



Multidrug-resistant tuberculosis (MDR-TB) 2012 Update

Key findings:

• **Proportion of TB cases with drug-resistance:** about 3.7% of new tuberculosis (TB) patients in the world have multidrug-resistant strains (MDR-TB). Levels are much higher in those previously treated – about 20%. The frequency of MDR-TB varies substantially between countries.

• **MDR-TB case-loads:** WHO estimates that between 220,000 and 400,000 MDR-TB cases occur among TB cases notified in the world in 2011. About 60% of these cases occur in Brazil, China, India, the Russian Federation and South Africa alone (“BRICS” countries).

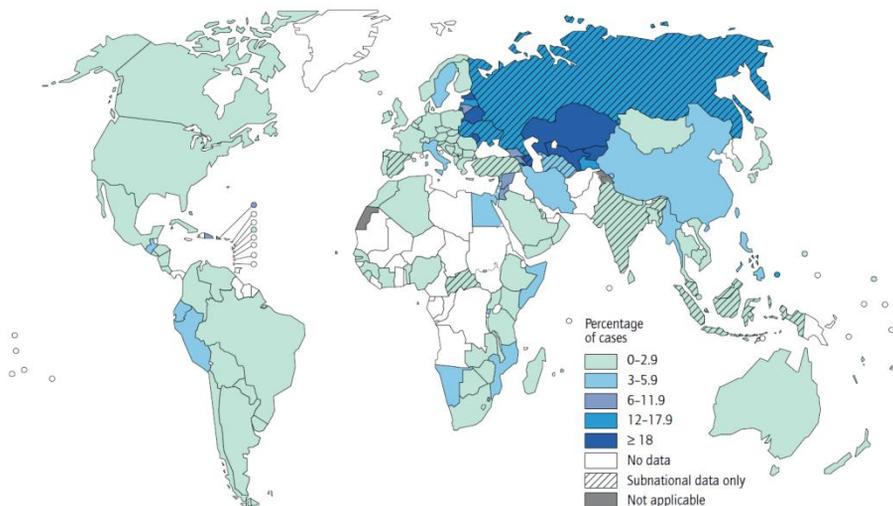
• **Detection & Diagnosis:** about 4% of new TB cases have been reported with results for drug resistance testing, as well 6% of previously treated.

• **One in five** of the estimated MDR-TB cases were reported to have been enrolled on treatment in the world.

• **XDR-TB:** approximately 9% of MDR-TB cases also have resistance to two other classes of drugs, or extensively drug-resistant TB (XDR-TB). As of October 2012, 84 countries had reported at least one XDR-TB case.

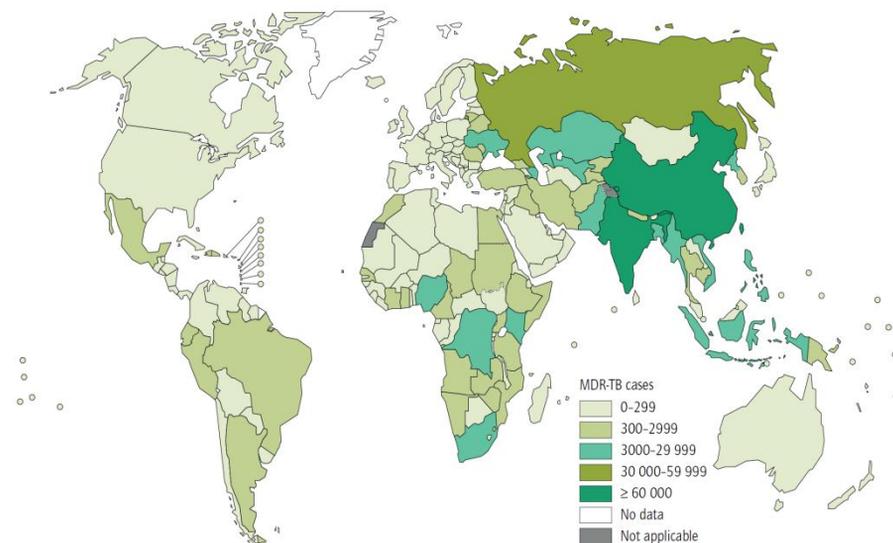
• **Treatment Success:** 48% of patients with MDR-TB enrolled on treatment in 2009 were reported to have been successfully treated.

