2017 Regional Planning Workshop for Laboratory Network Strengthening: Expansion of Rapid TB Diagnostic Laboratories and Strengthening EQA-DSSM Implementation

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Workshop Report

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SIAPS Systems for Improved Access to Pharmaceuticals and Services

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Key Words

TB, MDR-TB, diagnostic laboratory, case detection, action plan

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CONTENTS

ACRONYMS AND ABBREVIATIONS

BSS	Barangay smearing station
CALABARZON	Cavite, Laguna, Batangas, Rizal and Quezon Provinces (Region 4A)
CAR	Cordillera Administrative Region
DOH	Department of Health
DOTS	directly observed treatment, short course
DR-PTC	presumptive drug-resistant TB case
DRTB	drug-resistant TB
DS-PTC	presumptive drug-susceptible TB case
DSSM	direct sputum smear microscopy
DST	drug susceptibility testing
EPTB	extrapulmonary tuberculosis
EQA	external quality assurance program / external quality assessment
GX	GeneXpert
HUC	highly urbanized city
iDOTS	integrated DOTS
LGU	local government unit
LNSP	Laboratory Network Strategic Plan
LPA	line probe assay
MDR-TB	multidrug-resistant tuberculosis
MGIT	Mycobacteria growth indicator tube
MTB	Mycobacterium tuberculosis
NCR	National Capital Region
NEQAS	national external quality assurance system
NTP	National TB Control Program
NTRL	National TB Reference Laboratory
OTJ	on-the-job
PhilPACT	Philippine Plan of Action to Control Tuberculosis
PhilSTEP-1	Philippine Strategic TB Elimination Plan Phase One
PMDT	Programmatic Management of Drug-Resistant Tuberculosis
POC	point of care
PTC	presumptive TB case
RDT	rapid diagnostic test
RHU/HC	rural health unit/health center
RIT/JATA	Research Institute of Tuberculosis / Japan Anti-TB Association
RITM	Research Institute for Tropical Medicine
SOCCSKSARGEN	South Cotabato, Cotabato, Sultan Kudarat, Sarangani, Gen. Santos (Region 12)
TAT	turnaround time
TB	tuberculosis
TML	TB microscopy laboratory
USAID	US Agency for International Development
WHO	World Health Organization

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The workshop was organized, financed, and implemented by NTRL/RITM through the leadership of Dr. Ma. Cecilia G. Ama, NTRL head.

The following NTRL units and staff participated in the organizing and planning of workshop activities, preparation of course materials, facilitating the discussions, and documenting the workshop proceedings and outputs.

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EXECUTIVE SUMMARY

The 2016 Philippines national tuberculosis (TB) prevalence survey showed that about 1% of the population are afflicted with TB; with a smear+/culture+ prevalence rate of 286/100,000. The National TB Program (NTP) is strengthening its programming through the Philippines Strategic TB Elimination Plan Phase One 2017–2022 (PhilSTEP-1). PhilSTEP-1 aims to reduce TB deaths by 50% and TB incidence by 5% by 2022. One of the key activities of PhilSTEP-1 is to improve access to laboratory services so that all people with presumptive TB are tested using rapid diagnostic tests (RDTs), particularly the Xpert MTB/RIF assay (Xpert). This entails the strengthening of the NTP laboratory network and its support systems to achieve a wider deployment and implementation of RDTs while ensuring the sustained delivery and quality of all currently employed diagnostic technologies, including smear microscopy, culture, drug susceptibility testing (DST), and line probe assay (LPA).

The National TB Reference Laboratory (NTRL) organized two planning workshops to assist the 17 Department of Health (DOH) regional NTP teams in developing their action plans for the expansion of the rapid TB diagnostic laboratories (RTDLs) and for strengthening the laboratory systems. The objectives of the workshop were to assist the regional NTP teams 1) in analyzing the situation of the laboratory network in their respective areas and 2) in developing a regional plan for the expansion of RTDLs and for strengthening external quality assessment (EQA) implementation. The workshops were held September 5–7 and 19–21, 2017 in Tagaytay city, Cavite province. The Systems for Improved Access to Pharmaceuticals and Services SIAPS (Program) provided technical assistance to the NTRL with workshop preparations and in facilitating discussions.

