Lao PDR TB control program and Migrant Populations

National TB Centre (NTC), Vientiane

Forum on international migration and health in Thailand: Status and Challenges to controlling TB”, Bangkok, 4-6 June 2013
Content

- TB situation in PDR Lao: incidence, prevalence, outcomes, MDR
- TB program strategies and activities
- Situation and challenges for border areas
- Recommendations and key actions
Epidemiology

- TB situation in PDR Lao (WHO Global Tuberculosis Report 2012)
  - prevalence (new and relapse): 540/100,000
  - incidence (new and relapse): 213/100,000
  - outcomes: 92% treatment success rate
  - MDR rates: 4.9% among TB patients never treated before and 23% among previously treated

- HIV prevalence 0.3% in population 15-49 year old: Centre against HIV/AIDS and sexually transmitted diseases (CHAS)
TB National prevalence survey

- NTP and partners conducted the first National population based TB prevalence survey in Lao PDR 2010-2011
- 40,000 persons were screened in 50 randomly selected clusters
- 107 smear-positive TB cases and 130 smear-negative culture positive TB cases; total 237 bacteriologically positive cases
- 94% of these cases were new (low prevalence of chronic TB disease in the community)
- TB prevalence in the survey sample among people aged ≥15 years:
  - 270/100,000 (95% C.I. 201-339) smear-positive TB
  - 596/100,000 (95% C.I. 518-674) bacteriologically positive TB
Clusters (N=50)

- Provinces, Districts and Villages were listed in administrative order
- 50 index villages sampled with probability proportional to size in cumulative population 15 year old and more (National Statistics 2005 census).
- Cluster made up of 1-4 villages

4 laboratories:
- Vientiane (Central - NRL)
- Luangnamtha (North)
- Savannakhet (South)
- Centre of Infectiology Christophe Merieux of Laos (CICML): LPA identification
1. Census collection
2. Interview
3. Chest X-Ray
4. Specimen collection
## Results of Recent Surveys in Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Age group</th>
<th>Smear Positive MTB</th>
<th>Bact. Positive MTB</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China 2010</td>
<td>≥15yrs</td>
<td>66 (53-79)</td>
<td>119 (103-135)</td>
<td></td>
</tr>
<tr>
<td>Viet Nam 2007</td>
<td>≥15yrs</td>
<td>197 (149-244)</td>
<td>307 (249-366)*</td>
<td>*1 culture</td>
</tr>
<tr>
<td>Myanmar 2009</td>
<td>≥15yrs</td>
<td>242 (186-315)</td>
<td>613 (502-748)</td>
<td></td>
</tr>
<tr>
<td>Lao PDR 2010/11</td>
<td>≥15yrs</td>
<td>270 (201-339)</td>
<td>596 (518-674)</td>
<td></td>
</tr>
<tr>
<td>Cambodia 2010/11</td>
<td>≥15yrs</td>
<td>271 (212-348)</td>
<td>831 (707-977)</td>
<td></td>
</tr>
<tr>
<td>Philippines 2007</td>
<td>≥10yrs</td>
<td>260 (170-360)</td>
<td>660 (510-880)</td>
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</tbody>
</table>
TB burden in the region: Prevalence per 100,000 (All ages – All TB - WHO Global Tuberculosis Report 2012)

- **Lao PDR:** 540
- **Vietnam:** 323
- **Myanmar:** 506
- **Cambodia:** 817
- **Thailand:** 161
- **China:** 104
- **Japan:** 26
- **Republic of Korea:** 149
- **Malaysia:** 101
- **Indonesia:** 281
Lao PDR National TB Control Program

MINISTRY OF HEALTH

Dept. of Health Care

Dept. of Communicable Disease Control

Central Hosp.

NTC

Provincial Hosp

Provincial TB Coordinator (PTC)

District Hosp.

District TB Manager (DTM)

Health Centre

Central level

Provincial level

District level

Community
TB diagnosis and treatment

- DOTS Strategy started in 1995
- Diagnosis based on passive case finding (direct microscopy) among patients with respiratory symptoms self presenting to health facilities in OPD of hospitals (all levels) and in health centres
- Smear microscopy (EQA) performed 157 TB laboratories
- CXR, culture in 2010, LPA (2010),
- LED microscopy: to start in 2013
- GeneXpert: to start in 2013-14
- Treatment for new cases: 2HRZE/6HE, will switch to 2HRZE/4RH in 2014
- Re-treatment (cat. 2): 2RHZES/6RHZE
- All retreatment cases are examined by culture/DST
Achievements

- Extended TB control network in PHC in 5 central hospitals, 17 provinces, 143 districts, 852/889 (96%) health centres
- Clear TB control strategies and guidelines
- Developing diagnosis network capacity (LED microscopy, culture/DST, LPA, GeneXpert)
- High treatment success rate: 92% (2011)
- PPM: coordination with military and police hospitals and private clinics
- Involvement of community based partners
- Strong financing (GF) and procurement of free quality TB drugs
NTP has established a TB control programme that covers 100% of the country (from central to village level)
Notification rates of TB in Laos 1995-2012

Rate per 100,000

- All types of TB (rate)
- New S+ PTB (rate)
- New S- PTB (rate)
- Extra pulmonary (rate)
- Relapse PTB (rate)
Treatment results 2000-2011

- Treat. Success of new S+ (%)
- Treat. Success of relapse (%)
- Death rate of new S+ (%)

