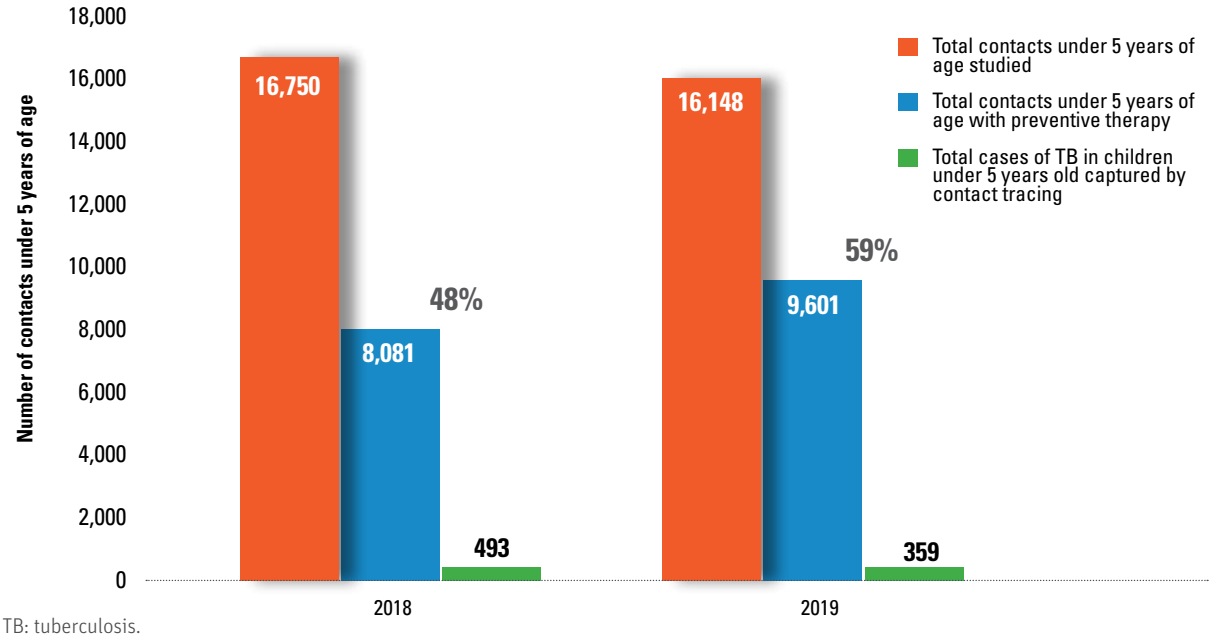
Figure 17. Percentage of detection of tuberculosis cases in children under 15 years of age, Region of the Americas, 2019



Note: The 0–4 and 5–14 age groups do not include reporting from Colombia, Nicaragua, Trinidad and Tobago, or Saint Vincent and the Grenadines, as these countries do not differentiate which cases are in children under 15 years of age in their reports to WHO. TB: tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131. .

Of the 16,148 contacts of TB patients studied in children under 5 years of age in 2019, only 59% were started on preventive therapy. Among these contacts, 359 cases of TB were diagnosed (figure 18).

Figure 18. Contacts under 5 years of age who are being tested for tuberculosis, Region of the Americas, 2019

