



The Urgent Threat of TB Drug Resistance

DRUG-RESISTANT TB THREATENS TO ERASE DECADES OF PROGRESS

Nearly 2 billion people are infected with tuberculosis (TB) and 10 million people become sick with active TB disease each year. TB is a leading cause of death from an infectious disease globally and claims 1.5 million lives each year, even though a TB cure has existed for longer than 70 years.

In some cases, the bacteria that causes TB infection can develop resistance to drugs used for TB treatment. Most often, this stems from incomplete treatment of non-resistant TB. In recent decades, these strains have become resistant to 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.

This is why CDC responds to TB 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 multidrug-resistant tuberculosis TB (MDR-TB). But equally important is ensuring 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

In 2020, 150,359 people became sick with MDR-TB/rifampicin-resistant TB (RR-TB) around the world. 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 11% of children 15-yrs old and younger who were infected with TB were diagnosed and treated for drug-resistant TB.



DRUG-RESISTANT TB IS HARDER TO CURE

- Requires two years of treatment and costs 10 - 30 times more to treat
- MDR-TB treatment drugs are more toxic and cause long-term side effects
- Fewer than 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): Resistance to the best anti-TB drugs has been reported in virtually every country in the world.

XDR-TB (Extensively drug-resistant TB): Resistance to the best first-line drugs and at least two second-line drugs and has been reported in more than 100 countries.

CDC IS A LEADER IN THE RESPONSE TO MDR-TB

CDC is committed to achieving global targets for ending all forms of TB by 2035. To address drug-resistant TB, CDC works with partners including the World Health Organization (WHO), other 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

Develop innovative approaches to find TB in all forms



CURE

Work closely with WHO to set the gold standard for treating drug-resistant TB

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



PREVENT

Ensure appropriate treatment of all TB cases to prevent resistance

Break the cycle of transmission through infection prevention and control

Scale up TB preventive treatment and antiretroviral therapy for people living with HIV to prevent TB disease

ELIMINATING MDR-TB WORLDWIDE

We are at a critical point in the response to TB and MDR-TB. Drug-resistant strains of TB continue to spread with a potential to grow more resistant to treatment if left unchecked. This may lead to a future where TB is no longer curable with a substantial increase in TB-related deaths. To prevent this scenario, 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

Find TB. Cure TB. Prevent TB.



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