Inventory studies to assess TB under-reporting: progress to date and next steps

Workshop on TB surveillance & surveys: current status and new developments

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Quantifying gaps in surveillance systems

TB incidence

Under-diagnosed, limited health coverage

Under-reported from non-NTP sector

TB case notifications known to the NTP

Gap
The general idea

- Cases detected by health providers recorded
  - **NTP sector** (e.g. BMU's)
  - **Non-NTP sector**
    - General hospitals
    - Private doctors
    - Health insurance
    - Paediatricians
    - ...

- Match cases in non-NTP list with cases in NTP list
Principles – (1) under-reporting

**BAD**

- Non-NTP cases
- Many detected cases *not* reported

**GOOD**

- Reported cases
- All detected cases reported
Principles – (2) incidence (capture-recapture analysis, at least 3 lists)

Total TB cases = $N$

$N_A$  non-NTP

$N_{AB}$

$N_B$  Reported
Getting to the non-NTP & closing gap in surveillance

Under-reporting: \( \frac{199 + 99 + 9}{1980} = 16\% \)

An estimated additional cases 473 (394 – 565)
Selected recent studies

capture-recapture
• Pakistan
• The Netherlands
• UK
• Egypt
• Syria
• Yemen
• Iraq

NO capture-recapture
• USA (2 States)
• South Korea
• Taiwan
• India (study design not recommended in WHO guidelines)
• Vietnam (nested in the prevalence survey)
The support material

- Launched in early 2013
- Three key objectives
  - Quantify the level of TB under-reporting
  - Demonstrate that under-reporting is limited
  - Estimate TB incidence if capture-recapture modelling is applicable
Objectives

1. To explain and promote the role and value of inventory studies to TB care and control
2. To explain (i) major alternative study design & (ii) key issues concerning the implementation and analysis of inventory studies
3. To facilitate the development of a draft protocol outline for a TB inventory study
Choosing the right design for your country
(Day 1, group work)

- Is there evidence (including anecdotal) that some detected cases are not reported?

- How large is the private sector, is it growing, what are the mechanisms in place to verify that TB surveillance performs well in the private sector, is reporting mandatory?

- What other sectors may not report all cases, including public?

- Is mapping of ALL health-care providers that diagnose TB available? To what extend are PPM activities implemented?

- What are the different types of facilities (possible strata) that diagnose TB to target, including those diagnosing children?

- What are the available databases of TB cases in your country?
Key implementation decisions
(Day 2, group work)

- Investigators/implementing agency
- Timelines
- Technical assistance
- A very draft budget
## Summary of key decisions, timelines and requirements

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