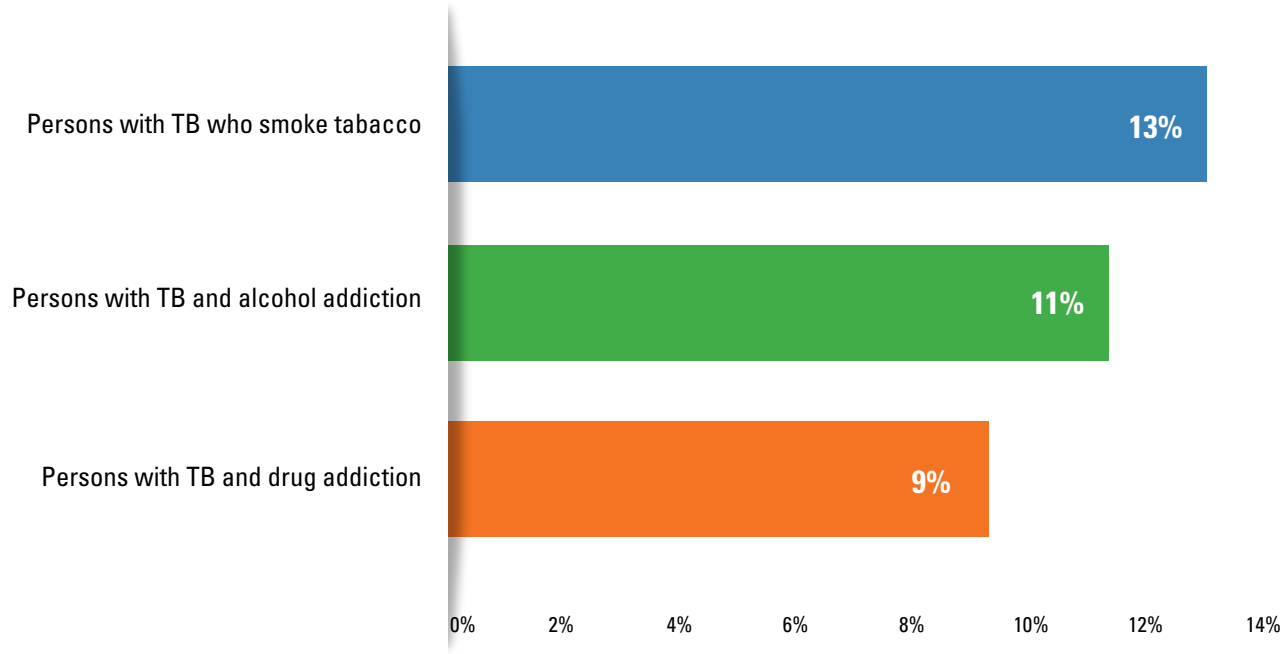


TB: tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

7.4. Risk factors for tuberculosis

The risk of TB infection is influenced by social determinants, such as socioeconomic conditions at the population level, and by individual risk factors, such as tobacco use and drug or alcohol addiction (figure 19). Thus, these factors must be addressed through intersectoral and interprogrammatic work, especially in the area of mental health.

Figure 19. Percentage of tuberculosis cases reported in people with risk factors, Region of the Americas, 2019



