Momentum on Child TB: South East Asia (SEA)

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Child Mortality from TB: 2015

• Total Death- 239,000 (194,000-298,000)
  – 80% (191,000) <5 years aged: 20% of estimated
  – 182,000 (70%) from SEA and Africa

• 96% died without anti-TB treatment

• TB is one of the top 10 causes of U-5 mortality

Ref. Peter Dodd etal. Lancet Global Health 2017
Today’s talk

• What are being done to save children in SEA?
  • Are we doing right/justice?
11 SEAR Countries

Bangladesh
Bhutan
Democratic People's Republic of Korea
India
Indonesia
Maldives
Myanmar
Nepal
Sri Lanka
Thailand
Timor-Leste
Population

• 1.86 billion
  – 89% in Bangladesh, India and Indonesia
  – 10% Thailand, Myanmar, DPRK, Sri Lanka
  – 1% Bhutan, Maldives, Timor-Leste

• 26% of global population

• 41% burden of global TB load
Child TB share: SEA and others

**Estimate:**
- South East Asia: 40% (400,000)
- African region: 31% (310,000)
- Western Pacific: 13% (130,000)

**Notification:**
- SEA- 174,316 (7.1% of notified total cases)
- 43% of Estimate (225,684 left out)
<table>
<thead>
<tr>
<th>Country</th>
<th>Total TB</th>
<th>Child TB</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>209,438</td>
<td>9291</td>
<td>4.4</td>
</tr>
<tr>
<td>Bhutan</td>
<td>963</td>
<td>56</td>
<td>5.25</td>
</tr>
<tr>
<td>DPRK</td>
<td>120,722</td>
<td>5,630</td>
<td>5.94</td>
</tr>
<tr>
<td>India</td>
<td>1,667,136</td>
<td>95,709</td>
<td>6.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>330,729</td>
<td>23,170</td>
<td>7.0</td>
</tr>
<tr>
<td>Maldives</td>
<td>131</td>
<td>14</td>
<td>10.69</td>
</tr>
<tr>
<td>Myanmar</td>
<td>138,447</td>
<td>36,301</td>
<td>26.0</td>
</tr>
<tr>
<td>Nepal</td>
<td>34,122</td>
<td>354</td>
<td>2.05</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>9,305</td>
<td>323</td>
<td>3.47</td>
</tr>
<tr>
<td>Thailand</td>
<td>66,179</td>
<td>118</td>
<td>0.34</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>3,532</td>
<td>390</td>
<td>11.04</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,580,704</strong></td>
<td><strong>171,356</strong></td>
<td><strong>6.63</strong></td>
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</tbody>
</table>
Bangladesh

• Notification- 4.4% (9192/209,438)
• National guideline: 2nd edition
• Training module for doctors
  – 1300 doctors trained
• Capacity development for Community health care workers- 12,000
• New formulation- introduced
• Participation Pediatric Association active
Bangladesh

• Integration with other program-
  – Two Workshops with nutrition program held
  – One workshop with IMCI held
• National advisory committee on childhood TB
• Research-
  – Institutional level going on
  – Program/NTP: still none
Bhutan

• TB incidence 191/100,000

• Child TB:
  – 12-14%
  – PTB-49%
  – EPTB-51%
  – <5 years- 40%

• Passive case finding

• Follows WHO protocol/ no country guidelines

Ref. Dendup T. Public Health Action 2013
Wangdi K. BMC Research Notes 2012
DPR Korea

- Active case finding at Ri/Dong level
- ‘Household Doctors’:
  - Each household in 7-10 days
  - Refers suspected to county Hospital
- Pediatrician at county hospital diagnose
- Treatment by WHO protocol
- Children Smear positive- 1.3% to 2.7%
- National Child TB guideline drafted
- Training module for doctors: not available

Ref. NSP 2014-2017, JMM 2014
Indian Child TB Scenario 2006 - 2014

94,631

Figure 1  Number and proportion (of all TB cases) of childhood TB, 2006–2014.\textsuperscript{1} TB = tuberculosis.
Standards of TB Care in India

• Launched in 24\textsuperscript{th} March 2014
• Sets 26 standards
India: Treatment

- Moved to daily regimen from intermittent regimen (2015)
- Using WHO weight band (2015)
- Treatment- duration and composition
  - 4 drugs in all cases
  - Relapse case:
    - 2SHRZE + 1HRZE + 5HRE

Ref. STCI, 2014; Swaminathan S, 2015; Kumar A, 2013
Actors in Childhood TB: India

• RNTCP

• Respiratory Chapter, Indian Academy of Pediatrics
  – Conducting training for doctors for last 14 years

• ‘NIKASHAY’: A project to incorporate private health service providers
  – Increased notification in project areas by 20%

• Integration with other child health activities
  – INMCI, MCH and nutrition
Childhood TB activity: India

• Improved access to diagnostics (FIND):
  – Diagnosed 5,500 new cases by testing 76,000 samples in 4 cities- Mumbai, Hydrabad, Kolkata and Chennai

• Contact screening and IPT:
  – Policy in place: <6 years with contact
  – 35-65% still not covered

Indonesia: Child TB in core strategy

Address TB/HIV, MDR-TB, pediatric TB, the needs of poor population and other vulnerable groups.
- Expand TB/HIV collaboration
- Deal with Drug-resistant TB
- Strengthen TB control in children
- Meet the needs of the poor and vulnerable populations
Maldives

- 50% population <15 years
- Population 340,000
  - Migrants workers -130,000
- Childhood TB: 6%
- National Guidelines for child TB drafted
- Trained pediatrician- 1
- IPT provided to child <5 years
- Selling of TB drug banned since 2001
- WHO gifted one Gene-Xpert in 2016