Percentage

Challenges

- TB burden is 1.9 times higher than previous WHO estimates
- Case notification is stagnating
- Missed opportunities for diagnosis and treatment of TB, particularly among children and elderly (based on TB external review 2013)
- Low access to health cares (lack of TB awareness, remoteness, costs of transportation, limited medical insurance)
- Limited capacity for diagnosis and care of TB in peripheral health system (human resource and equipment)
Collaborative TB HIV activities

- Joint TB/HIV policy and guidelines (NTC and CHAS)
- Joint activities: coordinating meetings, training, supervision
- 45% of TB patients had HIV test result (2012)
- 5-11% HIV+ among all TB patients
- ART for all TB-HIV patients regardless of CD4
- “3 Is” started in Vientiane Capital, Savannakhet, Champasak, Luang Prabang provinces.
MDR TB

- 1st MDR case in 2010
- NTP started PMDT in 2011: MDR guidelines developed with DFB and WHO
- Culture and DST by NRL with SRL support (Korean Institute of Tuberculosis)
- LPA (MTBDR+ Hain) in Centre of Infectiology Christophe Merieux of Laos (CICML)
- MDR-TB treatment centre in Central Hospital in Vientiane Capital
- In 2012, NTP has examined 148 TB cases by culture and has confirmed 10 MDR case
- 8 MDR patients enrolled on SLDs treatment (2012)
## Breakdown of screening and notification of PTB (S+) by provinces

<table>
<thead>
<tr>
<th>Province/Municipality</th>
<th>Population (2012)</th>
<th>Screening rate by microscopy/1000 pop.</th>
<th>Notification rate of new S+ /100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>06</td>
<td>07</td>
</tr>
<tr>
<td>Vientiane Municipality*</td>
<td>799 616</td>
<td>1.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Phongsaly</td>
<td>187 427</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Luangnamtha</td>
<td>166 469</td>
<td>4.8</td>
<td>5.5</td>
</tr>
<tr>
<td>Oudomxai</td>
<td>232 194</td>
<td>4.3</td>
<td>5.9</td>
</tr>
<tr>
<td>Bokeo</td>
<td>173 079</td>
<td>4.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Luangprabang</td>
<td>464 836</td>
<td>4.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Huaphan</td>
<td>320 617</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Xayabuly</td>
<td>397 728</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Xiengkhuang</td>
<td>262 219</td>
<td>2.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Vientiane Prov</td>
<td>474 489</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Bolikhamsay</td>
<td>257 830</td>
<td>3.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Khammuane</td>
<td>386 332</td>
<td>4.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Savannakhet</td>
<td>998 674</td>
<td>4.7</td>
<td>4.9</td>
</tr>
<tr>
<td>Salavane</td>
<td>378 961</td>
<td>4.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Sekong</td>
<td>107 656</td>
<td>5.1</td>
<td>4.3</td>
</tr>
<tr>
<td>Champasack</td>
<td>729 259</td>
<td>4.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Attapeu</td>
<td>128 442</td>
<td>5.6</td>
<td>8.2</td>
</tr>
<tr>
<td>LAO PDR</td>
<td>6 465 825</td>
<td>4.4</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Situation for border areas

- Reasons for seeking care abroad: proximity, seasonal migrant workers, diagnosis facility (e.g. CXR), family abroad etc.

- Cross border cooperation for all diseases established between some large cities (with MOU): Vientiane Capital-Nongkhai, Bolikhamsay-Bungkan, Xayabuly-Leuy, Bokeo-Xiengray etc.)

- Other cooperation (not yet MOU): Xayabuly, Bolikhamsai, Savannakhet, Champasak
Vientiane Capital-Nongkhai exemple

- Collaboration started in 2006
- Specific collaboration for TB (under the MOU on all diseases) with main activities in public hospitals as follows:
  - Exchange of information on registered TB patients (both sides)
  - Quarterly meeting in Nongkhai or Vientiane Capital
  - F-U of patients (by phone) e.g. for patient absent or late for treatment
  - Referral and transfer of TB patients from Thai NTP: e.g.10-15 in Vientiane Capital (3-5 in Thakek and Savannakhet, 10-14 in Champasak)
- Lao patients have to pay for TB drugs in Thai private clinics and public hospitals (≈2000 THB for 2 months), and often revert to Lao NTP due to resources limitations
Challenges for border areas

- Limited exchange of data concerning TB patients with neighbouring countries (Thailand, Vietnam, China, Myanmar, Cambodia)
- Lack of clear information for some patients e.g.: full address, telephone etc. to contact the patients
- Some private clinic or hospital do not inform PTC Nongkai in case of transfer of patients: no transfer border form (Thai-Lao)
- Different treatment regimens (e.g.: 2HRZE/4RH in Thailand, 2 HRZE/6HE in Laos) at time of transfer of patients
- Lack of information on free treatment in Lao PDR given to the patient (especially in private clinics).
- Follow-up of MDR case diagnosed and treated abroad
Major recommendations

- Include TB among the migrants into the National TB Policy
- Promote equitable access to TB services to the migrants
- Establish health information systems to assess and analyse trends in migrant health
- Identify gaps in health services delivery for migrant populations
- Raise health staff cultural and gender sensitivity to migrants
- Promote bilateral and multilateral cooperation on migrants health among countries
**Key actions**

- Diagnose and treat immediately TB in migrant people without discrimination
- Exchange information and data on TB patients between public NTPs and private health sector between neighbouring countries
- Use referral and transfer forms in adapted languages
- Improve existing communication mechanisms (e.g.: Lao-Thai in Vientiane Capital and Nongkhai) and use as model for other neighbouring countries
- Hold annual meeting on cross border initiatives
Key partners


- WHO, IOM, ILO
THANK YOU

KHOP JAI