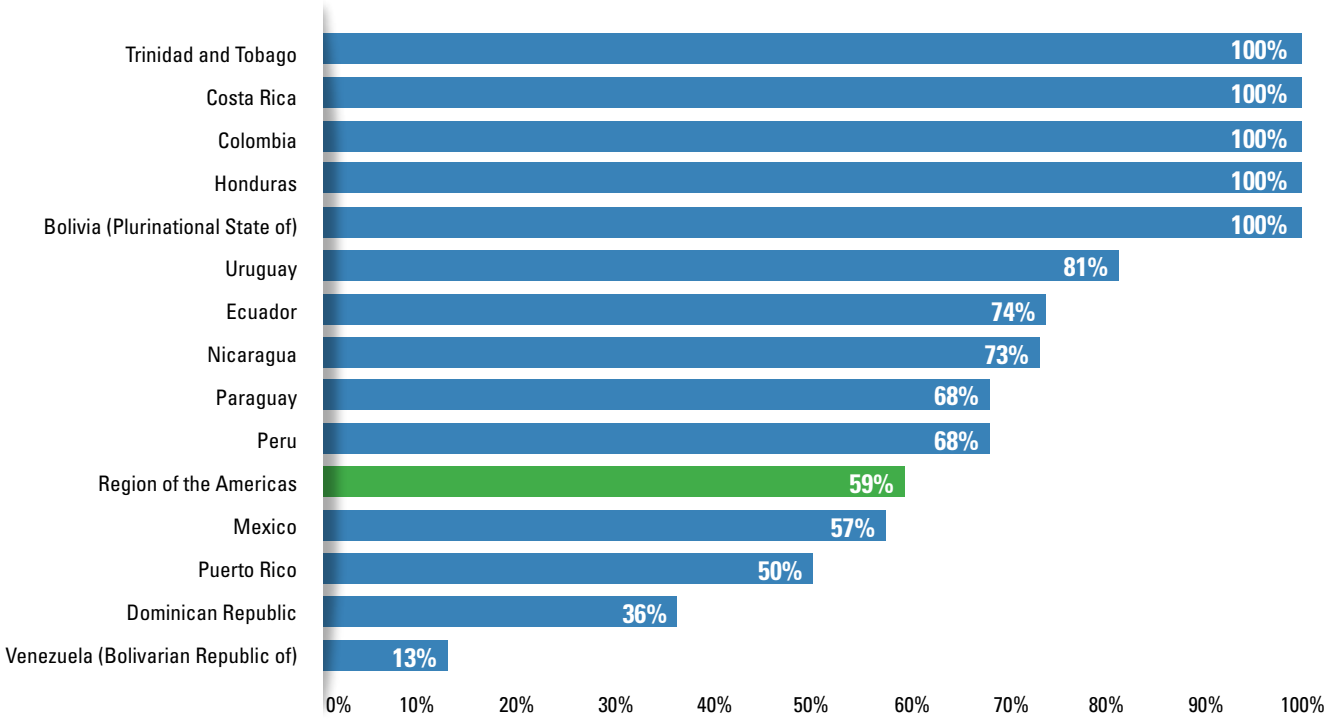
TB: tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

Addressing the situation of TB in vulnerable populations and the existing risk factors demands the development and strengthening of specific strategies, at all levels, using an interprogrammatic and intersectoral approach.

8. Tuberculosis preventive therapy

Progress has been made in the administration of preventive TB treatment in contacts under 5 years of age in some