Procedure for Field Operation

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Field operation on National TB Prevalence consist 2 stages:

1- field preparation
2- field implementation
1-Field preparation

Two to three weeks before the field operation.

- The mission consists: the team leader, Census Unit member and the driver.
- The Provincial TB supervisors and TB Operational district accompany the mission.
- Materials to be brought to the village:
  - Household register
  - Leaflets about NPS
  - Brochure
1-Field preparation (cont’)

• The purpose of the visit is as follows:
  – To meet with the village leader to ask to set up local collaborating team for the survey
  – To estimate the number of eligible population in the village(s).
  – To take in which part of the village the field operation is conducted (randomization)
  – To conduct on-the-job training for the volunteers on household filling.
1-Field preparation (cont’)

1.1-Meeting with the village leader
The mission meets with the village leader and vice-leader and explains the procedures of the field operation of the NPS, including the dates on which field operation will be conducted.
1-Field preparation (cont’)

1.2-Organization of a local volunteer team

The village leader is asked to organize a local collaborating team for the survey consisting of at least 5 volunteers for the pre-survey census operation and the main field operation of the NPS.

The candidates need to be informed in advance through OD TB Supervisor/HC staff to come to the village leader’s office on arrival of the mission.
1-Field preparation (cont’)

1.3-Verification of the number of eligible population in the village

The number of eligible population (i.e. 15 years old or older) in the selected village(s), including additional village(s) selected during the first visit, is counted using the village’s census data and verified if it is a little bite more than sample size. If the number is not sufficient, an additional village(s) should be selected.
1-Field preparation (cont’)

1.4-Deciding the part of village for survey
The field operation is being selected in one of the following manners:

• When the village has numbered household groups, which most villages have, the part of the village is selected by the IDs of household groups.

• First, the mission prepares lottery numbers from one through the total number of the household groups.

• Second, a table with household group ID numbers and the total numbers of household members, including eligible population, is prepared.

• Third, the village leader is asked to pick up one lottery number and then asked to go either up or down.

• For example, if the selected number is five (5) and the leader chooses to go up, the household groups are selected from number five of the household group going up to a number with which the total number of eligible population becomes sufficient.
1.5-Deciding the part of village for survey (cont’)

• When the village doesn’t have household groups, the households are being selected for the survey by blocking and mapping.

• In either way, the method of the selection of the household groups needs to be recorded on the field operation report.
Selection for the survey by mapping
1-Field preparation (cont’)

1.6-On-the-job-training on census taking for the volunteers /VHSG

- The mission provides with on-the-job-training on how to fill the household list to the village leader, the volunteers, together with the OD TB supervisor.

- On arrival at the household, the census team explains the brief overview of the NPS, the census taking, the date of the main field operation, asks for the household member’s cooperation to the NPS.

- The team then fills out the household registry form. The tasks are as follows:
  - Every person, regardless of age, who have stayed at the house on arrival of the census team is recorded on the form (i.e. name, sex, date of birth, age, and occupation).
  - The age of a person should be recorded as accurate as possible.

- The on-the-job-training would last only one day and the rest of the work should be left to the volunteers supervised by the OD TB supervisor.
1-Field preparation (cont’)

1.7-Mapping of the selected village(s)

The selected village(s), including the household groups with its ID number, is mapped on a map. The tasks are supposed to have been done in the first visit but it needs to be confirmed and adjustment.
1-Field preparation (cont’)

1.8-Review of the main industry and occupations of the village(s)

• The main industry and occupations of the village(s) are reviewed.

• If most villagers are, for example, factory workers, the working hour of the field operation team needs to be adjusted for the villagers’ after work (e.g. 6-8 pm) to be able to achieve more than 90% participation rate.

• Likewise, most villagers are farmers, the working hour may need to be shifted earlier (e.g. starting from 6pm).
1.9-Review of the villagers’ customs regarding medical procedures

The norm or customs of the villagers are reviewed, particularly the villagers’ acceptance towards medical procedures (i.e. chest X’ray test).
1-Field preparation (cont’)

1.10-Deciding the operation site

Verifies the feasibility of the operation, including the access of the villagers to the location of the field operation centre.

For the good participation, the place of operation should be as close as to the people.
2-Field implementation

Day 0

• The team leader, the member of the Census / interview unit, Informed consent (IC) unit, and the driver arrive in the village by 16:00 Sunday.