The workshop included presentations and discussions on the following topics: 1) challenges in RTDL expansion, 2) findings from an assessment of NTP laboratory network performance, and 3) the NTP plan for RTDL expansion. The participants worked in small groups to critically analyze their region's laboratory network performance. The process revealed problems in the RTDL rollout, which included lack of local government unit (LGU) commitment; inadequate readiness of facilities to host the RTDLs, delay in machine delivery and installation, high staff workload, inadequate training and supervision, weak specimen referral and transport system, low test utilization, and weak supply management.

The participants then proceeded to identify and analyze the priority problems in their areas. The analyses included a review of the performance of the various elements of the laboratory systems. The results of these discussions were used to formulate strategies and activities that focused on addressing their respective region's priority challenges. The strategies were categorized as planning strategies, operational strategies, or capital/infrastructure strategies. The outputs of the activity formed the draft regional action plans. These draft plans will be presented and discussed further with participants' colleagues and supervisors in their home offices, as well as with stakeholders from the various LGUs in the region.

WORKSHOP OVERVIEW

Background and Objectives

The Philippines is one of the high-burden countries for TB and multi-drug resistant tuberculosis (MDR-TB) in the world. Key findings from the 2016 Philippines national TB prevalence survey showed that about 1% of the population is afflicted with TB; with a smear+/culture+ prevalence rate of 286/100,000. Despite the high TB prevalence, only one-third of detected cases were notified in the program. The NTP is strengthening its TB programming through PhilSTEP-1. PhilSTEP-1 aims to reduce the TB burden by 2022 through the reduction of TB deaths by 50%, and the reduction of TB incidence by 5%.

One of the key activities of PhilSTEP-1 is to improve access to laboratory services so that all high-risk TB patients are tested using World Health Organization (WHO)–endorsed RDTs as the initial diagnostic procedure, particularly Xpert. This entails the strengthening of the laboratory network (LNW) and its support systems to achieve a wider deployment and implementation of RDTs while ensuring the sustained delivery and quality of all currently employed TB diagnostic technologies, including smear microscopy, culture, DST, and LPA.

To facilitate the laboratory network strengthening processes, the NTRL organized two planning workshops to assist the 17 DOH regional NTP teams in developing their action plans for the expansion of the RTDLs and for strengthening of the laboratory systems. The objectives of the workshop were to assist the regional NTP teams in 1) analyzing the situation of the laboratory network in their respective areas and 2) developing a regional plan for the expansion of RTDLs and for strengthening EQA implementation. The workshops were held in September 5–7, and 19–21, 2017, in Tagaytay city, Cavite province. SIAPS provided technical assistance to NTRL with the workshop preparations and facilitating workshop discussions.

NTP Strategic Directions and Laboratory Network Issues

The NTP's strategy to improve access to TB diagnosis using RDTS and DST, at least for rifampicin resistance, is being carried out through the establishment of new Xpert testing sites in existing health facilities and laboratories to increase availability and accessibility at the primary level of care.

This strategy involves the strengthening of leadership and management capacity in the laboratory network, and the development of robust support systems to ensure the continuous, effective, and efficient operations of the laboratories. These include the systems for human resource management, financing, supply management, service delivery, information management, equipment and facility maintenance, training, supervision, waste management, planning, monitoring, evaluation, and quality assurance. Strengthening the systems will help develop the resiliency of the laboratory network.

Workshop Materials

The workshop agenda is included in Annex 1.

