

# TUBERCULOSIS AND HIV



PROGRESS TOWARDS THE 2020 TARGET



# IT'S TIME

On World Tuberculosis Day, 24 March 2019, I am pleased to share some good news.

The world is moving closer to meeting the United Nations target of reducing tuberculosis (TB) deaths among people living with HIV by 75% by 2020. Between 2010 and 2017, TB deaths among people living with HIV fell by 42% and many countries are now on track to achieving the target by 2020. Five have already done so, ahead of schedule.

However, I must also share some serious concerns. Most countries are not on track and too many people living with HIV are still dying from TB, which is preventable and curable. The most vulnerable and the marginalized are still out of reach of HIV and TB services and in around 40 countries the number of TB deaths among people living with HIV is increasing. This is unacceptable.

The epidemics of TB and HIV are closely interlinked. Yet, too often, TB and HIV activities are not coordinated—a missed opportunity that is costing lives.

I cannot stress enough how critical it is to work together by integrating TB and HIV services so that people can be screened, tested, treated and offered prevention for both diseases, ideally under the same roof, by the same health worker and on the same day. We know that this approach saves lives.

It is time. With less than two years to achieve the target, it's time for TB and HIV programmes to work together to reach the 2020 target and set the world firmly on track to ending TB and AIDS by 2030.

**MICHEL SIDIBÉ**

Executive Director of UNAIDS

# ARE COUNTRIES ON TRACK TO REDUCE TB DEATHS AMONG PEOPLE LIVING WITH HIV BY 75% BY 2020?

## TB: the top infectious killer worldwide

Tuberculosis (TB) is the top infectious killer worldwide, claiming around 4400 lives a day. TB also remains the leading cause of death among people living with HIV, causing one in three AIDS-related deaths. In 2017, 1.6 million people died from TB, including around 300 000 people living with HIV. However, TB is also preventable and curable.

## Global promises

As part of efforts to stop people living with HIV from becoming ill and dying from TB, at the 2016 United Nations High-Level Meeting on Ending AIDS, United Nations Member States committed to reducing TB deaths among people living with HIV by 75% by 2020.<sup>1</sup>

Further accentuating the need for progress, in 2018 the United Nations General Assembly held its first-ever High-Level Meeting on Tuberculosis. At that meeting, United Nations Member States reaffirmed their commitment to achieving the targets set out in the 2016 Political Declaration on Ending AIDS and committed to ensuring that 6 million people living with HIV receive TB preventive treatment by 2022.

## Progress has been made

The latest estimates from the World Health Organization (WHO) show that progress has been made towards the target. Global TB deaths among people living with HIV have fallen by 42% since 2010, from 520 000 down to 300 000 in 2017.<sup>2</sup> However, the estimates also indicate that progress remains uneven and further efforts are needed to address the main challenges, including the need for equity and ensuring that vulnerable groups have access to integrated HIV and TB services.

In 2017, five low- or middle-income countries had already achieved or exceeded the target of a 75% reduction in TB deaths among people living with HIV—India (84%), Eritrea (83%), Djibouti (78%), Malawi (78%) and Togo (75%). A further 18 countries reduced TB deaths among people living with HIV by more than 50% and are on track to achieve the target by the end of 2020, provided that scale-up of services is maintained.

Success is a result of a combination of factors. In India, TB deaths among people living with HIV declined dramatically from 65 000 [33 000–108 000] in 2010 to 11 000 [6500–16 000] in 2017. The Prime Minister, Narendra Modi, has shown

<sup>1</sup> From a baseline of 2010; 2016 United Nations Political Declaration on Ending AIDS.

<sup>2</sup> Global tuberculosis report. Geneva: World Health Organization; 2018.

extraordinary leadership in committing to end TB by 2025, five years ahead of the global target. Recognizing the close links between the two diseases, he has also taken the important decision to fully integrate HIV and TB programmes to make sure that people with both diseases are diagnosed and treated effectively.

Malawi has also made progress. Combining a rapid scale-up of access to life-saving antiretroviral therapy, which it provides free of charge for all people living with HIV, with regular screening, testing and treatment for TB has resulted in an impressive decline in TB deaths among people living with HIV, from 16 000 [8500–27 000] in 2010 to 3500 [1900–5600] in 2017.

