Results from a multi-sectorial approach to implementing urban DOTS in Kabul, Afghanistan

Authors: Azizullah Hamim, G. Qader, M. Sayedi, M. Rashidi, P.G. Suarez, L. Manzoor, H. Faqiryar, E. Darwish

Affiliation: 1TB CARE I, Management Science for Health (MSH), Kabul, Afghanistan; 2TB CARE I, Management Science for Health (MSH), Arlington, Virginia, United States of America; 3National Tuberculosis Control Program (NTP), Kabul, Afghanistan

Background

- Kabul, the capital of Afghanistan, has approximately 3.950,000 inhabitants (15.5% of the national population).
- In 2009, tuberculosis (TB) outcomes were poor in Kabul:
  - The TB case notification rate was 26%.
  - The TB conversion rate was 43%.
  - TB treatment success rate was 49%.

Intervention

- From 2009 to 2012, to improve TB control in Kabul, the USAID-funded the Tuberculosis Control Assistance Program (TB CAP) and, its follow-on, TB CARE I, worked with Afghanistan’s National TB Program (NTP) to implement an urban DOTS program.
- Directly observed treatment, short course (DOTS) is the World Health Organization’s recommended TB control strategy.
- Urban DOTS is a multi-sectorial approach that engages public and private health facilities in providing treatment to TB patients.
- To implement urban DOTS, the NTP, TB CAP, and TB CARE I and its implementer, Management Sciences for Health (MSH), worked together to:
  - Enhance implementation capacity by training frontline health workers at urban facilities to use DOTS strategies;
  - Improve the feedback mechanism at health facilities by conducting monitoring and evaluation activities, staff supervision, and quarterly review meetings;
  - Enhance clinical accuracy by implementing standard operating procedures for TB case detection, treatment, and infection control at the implementing facilities;
  - Strengthen partnerships among the NTP public health facilities, and private health facilities by facilitating partner meetings, holding quarterly review workshops, and organizing a joint task force;
  - Engage new public and private health facilities in providing TB services by facilitating coordination meetings and staff trainings; and
  - Raise community awareness about urban DOTS services and TB prevention by conducting educational campaigns among school students.

Intervention Assessment

- In 2012, technical teams from the NTP and TB CARE I conducted an assessment to determine the impact of these interventions on TB outcomes at 68 public and private health facilities that offer free TB services to 83% of the population in Kabul.
- The teams used the standard NTP recording and reporting tools to collect data from the facilities.
- The teams also reviewed and compared TB data that the health facilities had recorded between 2009 and 2012.

Results

- From 2009 to 2012:
  - The number of TB suspects identified and examined increased by over 412%, from 2,856 in 2009 to 14,644 in 2012 (see Figure 1).
  - The TB sputum smear conversion rate increased by 33%, from 43% in 2009 to 76% in 2012 (see Figure 1).
  - The TB treatment success rate increased by 19%, from 57% in 2008 to 76% in 2012 (see Figure 3).

Results (con’t)

- The number of all TB cases notified increased by 66%, from 1,934 in 2009 to 3,215 in 2012. (see Figure 2).
- The TB treatment success rate increased by 19%, from 57% in 2008 to 76% in 2012 (see Figure 3).

Conclusion

- Urban DOTS strategies contributed to significant improvements in TB outcomes at health facilities in Kabul, including increased TB case notification rates, sputum smear conversion rates, and the treatment success rates.
- Urban DOTS should be scaled up in Kabul and similar urban settings, worldwide, to improve TB control.

Data collection teams at the Estolf Health Facility in Kabul.

Figure 1: Urban DOTS Achievements in Kabul, 2009-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Total TB Cases</th>
<th>TB cases Notified</th>
<th>New TB cases identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>1,016</td>
<td></td>
<td>1,022</td>
</tr>
<tr>
<td>2010</td>
<td>2,055</td>
<td></td>
<td>2,728</td>
</tr>
<tr>
<td>2011</td>
<td>2,738</td>
<td></td>
<td>3,215</td>
</tr>
<tr>
<td>2012</td>
<td>3,002</td>
<td></td>
<td>3,215</td>
</tr>
</tbody>
</table>

Figure 2: TB all forms: New cases, Re-treated cases, and cases notified in Kabul, 2009 – 2012

Figure 3: Treatment Outcomes among New Sputum Smear Positive TB Cases in Kabul, 2008 – 2012

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For more information, please contact:

Azizullah Hamim, TB CARE I/MSH Technical Advisor; Tel: +93 797 109 109; Email: ahamim@msh.org