The Urgent Threat of TB Drug Resistance

DRUG-RESISTANT TB THREATENS TO ERASE DECADES OF PROGRESS

Nearly 2 billion people are infected with TB, and 10 million people become sick with active TB disease each year. TB is the leading cause of death from an infectious disease globally and claims 1.5 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 to fight TB at home and abroad to help 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 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 2018, 484,000 people became sick with Multidrug-resistant tuberculosis (MDR-TB)/rifampicin-resistant TB (RR-TB). 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
- Fewer than 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. 9-24 months (which costs 10-30 times more)
- Certain 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): 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
- Multidrug-resistant tuberculosis (MDR-TB)/rifampicin-resistant TB (RR-TB) People Living with HIV (PLHIV) and other vulnerable groups
- Develop innovative approaches to find undiagnosed TB and MDR TB cases

**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 control
- Scale up TB preventive treatment 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 forms 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

Find TB. Cure TB. Prevent TB. http://www.cdc.gov/globalhivtb