However, there is no room for complacency—the vast majority of countries are not on track to achieve the 2020 target. Even in countries that have achieved the target, small changes in programmatic efforts could threaten the progress made.

## **TB deaths rising in some countries**

A major cause for concern is the rise in TB deaths among people living with HIV in some regions and countries. In eastern Europe and central Asia, the number of TB deaths among people living with HIV increased by 22% between 2010 and 2017 and in Latin America by 7%. WHO estimates that there are at least 40 countries in which the number of TB deaths among people living with HIV rose between 2010 and 2017, showing the urgent need to scale up integrated HIV and TB services in those countries.

## **Multidrug-resistant TB**

In addition, multidrug-resistant TB continues to be a growing threat in many parts of the world. WHO estimates that in 2017 there were 558 000 new cases of resistance to the most effective first-line TB medicine, of which 82% were of multidrug-resistant TB. Unless investments increase for research to find better ways to prevent, diagnose and treat TB among people living with HIV, the many gains made in recent years could be lost.

## **No one should die from TB**

To accelerate progress in reducing TB deaths among people living with HIV and reach the 2020 target, countries will need to fully integrate HIV and TB services and use focused community-based approaches to find, test and treat the missing cases. Countries need to screen all people living with HIV for TB and all people with TB should be tested for HIV. The quality of TB and HIV diagnosis also needs to be improved. HIV and TB prevention efforts need scaling up, particularly among people at higher risk of infection. In addition, all people diagnosed with TB and HIV need immediate access to treatment and support to adhere to their treatment regimens.

Global progress is encouraging and a large number of countries, many heavily affected by HIV and TB, do have a chance of meeting the target of reducing TB deaths among people living with HIV by 75% by 2020 if they act with urgency. UNAIDS is calling on all countries to step up action and ensure that all people affected by HIV and TB have access to effective prevention and treatment services. This will stop new infections and save thousands of lives.

# TB AND HIV—PROGRESS TOWARDS THE

## Target—Reduce TB deaths among people living with HIV by 75% by 2020

Countries are listed in accordance with the percentage change in TB deaths among people living with HIV from 2010 to 2017. The number given after the country name is the estimated number of TB deaths among people living with HIV in 2017, including range.

### DECREASED BY

#### 75% or more

#### 50% to 74%

#### 25% to 49%

	Number of deaths		Number of deaths		Number of deaths	
<b>EASTERN AND SOUTHERN AFRICA</b> REGIONAL DECLINE OF 40%	<b>Eritrea</b>	51 [24–87]	<b>Botswana</b>	750 [530–1000]	<b>Lesotho</b>	4600 [2900–6700]
	<b>Malawi</b>	3500 [1900–5600]	<b>Ethiopia</b>	3600 [2500–5000]	<b>Mozambique</b>	27 000 [17 000–39 000]
<b>MIDDLE EAST AND NORTH AFRICA</b> REGIONAL DECLINE OF 51%	<b>Djibouti</b>	27 [20–35]	<b>Eswatini</b>	600 [430–810]	<b>Rwanda</b>	320 [220–420]
			<b>Kenya</b>	18 000 [11 000–27 000]	<b>South Africa</b>	56 000 [39 000–77 000]
<b>ASIA AND THE PACIFIC</b> REGIONAL DECLINE OF 66%	<b>India</b>	11 000 [6500–16 000]	<b>Namibia</b>	800 [550–1100]	<b>United Republic of Tanzania</b>	22 000 [10 000–39 000]
			<b>Libya</b>	26 [16–38]	<b>Zimbabwe</b>	6300 [4500–8500]
<b>WESTERN AND CENTRAL AFRICA</b> REGIONAL DECLINE OF 29%	<b>Togo</b>	120 [85–160]	<b>Somalia</b>	200 [130–300]	<b>Iran (Islamic Republic of)</b>	31 [9–66]
			<b>Iran (Islamic Republic of)</b>	220 [80–440]	<b>Sudan</b>	220 [80–440]
<b>LATIN AMERICA AND CARIBBEAN</b> REGIONAL INCREASE OF 7% REGIONAL DECLINE OF 45%	<b>Haiti</b>	710 [510–940]	<b>Cambodia</b>	410 [270–570]	<b>Indonesia</b>	9300 [4900–15 000]
			<b>Lao People's Democratic Republic</b>	300 [190–430]	<b>Japan</b>	13 [8–19]
<b>EASTERN EUROPE AND CENTRAL ASIA</b> REGIONAL INCREASE OF 22%	<b>Spain</b>	57 [37–81]	<b>Thailand</b>	2900 [2100–3800]	<b>Papua New Guinea</b>	920 [510–1500]
			<b>Romania</b>	49 [36–65]	<b>Viet Nam</b>	840 [610–1100]
<b>WESTERN AND CENTRAL EUROPE AND NORTH AMERICA</b> REGIONAL DECLINE OF 27%	<b>United States of America</b>	84 [55–120]	<b>Burkina Faso</b>	310 [200–450]	<b>Cameroon</b>	6000 [3800–8700]
			<b>Central African Republic</b>	2700 [1400–4300]	<b>Côte d'Ivoire</b>	2600 [1600–3800]
<b>GLOBAL DECLINE 42%</b>	<b>Italy</b>	72 [36–120]	<b>Mauritania</b>	63 [26–110]	<b>Democratic Republic of the Congo</b>	7400 [3500–13 000]
			<b>Niger</b>	330 [210–480]	<b>Mali</b>	390 [250–550]
					<b>Nigeria</b>	35 000 [21 000–52 000]
					<b>Senegal</b>	340 [240–470]
					<b>Guatemala</b>	69 [50–91]
					<b>Honduras</b>	50 [35–68]
					<b>Georgia</b>	13 [10–17]
					<b>Latvia</b>	10 [7–13]
					<b>Portugal</b>	38 [25–54]
					<b>United Kingdom of Great Britain and Northern Ireland</b>	64 [34–100]

