Tuberculosis prevalence surveys; an introduction

Regional workshop on TB surveillance & impact monitoring in Africa

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Overview of presentation

• What is a prevalence survey of TB disease?

• Why are surveys important?

• Where are they relevant?

• What are the prerequisites?

• Global progress
What is a prevalence survey of TB disease?

- Prevalence is the number of TB cases in a population at a given point in time (around 1% for high burden TB)
- Nationwide, cross-sectional, population-based, random, clustered-sampled and representative of overall target population
- Chest X-ray and symptoms screening for all
- Sputum (for smear & culture) submitted only from those eligible (according to screening tools)
- 30,000 – 100,000 individuals, $1-4 million
Types of TB cases that can and cannot be found

- Pulmonary but not extrapulmonary cases
- Adults but not children (more than or equal to 15)
- Pulmonary cases not confirmed by bacteriology
Why are surveys important?

- Direct measurement of prevalence of TB disease

- Repeat surveys allow measuring trends (and quantify impact of TB control efforts)

- Understanding why cases are missed and adopting national policies ("health-care seeking behaviour")

- Use alongside surveillance and other programmatic data to update estimates of disease burden
Where are they relevant?

• Nationwide prevalence surveys are not appropriate in all countries (sub-national surveys, surveys in special populations, improving surveillance could suffice)

• Set of criteria developed in 2007:
  – High expected prevalence
  – Countries with problematic estimates and known weaknesses in their surveillance systems
  – Major contribution to global burden
  – Survey implemented between 2000-2007 or planned before 2010
Countries where nationwide surveys of disease prevalence are recommended

See: WHO Global Task Force on TB Impact Measurement; Policy Paper 2
Countries attending this workshop

**Global Focus**
- Ghana
- Kenya
- Malawi
- Mali
- Mozambique
- Nigeria
- Rwanda
- Uganda
- Zambia

**Extended list**
- Botswana
- Burkina Faso
- Burundi
- Côte d'Ivoire
- DRC
- Ethiopia
- Namibia
- Zimbabwe
What are the prerequisites?

1. Strong commitment and leadership by the NTP, MoH and core group of professionals

2. Identification of suitable organization to manage survey if NTP short-staffed

3. Adequate laboratory capacity (especially for culture)

4. Compliance with regulations of radiation authority

5. Reliable and timely procurement

6. Availability of funding
What are the prerequisites? (cont.)

7. Security in the field for participants and staff

8. Data management capacity

9. Community participation (especially for urban areas)

10. Expert review of protocol (including ethics clearance)

11. External support and technical assistance
Global progress with nationwide prevalence surveys of TB disease

21 Global Focus countries selected by Task Force

Number of surveys

Calendar year

Asia
Africa
Non Global Focus country

Cambodia
Malaysia
Indonesia
Eritrea
Thailand
Philippines
Bangladesh
Myanmar
Cambodia
Ghana
Kenya
The Gambia

Viet Nam
Thailand
Tanzania
Bangladesh
Myanmar
Cambodia
Ghana
Kenya
The Gambia

Lao PDR
South Africa
Ethiopia
Rwanda
Zambia
Mozambique
Nepal
Viet Nam
Philippines
Bangladesh
Thailand
Viet Nam
China
Nigeria
Malawi
Indonesia
Prevalence survey handbook; from red to lime

2007

Assessing TB prevalence through population-based surveys

Hot off the press!

Tuberculosis PREVALENCE SURVEYS: a handbook
second edition