The workshop presentations provided information on the following:

- Experiences and challenges from the adoption and scale-up of Xpert (as RTDLs) from the NTRL's perspective
- Findings from the SIAPS assessment of the NTP laboratory network's performance, including the status of the microscopy EQA implementation
- NTP expansion plan for RTDLs (Xpert)
- Leadership and management roles of the regional NTP teams

Worksheets and Templates

The participating regional teams were provided with worksheets and idea cards that they used to record their respective small group discussion outputs for the situational and problem analysis, as well as action planning. The filled-in worksheets also served as their presentation aids. Templates for situational analysis and problem prioritization were also provided.

The list of participants is provided in Annex 5.

WORKSHOP DISCUSSIONS

Challenges in RTDL Implementation

The NTRL's presentation on the challenges in RTDL expansion[1] described the progress of the laboratory network expansion in the past five years, including the laboratories for microscopy, culture (solid and liquid), DST, Xpert, and LPA, including the number of patients tested during the period. The speaker then discussed the strengths, weaknesses, opportunities, and challenges in the initial rollout of Xpert laboratories in the country, starting in 2011, such as the number of laboratories or testing sites established, as well as the experiences in the process of establishing and operating the Xpert laboratories. The challenges highlighted in this discussion were delayed operationalization of laboratories, limited utilization of services, and training.

Findings from the Laboratory Network Assessment

The findings from SIAPS's LNW assessment[2] provided the participants with information on the performance of the NTP laboratory network. The speaker presented key laboratory data and their interpretation, as well as discussed the gaps in laboratory processes in all stages, from pre-analytical, analytical to post-analytical; the performance of the laboratory support systems (figure 1); and the status of the quality assurance program, particularly for TB smear microscopy.[3]

The discussion highlighted how the various elements of the laboratory systems affect the sustained delivery and quality of laboratory services, the systems' influence on patients' access to TB diagnosis, and the effect on NTP case finding results. Also discussed were the problems in EQA implementation, as well as the adaptive strategies that are implemented by the LGUs. The assessment findings provided the participants a framework for the analyses of their regional situations.

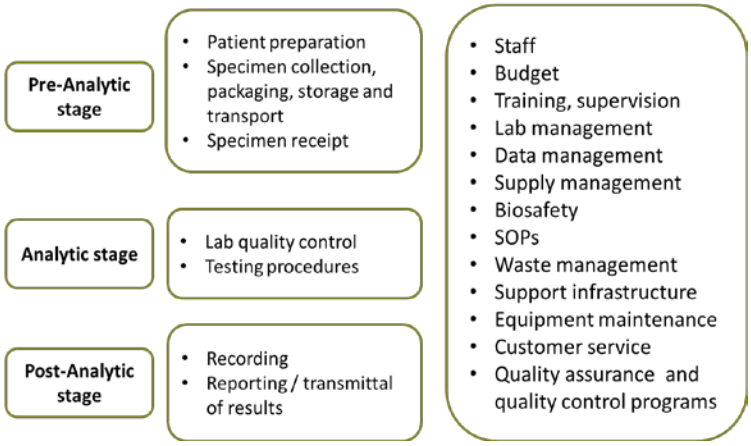

Figure 1. Laboratory quality assessment framework

NTP Expansion plan for RTDLs

The NTRL's presentation on the NTP's plan for RTDL expansion[4] described the DOH vision of all RHUs/ and health centers (HCs) in the country with an Xpert machine for the testing of patients within the next five years. The plan shows the magnitude of the expansion, the schedule, geographic priorities, and the NTP's service targets. The speaker presented the calculations used as bases for the number of machines and cartridges to be distributed annually until 2020. The NTP plan aims to establish 2,618 RTDLs from 2017 to 2020 for a total of 2,947 Xpert testing sites by 2020. The sites will be located in all RHUs, all DOH-retained hospitals, 3%–30% of public hospitals per region, and 3%–5% of private hospitals per region.