Countries are only shown if there were 10 or more TB deaths among people living with HIV in both 2010 and 2017 (except Jamaica, which is a Fast-Track country).

Source: Global tuberculosis report. Geneva: World Health Organization; 2018.

# 2020 TARGET

0% to 24%

INCREASED BY  
1% or more

Number of deaths		Number of deaths		Number of deaths	
<b>South Sudan*</b>	870 [550–1300]	<b>Angola</b>	7700 [3800–13 000]		
<b>Uganda</b>	14 000 [7900–21 000]	<b>Madagascar</b>	650 [290–1100]		
<b>Zambia</b>	13 000 [8200–19 000]				
<b>Morocco</b>	64 [30–110]	<b>Algeria</b>	36 [18–61]		
		<b>Egypt</b>	13 [7–21]		
		<b>Saudi Arabia</b>	20 [14–26]		
		<b>Yemen</b>	27 [9–55]		
<b>Bangladesh</b>	170 [84–290]	<b>Afghanistan</b>	63 [10–170]		
<b>China</b>	1800 [820–3000]	<b>Pakistan</b>	2200 [1100–3700]		
<b>Democratic People's Republic of Korea</b>	43 [22–71]	<b>Philippines</b>	380 [0–3300]		
<b>Malaysia</b>	300 [220–380]				
<b>Myanmar</b>	4900 [3500–6600]				
<b>Nepal</b>	260 [140–410]				
<b>Republic of Korea</b>	67 [27–120]				
<b>Cabo Verde</b>	44 [27–65]	<b>Benin</b>	380 [240–550]		
<b>Gabon</b>	980 [610–1400]	<b>Chad</b>	1900 [1200–2800]		
<b>Ghana</b>	5200 [2500–9000]	<b>Congo</b>	2200 [1200–3700]		
<b>Guinea-Bissau</b>	1200 [750–1800]	<b>Equatorial Guinea</b>	340 [260–430]		
		<b>Gambia</b>	210 [150–280]		
		<b>Guinea</b>	1900 [1200–2800]		
		<b>Liberia</b>	910 [570–1300]		
		<b>Sierra Leone</b>	780 [490–1100]		
<b>Brazil</b>	1900 [1400–2500]	<b>Argentina</b>	270 [140–430]	<b>Nicaragua</b>	29 [21–38]
<b>Guyana</b>	39 [28–51]	<b>Bolivia (Plurinational State of)</b>	190 [120–270]	<b>Panama</b>	83 [59–110]
<b>El Salvador</b>	44 [30–60]	<b>Chile</b>	79 [40–130]	<b>Peru</b>	390 [280–510]
<b>Jamaica</b>	8 [6–11]	<b>Colombia</b>	430 [320–570]	<b>Uruguay</b>	28 [21–36]
<b>Paraguay</b>	41 [30–55]	<b>Cuba</b>	12 [8–17]	<b>Venezuela (Bolivarian Republic of)</b>	260 [190–350]
		<b>Dominican Republic</b>	250 [180–330]		
		<b>Ecuador</b>	200 [140–270]		
		<b>Mexico</b>	770 [560–1000]		
<b>Turkmenistan</b>	27 [12–49]	<b>Azerbaijan</b>	23 [17–31]	<b>Republic of Moldova</b>	55 [41–71]
<b>Ukraine</b>	2100 [1400–3000]	<b>Belarus</b>	58 [42–76]	<b>Russian Federation</b>	1700 [850–2800]
		<b>Kazakhstan</b>	37 [14–72]	<b>Tajikistan</b>	64 [47–84]
		<b>Kyrgyzstan</b>	73 [56–93]	<b>Uzbekistan</b>	300 [200–420]
<b>France</b>	150 [81–250]	<b>Belgium</b>	14 [9–19]		
<b>Poland</b>	25 [12–43]	<b>Germany</b>	54 [26–92]		
<b>Turkey</b>	17 [13–23]				

