Feedback from review of child TB in south east Asia
Viet Nam

Situational analysis - 2011:

Child TB < 2% of total burden - despite high prevalence (307/100,000) on recent survey research on TB meningitis

For diagnosis, needed to get to tertiary hospital level

No confidence to diagnose at secondary care level

• Opportunity provided by political will
• National guidelines updated (2011) and now include recommendations for contact screening and IPT
  - but wide policy-practice gap
Training of trainers 2011

Identified 4 pilot provinces for community-based contact screening and strengthening child TB diagnosis

Adapted desk-guide

Developed training materials and reporting and recording forms
Viet Nam

• NTP ownership and political will
• Child TB working group
• From Q4 2012 – recent review
• Four provinces involved – 35 districts and 611 communal health centres

• Variable uptake of IPT
• Low numbers of TB cases referred or diagnosed
Phát hiện sớm và phòng bệnh lao cho trẻ em

- Trẻ em có nguy cơ mắc bệnh lao khi
  - Trẻ song sinh với người mắc bệnh lao ốm.
  - Trẻ có HIV.
  - Trẻ suy dinh dưỡng.
  - Trẻ sống trong môi trường ô nhiễm, nhà ở không thông thoáng.

Khi trẻ em có một trong các triệu chứng nghi mắc bệnh lao như:
- Ho, thở khó khăn khi đằng được.
- Điếc, lồng ngực không bình.
- Sốt kéo dài.
- Sốt can ho hoặc tăng tần.
- Đeo mũ hoặc ban đêm.

Hây chuyển trẻ đến Tránh chung lao quân/nuyên để khám và điều trị bệnh lao kịp thời.

Phòng bệnh lao cho trẻ em bằng cách:
- Tiêm vac xin phòng bệnh lao cho trẻ sơ sinh.
- Điều trị dự phòng bằng Rimifon cho trẻ em dưới 5 tuổi và trẻ em có HIV sống cùng người mắc bệnh lao ốm, người có di truyền Rach."
Viet Nam

• 1,480 health workers trained so far

• Rolling out to additional 21 provinces in 2013/4

• Funding to NTP from Global Fund

• Review in Sept 2014
Lao PDR

Situation/progress:
- Epidemiological indicators suggest that child TB is greatly underdiagnosed in Lao PDR
  - < 2% of total burden
  - Most child cases registered are > 5 years
- Opportunity provided by political will:
  - to improve child TB diagnosis and management
  - to reduce infant and child mortality
- National guidelines available but wide policy-practice gap
Recent prevalence survey in Laos:

Culture-positive TB was 606 per 100,000

Only 78 children treated for TB in 2012 i.e. <5 per 100,000 children

Issues:

• Child TB under-diagnosed and under-recognised
• Almost no child contact screening and management
• Lack of confidence in making a clinical diagnosis of TB in children at all levels
• Appropriate regimens and treatment available but difficulties to get treatment if child is not confirmed
• Limited linkage between child health workers including paediatricians and NTP
Recommendations:

• Identify child TB champions and form a national child TB working group that improves linkage and supports NTP in training and operational research

• Strengthen diagnosis including at the district level through training and development of a child TB management manual for health workers in Lao language

• Implement symptom-based screening and management of contacts including children
Myanmar

- National prevalence survey in 2010:
  smear positive TB prevalence of 242 per 100,000 adults
  bacteriologically confirmed 612 per 100,000 adults

  Higher in urban than rural areas, and higher in males than females.

- Inclusion of all forms of TB registered and reported since 2007
  provides data of high proportion of children treated for TB
National data – child TB proportion

- **Cases per year**
  - Adult
  - Child
  - Proportion of total

- **Year**
  - 2008
  - 2009
  - 2010
  - 2011
  - 2012

- **Cases**
  - 2008: 27960
  - 2009: 32540
  - 2010: 32471
  - 2011: 37734
  - 2012: 42434

- **Proportion of total**
  - 2008: 22%
  - 2009: 24%
  - 2010: 24%
  - 2011: 26%
  - 2012: 29%
National data – child TB by diagnosis

Child TB cases by diagnosis 2012

- Primary Complex: 74%
- Hilar Lymphadenopathy: 22%
- Smear positive: 0.8%
- TBM: 0.7%
- EPTB other: 2.7%
## National data – child TB by age

<table>
<thead>
<tr>
<th></th>
<th>0-4</th>
<th>%</th>
<th>5-14</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smear +</td>
<td>338</td>
<td>338</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>13367</td>
<td>42.6</td>
<td>17982</td>
<td>57.4</td>
</tr>
<tr>
<td>HL</td>
<td>4411</td>
<td>47.5</td>
<td>4879</td>
<td>52.5</td>
</tr>
<tr>
<td>TBM</td>
<td>163</td>
<td>56.0</td>
<td>128</td>
<td>44.0</td>
</tr>
<tr>
<td>EP other</td>
<td>340</td>
<td>29.2</td>
<td>826</td>
<td>70.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18281</td>
<td><strong>43%</strong></td>
<td>24153</td>
<td><strong>57%</strong></td>
</tr>
</tbody>
</table>
Hpa-An region

Child cases as proportion of total cases reported:
- 2008: 22% (477 cases)
- 2009: 29% (655 cases)
- 2010: 24% (554 cases)
- 2011: 33% (789 cases)

Adult SS+ cases:
- 2008: 461 cases
- 2009: 380 cases
- 2010: 300 cases
- 2011: 279 cases
Assessment of a symptomatic child younger than 8 years of age at Township and District hospital

Symptomatic

Physical examination

Pulmonary TB

Extra pulmonary TB

Chest radiograph

Normal

Uncertain

Highly suggestive TB

Cervical TB glands

Other EPTB

Risk factors

Refer for TST and/or Gastric aspiration

No risk factors

Follow up in 1 month

Treat TB

Refer to appropriate centre for further investigation
10:55 AM
2. 9. 13

Boot (16.5 kg)

fever (+) 2 day

cough (+) 2 day

LO'A (+)

LOW (+)

Contact person (-)

CXR (PA) p'complex

Rx started Anti TB Cat III
Criteria for the diagnosis of TB on the chest radiograph

Although no specific radiological signs exist for tuberculosis the following features highly assist in the diagnosis of tuberculosis when considered together with clinical features and epidemiological context.

- **Unequivocal** hilar lymph gland enlargement with or without parenchymal opacification
- Miliary mottling (especially in HIV-uninfected children)
- Large pleural effusion (≥ 1/3 of pleural cavity) in children older than 5 years of age
- Apical opacification with cavitation (adult type disease; very rare in children, common in adolescents)
"New" recommendations and "available" products for high dose childhood TB regimen

T2Y2 3 Drugs Regimen, High Dose

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intensive phase</th>
<th>Continuation phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(2 months)</td>
<td>(4 months)</td>
</tr>
<tr>
<td>Weight Band</td>
<td>RHZ (60+30+150)</td>
<td>RH (60+60)</td>
</tr>
<tr>
<td>5-7 kg</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>8-10 kg</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>11-14 kg</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15-20 kg</td>
<td>3</td>
<td>1-2</td>
</tr>
</tbody>
</table>
Word of caution from Cambodia

Overall and child TB cases detected, 1982-2011.
Thank you