countries, such as Trinidad and Tobago, Costa Rica, Colombia, Honduras, and Bolivia (Plurinational State of), where it was administered to 100% of them in 2019. However, the regional average is only 59% among countries that have this information, and some of these countries have very low percentages (figure 20).

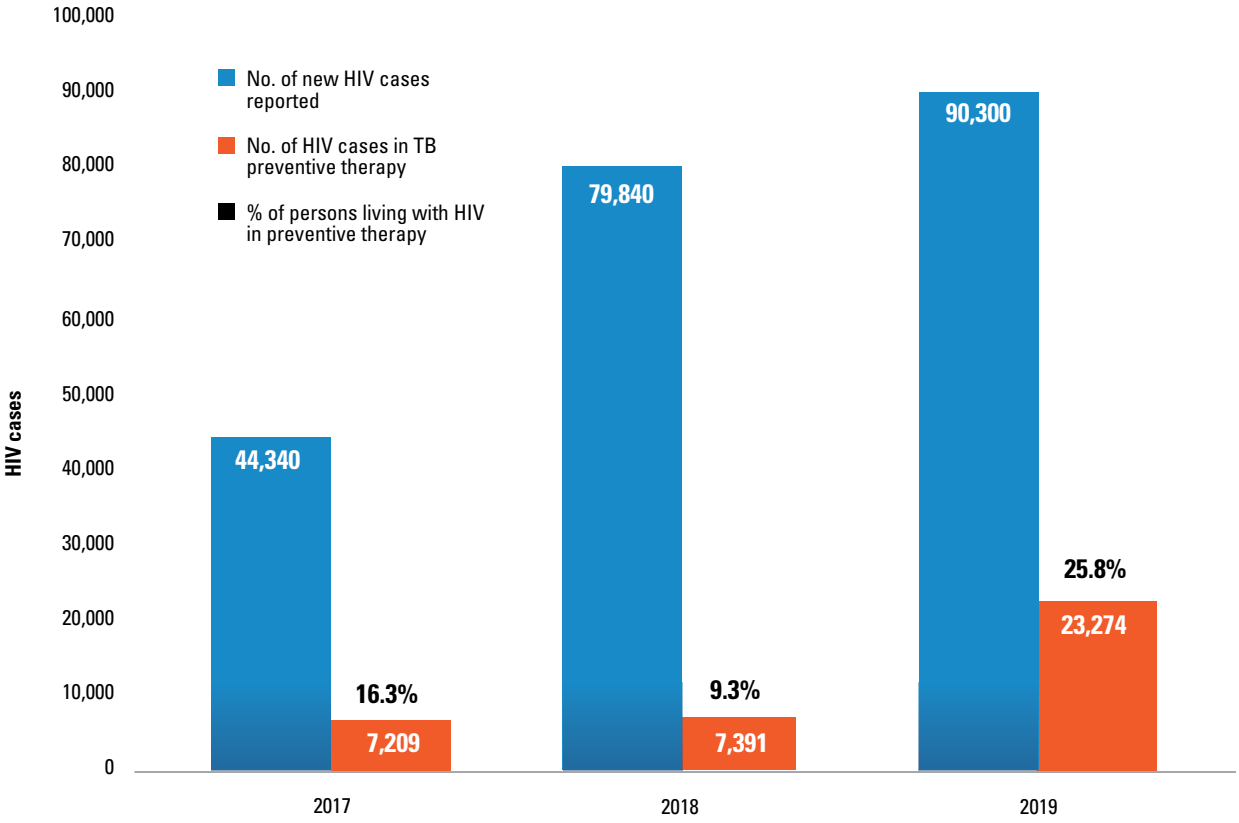
Figure 20. Proportion of contacts under 5 years of age who were started on preventive therapy, Region of the Americas, 2019



