The global TB situation (1)

<table>
<thead>
<tr>
<th>All forms of TB</th>
<th>Estimated incidence, 2013</th>
<th>Estimated number of deaths, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.0 million</td>
<td>1.1 million*</td>
</tr>
<tr>
<td></td>
<td>(8.6–9.4 million)</td>
<td>(1.0–1.3 million)</td>
</tr>
<tr>
<td>HIV-associated TB</td>
<td>1.1 million</td>
<td>360,000</td>
</tr>
<tr>
<td></td>
<td>(1.0–1.2 million)</td>
<td>(310,000–410,000)</td>
</tr>
<tr>
<td>Multidrug-resistant TB</td>
<td>480,000</td>
<td>210,000</td>
</tr>
<tr>
<td></td>
<td>(350,000–610,000)</td>
<td>(130,000–290,000)</td>
</tr>
</tbody>
</table>

Source: WHO Global Tuberculosis Report 2014

* Excluding deaths attributed to HIV/TB
The global TB situation (2)
Global trends in estimated rates of TB incidence, prevalence and mortality

Global trends in estimated incidence rate including HIV-positive TB (green) and estimated incidence rate of HIV-positive TB (red). The dashed lines represent the Stop TB Partnership targets of a 50% reduction in prevalence and mortality rates by 2015 compared with 1990. Shaded areas represent uncertainty bands. Mortality excludes TB deaths among HIV-positive people.
DR-TB SURVEILLANCE

- Global Project launched
- SRL network launched
- 1st global DRS report
- 2nd global DRS report
- 3rd global DRS report
- 4th global DRS report
- M/XDR-TB report
- 2014 TB report
- 1st ed. DRS guidelines
- 2nd ed. DRS guidelines
- 3rd ed. DRS guidelines
- 4th ed. DRS guidelines
- 5th ed. DRS guidelines

Timeline:
- 1994
- 1997
- 2000
- 2003
- 2004
- 2008
- 2009
- 2010
- 2014

1994: 1st ed. DRS guidelines
1997: SRL network launched
2000: 1st global DRS report
2003: 3rd ed. DRS guidelines
2008: 4th ed. DRS guidelines
2010: M/XDR-TB report
2014: 5th ed. DRS guidelines


Global Project launched
SRL network launched
1st global DRS report
2nd global DRS report
3rd global DRS report
4th global DRS report
M/XDR-TB report
2014 TB report
1st ed. DRS guidelines
2nd ed. DRS guidelines
3rd ed. DRS guidelines
4th ed. DRS guidelines
5th ed. DRS guidelines
being finalized
The SRL Network, 2014

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Progress in global coverage of surveillance data on drug resistance, 1994-2014

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Percentage of previously treated TB cases with MDR-TB

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Percentage of new and previously treated TB cases with MDR-TB globally and in the top 10 countries, 2014
## Percentage of new and previously treated TB cases with MDR-TB globally and in the top 10 countries, 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated % of New TB Cases with MDR-TB</th>
<th>Confidence Interval</th>
<th>Estimated % of Retreatment TB Cases with MDR-TB</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>2.4</td>
<td>0.2–5.0</td>
<td>13</td>
<td>0.02–27</td>
</tr>
<tr>
<td>AMR</td>
<td>2.2</td>
<td>1.3–3.0</td>
<td>13</td>
<td>4.9–22</td>
</tr>
<tr>
<td>EMR</td>
<td>3.6</td>
<td>2.3–5.0</td>
<td>22</td>
<td>12–32</td>
</tr>
<tr>
<td>EUR</td>
<td>14</td>
<td>9.7–19</td>
<td>44</td>
<td>36–52</td>
</tr>
<tr>
<td>SEAR</td>
<td>2.2</td>
<td>1.8–2.7</td>
<td>16</td>
<td>12–20</td>
</tr>
<tr>
<td>WPR</td>
<td>4.4</td>
<td>2.6–6.3</td>
<td>22</td>
<td>18–26</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td>3.5</td>
<td>2.2–4.7</td>
<td>21</td>
<td>14–28</td>
</tr>
</tbody>
</table>
Proportion of all TB cases with resistance to isoniazid but without resistance to rifampicin, 1994-2013
MDR-TB cases estimated to occur among notified pulmonary TB cases, 2013