Roles of the Regional NTP Teams

The session provided participants with a list of roles and responsibilities in providing leadership and management to the laboratory network in their respective regions. Leadership and management practices were also described to illustrate the work that the participants will do in the exercise of their roles and functions.

Analysis of Regional Laboratory Situation

Participants worked in small groups and were asked to critically review and analyze the experiences in the establishment of Xpert labs in their respective regions. Participants looked back on the results of the RTDL scale-up in their respective regions, and identified and analyzed the problems that were encountered according to the processes outlined by NTRL, and guided by the findings of the SIAPS assessment. The major issues described in the workshop discussions include the following:

- **LGU commitment.** There are areas where LGUs are not enthusiastic in supporting the implementation of RTDLs. The LGUs' main concern is the additional capital and operational costs that the RDTs will bring to their health system.

- **Readiness of facilities to operate Xpert.** The capacity of the selected sites to meet the requirements for space for work area, storage, power supply, security, communications, and staff is variable. Many LGUs that are managing the selected primary care facilities are unable to meet the requirements within the desired timeline due to budget constraints.

- **Pre-installation assessment.** The assessment teams were not well organized and knowledgeable of the RDTL requirements or the use of the assessment checklist. In addition, the checklist lacked details, a gap that led to inaccuracies in the findings and results.

- **Machine delivery and installation.** Delayed machine delivery and installation were mentioned as a frequent cause in the delayed functionality of the Xpert laboratories; however, the underlying reasons for the delays require further clarification.

- **Managing supplies.** Most places did not have adequate storage space, nor do they meet the temperature requirements. Delayed delivery of essential supplies was a problem in some areas; delays in resupply were also reported. Inventory management practice is generally weak.

- **Staff workload.** A concern not only for medical technicians but also for the program managers is the anticipated additional workload that the RDTs will bring on top of the already high workload of the laboratories, which is causing reluctance among laboratory staff to implement the new test.

- **Training and follow-up supervision.** An unspecified number of newly assigned and alternate laboratory workers have not been formally trained because of the inability of the NTRL to cope with the large demand for trainings. In addition, the majority of the provincial/city-level med tech coordinators tasked to supervise the Xpert operators are untrained on the use of Xpert.

- **Procedures for financial decision making and flow of money.** The lack of clear guidelines in terms of decision making, approval, and procedures for the flow of funds for LGU laboratory network activities was mentioned by some regional teams as a barrier to their capacity to support the needs of the laboratory network.

- **Specimen transport system.** Gaps in the processes were mentioned, starting with the collection, storage, packaging, referral, and transport of specimens. Financing the needs and implementation of the system is another issue.

- **Relatively low test utilization.** Several regional coordinators thought that Xpert testing is underutilized because of the issues and problems described previously particularly the poor accessibility of the laboratories.

- **Information management.** The issues focused particularly on recording difficulties, delayed reporting, and inadequate use of ITIS. Most RTDLs have access to ITIS but are unable to fully use its functions because of connectivity problems, inadequate staff time for encoding tasks, and lack of access to computers.

- **Quality assurance.** The focus of the discussions is on the weak organizational and individual capacities to manage EQA activities, providing technical support to the peripheral laboratory workers, and the lack of an EQA scheme for the RDTs, particularly Xpert.

Strategic Options

Participants worked in groups to explore various options that would address their respective regions' priority challenges in RTDL expansion and for improving EQA implementation. For this report, the workshop outputs were grouped as planning, operational, and capital/infrastructure strategies.

Other Discussions

The NTRL presented a modified set of roles and responsibilities for the regional and provincial NTP teams as leaders and managers of the laboratory network. The NTRL also presented a description of the leadership functions and practices that the coordinators can adopt to befit their new roles. In addition, the regional coordinators discussed emerging issues regarding the interpretation of conflicting results of repeated Xpert testing among some patients; however, the issues remain unresolved.