Note: Only reporting countries are included.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

Among the new HIV cases reported in 2019, 25.8% received TB preventive therapy. Although the percentage has improved compared with 2018, it is still very low (figure 21).

Figure 21. Tuberculosis preventive therapy in persons living with HIV, Region of the Americas, 2017–2019



Note: Only reporting countries are included. TB: tuberculosis; HIV: human immunodeficiency virus.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

In 2019, the Region's percentages of preventive therapy administration remained low: 59.0% in contacts under 5 years of age, and 25.8% in persons living with HIV. It is essential to accelerate efforts to achieve a rate of 100% in these populations, expanding to household contacts over 5 years of age and other risk groups, to reduce transmission and new cases of TB.

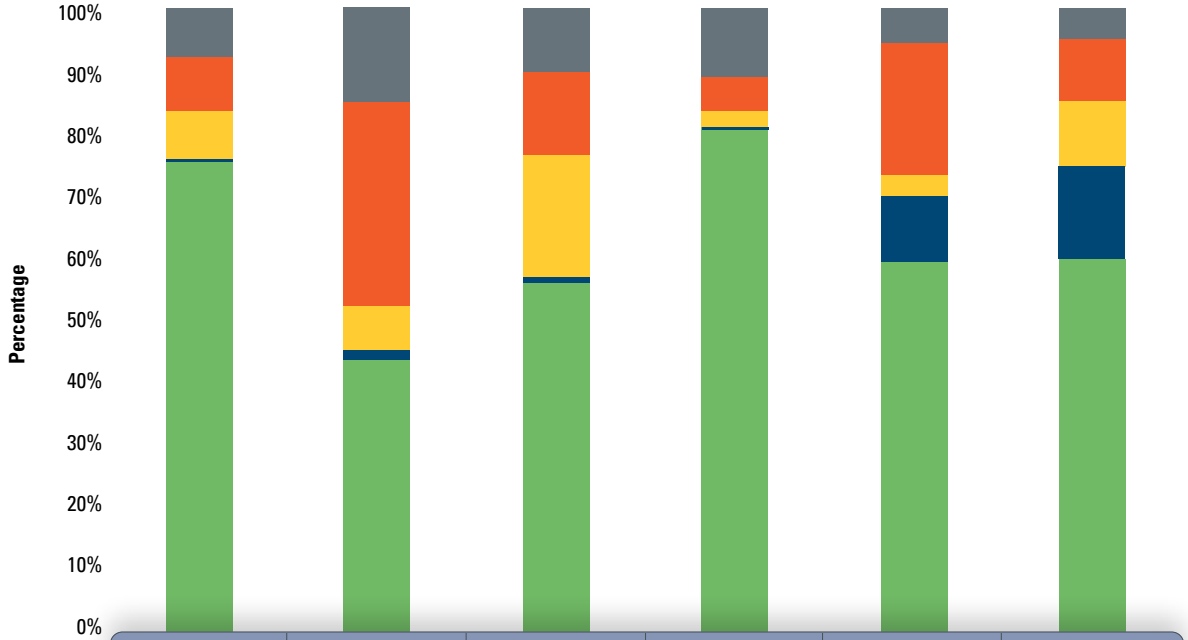
9. Tuberculosis treatment outcomes

According to the 2019 figures, success rates varied in the different treatment cohorts reported: Although they are higher in those under 15 years of age (80.6%) and in new patients and relapses (75.6%), they are still not optimal. The percentage of deaths remains high among co-infected patients (19.6%), as does that of patients lost to follow-up in most groups, especially among the retreatment group.

Paradoxically, the number of patients with XDR-TB lost to follow-up is less than that of patients with MDR/RR-TB, due to the efforts made by Peru–which has the highest number of cases of XDR-TB in the Region–through a special strategy that provides patient-centered care in these cases (figure 22).

Treatment success for drug-susceptible TB was 75.6% in the 2018 cohort, and has not improved over the past five years. There is a need to analyze within countries the causes of TB mortality and of patients lost to follow-up, and to establish strategies to address these problems.

Figure 22. Outcome of tuberculosis treatment in selected cohorts, Region of the Americas, 2019



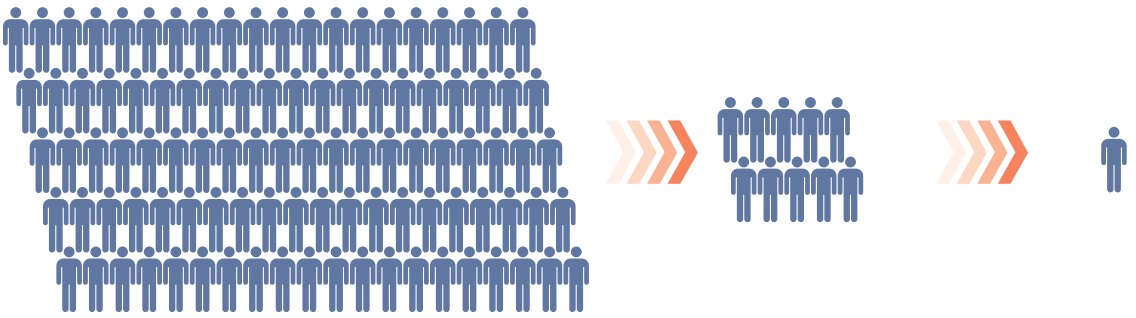
	New and relapsed cases	Retreatments	TB/HIV	Children under 15 years	MDR-TB	XDR-TB
Not evaluated	8.0%	15.5%	10.0%	11.2%	5.2%	5.0%
Lost to follow-up	8.6%	32.0%	13.4%	5.6%	22.0%	10.1%
Deceased	7.3%	7.9%	19.6%	2.5%	3.5%	10.1%
Failure	0.4%	0.7%	0.5%	0.2%	9.6%	14.3%
Success	75.6%	44.0%	56.4%	80.6%	59.6%	60.5%

Note: The cohort evaluated for drug-susceptible TB is from 2018, and the cohort for drug-resistant TB is from 2017. TB, tuberculosis; MDR-TB: multidrug-resistant tuberculosis; XDR-TB: extensively drug-resistant tuberculosis.
Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

10. Towards the elimination of tuberculosis in the Americas

PAHO is committed to supporting the countries of the Region in accelerating the implementation of the End TB Strategy, to make the Region of the Americas the first in the world to achieve the elimination of TB as a public health problem. The path to elimination involves moving from low incidence to pre-elimination (figure 23).

