Background

TB is the leading killer of people living with HIV globally. In 2010, there were 1.1 million people co-infected with HIV and TB and 380,000 TB-related deaths among PLHIV across the world. In India, 2 million new cases of TB occur every year of which an estimated 5 to 6.4 percent (41,500) are co-infected with HIV, the second-highest national caseload in the world after South Africa. In particular, Andhra Pradesh has the highest burden of HIV among all of India’s states, with TB/HIV co-infection rates similar to those reported at the national level.

In 2010, more than 2.3 million people living with HIV were screened for TB, of whom 87% were in Africa. However, the effectiveness of verbal TB screening based on common TB symptoms towards case-finding among most-at-risk populations in concentrated epidemics is uncertain. India HIV/AIDS Alliance (Alliance India) undertook this operations research study to evaluate the utility of this approach.

Methods

Avahan India AIDS Initiative is an HIV and STI prevention program funded by the Bill & Melinda Gates Foundation in which Alliance India has been a lead partner in Rayalaseema and Telengana regions of Andhra Pradesh since 2003. We evaluated the outcomes of verbal TB screening among key populations (sex workers, men who have sex with men, and transgender people) in Andhra Pradesh, India, through a retrospective review of Alliance India’s Avahan programme records for the period 2008 to 2010. Cumulative and proportionate data on the population reached with verbal TB screening was calculated and reported.

Verbal screening for TB is an effective tool for early detection of TB among most-at-risk populations.

Results

During the three-year period 2008 to 2010, the project provided:

- At least one service to an average of 53,745 female sex workers, men who have sex with men and transgender people annually of whom an average of 88% were screened verbally for TB.
- Between 5.1% and 7.2% of those identified as suspects on verbal screening were subsequently diagnosed with TB on sputum smear microscopy. (See Table.)
- The proportion of those diagnosed with TB and accessing TB treatment increased from 83% to 93.7%. (See Graph.)

Table: Use of Services by Members of Key Populations, Including Use of Verbal TB Screening

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of KPs receiving at least one service per quarter</td>
<td>56,894</td>
<td>55,809</td>
<td>48,545</td>
</tr>
<tr>
<td>Number verbally screened for TB in the clinic</td>
<td>50,522</td>
<td>46,614</td>
<td>44,736</td>
</tr>
<tr>
<td>Number of TB suspects referred to RNTCP smear microscopy unit</td>
<td>1,471</td>
<td>2,003</td>
<td>1,098</td>
</tr>
<tr>
<td>Number of TB suspects diagnosed with TB on smear microscopy</td>
<td>106</td>
<td>103</td>
<td>64</td>
</tr>
<tr>
<td>Proportion</td>
<td>7.2%</td>
<td>5.1%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

Graph: Trends in Access to TB Screening and Treatment 2007-2010

Conclusions

Verbal screening for TB is an effective tool for early detection of TB among most-at-risk populations in concentrated epidemics, which should be scaled up within HIV prevention and care programmes in order to control TB/HIV co-infection.

Acknowledgements

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