ACTION PLANNING

Participants worked in their respective groups to come up with strategies and activities based on their objectives to address the priority challenges. The "draft" list of activities will be presented and discussed further with stakeholders in their home offices and their provincial and LGU counterparts. Completion and finalization of the action plans will be done in their home offices.

Prioritization and Focusing

After a critical appraisal of the experiences and results of RTDL expansion and EQA performance, participants worked in groups to prioritize their respective challenges arising from the problem analysis. Each regional group used a standard matrix to objectively analyze and decide which problems to prioritize. The priorities will be the focus of the action plan's strategies and activities.

Development of Strategies and Activities

Participants formulated the list of strategies and activities that focused on the priority challenges. However, these outputs will remain as a draft until discussed, finalized, and approved by their supervisors and other stakeholders at the LGU level. As mentioned earlier, the groups' various strategies were grouped into planning, operational, and capital or infrastructure strategies; the activities were grouped according to the processes of RTDL expansion. The strategies and activities are expected to strengthen the laboratory systems, which will in turn help ensure the continuous, efficient, and effective provision of quality assured diagnostic services, as well as build the laboratory network's resiliency and capacity to adapt to the changing technical, social, political, and natural environment.

The planning strategies are listed in table 1. Participants aim to increase LGU political commitment and support, and broaden stakeholder participation in planning and decision making; these are expected to strengthen collaboration among the various sectors and organizations, particularly at the LGU and community levels, which will increase the availability of resources to support the laboratory services. Teams will build their capacity to decentralize and implement laboratory trainings, particularly for Xpert, in collaboration with the NTRL under the laboratory training decentralization scheme. Participants also aim to improve human resource management, particularly at the primary care level, given the staff shortages in the laboratories.

On the other hand, the operational strategies (table 2) aim to improve efficiencies in the establishment and operations of RTDL and to strengthen monitoring and supervision, as well as the site inspections before and during operations. These strategies will also help manage the high workload in some Xpert referral sites and increase the demand in other areas, particularly those with accessibility problems. Closely linked to the previous strategy is to strengthen the specimen referral and transport system, which will ensure the safe transport and testing of specimens. The regional teams also aim to help primary care facilities design flexible operations to adapt to the

shortages of laboratory staff. The participants also aim to improve capacities for laboratory information management and its use for program management.

Table 1. Planning strategies

Strategy	Components
Improve political commitment and support to RTDL expansion	• Conduct discussion forums and advocacy meetings • Increase LGU participation in all aspects of RTDL expansion and EQA implementation
Improve collaboration among stakeholders	• Increase collaboration of LGUs and other sectors' for Xpert implementation • Mobilize LGU and community resources for support
Increase stakeholder participation in planning and decision making	• LGU participation in planning and decision making • Rationalize plan for XP allocation and location based on workload and accessibility • Improve pre-allocation assessment of facilities • Improve zoning of laboratories
Strengthen capacity to decentralize training	• Build regional capacity to implement decentralized Xpert training • Improve selection of health workers to be trained • Utilize other modes of training widely other than formal workshops such as field mentoring
Human resource management	• Advocacy to LGUs and facility heads for staff hiring for laboratories and QA centers

Table 2. Operational strategies

Strategy	Components
Efficiency improvement	• Improve coordination and procedures for machine delivery, installation, and maintenance • Establish regional supply management system to ensure adequate and uninterrupted supply • Improve system for management of laboratory waste, particularly disposal of Xpert cartridges
Monitoring and supervision	• Build skills in monitoring and supervision • Improve capacity to perform EQA activities, including on-Site visits • Develop guidelines for RTDL monitoring and quality assurance
Inspections	• Build capacity to perform assessment functions: organize and train provincial teams, maintain a checklist • Develop system for regular maintenance visits or as part of the monitoring
Recording and reporting	• Enhance capacity to use ITIS • Strengthen capacity to manage, analyze, and use of laboratory and EQA data
Demand management	• Increase number of Xpert laboratories to improve accessibility to RDTs • Strengthen specimen referral and transport system • Conduct nformation campaign for public and private practitioners, patients, and other stakeholders to increase demand
Flexible operations	• Manage workload and operating schedules to accommodate facilities without trained Xpert operators

Finally, the capital/infrastructure strategies (table 3) were designed to address gaps in the facilities and infrastructure. These refer mainly to the facility renovations to meet the requirements for work areas and storage spaces, power supply, and communications capability (e.g., Internet access). These strategies will require huge amounts of resources and are closely linked to the planning strategies outlined previously.