Figure 23. Path towards tuberculosis elimination



At present, there are 14 countries in the group with a low incidence of tuberculosis (≤10 cases per 100,000 inhabitants). These countries have the opportunity to be the first to move towards TB elimination (table 7). Eventually, all the countries of the Region must follow this path.

Table 7. Countries with a low incidence of tuberculosis, Region of the Americas, 2019

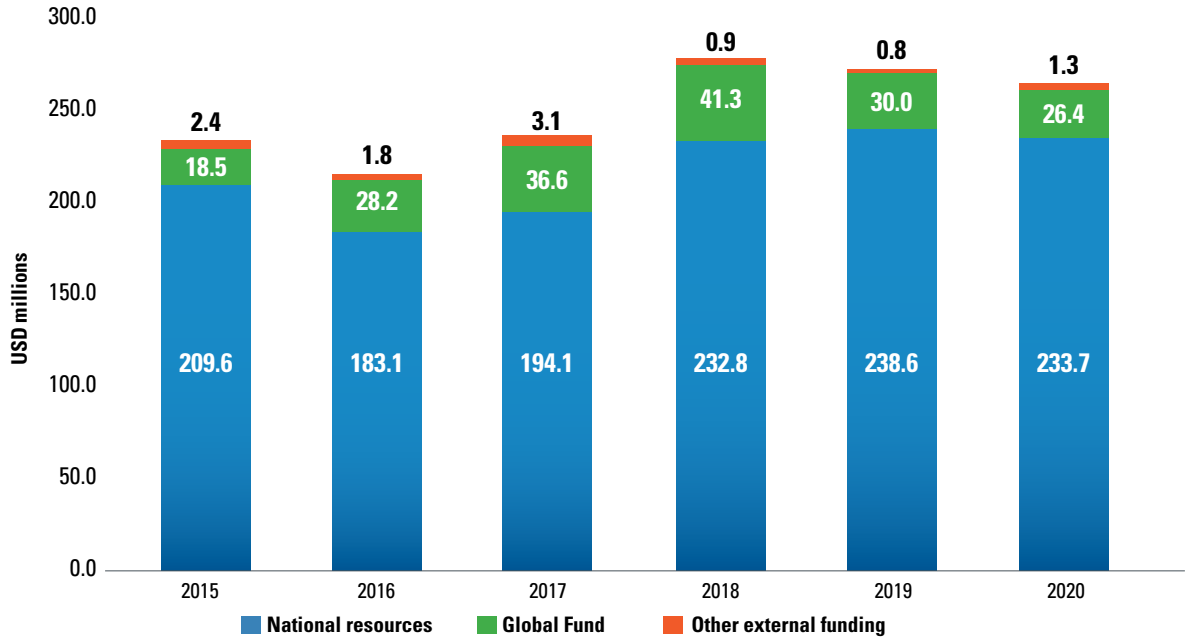
Countries	Estimated no. cases	Estimated rate per 100,000 population
Costa Rica	510	10.1
Curaçao	12	7.3
Cuba	730	6.4
Canada	2,100	5.6
Saint Vincent and the Grenadines	5	4.5
Saint Lucia	7	3.8
Jamaica	94	3.2
United States of America	9,800	3.0
Grenada	3	2.7
Saint Kitts and Nevis	1	1.9
Aruba	2	1.9
Puerto Rico	41	1.4
Antigua and Barbuda	0	0.0
Barbados	0	0.0
Total	**13,305**	**3.4**
Region of the Americas	**290,000**	**28.7**

Source: World Health Organization. Global Tuberculosis Report 2020. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240013131.