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Countries that notified at least one case of XDR-TB
WHO guidance on the management of drug-resistant TB, 1996-2014
Diagnostic DST (1)
For rifampicin +/- isoniazid in new bacteriologically-confirmed TB cases, 2009-2013
(& projections 2011-15 as per Global Plan)
Diagnostic DST (2)
For rifampicin +/- isoniazid in retreatment TB cases by Region, 2009-2013
Diagnostic DST (3)
For fluoroquinolones and second-line injectable drugs among MDR-TB cases, 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>Confirmed MDR-TB Cases</th>
<th>Number with DST Results</th>
<th>% of Cases with DST Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>9045</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>AMR</td>
<td>1364</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>EMR</td>
<td>2299</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>EUR</td>
<td>3758</td>
<td>9.5</td>
<td></td>
</tr>
<tr>
<td>SEAR</td>
<td>3088</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>WPR</td>
<td>2326</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>21880</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>
RR-/MDR-TB notification and enrolment

MDR-TB cases and additional rifampicin-resistant TB cases detected (orange) compared with TB cases enrolled on MDR-TB treatment (turquoise), global trend and trend in 27 high MDR-TB burden countries, 2009–2013
Outcomes of MDR-TB treatment
MDR-TB cohorts 2009-2011, top 10 MDR-TB burden countries

*number of cases observed shown over the bars
Outcomes of XDR-TB treatment

XDR-TB cohorts 2011, by WHO Region*

*number of cases observed shown over the bars
Number of patients with laboratory-confirmed XDR-TB started on treatment in 2013

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Countries that had used bedaquiline for the treatment of M/XDR–TB as part of expanded access, compassionate use or under normal programmatic conditions by the end of 2013

white=no information

No Yes

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Funding for TB prevention, diagnosis and treatment by intervention area, 2006–2014
(constant 2014 US$ billions)
300,000 cases of MDR-TB estimated among TB patients reported by national TB programmes in 2013.

136,000 patients eligible for MDR-TB treatment (136,000 out of 300,000) were detected and reported in 2013.

97,000 people with TB were started on second-line treatment for MDR-TB in 2013, leaving many patients on waiting lists for treatment.

48% of MDR-TB patients globally had a successful treatment outcome. Five out of the 27 high MDR-TB countries achieved a treatment success rate of ≥70%.
Conclusions (1)

- Even if most TB patients in the world are not drug-resistant, the burden of MDR-TB in the world poses a formidable challenge to the prospect of controlling TB. More resources need to be committed in future to ensure that targets are reached.

- Coverage of DST for TB patients remains low and thus a minority of drug-resistant TB patients are detected and notified. Information remains incomplete.

- Progress has been achieved in recent years in scaling-up MDR-TB care. However, 1/3 of the estimated cases eligible for MDR-TB treatment among known TB patients were started on treatment. In many countries, a sizeable gap has developed between diagnostic and enrolment capacity, leading to waiting lists for MDR-TB treatment.
Conclusions (2)

- Treatment of MDR-TB is complicated and less effective than for drug-susceptible TB. Countries need to place more MDR-TB patients on adequate treatment and strive to attain the Global Plan target of 75% success.

- Country reporting of surveillance and monitoring data continues to improve. However, efforts need to take better advantage of available information & communication technologies to collect data efficiently and provide managers with indicators for timely action.
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
2. Expand rapid testing and detection of drug-resistant TB cases
3. Provide immediate access to effective treatment and proper care
4. Prevent transmission through infection control
5. Increase political commitment with financing