Table 3. Infrastructure/capital strategies

Strategy	Components
Repairs, retrofits/upgrades, phased construction	• Renovate facilities to accommodate work and storage needs
Improve power supply	• Provide access to generators • Acquire better quality UPS units
Strengthen communications capability	• Provide portable wi-fi gadgets

ANNEX A. WORKSHOP AGENDA

REGIONAL PLANNING WORKSHOP FOR RAPID TB DIAGNOSTIC LABORATORY EXPANSION and EQA-DSSM ENHANCEMENT
(Batch 1: September 5–7, 2017; Batch 2: September 19–21, 2017)

Day 1	
08:00–08:30	Registration
08:30–09:00	Opening program
09:00–10:00	Presentation 1: Challenges in RTDL expansion Presentation 2: Assessment of the NTP laboratory network
10:00–12:00	Workshop 1: Situational analysis of the regional laboratory network
13:00–15:00	Continuation of workshop 1
15:00–17:00	Presentation of workshop 1 outputs

Day 2	
08:00–08:30	Review
08:30–09:00	Presentation 3: NTP expansion plan for RTDLs
09:00–14:00	Workshop 2: Action planning for the regional RDTL expansion
14:00–17:00	Presentation of workshop 2 outputs

Day 3	
08:00–08:30	Review
08:30–09:00	Presentation 4: EQA implementation in the Philippines
09:00–10:00	Workshop 3: Review and analysis of EQA implementation by region
10:00–12:00	Action planning to strengthen EQA implementation
13:00–15:00	Presentation: WS 3 outputs
15:30–16:30	Presentation: Roles and functions of NTP regional coordinators
16:30–17:00	Closing program

ANNEX B. SITUATIONAL ANALYSIS MATRIX

Source: NTRL

Province/city:		**Accomplished by:**	
Region:		**Designation:**	

SITUATIONAL ANALYSIS MATRIX

PART A. EPIDEMIOLOGIC DATA

1. Total population as of 2017:				
2. Total number of cities and municipalities:	City:		Municipality:	

	Type of health facility	**Total no.**
3. Total number of health facilities:	a. TMLs/Health centers	
	b. DOH retained hospitals	
	c. Government hospitals	
	d. Private hospitals	

	Year	**CNR**	**CDR**
4. Case notification rate (CNR) and case detection rate (CDR):	2012:		
	2013:		
	2014:		
	2015:		
	2016:		

	Year	**Total no. presumptive TB cases**	**Total no. MTB detected**	**Total no. rifampicin-resistant cases**
5. Total no. presumptive DS-TB/ DR-TB examined	2012:			
	2013:			
	2014:			
	2015:			
(Refer to NTP Report 1A)	2016:			
	Jan–June 2017:			

List of Functional Rapid TB Diagnostic Laboratories (RTDL) performing Xpert

Name of RTDL	**No. of catchment areas**	**Operating hours ***	**Schedule ***	**Date of last calibration**	**Average turnaround time ****	**Average error rate, 2017**	
						1st	**2nd**