11. Funding to end tuberculosis

The countries of the Region of the Americas earmarked USD 307 million in TB prevention and control funds for 2019, 74% of which corresponded to national resources. That same year, there was a 17% gap between what was budgeted and the funding actually received. The Global Fund is reducing its contribution in the Region from $41.3 million in 2018 to $26.4 million in 2020 (figure 24). Countries must increase resources to accelerate interventions to end TB.

Figure 24. Planned funding sources for tuberculosis prevention and control, Region of the Americas, 2015–2020



USD: United States dollars.
Source: National TB control programs.

12. Recommendations to accelerate progress towards ending tuberculosis in the Americas

The following recommendations to the countries of the Region—based on the information collected, consolidated, and analyzed—aim to accelerate interventions on the path to ending TB:

1. Improve or accelerate the application and expansion of early diagnosis, with new rapid molecular tests.
2. Ramp up contact tracing and the search for TB cases.
3. Ensure access to TB preventive therapy, mainly for contacts under 15 years of age and people living with HIV, and extend this to all household contacts and other risk groups.
4. Increase TB diagnosis in children and accelerate the introduction of dispersible pediatric drugs.
5. Accelerate the implementation of new oral treatment schemes for MDR/RR-TB.
6. Strengthen interventions on the social determinants of TB and with vulnerable populations, through interprogrammatic and intersectoral activities focused on people and communities.
7. Cover existing funding gaps, increasing domestic resources and reducing dependence on external funds, to ensure sustainability.
8. Implement the multisectoral accountability framework to facilitate the achievement of international targets and commitments.

Annex. Priority indicators by country

Country/Subregion	Tuberculosis treatment coverage*	Treatment success rate		Percentage of TB-affected families facing catastrophic TB costs	Percentage of new TB patients diagnosed using WHO-recommended rapid tests	LTBI treatment coverage		Contact tracing coverage	DST coverage for TB patients	Treatment coverage, new TB drugs	Percentage of TB patients who know their HIV status	TB case fatality rate
	2019	New and relapsed cases (2018)	MDR/RR-TB 2017	2019	2019	Under 5 years 2019	HIV 2019	2019	2019	2019	2019	2017
Antigua and Barbuda	No reported cases											
Argentina	88.0%	53.6%	38.9%		9.1%				17.6%	9.0%	17.0%	5.9%
Aruba	100.0%				100.0%			100.0%	0.0%		0.0%	
Bahamas	86.4%	72.3%						29.9%	100.0%		86.3%	
Barbados	No reported cases											
Belize	91.0%	66.7%			89.0%				85.7%		91.2%	
Bolivia (Plurinational State of)	62.2%	81.3%	54.5%		66.8%	100.0%		94.7%	0.0%	2.0%	89.1%	
Brazil	87.0%	71.0%	57.3%		34.2%			63.5%	44.7%	3.0%	79.6%	7.0%
Canada	91.0%	78.0%									51.2%	
Chile	88.2%	72.6%	48.0%		24.2%		3.0%	83.0%	90.4%	41.0%	84.3%	13.7%
Colombia	79.4%	74.1%	44.0%		25.0%	100.0%	2.3%	16.9%	22.7%	1.0%	94.6%	8.2%
Costa Rica	79.4%	88.0%	75.0%		11.9%	100.0%	3.0%	5.0%	100.0%		97.3%	9.1%
Cuba	87.1%	82.4%	55.6%		27.0%		78.6%	100.0%	67.4%		100.0%	5.9%
Curaçao	No data											
Dominica	83.3%	100.0%						30.0%	25.0%		100.0%	
Dominican Republic	79.8%	76.4%	57.7%		40.0%	36.4%	4.0%	51.1%	47.3%		87.8%	
Ecuador	80.4%				25.7%	73.5%	4.5%	88.6%	31.9%		83.7%	
El Salvador	79.2%	90.7%	81.3%		44.9%		58.5%		27.6%		96.1%	8.3%
Grenada	100.0%	50.0%			66.7%				100.0%		100.0%	0.0%
Guatemala	80.8%	88.4%	41.3%		42.7%		18.8%		69.9%	9.0%	94.2%	7.8%
Guyana	80.2%	72.0%	33.3%		73.2%		54.2%	63.1%	89.0%		86.5%	