• The team meets with the village leader and the volunteers. The Census unit then receives the household registry which the village leader and the volunteers have been asked to fill out at the time of the team’s second visit.

• The team holds a brief meeting with the volunteers on the census taking to occur the next day (inform to family chief to stay at home).
Basic preparation on arrival day in Pilot testing, October 2010
2-Field implementation (cont’)

Day 0

After the meeting, the team does a couple of internal works: assigning dates of field operation to the household groups.

Table X: The number of participants to be assigned to come to the field operation centre for interview and chest X-ray

<table>
<thead>
<tr>
<th></th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>About 120-130</td>
<td>120-130</td>
<td>120-130</td>
<td>For tracking non-responders</td>
</tr>
<tr>
<td>PM</td>
<td>About 80-90</td>
<td>80-90</td>
<td>80-90</td>
<td></td>
</tr>
</tbody>
</table>
2-Field operation (cont’)

D1-Verification of the census registry

- Every person, regardless of age, who have stayed at the house for two weeks or more before the arrival of the census team is recorded on the form (i.e. name, sex, date of birth, age, and occupation).
- If there is any person who has stayed at the household for more than two weeks before the Census team arrives and who has not yet on the household registry, they should be added at the end of the registry.
- If there is any person who is on the registry but has moved out of the household, has long been out for some reason, or has died, the person should be crossed out from the registry.
- If a person continuously stays at two locations, the person should be registered at the place he or she stays longer.
- The age of a person should be recorded as accurate as possible.
- Each eligible person is assigned a registration number, which has 7 digits (e.g. 15-103-08) in a household.
Flow of census taking (D1)

Direction of sample selection

Gr.1
Gr.2
Gr.3

Team leader

TB Sup
Pastor

Legend:
- Survey staff
- Local volunteer
- Family chief

Different Step in Census Day
1- Give back household registry to family chief
2- Pasting household number (3 digits) + RDV
3- Identifying eligible people by census staff
4- Finalizing eligible-sample size by Team Leader
2-Field implementation (cont’)

D1-Given the invitation letter

After the verification, the Census team member gives the invitation letters to each family chief and cordially asks all eligible household members (i.e. those who are 15 years old or older) to visit the field operation centre for interview and chest X-ray test.

The Census team needs to explain that the date and time are designated for the household members, however, they can actually visit any day and any time while the survey team is operational (normally 7:00-12:00 and 13:30-17:00, Tuesday to Thursday).

Also, a brochure and a leaflet in which the brief overview of the NPS is printed are provided to each household.
2-Field implementation (cont’)

D1-Arrival of the X-ray and sputum collection units

The members of the X-ray and Laboratory units arrive in the village in the afternoon of the day 1.

The X-ray unit members set up the X-ray machine, X-ray protection curtain, automatic processor, and a generator.

The electric generator needs to be placed as far from the field operation centre as possible so as to prevent its noise from disturbing the operation.
X-ray Car
Or
Portable Equipment
2-Field implementation (cont’)

Days 2-4

- On days 2-4, the team conducts screening of the eligible population in the selected village(s). The field operation normally opens from 7:00-12:00 and 13:30-17:00. The details should be decided by the team leader.

- The whole household groups in the selected village(s) are divided into six groups on day 0 depending on each size and each subgroup of households are assigned date and time (either morning or afternoon and either day 2, 3, or 4) to come to the field operation centre for interview and chest X-ray.
Under house were the most place that we used for operation site.

Its benefits:
- close to subject,
- light reduction to X-ray unit,
- protect from rainfall,
- reduce hot climate for all.
Flowchart of screening days (D2-D5)

Legend
- Survey staff
- Local staff
- Volunteer
- Subject

Lab-tech

Inform consent

Interviewers

Team leader

Radiologist

X-ray assistance

X-ray taking space

Film processing

Waiting space for screened subjects

Circulator

Safety line

Subject

Survey staff

Local staff

Volunteer

Legend

Circulator
2-Field implementation (cont’)

**Reception and informed consent**

The participants are requested to wait at the waiting area, which needs to be prepared outside of the field operation centre with some seats and shading by a tent.

- The participant is first lead to the reception by a volunteer.

