



PLAN AND ESTABLISH A SAMPLE REFERRAL NETWORK FOR TB DIAGNOSIS

Facilitator Guide

SUMMARY OF MODULE AT A GLANCE

Purpose of module:	To provide participants with an overview of specimen transport networks	
Total time of module	2 hours 45 minutes	
CONTENT OUTLINE		
PowerPoint: How to plan and implement a quality assurance programme	Aim: To understand the requirements for a sample referral network and to re-design existing networks. Learning Objectives: <div><div>1.</div>Understand specimen referral networks as it relates to TB diagnostic networks</div> <div><div>2.</div>Explain the strengths and weaknesses of specimen referral networks</div> <div><div>3.</div>Put in place structures for ongoing coordination and supervision for all stakeholders</div> <div><div>4.</div>Understand how your national testing algorithm affects your referral networks</div> <div><div>5.</div>Begin to (re-)design a functional referral network</div> <div><div>6.</div>Consider the implications of integration</div>	45 minutes
Discussion Questions	<div><div>1.</div>Give two reasons why specimen referral networks are important - answer any of the two below:</div> <div><div>2.</div>What are two weaknesses in specimen transport systems - answer any of the two below:</div> <div><div>3.</div>What is fragmentation when referring to specimen referral networks?</div> <div><div>4.</div>What does IST TWG stand for and what are the benefits of creating one?</div> <div><div>5.</div>What is the basis for your specimen referral network design?</div> <div><div>6.</div>What documents are crucial for the design phase?</div> <div><div>7.</div>What are other uses of the specimen transport network?</div> <div><div>8.</div>What is one key performance indicator for your specimen transport network?</div>	15 minutes
Exercise 1: Creating an integrated specimen transport technical working group (IST TWG)	Aim: walk participants through what it takes to set up a technical working group dedicated to specimen transport and what this membership should entail.	55 minutes

Exercise 2: Understanding Turnaround time (TAT)	Aim: help participants understand the patient's flow through the health system so a patient-centered point of view can be considered	55 minutes
Handout and exercise/practicals in module:	<ol style="list-style-type: none"> 1. Worksheet 1: Creating your IST TWG (W1:PM3) 2. Worksheet 2: Understanding TAT (W2:PM3) 	
Additional resources or references:	<ul style="list-style-type: none"> ▪ GLI training package- http://www.stoptb.org/wg/gli/TrainingPackage_XPERT_MTB_RIF.asp ▪ Global Health Security Agenda- http://www.cdc.gov/globalhealth/security/actionpackages/national_laboratory.htm ▪ Implementing TB Diagnostics: A policy framework: http://www.who.int/tb/publications/implementing_TB_diagnostics/en/ 	

MODULE NOTES

Broadly, keep in mind that “specimen referrals”, “specimen transport”, “sample referrals” and “sample transport” can be used interchangeably. However, just saying “referrals” or “transport” could refer to patients or sample/specimens.

Slide 10 to 12 (Current status of specimen referral networks in LMICs): The strengths refer to a positive global focus on specimen referrals while the weaknesses are more specific to country systems. It is important to note that there is not “one model” or “one size fits all” so country networks need to be customised to their settings, although there are best practices that can be utilised.

Slide 10 & 11 (Current status of specimen referral networks in LMICs): The GHSA National Laboratory System Action Package calls for real-time bio-surveillance with a national laboratory system and effective point-of-care and laboratory based diagnostics, which is to be measured by a national laboratory system capable of reliably conducting 5 of the 10 core tests on appropriately identified and collected outbreak specimens that are transported safely and securely to accredited laboratories from at least 80% of districts in the country. Examples of innovative and effective systems in certain countries: You can use of the Uganda example from Slide 8.

Slide 12 Fragmentation is not exactly a problem itself, but it is an issue of improper coordination/supervision and lack of standardisation of procedures and reporting.

Slide 17 to 19 Most of the countries have three-tiered laboratory structure with GeneXpert at the intermediate level; specimen transport is needed from peripheral level to intermediate level for Xpert testing. Additional referral of samples may be required for confirmatory DST (e.g. to central level) in accordance with recommendations in the national algorithm.

Slide 19 & 20 Insert the country diagnostic algorithm. Discuss the requirements for specimen referral in the context of the country diagnostic algorithm. When designing your network, it is important to take a “patient-centered” approach. One way to do this is to

map out the patient's movements based on the testing algorithm. You can also map out and follow the specimen/results movement to/from the laboratory.

Slide 30 A technical working group may seem like a small/unimportant/unexciting intervention, but when done properly and on a sustained basis, it can be one of the most powerful tools since there is almost always significant fragmentation in specimen referral networks in a country. It is easier to get one of these set up but more difficult to gather on a regular and frequent basis. We will talk about integration later, but coordination should be the first step before integration.

Slide 32 & 33 this is a list of some of the cost elements that need to be considered when setting up and running a specimen referral network in-house, which is the same as "in-sourced" (in other words, doing it on your own)

EXERCISE 1: CREATING YOUR IST TWG

Purpose of exercise:	The aim of the exercise and discussions is to get people talking more about how to implement an IST TWG. The exercise should at least outline how to coordinate and supervise specimen transport mechanisms across a country
Preparation:	<ul style="list-style-type: none"> ▪ Form groups of 4 ▪ Read out the instructions for the exercise: Set terms of reference (TORs) for a national integrated specimen transport technical working group (IST TWG), including: <ul style="list-style-type: none"> ○ Frequency of meeting ○ Lead person ○ Possible partners/stakeholders to include ○ Standardized metrics/indicators for each partner to report on
Materials required:	<p>Full list of materials participant's need</p> <ul style="list-style-type: none"> ▪ Pens ▪ Flipcharts
Total time of exercise:	55 minutes
Feedback expected:	Representative from group to present and group discussion
Debrief:	During the debrief ask the participants the questions below

CONDUCTING THE EXERCISE

Read out instructions (shown above in “preparation”)	2 minutes
Break into groups, give paper/marker to each group, and then groups should allot roles of note taker and presenter for end of exercise	3 minutes
Group discussion on setting up their IST TWG	30 minutes
Report back to full group using flip charts	10 minutes
Discussion questions posed to the group	10 minutes

DEBRIEFING EXERCISE/PRACTICAL

After the groups are done discussing their IST TWG, they should reconvene and the designated reporter should report back to the group. The facilitator should ensure this only takes 10 minutes total and should clearly state how long each group has to present.

