Tuberculosis surveillance in Suriname

Drs. B. Jubithana, MD
M. Wongiskarijo, MSc
Overview

- Background
- Current surveillance system in Suriname
- Prison outbreak
- Challenges
Background

- Yearly around 120 cases, since the last 5 years
- Up to 25-30% HIV-positive
- Prisoners and some indigenous peoples among risk groups
- High mortality amongst HIV-pos TBC-cases
- Prevalence MDR-TB low: 2009-1 case among 156 total
Tuberculosis in Suriname 2000-2009

Number of cases

Year
% HIV positive tested TBC patients & Test % TBC patients 2000-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>HIV Positive</th>
<th>Test percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>26%</td>
<td>56%</td>
</tr>
<tr>
<td>2001</td>
<td>10%</td>
<td>72%</td>
</tr>
<tr>
<td>2002</td>
<td>31%</td>
<td>64%</td>
</tr>
<tr>
<td>2003</td>
<td>26%</td>
<td>75%</td>
</tr>
<tr>
<td>2004</td>
<td>25%</td>
<td>68%</td>
</tr>
<tr>
<td>2005</td>
<td>21%</td>
<td>83%</td>
</tr>
<tr>
<td>2006</td>
<td>22%</td>
<td>79%</td>
</tr>
<tr>
<td>2007</td>
<td>29%</td>
<td>62%</td>
</tr>
<tr>
<td>2008</td>
<td>28%</td>
<td>92%</td>
</tr>
</tbody>
</table>
Number of deaths due to Tuberculosis in Suriname, 2000-2009
NTP- surveillance & registration: centrally

New cases are picked up weekly by the NTP-nurse from:

- Hospitals: public & private
  - Infection control nurses from hospitals also report to NTP
- Sanatorium
- Lung clinic and from the lung specialists
- Lab surveillance
NTP current surveillance system

- Positive cases or clinical cases or cases that already started treatment are registered, a complete intake is done & follow-up planned
- Follow-up treatment schedules: 6-18 months
- Sputum smear & culture: 2nd, 5th & end of treatment
- Appointments checks with specialists
- Contacts are screened: 1st - 3rd level/ ring
- LIF during treatment schedules visited at home
Lab testing

- AZP (largest public hospital-lab):
  - smear & PCR (trial phase)
- Central Laboratory:
  - smear & solid culture
  - liquid culture & drugs sensitivity testing in development: with BACTEC MGIT 960
  - Training for testing going on
- Samples sent to Carec to CDC

Massachusetts
New Central laboratory building: September 2010
Central laboratory: BACTEC MGIT 960
TB Microscopy
Reporting

- Four-weekly reports to
  - Epidemiology, MOH and to
  - Carec

- Reports include
  - Age group and gender
  - Pulmonary & extra pulmonary cases

- Annual reports to WHO
DOT

Started May 1st 2011

- Direct observed treatment
- Volunteers are recruited- a small incentive is given
- 1-3 PH-clinics are involved: other clinics are being advocated for to be included in the next phase
- Interior population will also be involved through the Medical mission
- NTP will be supervising
Outbreak in a prison in Suriname in 2010

TB in a Surinaamse prison, 2nd largest prison

- In March 2010 a case from a prison was hospitalized till May
- June 2010 –another case was reported from the same prison: very ill- & hospitalized 6 months

Prisoners were usually switched from cell to cell depending on their behavior

- No source was clear so all prisoners & PO’s (penitentiary officer) were screened
  - 240 prisoners & 43 PO’s at risk screened
<table>
<thead>
<tr>
<th></th>
<th>Number of cases</th>
<th>Mantoux pos</th>
<th>Results</th>
<th>Treated without screening</th>
<th>Not treated</th>
<th>Profilaxe not given</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prisoners</strong></td>
<td>240</td>
<td>133</td>
<td>105</td>
<td>2</td>
<td>121</td>
<td>12</td>
</tr>
<tr>
<td><strong>PO’s</strong></td>
<td>43</td>
<td>3</td>
<td>24</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>283</td>
<td>136</td>
<td>129</td>
<td>18</td>
<td>121</td>
<td>12</td>
</tr>
</tbody>
</table>
Follow up

5% (14 of 283) out of the prisoners & PO’s, were found positive for TB

Follow-up
- Information given to prisoners
- Information given to public
- Newly imprisoned clients are screened for TB
- Other prisons are in planning for screening
Media and in prison- hype

- Prisoners were protesting, scared of contracting TB from inmates
- PO’s- did not want to attend the prisoners taking medicines
- Prisoners families send medicines from abroad
- Counseling was done with those required
- NTP- nurse (lead), lung-specialist, supervising nurses from the prison-clinic dealt with the cases and screening and the risk communication
Challenges TB program

- Human resources: all levels
- Capacity
- System organization: centralized system
- Communication: intra & inter institutional
  hampers sometimes
- Lab- diagnosis takes long time:
  - TAT: DST > 3mnths / Identification MOTT/ MTC> 3mnths
  - final TB reports delayed
Challenges TB program (cont)

- LIF difficult: mostly homeless peoples & persons substance abuse give problems
- Software & hardware for information collection, analysis and reporting
- Risk communication to the public and risk groups
- Geographical: interior and rural areas
- Cultural & behavioral diversity
- Funding and financial resources: to ensure sustainability programmatic necessities including lab testing
Acknowledgement

- Balesar V., NTP- manager
- Nurse Persaud N.
- Nurse Burleson D.
- Nurse King L.
- I. Soemadirdja, Laboratory technician
Thank you