Philippines
Inventory study workshop
24-26 September 2014
Dr Celine Garfin
NTP Manager
- Population: 100 M (2014)
- 3 main islands but with about 7,100 islands
- 17 regions
- 80 provinces, 33 Highly urbanized cities
- nearly 3000 municipalities/cities
- Smallest unit - barangay
Why do we want to do an inventory study?

- CDR is low
  - NTP 87%, 2013
  - Some regions: 52 & 58%
  - WHO 80% (2013)
  - Large private sector that are not engaged are not providing notifications to NTP
  - Low CDR with very low proportion of extra-pulmonary TB and with low proportion of children with TB in some regions
Is there evidence that some detected cases are not reported?

- Joint programme review 2013
- Prevalence survey 2007
- TB drug sales in private sector (almost the same with the public sector)
- No inventory study undertaken
- There is evidence but nothing is accurately quantified
How large is the private sector?

- Contribution to total case notifications (2013)
  - CDR 87% (2013 vs 80% WHO) (Target 2016: 90% overall)
    - NTP <75%
    - Private 8%
    - Non-NTP public 4%
    - Community/NGOs X%

- Target based on NSP (Expected growth)
  - Private 8 to 10% (2016)
  - Non-NTP public 4 to 10% (2016)
  - Community X%

- Anti-TB drugs in the private market is almost the same as those in NTP

- Among the 1,800 hospitals more than half are private hospitals

- Even public hospitals do not report TB cases
Private and Private sector: who are they?

- Hospitals public: Engage by 2016: 90%
- Hospitals private: 65% facilities
- Prisons/Jails: 100% access to DOTS
- Private GPs (including pediatrics): 10%
- Community task force: 10%
- Private pharmacies
- Private laboratories
- Military
- Business sector
- NGOs not connected to NTP
Why other sectors may not report all TB cases?

- Reporting of TB is currently not mandatory.
- Initially a law came into effect in 1929, but not effectively implemented. 100 pesos fine!
- Since 2001 revision, TB was not included in the list of reportable cases, but currently working to make it reportable!
- Public hospitals, jails/prisons, school clinics, military, NGOs (no linked to NTP)
What mechanisms are in place to verify that TB surveillance performs well in the private sector?

- No routine monitoring unless they are already involved in the TB network e.g. trained and supervised (quarterly reporting, annual visits by NTP)

- No mandate to monitor all private sectors

- Incentive to report:
  - 4000 pesos ($90) provided per TB patient who has completed treatment (not defaulted) by insurance
  - Drugs provided for free
  - Training

- No implementation of fines
To what extent are PPM activities implemented?

- Engaging 24% of the private and 28% of the public facilities
- Trained many private physicians, but do not receive many TB referrals
- Very few private pharmacies are engaged by the NTP
Is mapping of all health care facilities available?

- Yes, but challenging!
  - Private Clinics/physicians in highly urban settings (insurance companies & licensing groups)
  - NTP centres OK
  - Hospitals (public + private hospitals) OK
  - Map microscopy centres
  - Businesses (Dept of labour/civil service commission)
- Security: autonomous regions
- 3% of notifications, 3% population
What are the different types of facilities that diagnose TB to target including diagnosing children?

- Paediatricians mostly private sector - where is the first point of care that a parent/guardian will take their sick child?
- Target to have 6800 from non-NTP providers by 2016
- Child contact tracing + IPT targets
- 11% of case load in children <15%
What are the available databases of TB cases?

- DOH–supported electronic database in 6 (out of 17) selected regions, with a nationwide plan by 2015-2016
  - Currently 35% of notified cases covered (2013)
  - Covers 47% of the national population
  - Databases are linked to NTP
  - Laboratory registers are paper-based
    - Microscopy centres (N=2570)
    - Culture centres (N=18) - not all TB cases are diagnosed through culture
    - GeneXpert centres (N=72)

- Health insurance 82% coverage of the population

- No systematic ID number
  - Linkage variables: first, middle, last names, DOB, addresses
Case notification rate (2013) for six regions with electronic case based systems

<table>
<thead>
<tr>
<th>Region</th>
<th>CNR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (6 provinces/HUC)</td>
<td>242</td>
</tr>
<tr>
<td>3 (8 provinces/HUC)</td>
<td>232</td>
</tr>
<tr>
<td>6 (8 provinces/HUC)</td>
<td>320</td>
</tr>
<tr>
<td>10 (6 provinces/HUC)</td>
<td>196</td>
</tr>
<tr>
<td>12 (5 provinces/HUC)</td>
<td>250</td>
</tr>
<tr>
<td>NCR (17 cities)</td>
<td>264</td>
</tr>
<tr>
<td>National level</td>
<td>231</td>
</tr>
</tbody>
</table>
What study design should we use?

- Priority is to undertake the National TB prevalence survey in 2015
- Undertake operational research to determine the level of under-reporting using the current infrastructure
- Use these data to inform the “prior guess” for a 2016-2017 inventory study
Plan of action

1. Prevalence survey

Inventory study (2016-2017)

2. NTP data quality audit

3. Non-NTP data quality audit
1. Prevalence survey

- Use planned 2015 TB prevalence survey to test the ability to match cases with the NTP (health centre/provincial level):
  - Ask “TB history” at the census level that could include children
2. NTP data quality assessment

- We assume that all NTP facilities report to the central level but is this true?

