



# The Urgent Threat of TB Drug Resistance

## DRUG-RESISTANT TB THREATENS TO ERASE DECADES OF PROGRESS

**One-fourth of the world's population is infected with TB, and 10.4 million people become sick with active TB disease each year. TB is among the leading causes of death from infectious disease globally and claims 1.8 million lives each year, even though we have had a cure for more than 70 years.**

In some cases of TB, the bacteria that causes infection has been able to develop resistance to the anti-TB drugs used to cure it. Most often, this stems from incomplete treatment of non-resistant TB. In recent decades, these strains have become resistant to more and more of our best drugs and continue to

spread globally. Drug-resistant TB strains are more difficult to cure and costly to our economy and health system. Because TB is airborne and contagious, the continued spread of drug-resistant TB could cause a resurgence of TB in parts of the world where TB is currently less common, including the United States.

*That is why CDC works at home and abroad to create a safer America and a safer world.*

To prevent further spread of drug-resistant TB, we must find and cure all cases of MDR TB. But equally important is ensuring drug-susceptible TB cases are properly diagnosed and treated, so those strains do

drug-susceptible TB cases are properly diagnosed and treated, so those strains do not develop drug resistance and start the cycle anew. To stop drug-resistant TB, we must get back to the basics of effective TB prevention and treatment.

### THE TIME IS NOW

Each year, nearly 500,000 people become sick with MDR TB, leading to 200,000 deaths. Recent estimates suggest that by 2050, if we do not act to contain these strains, more than 2.6 million people will die from MDR TB every year, costing the global economy a collective \$17 trillion in lost productivity.

## MDR-TB IS HARDER TO FIND, TREAT AND CURE



### DRUG-RESISTANT TB IS HARDER TO DIAGNOSE

- Requires laboratory tests not easily accessible to patients
- Often requires weeks to months to diagnose accurately
- Only 1 in 5 MDR TB cases are diagnosed and started on treatment



### DRUG-RESISTANT TB IS HARDER TO CURE

- Requires 2 years of treatment vs. 6 months (which costs 10-30 times more)
- Requires 15,000 pills vs. <750
- Certain drugs are more toxic and cause long-term side effects
- Only half of patients treated are cured; only 1 in 10 of all MDR TB cases are cured



### DRUG-RESISTANT TB STRAINS ARE BECOMING MORE WIDESPREAD

#### MDR TB (Multidrug-resistant TB):

Resistant to the best two anti-TB drugs – reported in every country in the world

#### XDR TB (Extensively drug-resistant TB):

Resistant to the best first-line drugs and at least two second-line drugs – reported in more than 100 countries

# CDC IS A LEADING PARTNER IN THE FIGHT AGAINST MDR TB

CDC is committed to the global goal to End TB by 2035. To address drug-resistant TB, CDC works with partners at the World Health Organization, partner U.S. government agencies, and ministries of health to:



## FIND

Strengthen laboratory networks and surveillance systems to enable rapid, accurate diagnosis of all TB and MDR TB cases

Identify the best methods to diagnose TB among People Living with HIV (PLHIV) and children

Develop innovative approaches to find undiagnosed TB and MDR TB cases



## CURE

Identify better treatment regimens that cure patients faster with fewer side effects

Improve clinical management practices

Work with MOHs to strengthen health systems critical to find and cure TB



## PREVENT

Ensure appropriate treatment of all TB cases to prevent resistance

Break the cycle of transmission through infection control

Scale up TB preventive and antiretroviral therapy for PLHIV to prevent TB disease

## ELIMINATING MDR TB WORLDWIDE

We are at a critical tipping point in the fight against MDR TB. The resistant strains are spreading and growing more resistant. If left unchecked, this may lead to a future where TB is no longer curable and TB deaths rise substantially. To contain this emerging crisis, we must act now to:



Find and cure all existing cases of MDR TB



Develop better tools to find and cure all forms of TB



Strengthen basic TB control programs to prevent drug-resistant strains from developing

"Imagine a future where everyone with TB was diagnosed quickly, started on effective treatment - a regimen lasting only a few weeks - and a cure was nearly universal. By pairing global efforts to improve public health response capabilities with proven interventions to strengthen TB control, we can improve the lives of people with TB and avert the suffering and cost associated with this deadly disease."

*Dr. Tom Frieden*

*Former Director, Centers for Disease Control and Prevention*

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Find TB. Cure TB. Prevent TB.



<http://www.cdc.gov/globalhivtb>