



TRAINING OF TRAINERS ON THE RESEARCH PROTOCOL OF THE BPAL OPERATIONAL RESEARCH

Diagnostic testing in the TB laboratory network

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OBJECTIVES

By the end of this lecture, participants will be able to:

Understand how the TB laboratory network works

Learn which TB test to request according to reason for examination


Know where to refer specimens for TB testing





#TBFFree**PH**





Find and treat **2.5 million** Filipinos
with TB by **2022**



#TBFREEPH





CASCADE OF TB CARE

The TB laboratory network

provides **essential** TB diagnostic services that are

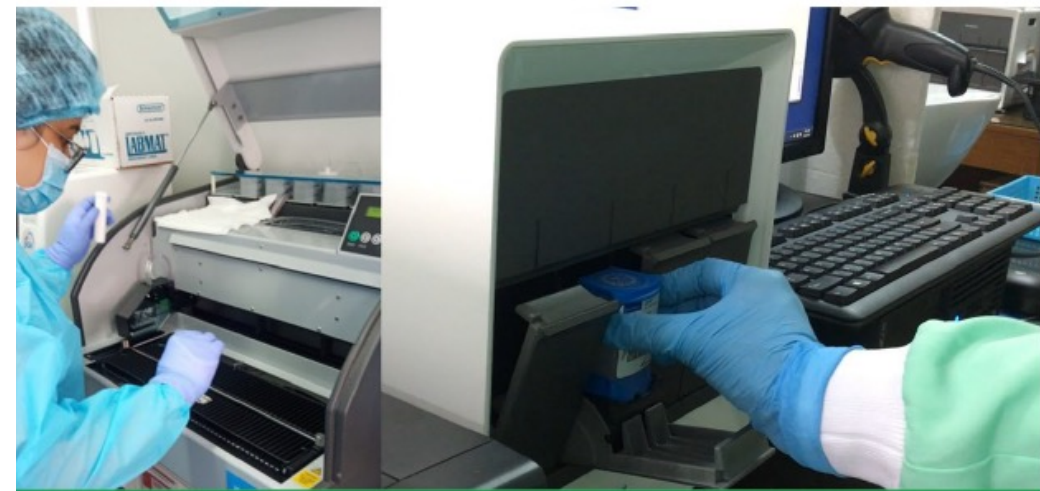
Equitable

Accessible

Affordable

Quality-assured

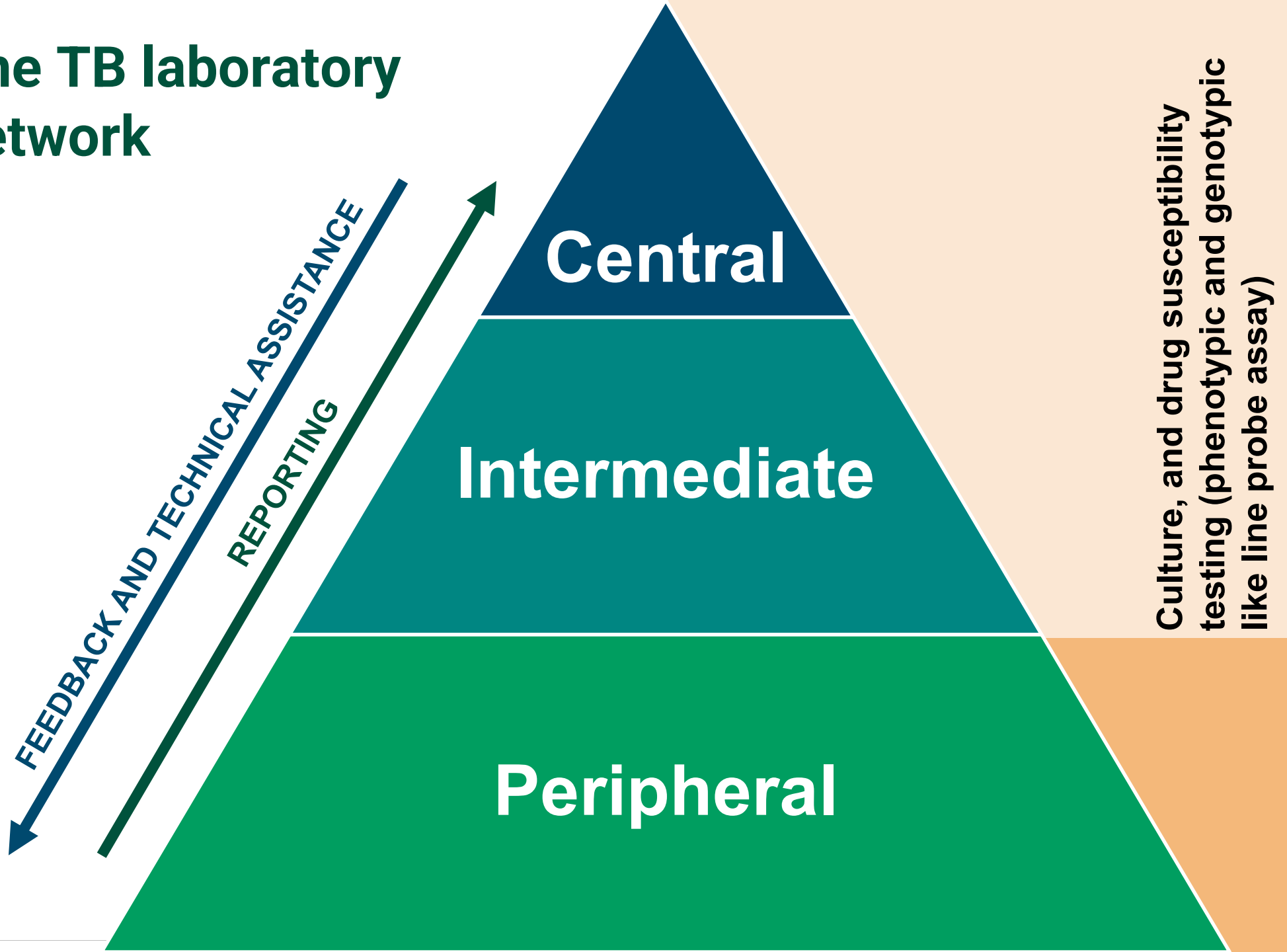
Effective



Philippines
TB LABORATORY NETWORK
STRATEGIC PLAN 2018-2022
