Lesson Learned from Ethiopian National TB Prevalence survey 2011

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WHO Task force Meeting, Barcelona, Spain, 29/10/2014
Survey time line

- Final Protocol developed: Nov 2009
- Procurement : Nov.2009 to June 2010.
- Staff recruitment  June 2010
- Pilot: August 2010
- Kickoff the survey October 2, 2010
- Data collection  period: October 2010 to June 2011.
- Official report document issued: December 2012
- Article submitted to IJTLD in June 2013 and accepted for publication in January 2014 and published in June 2014.
### Summary of the survey

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enumerated for the census</td>
<td>95092</td>
<td></td>
</tr>
<tr>
<td>Eligible</td>
<td>51667</td>
<td>54%</td>
</tr>
<tr>
<td>Participants</td>
<td>46692</td>
<td>90%</td>
</tr>
<tr>
<td>CXR taken</td>
<td>46548</td>
<td>99.7%</td>
</tr>
<tr>
<td>Screening Positive</td>
<td>6078</td>
<td>13%</td>
</tr>
<tr>
<td>At least one sample collected</td>
<td>5864</td>
<td>96%</td>
</tr>
<tr>
<td>Case detected</td>
<td>47 S+TB, 63 S-C+TB= 110</td>
<td></td>
</tr>
</tbody>
</table>
## Prevalence of TB

<table>
<thead>
<tr>
<th></th>
<th>P /100000 (95% CI)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smear pos TB among adult</td>
<td>108(73,143)</td>
<td></td>
</tr>
<tr>
<td>Bacteriological confirmed TB among adult</td>
<td>277(208,347)</td>
<td></td>
</tr>
<tr>
<td>Smear positive TB among all age</td>
<td>63(44,82)</td>
<td></td>
</tr>
<tr>
<td>Bacteriological confirmed TB among all age</td>
<td>156(118,194)</td>
<td>Extrapolation from the routine program and the survey</td>
</tr>
<tr>
<td>All forms of TB among all age</td>
<td>240(182,298)</td>
<td></td>
</tr>
</tbody>
</table>
Lesson learned from the survey

• Procurement challenge the routine procurement system
• Survey required Strong government commitment & leadership at all level
• Collaboration of NTP with research institute increases quality and effectiveness of survey implementation
• Well organized & committed survey team (deployed only for the survey) is required
• Good community and local staff involvement achieved high participation rate
• Survey demands high lab management skill to manage huge sample at a time
• Frequent review meeting both for field and central operation of the survey is essential to fix problems early
• Checking data analysis at small scale at the beginning of the survey will help to fix problems early.
Lessons learned from the result of the survey

- Prevalence of TB was found much lower than previous estimate and case detection rate increased.
- There is cluster variation on the distribution of TB mainly due to access to TB control program.
- Nearly equal proportion of NTM and MTB had been identified from survey participants.
- TB is circulating among young age group.
Lessons...

• X-ray picks more cases compared to symptom screening which suggests the use of x-ray for screening high risk groups.

• Survey suggests that not all smear positives are true TB cases, there was one smear positive and NTM.

• Variation of TB burden at different geographical clusters suggests regional estimation or additional pocket studies are required to use appropriate estimate for planning and decision making for some specific high burden areas.
Lessons...

- The survey finding suggests that the program is treating smear positive TB cases efficiently.
- Unless properly handled the current circulation of TB in the community may pose a great risk in the future when more urbanization and development occurred as people start to leave in a very corded condition.
- Improving quality and expansion of X-ray examination and lab diagnosis can further reduce the burden of disease in the country.
- Digital X-ray and networking of district health facilities with referral hospital and establish feedback mechanisms for the result of x-ray might resolve shortage of radiologists.