- Plan:
  - Review all data sources in NTP facilities that report to the central level (use only 6 regions that have electronic case based database)
  - Triangulation of data for one quarter
    - Laboratory register
    - Provincial reports
    - municipal TB registries
  - NTP facilities for 6 regions = 1,406 therefore PPS selection of facilities at the provincial level may be logistically easier.

- Advantage over nationwide inventory study:
  - Identify where the under-reporting is happening at the lower reporting levels and why this is happening.
3. Non-NTP data quality assessment

- Map all private facilities using known listings from all 6 regions which have an electronic database:
  - Hospitals - public/private
  - GPs
  - Jails/Prisons

- Non-NTP facilities for 6 regions = 1066, therefore PPS selection of facilities at the provincial level may be logistically easier.

- Collect TB notifications and compare with the electronic database
Implementation decisions: investigators

- Priority is still the prevalence survey
  - external sourced TBC

1) **TB prevalence survey - TB history**
   - 2007 survey approximately 30 people per cluster acknowledge TB history
   - Assume: 140 clusters x 30 = 4,200 participants with PHx
   - Implementers:
     - 3 government staff per region (regional TB coordinator, nurse, data clerk) x 17 = 51 people
   - Timeframe: 10 months
Implementation decisions: investigators

2) **NTP facility - data quality audit**
   - Government and project staffing (N=67):
     - 2 per region = 12
     - regional admin (Global Fund)
     - USAID project coordinator
     - provincial coordinators (1 per province of 6 regions) = 49
     - national M&E staff = 6
   - Timeframe: 6 months
Implementation decisions: investigators

3) Non-NTP data quality audit
   - Staffing:
     - national M&E staff = 6
     - Same staff as NTP data quality audit
     - Additional staff required for mapping
   - Timeline: 12 months
### Implementation decisions: schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol development x 3</td>
<td>End of Q2 2015</td>
</tr>
<tr>
<td>Start TBPS</td>
<td>Q3, 2015 (12 months)</td>
</tr>
<tr>
<td>Start NTP DQA</td>
<td>Q4, 2015 (6 months)</td>
</tr>
<tr>
<td>Non-NTP DQA</td>
<td>Q1, 2016 (12 months)</td>
</tr>
<tr>
<td>Region</td>
<td># of Prov/HUC</td>
</tr>
<tr>
<td>--------</td>
<td>--------------</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
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<tr>
<td>6</td>
<td>8</td>
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<td>10</td>
<td>6</td>
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<tr>
<td>12</td>
<td>5</td>
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<tr>
<td>NCR</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
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</table>
Estimated TBPS budget

- NTP could fund if activities <PHP 9 million ($USD200,000)

- Other sources of funding:
  - Global Fund for hiring of Staff and TA
  - USAID through IMPACT Project for additional staff expenses in areas of implementation

<table>
<thead>
<tr>
<th>Items for the budget</th>
<th>Project</th>
<th>Estimated costs (U$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resource</td>
<td>TBPS PHx</td>
<td>70,000</td>
</tr>
<tr>
<td>Training</td>
<td>NTP DQA</td>
<td>70,000</td>
</tr>
<tr>
<td>Planning and Admin (Meetings, communication allowance)</td>
<td>Non-NTP DQA</td>
<td>200,000</td>
</tr>
<tr>
<td>Travel expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Assistance (protocol development, analysis and writing)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thank you!
As part of NTPS 144 clusters and about 30 patients /cluster

- NTPS will interview household. For every household, they will be asked if anyone have been diagnosed of TB for the last 2 years. (NTPS Staff will interview)

- For clients that will acknowledge TB treatment in the last 2 years will be interviewed further (additional questionnaire). Children within the household of clients that will acknowledge TB treatment will also be interviewed. (only for HH that will acknowledge TB treatment will interview children or for every household?)

- Name/age/sex/DOB/address for the last 2 years will be taken/where the diagnosis of TB was done/where treatment was taken (show a sample of the drugs)

- Questionnaire will be gathered, and these data will be encoded and crosschecked with the Laboratory and TB register of the health center and hospital. (encode and cross checked by one hired staff) There will be about 30 persons in a cluster.
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<tr>
<td>Travel</td>
</tr>
<tr>
<td>Technical Assistance</td>
</tr>
</tbody>
</table>
## Number of Facilities

<table>
<thead>
<tr>
<th>Region</th>
<th># of Prov/HUC</th>
<th># of NTP facilities</th>
<th># of non NTP facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>165</td>
<td>129</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>281</td>
<td>228</td>
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<tr>
<td>6</td>
<td>8</td>
<td>159</td>
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<tr>
<td>10</td>
<td>6</td>
<td>100</td>
<td>166</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>56</td>
<td>105</td>
</tr>
<tr>
<td>NCR</td>
<td>17</td>
<td>645</td>
<td>296</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>1406</td>
<td>1006</td>
</tr>
</tbody>
</table>
Private sector: who is most likely to use these facilities?

- Urban > Rural areas
  - Accessibility and convenience

- Private
  - Service thought to be better in the private sector
  - Stigmatization - less seen in visit private
  - Public services less frequent access to physicians than in private sector therefore people tend to switch to the private