- At the reception, the receptionist explains the overview of the NPS and procedure of interview and chest X-ray, and sputum test. The participant’s advantages and disadvantages by the procedure need to be informed.

- After the explanation and clarifications, if any, the participant is requested to sign on the IC sheet.

- Then, the receptionist fulfil the survey number, name, age, sex and occupation of participant on individual interview sheet/ID card and leads the participant to the interviewer.
2-Field implementation (cont’)

Interview

The interviewer conducts an interview using the individual survey sheet.

• The actual interview starts with the respiratory symptom, health seeking behaviour and treatment history of TB, which needs to be selected just one from either Yes or No.

• After the interview, the interviewer gives the ID card to a volunteer and the volunteer leads the participant to the X-RAY unit.
2-Field implementation (cont’)

Chest X-ray taking

The radiology assistant receives the ID card from Interview unit. He verifies the identity and he puts the participant’s X-ray ID number on the film cassette.

- The technician makes the participant the position for chest P-A view. Once ready, he takes the chest X-ray. He then informs the participant to wait outside the chest X-ray area.
- Another radiology technician in charge of developing films receives the taken cassette from the radiology assistant, and develops the film immediately.
- He gives the film as well as other documents to the chest X-ray reader.
2-Field implementation (cont’)

Chest X-ray reading

• The radiology assistant gives the ID card and X-ray film to the reader.

• The reader carefully examines the film whether it has any abnormal shadow indicated by the protocol and records the findings of the film into the individual survey card and in the X-ray examination registry as well as in the individual survey form.

• If the participant has abnormal shadow eligible for sputum collection and is TB suspect, the reader needs to inform the team reader so that the leader orders sputum collection. If a disease which needs urgent action or treatment for the participant is suggested, it should be recorded on the form.
2-Field implementation (cont’)

Decision regarding sputum collection

The team leader receives all documents from both unit (census and X-ray).

• When the participant has any symptoms or chest X-ray abnormality suggestive of TB, the leader orders sputum collection for the participant.

• Then, the leader gives the documents to a volunteer and the volunteer leads the participant to the Laboratory unit waiting outside.

• When the participant does not need sputum collection, the leader performs the final check of the documents and the participant to leaves.
Sputum collection

- The Laboratory unit receives the ID card from the volunteer and the fills out the sputum test request form.
- On the form, village, commune, the registration number, the name, age, and sex of the participant need to be filled out. Also, the label with serial number (printed in advance) of the request form needs to be attached on the ID card for reference.
- Laboratory unit gives the participant instructions how to excrete good sputum into a sputum cup and asks to put sputum into the cup on the spot. The participant should produce sputum in open-air to avoid any possible TB infection to others.
- Sputum cups with sputum taken should be tightly screw-capped and stored in an icebox with ice until transported to the culture centre.
- The Laboratory unit gives the participant another sputum cup labelled the identical serial number and written down on it(D1), and explains that the participant needs to take sputum next morning (D2) again and that he or she has to bring the cup to the field operation centre as soon as the sputum is taken.
Final check before the participant leaves

• The team leader receives the documents and performs the final check of the documents, particularly the individual survey sheet, if the necessary columns are accordingly filled out, before the participant leaves.

• If anything is missing, the leader asks the participant necessary inquiry and fills out the questionnaire.

• When everything is OK, the leader thanks the participant for his or her cooperation, provides with a gift, and the participant leaves the field operation centre for home.

• If the participant needs to take sputum as TB suspect, the leader makes sure the participant comes back to the field operation centre next morning with the morning sputum.
2-Field implementation(cont’)

D5

On day 5, the survey team conducts tracking down non-responders and preparing the field report.

• Part of Census unit and the volunteers visit households to ask the non-responders to come to the field operation centre for interview and chest X-ray test.

• Home visited by a team member for elderly or a disabled person who cannot come to the field operation, to take two sputum specimens on the spot.
2-Field implementation (cont’)

D6

• On day 4 and 6, the sputum cups are transported to the designated culture centres.

• After the team shuts down the field operation centre, and the team leader thanks the village leader, the volunteers, the OD and provincial supervisors, the team leaves the village and moves either back to Phnom Penh or to the next field operation.
Other issues

In urban areas, the team has to consider conducting field operation after hours (17:00-20:00) depending on the participation rate. The team leader decides the details.
Thank you for your attention