Ref. Maldives NSP 2015-2020
Nepal

• 1\textsuperscript{st} National guideline for TB (2009):
  – Chapter 3 comprises 10 pages
  – Preventive chapter
• National child TB guideline in press 2017
  – Training module for doctors and health care workers finalized
• Plan to cover monasteries
• Active contact search and IPT is underway
Myanmar

- Case notification: 26% in 2015, 23.6% in 2010
- Smear positive: 0.7% in 2010
- National Guideline for Child TB
  - 1st Edition- 2008
  - 2nd Edition- ?
- Pediatricians are actively engaged
- Contact tracing and reverse contact tracing has been stressed
Sri Lanka

- NSP has bold statement on child TB
- Case detection and treatment: Follows WHO guideline
- Integration: National Program for Tuberculosis Control and Chest Diseases (NPTCCD)
  - Collaboration with NCD
  - Training program for doctors at all levels
  - Activities for updating pediatricians on diagnosis and Rx
- National Guideline - ?
- Participation of professionals/Professional bodies - ?
Thailand

- Estimated Child TB case: 6600 in 2015
- Notification Child TB: 0.4% of smear positive
- Data on <15 years not available
  - Age group is only collected for Smear +ve cases

Thailand

![Graph showing the number of M+ cases per 100K across different age categories in Thailand, with lines for male, female, and all ages combined.](image-url)
Timor-Leste

- School health program
- “TB Nurses” training and refreshers
- IPT has been initiated
- 3 Hospitals in Dili
  - Bairo Pite Clinic
    - Provides IPT in children
    - 16 bed TB ward
- Prevalence- 758/100,000

Hall C. Tropical Medicine and International Health, 2015
SAARC TB & AIDS Center

- An organization by SAARC member states
- Established in 1994 in Nepal
- To support TB activities of member states
- Child TB guideline and Training module developed
- One training on TOT held August 2017 in Sri Lanka
- Regularly publishes Journal since 2004
SEARO/WHO

• Sensitized countries: workshop in Singapore in 2011 by Prof. Steve Graham

• SAERO
  – strategic plan: 2016-2020

• WHO: Today’s meeting
<table>
<thead>
<tr>
<th>Strategic directions</th>
<th>Strategies</th>
<th>Key interventions</th>
<th>Section</th>
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<tbody>
<tr>
<td>Strategy 1.2:</td>
<td>Ensure equitable access to quality treatment of people with TB including TB resistant to first-line anti-TB medicines, and provide patient support</td>
<td>Treat all forms of TB sensitive to first-line anti-TB medicines&lt;br&gt;Treat all cases of TB resistant to first-line and second-line anti-TB medicines&lt;br&gt;Treat all children with TB&lt;br&gt;Ensure patient-centred mechanisms and systems for social and psychological support to patients in need to ensure effective health services and other institutions</td>
<td>7.1.2</td>
</tr>
<tr>
<td>Strategy 1.5:</td>
<td>Ensure preventive treatment of people at high risk; and vaccination against TB</td>
<td>Expand preventive treatment of people with high risk of tuberculosis, especially children below 5 years of age in close contact with adults affected with TB&lt;br&gt;Ensure that WHO recommendations on BCG immunization are implemented through the EPI</td>
<td>7.1.5</td>
</tr>
</tbody>
</table>
MDR TB in Children

• Detection of MDR-TB in children is low
  – Bangladesh: Estimated 200 MDR/year
  – India: Estimated 3000 MDR/year
• Mostly treated by adult physicians with expertise in treating in MDR TB
  – India pediatric hospitals/clinics
• Resistance pattern is changing:
  – > Fluroquinolones: 39.1% to 93.7%
• Pediatrician needs to get eyes
  – Better sensitization
  – More orientation

Ref. Shah I, Ped Int Child H, 2017
TB-HIV

• Thailand: 24% of all TB (15-45 years) HIV+ve
• India: 130,000 (estimated) among all cases
• HIV/AIDS program and TB program working in collaboration yet to strengthen
  – Bangladesh: One Line Director for both program now instead of two
• Nepal: HIV child cases are treated by NGOs

Prevention

• BCG Coverage: > 90%
  – TB meningitis is declining!
• One of the top-10 indicator of monitoring of End TB Strategy
• Target coverage: 90%
• Global 2015: 87,236 (7.1% of eligible children)
• Bangladesh: 9,833 (22% of eligible)
• Myanmar: 552 (3.6% of eligible)
• SEA: 510,000 eligible; 11,398 (2.3%) covered
Partners

- USAID- through TB Care II and Challenge TB
- AUSAID- Supporting Timor-Leste
- TB Reach
- GF
- UNITAID
- Others
Summary

• Policies and Activities are in place
• Momentum generated
• Integration with other programs to be fostered
• Case detection in < 5 years to be intensified
• Pediatrician actively engaged
• Regional efforts strengthened
• Bhutan, Timor-Leste, Maldives need support
Thanks from remarkable Rwanda
Out of the pocket expenses
Universal Health Coverage and social support

• Indonesia: Insurance paid by employee, employer, and government for poor

• Thailand: 99% of Thai population are covered by 3 schemes. 75% financing from Govt for UCS.

• Bangladesh: Social protection scheme for investigation of suspected TB

• Myanmar: Social franchising model. 15% additional case from private practitioner

• India: “Private provider interface agency”. 2000 cases/month in Mumbai alone.
Catastrophic cost

- Myanmar: 65% TB patient suffers catastrophic cost: income-41%, Nutritional support- 25%, Medical cost-14%