Following the report-back, the facilitator should pose the following group discussion questions. Please keep the discussions limited to 10 minutes and take notes of the answers.

- What do you think is crucial to the IST TWG?
- Did you leave anything out of the TORs that you did not think was important?
- Who would need to convene this group and issue these TORs?
- Do you think that the IST TWG could be an all-inclusive and integrated working group across disease programmes, laboratory staff, etc.?

KEY MESSAGES FROM EXERCISE/PRACTICAL

The outcome should be tangible actions/inclusions for the terms of reference of such a group. This information should be provided/presented to a possible leader of this group (preferably within the ministry of health) by the appropriate party. A group outside NTP or even the NRL need to be included in the actual TWG. TWGs are important and should be properly governed.

EXERCISE 2: UNDERSTANDING TAT

Purpose of exercise:	To gain a better understanding of how the national testing algorithm and specimen transport availability affect the movements of a patient and their specimens/results; to look for ways to improve the patient experience and take a more “patient-centred” approach
Preparation:	<ul style="list-style-type: none"> Form groups of 4 Read out the instructions for the exercise: Based on the current national algorithm, draw out every step in the process from the patient deciding to come to the clinic, through to treatment initiation, if necessary. Be sure to include multiple visits to the clinic by the patient, if it is part of the algorithm (i.e. spot-morning-spot requires 2 visits). Examine the overall process and make notes where improvements could be made to benefit the patient
Materials required:	<p>Full list of materials participant’s need</p> <ul style="list-style-type: none"> Pens Flipcharts
Total time of exercise:	55 minutes
Feedback expected:	Representative from group to present and group discussion
Debrief:	During the debrief ask the participants the questions below

CONDUCTING THE EXERCISE

Read out instructions (shown above in “preparation”)	2 minutes
Break into groups, give paper/marker to each group, and then groups should allot roles of note taker and presenter for end of exercise	3 minutes
Group process mapping	30 minutes
Report back to full group using flip charts	10 minutes
Discussion questions posed to the group	10 minutes

DEBRIEFING EXERCISE/PRACTICAL

After the groups are done discussing their IST TWG, they should reconvene and the designated reporter should report back to the group. The facilitator should ensure this only takes 10 minutes total and should clearly state how long each group has to present.

- Following the report-back, the facilitator should pose the following group discussion questions. Please keep the discussions limited to 10 minutes and take notes of the answers.
 - Were you surprised by the amount of patient movement required in your system?
 - Is the patient movement acceptable? Why or why not?
 - Do you think there is a high risk of loss-to-follow-up based on your process map?
 - Key messages from exercise/practical

KEY MESSAGES FROM EXERCISE/PRACTICAL

The outcomes should be that the participants understand that it is important to take a “patient-centered” approach to health services and by doing so, it can be surprising the burdens that are placed on the patients. The participants should also see the importance of sketching out illustrations, process flow, etc. on paper to visualize all steps within a process.

MODULE ANSWERS

1. Give two reasons why specimen referral networks are important - answer any of the two below:
 - a. Linkages between patients, clinicians and laboratories
 - b. Should be supportive, not a bottleneck
 - c. Can increase access to diagnostics
 - d. Referring a specimen, instead of a patient, takes the burden off the patient to reach the laboratory → possibly leading to equity in coverage
 - e. Try to ensure funds put toward HR, reagents, equipment, infrastructure are not wasted
 - f. A national system can be more cost effective than placing staff and under-utilised equipment at lower levels

2. What are two weaknesses in specimen transport systems - answer any of the two below:
 - a. Lack of understanding and comprehensive view of specimen referral networks in a country
 - b. Weak coordination/supervision
 - c. Lack of tools to properly design an efficient network
 - d. Fragmented design and implementation, i.e. TB-only
 - e. Lack of understanding of true costs of the system
 - f. Weak monitoring and evaluation, including quality control
 - g. Not enough focus on biosafety/biosecurity

3. What is fragmentation when referring to specimen referral networks?
 - a. Multiple referral mechanisms depending on the tier, region, funding available, transport options

4. What does IST TWG stand for and what are the benefits of creating one?
 - a. Integrated Sample Transport Technical Working Group - it can help provide supervision and coordination to fragmented networks

5. What is the basis for your specimen referral network design?
 - a. Your national testing algorithm

6. What documents are crucial for the design phase?
 - a. National testing algorithm, national guidelines/policies, SOPs and job aids

7. **What are other uses of the specimen transport network - answer any of the below:**
 - a. EPTB specimens, surveys
 - b. Specimens for HIV monitoring, surveillance systems, outbreak response, etc.
 - c. Reverse logistics: transport of PT samples and other supplies/data

8. **What is one key performance indicator for your specimen transport network - answer one of the below:**
 - a. Access to diagnostics measured by testing volumes in the laboratory
 - b. Turnaround time from specimen collection to return of results
 - c. Quality of specimens received, measured by rejection rates at the laboratory
 - d. Efficiency of the system, measured by a unit cost such as cost per specimen transported or result issued