World Health Organization

MULTIDRUG-RESISTANT TUBERCULOSIS (MDR-TB)

2016 UPDATE

GLOBAL BURDEN

In 2015, there were an estimated 480 000 new cases of multidrug-resistant TB (MDR-TB) and an additional 100 000 people with rifampicin-resistant TB (RR-TB) who were also newly eligible for MDR-TB treatment.

Drug resistance surveillance data show that 3.9% of new and 21% of previously treated TB cases were estimated to have had **rifampicin-** or **multidrug-resistant** tuberculosis (MDR/RR-TB) in 2015. As in 2014, MDR-TB accounts for 3.3% of new TB cases.

MDR/RR-TB caused 250 000 deaths in 2015. Most cases and deaths occurred in Asia.

About 9.5% of MDR-TB cases have additional drug-resistance, **extensively drug-resistant TB (XDR-TB)**. To date, 117 countries worldwide have reported at least one XDR-TB case.

DETECTION

In 2015, 30% of TB patients notified globally were tested for MDR/RR-TB, up from 22% in 2014. This improvement is partly due to the continued expansion in the use of rapid molecular tests.

In spite of increased testing, the number of MDR/RR-TB cases detected in 2015 only reached 132 000, a slight increase over 2014 (up from 122 000 cases).

ENROLLMENT ON MDR-TB TREATMENT

A total of 125 000 patients were enrolled on MDR-TB treatment in 2015 (up from 111 000 cases in 2014). This however represents only about 22% of incident MDR/RR-TB cases in 2015. The gap between detected MDR/RR-TB cases and enrolments on treatment appears to have narrowed globally over time. Over 7000 XDR-TB patients were started on treatment in 2015.

TREATMENT OUTCOMES

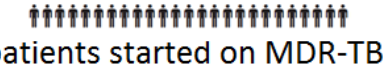
Only 52% of the MDR/RR-TB patients who started treatment in 2013 were successfully treated, while 17% of patients died and in 9% of patients their treatment failed (22% were lost to follow up or not evaluated). The treatment success rate in XDR-TB patients was only 26%.

480 000 people fell ill with MDR-TB in 2015. There were an additional 100 000 people with rifampicin-resistant TB who also required second-line treatment

132 000

MDR/RR-TB cases detected in 2015

125 000



patients started on MDR-TB treatment in 2015

52% 

treatment success in MDR/RR-TB patients starting treatment in 2013

WHAT ARE MDR/RR-TB AND XDR-TB?

Anti-TB medicines have been used for decades, and resistance to them is widespread. Disease strains that are resistant to at least one anti-TB medicine have been documented in every country surveyed.

Rifampicin-resistant tuberculosis is caused by bacteria that do not respond to rifampicin, one of the most powerful anti-TB medicines. These patients require MDR-TB treatment.

Multidrug-resistant tuberculosis (MDR-TB) is caused by bacteria that do not respond to, at least, isoniazid and rifampicin, the two most powerful anti-TB medicines.

Patients with **rifampicin-resistant** or **multidrug-resistant tuberculosis (MDR/RR-TB)** require treatment with second-line treatment regimens, which are more complex than those used to treat patients without drug-resistant TB

Extensively drug-resistant TB (XDR-TB) is a form of multidrug-resistant tuberculosis that responds to even fewer available medicines, including the most effective second-line anti-TB medicines.

Five priority actions to address the global MDR-TB crisis

1 PREVENT THE DEVELOPMENT OF DRUG RESISTANCE THROUGH HIGH QUALITY TREATMENT OF DRUG-SUSCEPTIBLE TB

Prevent MDR/RR-TB as a first priority.

2 EXPAND RAPID TESTING AND DETECTION OF DRUG-RESISTANT TB CASES

Scale up rapid testing and detection of all MDR/RR-TB cases.

3 PROVIDE IMMEDIATE ACCESS TO EFFECTIVE TREATMENT AND PROPER CARE

Ensure prompt access to appropriate MDR-TB care, including adequate supplies of quality drugs and scaled-up country capacity to deliver services.

4 PREVENT TRANSMISSION THROUGH INFECTION CONTROL

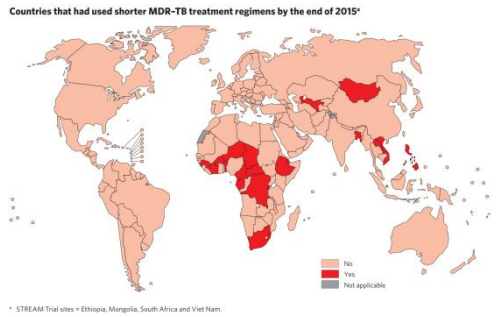
Implement appropriate TB infection control measures and quickly enroll diagnosed patients on effective treatment to minimize the risk of disease transmission.

5 INCREASE POLITICAL COMMITMENT WITH FINANCING

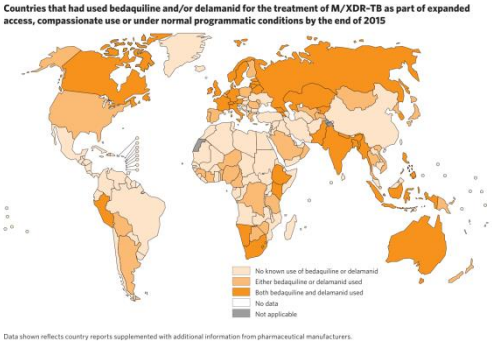
Underpin and sustain the MDR-TB response through high-level political commitment, strong leadership across multiple governmental sectors, ever-broadening partnerships, and adequate financing for care and research.

NEW REGIMENS FOR MDR/RR-TB

At least 23 countries in Africa and Asia have introduced shorter MDR-TB regimens, which have achieved high treatment success rates (87–90%) under operational research conditions. WHO now recommends a standardised shorter MDR-TB regimen for selected MDR/RR-TB patients who do not have resistance to fluoroquinolones or second-line injectable agents.

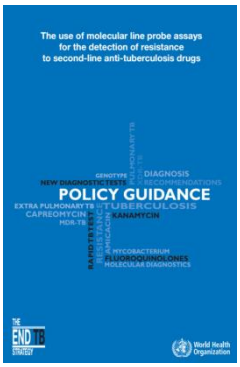


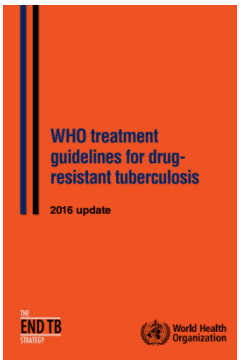
Additionally, at least 70 countries had started using bedaquiline and 39 countries had used delamanid by the end of 2015



NEW POLICIES FOR MDR-TB TREATMENT

In May 2016, WHO released new guidelines on (i) line probe assays for the rapid diagnosis of resistance to fluoroquinolones and second-line injectable agents and (ii) on the treatment of MDR/RR-TB. These recommendations will help countries to implement policies based on the best available evidence and to improve MDR-TB treatment coverage and success rates.





More information: http://www.who.int/tb/areas-of-work/drug-resistant-tb/treatment/resources/en/

The **WHO GLOBAL TB PROGRAMME** together with WHO regional and country offices: develops policies, strategies and standards; supports the efforts of WHO Member States; measures progress towards TB targets and assesses national programme performance, financing and impact; promotes research; and facilitates partnerships, advocacy and communication. More information: **www.who.int/tb**