National TB Survey Operation

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WHO/STB/TME
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National TB Prevalence Survey

• To visit community
• to work with community
• to study community
### Actual time line

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Year 2010</th>
<th>Year 2011</th>
<th>Year 2012</th>
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<td>1) planning of budget, lab and team</td>
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<td>2) protocol development</td>
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<td>3) SOP and survey form development</td>
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<td>4) procurement of equipment</td>
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<td>5) purchase of consumables</td>
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<td>6) training on field operations</td>
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<td>7) data and case management</td>
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<td>8) pre-visit to the field</td>
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<td>9) field and pilot tests</td>
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<td>10) fund disbursement for the field</td>
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<td>11) field operation</td>
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<td>12) preliminary results</td>
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<td>13) final results and publication</td>
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THE 2nd NATIONAL TB PREVALENCE SURVEY IN CAMBODIA (2010 – 2011)
Clusters

- Need to visit 40-100 clusters across the country
- Team needs report, refill, rest, ....
1st assessment (Preparation stage)

Contact local authority

Logistics to the cluster

Survey site mapping, basic population data

Seasonal access etc
Pre-Visit
(3-4w before)
precise local plan
pre census population data
date confirmation
designating survey area
arrange staff/volunteer
Pre-Visits

- Survey Operation Area = Census Target (EAs) should be confirmed
- Exclusion from Census
  - Prison: biased if included by chance
  - Military facility
  - Diplomatic compounds - operation feasibility
  - Hotel, Hospital,
  - Discussion Points: Monastery, School compound, Dormitory will be included

- Local community often has updated population information
- Who will prepare basic population data in EA: Local health worker?
Composition of the field team

From Central Survey Team
- Team leader (Medical officer) 1
- X ray reader (Medical Officer) 1
- Census Team (Interviewers) 4
- X ray unit (Radiographer, X ray Tech and dark room assistant) 3
- Car drivers (rented cars and X ray car) 3

From local township
- Local Lab. technician 1
- Local Basic Health Staff 5
- Local authority/ volunteers from survey site 5

Total 23 members were working as a team for each cluster.
Role and responsibilities of each member were clearly defined and informed.

Example from Myanmar Survey
• Cambodia
  Three teams: two team in the field; one team to rest, refill and report
• Ethiopia
  Five teams: three team in the field: two team to rest, refill and report with a few staff standby to support operating team(s)
Census: To recruit sufficient number of study eligible samples and asking for participation

People aged 15y old or more on the census day who basically stay in a defined area for two weeks or more are eligible population regardless the possession of their house and their on availability on the survey day.

Proper informed consent to avoid creating fears

Socio economic data collection may be done in this stage.
Household registry = Census Form
Invitation card
Household number sign
Will you assess SE condition?

Simple assessment along the DHS or other study criteria in Ghana: Don’t do all – will be the burden on Census
What you will use to explain
How to obtain IC - group counselling in ETH
Group counselling

Saving time to get consent signature at the Reception
Survey Registry: You may compile the House Hold Registry
Individual Survey Form
Interview

• TB related symptoms
  – Duration of sickness

• TB history
  – Possible treatment
  – Consultation Places

Often need interpreter to local language
X-ray and results on the spot

- No time gap between screening and sputum collection
- At least first sputum can be collected under professional supervision
- Reassessment of the interview: history, current treatment etc. (people can’t hide the disease)
- Additional diagnostic evidence for single specimen positive

Combination of “symptom screening” and “Chest-X ray with screening results on the spot” is the most recommended method
If exempted or rejected

• Exemption criteria
  – Known pregnancy
  – Any other reason

• Sputum collection criteria without CXR
  – All
  – Those with any symptom
X-ray Car
Or
Portable Equipment
X-ray registry

[Image of X-ray registry equipment and personnel]
Developing Film on the Spot
Quality Direct X-ray is Available in Villages

Screening Result on X-ray registry and Survey Form (and PC file with image?)
Additional Interviews

• Eligible for exam
  – By symptom
  – By CXR
• TB Tx history
• On Tx

Where we will have an additional interview?
Lab work (2 specimen)

Smear (2: Spot and Morning)
4 regional labs??
Fluorescent LED
Direct or concentrated Smear?
ZN (all positive by LED and XX% of negative blindly)

Culture
How many?- 2
Liquid/ Solid?- Mgit (need field test)
Identification test
Specimen Transportation plan

- In order to process the specimen within 3 days after the collection
- Establish reverse cold chain

EXAMINATIONS

Don't re-open the cap (= smear and culture in same lab)
Assess the capacity of labs for culture in advance
Do test with samples sent from other places
Data collection by home visit for those who can't afford to come

Home visits, Mop Up operations should be stated in the protocol
Ethical Issues

• Consent from minors (aged 15-17)
• How to avoid False Positive Diagnosis
  – Maximum efforts should be done to avoid to tell "you have TB" wrongly.
• Case management (field level): appropriate referral without waiting the study result
• Feedback of the results to detected cases, participants
• CXR for pregnant – scientifically safe; cultural and traditional believe/value
Incentive, Compensation, token, and enables

- Small gift?
- Transportation cost
- Difference in urban and remote

- Recommendation is often very theoretical or based on the experiences/value of researchers living in urban cities
Case management (spot)

• How to refer to local health service
• Who will be referred to whom by who?
• Referral letter
• Copy CXR?

Responsibility of the survey team:
appropriate advise to refer
Data management plan

Data Base Files

• Census (house hold lists including children)
• Survey participant form (individual result in the filed)
• CXR report (central)
• Lab results (smear, culture, identification, DST)
• Final results (classification)
• Follow up, HIV etc
Complexity of data management

FROM SOP of CAMBOIDA SURVEY 2011
Data management

• Design user friendly format (forms and data entry file)
• Data security
Central Works

- Lab: (Smear), Culture, (DST)
- X ray: Central reading
- Data entry
- Quality assurance activities
- Supervision
- Analysis, Interpretation
- Dissemination
- Etc