A Sub-Plan of PhilSTEP1



The TB laboratory network

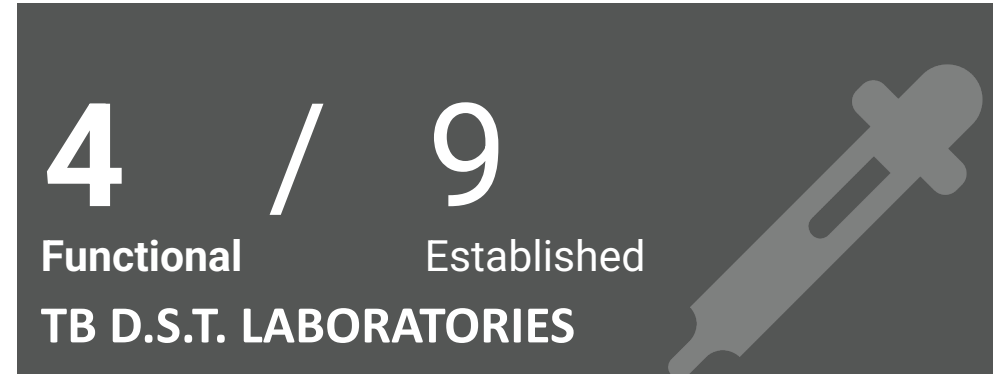


Culture, and drug susceptibility testing (phenotypic and genotypic like line probe assay)

POC / near-POC tests (e.g., Xpert MTB/RIF Assay),
smear microscopy

The TB laboratory network

As of: 01 January 2021





TB diagnostic tools

Smear Microscopy



Xpert MTB/RIF Assay



Phenotypic DST



Culture



Line Probe Assay





Presumptive TB



Xpert MTB/RIF

Why is it important in the BPaL OR?

The eligibility criteria require **laboratory-confirmed TB** with **resistance to Rifampicin** within the last three months





Presumptive TB

Rif-susceptible

Xpert MTB/RIF

Rif-resistant

DSTB regimen

Baseline examinations
DRTB regimen





DRTB (baseline examinations)



Second-line Line Probe Assay

Why is it important in the BPaL OR?

