VL elimination progress in India: where and when will the target be reached?

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23.04.2018
Year-wise Kala-azar Cases in India since 1977

- **DDT for KA used under Malaria control programme**

- **Centrally sponsored Kala-azar Control Programme in 1990-91**
- **National Health Policy-2002 Kala-azar elimination in India by 2010**

1991 to 2010 irregular /focal spray lack of supervision led to increased incidence of KA

Complete 2 rounds of DDT/SP spray from 2011 – 2016 with intensified supervision

- In 2005, Bangladesh, India and Nepal, supported by WHO launched a regional kala-azar elimination initiative to reduce cases to a level where it is not a public health problem by 2015.
- Agreement signed by Hon’ble Ministers on 9th Sep. 2014 to make the SE Asia region including Bhutan and Thailand free of VL by 2017
Kala-azar endemic states

- 6 districts, 22 blocks, Pop. – 11.0 million
- 33 districts, 458 blocks, Pop. – 62.3 million
- 4 districts, 33 blocks, Pop: 5.3 million
- 11 districts, 120 Blocks, Pop. – 50 million

- Sporadic cases in other states- Assam, Delhi, HP, MP, Punjab, Sikkim, Uttarakhand
• 1431 KA cases were reported during 2017 till March (28.2% reduction).
## Progress towards elimination

### Comparative Block Level KA Elimination Status

<table>
<thead>
<tr>
<th>State (Districts)</th>
<th>Number of Endemic Blocks</th>
<th>2016</th>
<th>2017</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bihar (33)</td>
<td>458</td>
<td>390 (85%)</td>
<td>68 (15%)</td>
<td>411 (89.7%)</td>
<td>47 (10.3%)</td>
</tr>
<tr>
<td>Jharkhand (4)</td>
<td>33</td>
<td>9 (27%)</td>
<td>24 (73%)</td>
<td>8 (24%)</td>
<td>25 (76%)</td>
</tr>
<tr>
<td>West Bengal (11)</td>
<td>120</td>
<td>118 (98%)</td>
<td>2 (2%)</td>
<td>120 (100%)</td>
<td>0</td>
</tr>
<tr>
<td>UP(6)</td>
<td>22</td>
<td>22 (100%)</td>
<td>0</td>
<td>22(100%)</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>633</td>
<td>539 (85%)</td>
<td>94 (15%)</td>
<td>561 (88.6%)</td>
<td>72 (11.4%)</td>
</tr>
</tbody>
</table>
The Three Ones for Kala-Azar Elimination

★ One standardized service delivery package
★ One authority and one division of labour
★ One monitoring & evaluation system
Implementation science agenda
Determining optimal vector control strategies
Stand-alone surveillance system or horizontal integration of disease programs?
Towards elimination of visceral leishmaniasis: translating research to practice
Mathematical modeling
Projections of block-level incidence: Bihar

Courtesy: Lloyd Chapman
...on the path to Elimination

- **Control phase**: $R > 1$
  - Endemic transmission, control in place to reduce number of cases

- **Pre-elimination phase**: $R \approx 1$
  - Endemic transmission interrupted, large outbreaks still possible

- **Elimination phase**: $R < 1$
  - Localised outbreaks related to importations

- **Post-elimination phase**
  - Regional or worldwide (in case of eradication) incidence low, focus on prevention of reintroduction