Percentage of new TB cases with MDR-TB, latest available data



^a Figures are based on the most recent year for which data have been reported, which varies among countries.

Number of MDR-TB cases estimated to occur among notified pulmonary TB cases, 2011

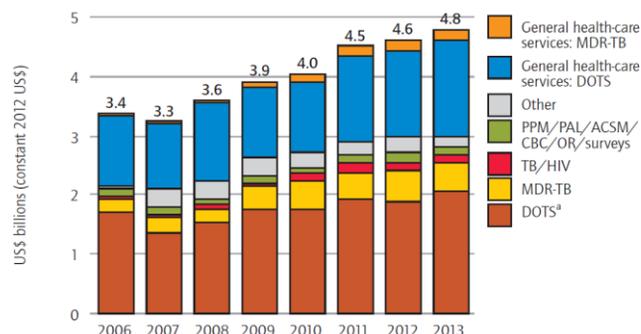


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FUNDING FOR MDR-TB

In 2015, it is estimated that USD 2 billion will be required for the diagnosis and treatment of MDR-TB. Funding available for MDR-TB has increased from USD 0.5 billion in 2009 to USD 0.6 billion in 2011 in countries with data (representing 75% of estimated MDR-TB cases in the world). Costs for second-line drugs alone amount to USD 0.3 billion a year.

Funding for TB care and control in 104 countries reporting 94% of global cases, by line item, 2006-2013

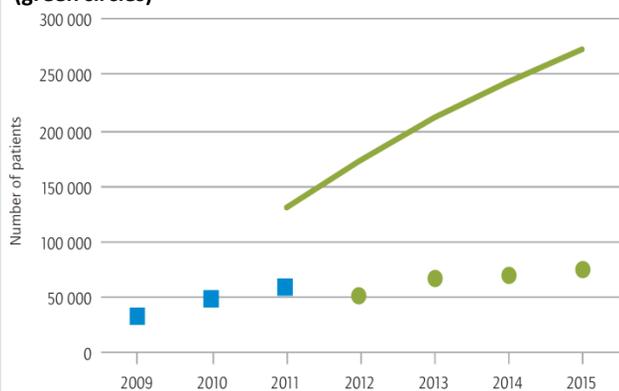


^a DOTS includes funding available for first-line drugs, NTP staff, programme management and supervision, and laboratory equipment and supplies.

THE GLOBAL RESPONSE TO MDR-TB AND XDR-TB

In 2009, a World Health Assembly resolution urged WHO Member States *"to achieve universal access to diagnosis and treatment of MDR-TB and XDR-TB"*

Enrolment on MDR-TB treatment (blue squares, 2009–2011), compared with the targets in the Global Plan to Stop TB, 2011–2015 (green line) and projections provided by countries (green circles)



The Stop TB Partnership Global Plan estimates that between 2011 and 2015 about one million MDR-TB patients will need to be detected and placed on treatment. This Plan also aims that by 2015 at least 75% of MDR-TB patients will be treated successfully. In 2011, about 18% of cases were placed on treatment and the 75% treatment success target was achieved by 30 countries (MDR cases starting treatment in 2009).

WHAT ARE MDR-TB & XDR-TB ?

- TB organisms resistant to the antibiotics used in its treatment are widespread and occur in all countries surveyed. Drug resistance emerges as a result of inadequate treatment and once TB organisms acquire resistance they can spread from person to person in the same way as drug-sensitive TB.
- **Multidrug-resistant TB (MDR-TB)** is caused by organisms that are resistant to the most effective anti-TB drugs (isoniazid and rifampicin). MDR-TB results from either infection with organisms which are already drug-resistant or may develop in the course of a patient's treatment.
- **Extensively drug-resistant TB (XDR-TB)** is a form of TB caused by organisms that are resistant to isoniazid and rifampicin (i.e. MDR-TB) as well as any fluoroquinolone and any of the second-line anti-TB injectable drugs (amikacin, kanamycin or capreomycin).
- These forms of TB do not respond to the standard six month treatment with first-line anti-TB drugs and can take two years or more to treat with drugs that are less potent, more toxic and much more expensive.