* Operating hours and schedule (days) specific for Xpert

** Laboratory turnaround time: receipt of specimen until release of result

*** Average error rate: total errors encountered/total number of tests (first quarter and second quarter)

PART B. SCALE-UP PROCESS	
I. PLANNING	
1. List identified partners and stakeholders involved in the RTDL (Xpert) expansion and indicate roles and responsibilities in the expansion.	
2. Do you have any standard criteria utilized in prioritizing areas for expansion? If yes, kindly indicate.	
3. What are the challenges in coming up with a distribution list or site proposals for expansion?	
II. ADVOCACY	
1. Have you conducted advocacy activities (meetings, workshops, etc.) for expansion?	Yes or no
2. What are the challenges experienced in the conduct of advocacy?	
III. SITE ASSESSMENT	
1. What are the challenges in the submission of the on-site assessment checklist?	
2. What are the issues and concerns concerning facility/site readiness? a. Continuous power supply b. Biosafety c. Security d. Designated space e. Storage of cartridges	
3. What are the activities done to address issues and concerns on facility/site readiness?	
4. What are the issues and concerns in selecting staff that will perform Xpert?	
5. Staff database (per laboratory)	
Name of facility: Name of staff: Employment status (permanent/contractual): Other responsibilities: Date of training: Name of facility: Name of staff: Employment status (permanent/contractual): Other responsibilities: Date of training:	Name of facility: Name of staff: Employment status (permanent/contractual): Other responsibilities: Date of training: Name of facility: Name of staff: Employment status (permanent/contractual): Other responsibilities: Date of training:
IV. STAFF CAPACITY BUILDING	
1. Do all trained staff perform Xpert?	Yes or no
2. What are the reasons why trained staff is not performing Xpert?	
3. How did you address existing RTDL with no trained staff?	
V. MACHINE DELIVERY & INSTALLATION	
1. What are the issues and concerns regarding delivery and installation of machines?	
2. What are the activities done to address issues and concerns on machine delivery and installation?	

VI.	**START OF OPERATIONS and ROUTINE IMPLEMENTATION**	
1.	Total no. RTDLs	Functional RTDLs:
		Non-functional RTDLs:
2.	What are the causes of the delayed start of operations?	
3.	What are the actions taken to address the cause of delay?	
4.	What are the national and/or regional policies disseminated and implemented in the city/ province?	
5.	What are local policies formulated and implemented specific for Xpert?	
6.	What is the communication flow in your city/province in reporting problems in machines?	
7.	No. sites with nonfunctional modules	
8.	What are the supplies provided by the following offices?	National office:
		Regional office:
		City/provincial office:
9.	Have you experienced stock-outs? If yes, specify what item/s.	
10.	What are the policies and current practices on waste management? i.e., cartridge disposal	
11.	Is there an existing specimen referral system?	
12.	How are specimens being transported to RTDLs?	
13.	How are results being relayed to the referring health facilities?	
14.	Do all RTDLs have access to ITIS? If no, how many labs have no access?	
15.	FOR REGIONS WITH GXALERT: What are the benefits experienced in using GXAlert?	
16.	What are causes of delay in submission of NTP reports?	
VII.	**MONITORING, SUPERVISION, and EVALUATION**	
1.	Do you conduct monitoring visits specifically for RTDLs? If yes, how often?	
2.	What do you think should be the role of quality assurance centers in EQA for Xpert?	

ANNEX C. PROBLEM PRIORITIZATION MATRIX

Source: NTRL

	Problem 1	Problem 2	Problem 3	Problem 4
• **Frequency of the problem:** 1 = rare; 3 = most frequent • **Importance of the problem:** 1 = least important; 3 = most important • **Feasibility to solve the problem:** 1 = difficult; 3 = easy				
• **Capacity to address the problem:** 1 = regular help needed; 3 = capable • **Time to implement:** 1 = the most time; 3 = the least time • **Cost to implement:** 1 = the most cost; 3 = the least cost				

ANNEX D. DRAFT REGIONAL RAPID TB DIAGNOSTIC LABORATORIES EXPANSION PLANS

NCR Goal: Efficiently and effectively manage the RTDL expansion to all health facilities in NCR by 2020