\*In South Sudan, the baseline year is 2011.

# TIMELINE OF HIV AND TB

Tuberculosis (TB) is the leading cause of illness and death among people living with HIV. TB can be cured.

**1988** WHO and the Union recommend a joint approach to tackling TB and HIV.

**2005** Malawi uses a model for delivering antiretroviral therapy based on the TB model incorporating the DOTS principles. People with TB are offered HIV testing and given priority for antiretroviral therapy if eligible. During the year, 47% of registered people with TB accept HIV testing, 69% test positive and 92% start HIV treatment.

**2006** WHO convenes an urgent meeting to discuss the implications of a deadly outbreak of extensively drug-resistant TB among people living with HIV in South Africa. Extensively drug-resistant TB is resistant to the most important first- and second-line anti-TB drugs.

**2009** guidelines recommend that everyone who is living with HIV should receive antiretroviral therapy regardless of their CD4 count.

**2003** An estimated 3% of people with TB are tested for HIV.

**2004** Globally, the rate of new TB cases peaks at 143 (range 136–151) cases per 100 000 population.

1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

**1982** The World Health Organization (WHO) and the International Union against Tuberculosis and Lung Diseases (the Union) sponsored the first World TB Day on 24 March, 100 years to the day since Robert Koch discovered the TB bacillus, the cause of TB. Dr Koch's discovery opened the way to diagnosing and curing TB.



**1986** The first reports of high HIV prevalence among people with TB in Africa from Zaire (the Democratic Republic of the Congo). Subsequent cases confirmed across sub-Saharan Africa.



**1983** The first reports of an association between TB and HIV among people with AIDS in Haiti.



**1995** Data show that people living with HIV with active TB have higher viral loads and die sooner than people without TB.

**1997** New worries arise in the TB response. In 35 countries surveyed, researchers find multi-drug-resistant TB rates exceeding 2% in about one third of the countries surveyed. The highest rates were in the countries of the former USSR (including the Baltic countries), Argentina, India and China.



**1995–2008** The overall TB burden falls as more people with TB successfully treated in DOTS strategy for TB control), with up to 6 million people cured.

**1990–2004** The number of TB cases stabilizes or falls steadily in many parts of the world. In sub-Saharan Africa, the rate of new TB cases rises dramatically, fuelled by the HIV prevalence among adults exceeds 5%.



New WHO  
recommend  
with TB who  
HIV should  
antiretroviral therapy,  
their CD4 count.

**2010** A study published in the *American Journal of Tropical Medicine and Hygiene* suggests that the Gambian pouched rat could be trained to detect the TB bacillus. Researchers hope that this 1.5 kg mammal, with a highly developed sense of smell, could one day be part of routine first-line screening for TB. The rats are already helping to detect landmines.



**2010** WHO endorses a new TB testing tool that does not require trained laboratory technicians. It can also diagnose TB and multidrug-resistant TB cases in less than two hours.