1. The first two inclusion criteria require **laboratory-confirmed FQ resistance** within the last three months.
2. Exclusion criteria include **previous exposure to BPaL component drugs or DIm >4 weeks**.





DRTB (baseline examinations)



Second-line Line Probe Assay

Culture, and liquid DST

Why are these important in the BPaL OR?

One of the exclusion criteria states DST showing **resistance to any of the BPaL component drugs.**



DRTB (during and after treatment)

TB test	During treatment	End of treatment	Post-treatment
	Monthly		6F and 12F
Culture	X	X	X
DST	X, if culture-positive at 4M, end of treatment, or 6F/12F post-treatment		

Notes:

1. Monthly culture testing among patients under DRTB treatment is important because they may be enrolled to the BPaL OR if they have documented **non-response** to DRTB treatment. One of the criteria to say that a patient has non-response is **two consecutive positive cultures** collected at the end of 2M.
2. Culture and DST are also crucial in determining patient's treatment response. This will guide whether the treatment can end at 6th month, or should be extended.
3. DST is not done if culture-positive at 1M – 3M because it is expected that the patient is still beginning to respond to treatment. However, **if culture is still positive at 4M, this may indicate that treatment is not working**, thus DST is needed to determine if patient has resistance to any of the drugs they are taking.

BPaL OR facility zoning and specimen referral scheme

Region	BPaL OR site	RTDL	TBCL	DSTL	LPAL
NCR	Lung Center of the Philippines	Lung Center of the Philippines	Philippine TB Society, Inc. – Quezon Institute	Philippine TB Society, Inc. – Quezon Institute	Tropical Disease Foundation, Inc., and National TB Reference Lab - RITM
NCR	Dr. Jose N. Rodriguez Memorial Hospital	Dr. Jose N. Rodriguez Memorial Hospital			
I	Ilocos Training and Regional Medical Center	La Union Medical Center	Dagupan Doctors Villaflor Memorial Hospital	National TB Reference Laboratory - RITM	
I	Region I Medical Center	Pangasinan Provincial Hosp.			
III	Jose B. Lingad Memorial Regional Hospital	Jose B. Lingad Memorial Regional Hospital	Central Luzon CHD TB Culture Laboratory		
IV	Batangas Medical Center	Batangas Medical Center	Philippine TB Society, Inc. – Quezon Institute	Philippine TB Society, Inc. – Quezon Institute	



BPaL OR facility zoning and specimen referral scheme

Region	BPaL OR site	RTDL	TBCL	DSTL	LPAL
V	Sorsogon Medical Mission Group Hospital and HSC	Sorsogon Medical Mission Group Hospital and HSC	Sorsogon Medical Mission Group Hospital and HSC	National TB Reference Lab - RITM	Tropical Foundation Inc. and National TB Reference Lab - RITM
VI	Western Visayas Medical Center	Western Visayas Medical Center	Western Visayas Medical Center		
VII	Eversly Child Sanitarium	Eversly Child Sanitarium	Philippine TB Society, Inc. – Quezon Institute		
IX	Zamboanga City Medical Center	Zamboanga City Medical Center	Zamboanga City Medical Center	National TB Reference Lab – RITM	
X	Northern Mindanao Medical Center	Northern Mindanao Medical Center	Northern Mindanao TB Reference Lab		
XI	Southern Philippines Medical Center	Southern Philippines Medical Center	Davao TB Reference Laboratory		



Contingency plan on specimen referral

Xpert MTB/RIF testing

- Regional coordinators, with the PHO/CHO, will facilitate facility rezoning to another RTDL

TB culture, DST, and LPA

- NTRL, with regional coordinators, to facilitate facility rezoning to another TB culture, DST or LPA laboratory
- Communicate with NTRL via labnetwork.ntrl@gmail.com



IN SUMMARY

The TB laboratory network is organized at the different levels of the health system to provide TB diagnostic services that are essential to achieve a #TBFreePH.

TB testing should be performed in accordance to NTP protocols, and additional requirements of the BPaL OR.

BPaL OR-sites and linked laboratories have to follow a defined facility zoning and specimen referral scheme, and must maintain close coordination with each other to ensure timely and quality-assured TB diagnostic testing.





THANK YOU!



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