DHIS2 for TB Lao PDR
&
DHIS2 for TBRM (TB Regional Migrants)

John Lewis
CURRENT TB INFORMATION SYSTEM IN LAO

- **Structure**: Lao PDR TB information system data incorporated in country wide MoH HMIS DHIS2 in 2017 (Ministerial decree)

- **System**:
  - DHIS All 162 TB units (central, province and district level) started reporting of quarterly aggregated data in Q4 2017 including breakdown by age group and gender.
  - DHIS2 TB tracker started in Luangprabang province in December 2018 for 2-3 month pilot.

- **Comprehensiveness**:
  - Possible inclusion of backlog data for full year 2018.

- **Reporting**:
  - TB tracker for all *diagnosed* TB cases in 14 TB units in Luangprabang.
  - TB quarterly reporting of aggregated, will be continued for *presumptive* TB (laboratory register data).
TBIS LAO

Tracker pilot in LPB progress 601 DHO Luangprabang
Tracker pilot in LPB progress Total

TB - Patient by TB types

TB - Patient by age group and sex

DHIS 2
**Current TB information system**

- **TB tracker data**
  - Nationality/migrant status available in TB tracker
  - Disaggregation possible in theory for all variables
  - Assist case management at TB unit e.g. by making list of next follow-up examination.
  - Analyze case-based data to inform planning and decision making.
- Potential data linkage across different disease programs e.g. TB/HIV co-infection.
TB programme roles in DHIS2 TB tracker

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Roles in DHIS2</th>
<th>Number of personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Outreach</td>
<td>Not applied</td>
<td>Not applied</td>
</tr>
<tr>
<td>Village health workers and/or village health volunteers</td>
<td>Not applied</td>
<td>Not applied</td>
</tr>
<tr>
<td>District TB Manager (DTM)/Assistant</td>
<td>Data entry</td>
<td>1 or 2</td>
</tr>
<tr>
<td>Provincial TB Coordinator (PTC)</td>
<td>Data review/ validation</td>
<td>1</td>
</tr>
<tr>
<td>Provincial Statistician</td>
<td>Data review/ validation</td>
<td>1 or 2</td>
</tr>
<tr>
<td>National TB Control Programme manager</td>
<td>Data review/ validation</td>
<td>1</td>
</tr>
</tbody>
</table>
TB Tracker in Lao PDR

- **TB Case Surveillance**
- WHO TB Program Stage
- **TB Contact examination**
- One repeatable stage for Contact examination
TB Regional Migrant System
### Area Map of TB regional Grant

<table>
<thead>
<tr>
<th>Countries</th>
<th>Unofficial Immigrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>150,000</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>250,000</td>
</tr>
<tr>
<td>Myanmar</td>
<td>125,000</td>
</tr>
<tr>
<td>Thailand</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Vietnam</td>
<td>88,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>ACF</th>
<th>PCF</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7,090</td>
<td>31,468</td>
<td>38,558</td>
</tr>
</tbody>
</table>

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![Geographical Coverage for TB among Migrants in the Greater Mekong Sub-region](image-url)
Regional Migrant TB Data Warehouse

- Setting up secure regional migrant TB data warehouse
- Creation of identified data elements/variable and indicators
- Creation Regional dashboard and country specific dashboard
- Development of standards for data transfer/exchange
- Mapping meta-data (variables/health facilities) from country database to regional TB data warehouse
- Creation of user role and access
- Development of SOP for operationalization/maintenance of regional TB data warehouse
Regional Map with province boundary
Status of DHIS2 TB RM

- Province along with its code and GIS boundaries have been imported into DHIS2 TBRM for Cambodia, Myanmar, Lao, Thailand and Vietnam
- WHO TB aggregate form have been established in DHIS2 TBRM
  - Including all the WHO HQ TB module and dashboard
- TB migrants aggregate data set have been created
- TB migrant tracker case based program has been set up including:
  - TB Migrant profile, diagnosis and treatment history along with Lab result and treatment outcome (in-line with WHO TB guidelines)
  - TB referral out and Acknowledge details have been confirmed
  - Notification message via email has been set up for NTPs to receive transferred cases
- User role and user group have been created for regional and country NTP
## Aggregate Volume in TBRM

<table>
<thead>
<tr>
<th>Period</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter</td>
<td>TB Case notification</td>
</tr>
<tr>
<td>Quarter</td>
<td>TB treatment outcome</td>
</tr>
<tr>
<td>Quarter</td>
<td>TB treatment outcome – second line</td>
</tr>
<tr>
<td>Annual</td>
<td>MDR TB Case detection &amp; treatment</td>
</tr>
<tr>
<td>Quarter</td>
<td>TB Migrant (MED)</td>
</tr>
</tbody>
</table>
# Track Case-base design in TBRM

<table>
<thead>
<tr>
<th>TB Migrant Profile</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
<td>- treatment history, confirmation method, site of disease, initial lab results, HIV status</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td>- Regimen, drugs</td>
</tr>
<tr>
<td><strong>Lab</strong></td>
<td>- culture/smear/xpert</td>
</tr>
<tr>
<td><strong>DST</strong></td>
<td>- DST (by drug) Drug resistant only</td>
</tr>
<tr>
<td><strong>Adverse Event</strong></td>
<td>- Drug resistant only for now. Need to extend ??</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>- Cured, Completed, LTF, Treatment failure, Relapse or Died</td>
</tr>
<tr>
<td><strong>Referred Out</strong></td>
<td>- Mode of referral, Referred by with contact details, referred to Country</td>
</tr>
<tr>
<td><strong>Acknowledgement Receipt</strong></td>
<td>- Receiving TB unit, Health personal in-charge and contact details</td>
</tr>
</tbody>
</table>
TBRM – Migrant Profile

Profile

- TB Regional Migrant ID: TBRM-TH001-00021
- TB program ID
- Passport Number
- First Name
- Last Name
- Sex
- Date of birth (age)
- Date of birth is estimated
- Migrant
- Migrants status
- Other status
- Migrant health insurance
- Region of residence
- District of residence
- Address
- Location of residence: Latitude, Longitude

Dashboard with icons for Print Table, Classic Data Visualizer, GIS, Event Reports, Event Visualizer, Data Entry, Event Capture, Import/Export, Mobile Configuration, Reports, Dashboard.
Email Notification for NTPs

[TB Regional Migrants IS] TB Migrant referred to NTP LAO from Thailand

TB Regional Migrants IS message [No reply], Thu, Jan 22, 11:05 PM (1 hour ago)  
To: 

Mary Sue with TB Regional ID: TBRM-TH4002-00022 Age: [NA] sex: Female from: Myanmar is transferred from province: Ang Thong referred by: Anurak transferred on date: 2019-06-13 to country: Lao PDR