**2017** 558 000 people develop drug-resistant TB.

**2017** A total of 10 million people fall ill with TB and 1.6 million people die from TB, including approximately 300 000 people living with HIV.

**2016** WHO recommendations announced to speed up detection and improve treatment outcomes for multidrug-resistant TB through use of a rapid diagnostic test and a shorter, cheaper treatment regimen.

**2016** United Nations Political Declaration on Ending AIDS includes working towards the target of reducing TB-related deaths among people living with HIV by 75% by 2020 and commitment to funding and implementing to achieve the 90–90–90 TB targets.

**2030**

Sustainable  
Development Goal  
target date to end  
AIDS and TB.



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

**2002–2007**

Data from Botswana indicate a decline in the number of TB cases reported nationwide that coincides with rapid roll-out of antiretroviral therapy. Improvements in Botswana's national TB programme during this same period, including case detection and reporting, mean that this decline probably reflects a true reduction in TB infections due to antiretroviral therapy.

**2006**

Jorge Sampaio, the former President of Portugal, is appointed as the United Nations Secretary-General's first Special Envoy to Stop Tuberculosis.

**2015** Eric P. Goosby appointed as the United Nations Special Envoy on Tuberculosis.

**2015** TB death rate nearly half what it was in 1990.

**2015**

Millennium Development Goal 6 target date to combat HIV/AIDS, malaria and other diseases.



**2017** WHO Global Ministerial Conference on Ending TB, at which 120 national delegations adopt the Moscow Declaration to End TB.

**2017** For the first time, the number of people living with HIV accessing treatment exceeds the number of people not on treatment.

**2018** 26 September. First-ever United Nations General Assembly High-Level Meeting on Tuberculosis, "United to end tuberculosis: an urgent global response to a global epidemic".

**2018** United Nations General Assembly adopt a Political Declaration on the Fight Against Tuberculosis, which includes a commitment to ensure that 6 million people living with HIV receive preventive treatment for TB by 2022.

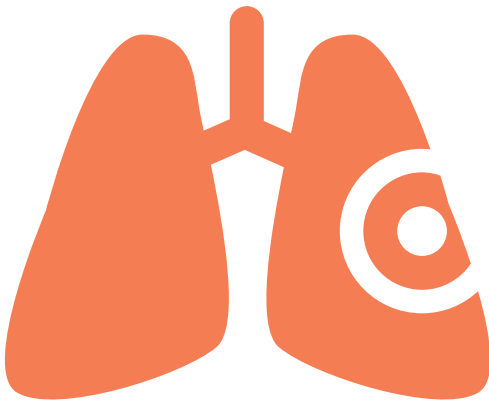
TB response shows a cumulative total of 36 million  
DOTS programmes (the internationally recommended  
in deaths averted.

most parts of the world, except for  
the HIV epidemic, especially where

**2000–2017** An estimated 54 million lives were saved through TB diagnosis and treatment between 2000 and 2017.

# TUBERCULOSIS AND HIV

IN 2017, 10 MILLION PEOPLE FELL ILL WITH TB AND 1.6 MILLION DIED FROM THE DISEASE



People living with HIV are up to **20 times** more likely to fall ill **with TB**

ANNUAL GLOBAL FUNDING FOR TUBERCULOSIS IS **US\$ 3.5 BILLION** SHORT OF WHAT IS REQUIRED



TB IS THE **LEADING CAUSE OF DEATH** AMONG PEOPLE LIVING WITH HIV

**UNAIDS** IS WORKING WITH PARTNERS TO REDUCE TB-ASSOCIATED DEATHS AMONG PEOPLE LIVING WITH HIV **BY 75% BY 2020**



In 2017, approximately **300 000** people died from AIDS-related TB

**TB IS CURABLE:**  
**54 MILLION**  
LIVES HAVE BEEN SAVED **SINCE 2000**

## **SIMPLE, AFFORDABLE AND EFFECTIVE HIV/TB PROGRAMMES**

All people living with HIV should have access to:

- Antiretroviral Therapy
- TB diagnostics and treatment
- Regular TB screening
- TB preventive therapy (if no TB symptoms)



All people living with TB should have access to:

- HIV testing and antiretroviral therapy
- TB treatment
- HIV prevention options





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