Country/Subregion	Tuberculosis treatment coverage*	Treatment success rate		Percentage of TB-affected families facing catastrophic TB costs	Percentage of new TB patients diagnosed using WHO-recommended rapid tests	LTBI treatment coverage		Contact tracing coverage	DST coverage for TB patients	Treatment coverage, new TB drugs	Percentage of TB patients who know their HIV status	TB case fatality rate
	2019	New and relapsed cases (2018)	MDR/RR-TB 2017	2019	2019	Under 5 years 2019	HIV 2019	2019	2019	2019	2019	2017
Haiti	68.5%	82.3%	84.6%		41.4%		78.2%	90.4%	15.2%	56.0%	93.4%	
Honduras	80.8%	88.0%	47.6%		26.9%	100.0%	48.1%	52.7%	46.6%		95.1%	
Jamaica	79.8%	22.2%			66.7%			100.0%	100.0%		66.7%	
Mexico	79.0%	76.1%	63.2%		2.7%	57.5%		80.6%	4.0%	7.0%	76.1%	9.1%
Nicaragua	80.3%	86.9%	77.8%		32.0%	73.2%	46.4%	93.6%	41.0%		95.9%	5.5%
Panama	79.1%	82.3%	44.3%				35.7%		92.7%	71.0%	99.1%	12.2%
Paraguay	85.9%	67.4%	75.0%		20.0%	68.2%	5.4%	57.2%	50.8%	100.0%	84.9%	7.3%
Peru	81.4%	83.2%	61.7%		14.5%	68.1%	12.5%	88.8%	74.7%	8.0%	91.5%	4.4%
Puerto Rico	87.8%	72.0%			55.6%	50.0%		56.3%	96.8%	33.0%	100.0%	11.1%
Saint Kitts and Nevis	No data											
Saint Lucia	85.7%	100.0%			50.0%		0.0%	100.0%	16.7%		100.0%	
Saint Vincent and the Grenadines	80.0%	33.3%			100.0%				100.0%		100.0%	
Sint Maarten	83.3%	80.0%			0.0%			66.7%				
Suriname	78.2%	86.8%			91.7%			99.7%	89.0%		102.3%	
Trinidad and Tobago	87.2%	64.4%	50.0%		62.8%	100.0%	0.6%		64.1%		81.2%	5.6%
United States of America	86.7%	79.4%	77.4%						91.4%		87.5%	0.0%
Uruguay	88.1%	71.9%	75.0%		37.7%	81.3%	6.7%	76.6%	78.0%		94.0%	6.7%
Venezuela (Bolivarian Republic of)	79.2%	84.5%	75.0%		3.3%	13.0%	1.2%	70.8%	7.7%		41.0%	0.0%
Region of the Americas	81.9%	75.6%	59.6%		24.9%	59.3%	25.8%	68.8%	40.5%	12.0%	79.5%	7.0%

LTBI: latent tuberculosis infection; WHO: World Health Organization; DST: drug susceptibility testing; TB: tuberculosis; MDR/RR-TB: multidrug-resistant or rifampicin-resistant tuberculosis; HIV: human immunodeficiency virus

This regional report on the situation of tuberculosis (TB) in the Americas contains information from 2019, provided by the countries of the Region through the World Health Organization TB data collection system. These data have been consolidated and analyzed at the regional level. In addition to presenting the epidemiological and programmatic situation of TB in the Americas, the report aims to raise awareness and to motivate and encourage all stakeholders in the prevention and control of this disease, to accelerate efforts towards TB elimination in the Region, and to achieve the targets of the End TB Strategy. The report records the Region's achievements, but also the gaps in the work being carried out in diagnosis, treatment, comorbidities, vulnerable populations, risk factors, and funding, among other issues. Based on the information presented, specific recommendations are provided for further progress.

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