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Identify and have a list of facilities for: a. Omni machine b. 4-placer machine 2. Establish proper waste management (policies) 3. Strengthen referral system and sputum transport mechanism	• Identification of sites based on workload of facility per day (544/100,000) • LGU to have a proper waste disposal mechanism (either private / in-house garbage collector) • LGU to create and update zoning and identify nearest RTDL for referral in case of malfunction of GX machine	2017	LGU (w/RO)
Advocacy	1. Present to LGUs, including CHOs and chief of hospitals, expansion of RTDL 2. Ensure availability of staff to conduct GX testing	• Conduct of meetings with LGUs and hospitals • LGU coordinators (w/RO) to lobby to CHO and present the number of staff needed vs. health centers for possible hiring • Regular maintenance of equipment (air-conditioning)	2017	RO, LGU
Site assessment	1. Properly fill out the on-site evaluation checklist 2. Ensure that all the criteria set for an RTDL is met	• Orientation of LGU coordinator on accomplishment of the checklist	2017–2018	RO
Staff capacity building	1. Ensure that all staff of identified facilities have undergone training	• Decentralization of training • Formulation of training design • Training-of-trainers (TOT) for regional facilitators • Conduct of Xpert MTB/RIF assay per LGU	2017–2018	CO, NTRL, RO, LGU
Machine delivery and installation	1. Ensure on-time installation of machines	• Coordination with Macare for the schedule of delivery and installation • Dissemination and provision of schedule of delivery and installation: NTRL to RO, RO to NTRL	2018	NTRL RO
Start of operation and routine implementation	1. Ensure machines are regularly calibrated and maintained	• Coordinate with Macare for calibration or capacitate RTDL staff on calibration of GX machines. • Buffer stock of modules		LGU NTRL Macare
	1. Ensure on-time submission of reports through ITIS	• Conduct of orientation on use of ITIS lab module to all MTs • Provision of pocket w-ifi to all facilities		

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
	• Ensure adequate laboratory supplies (no stock-outs)	• Regular conduct of inventory		
	1. Ensure enough space or storage for lab supplies (stockroom)	• Establish supply management system/flow of supply • Renovation or construction of warehouse		NTRL RO and LGU
Monitoring, supervision and evaluation	1. Identify the roles and responsibilities of local, regional, and national levels 2. Address immediately issues and concerns encountered during implementation	• Formulation of guidelines on implementation of RTDL expansion • Identification of Macare point person • Regular meeting and communication of RTDL staff and LGU coordinator • Schedule of monitoring visit per month. • Conduct of program implementation review and DQC		NTRL LGU RO

Region I/Ilocos Region

Region I goal: To establish and operationalize all RFTDLs by 2018first –quarter of 2019

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Upgrade regional and provincial plan on RTDL expansion	• Conduct consultative meeting with program managers and other stakeholders (RCC) • Conduct RO 1 planning: o Finalization of allocation list o Drafting MOA between RO and LGU o Update specimen referral system (zoning) o Discuss logistics management of RTDL supplies including cartridges o Establish effective communication flow	Q3 2017 Q4 2017	• RCC, PCC, DILG, DepEd, NCIP, PhilHealth, AMHOP • RO, PHO, PDOHO

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
		o Draft monitoring and mentoring plan of address issues and concerns regarding RTDL operations		
Advocacy	1. Provide better information on RDTs	• Conduct advocacy in each RTDL proposed/selected	Q1 2018	RO, PHO, PDOHO
Site assessment	1. Ensure readiness of RTDLs, including provision of other requirements	• Table top pre-assessment of selected RTDLs • Conduct on-site assessment of RTDLs	Q4 2017	RO, PHO, PDOHO
Staff capacity building	1. Ensure all staff concerned (PHO, RTDL staff) are trained.	• Decentralization of RTDL training • Rollout of RTDL Training (PHO and RTDL)	Q1 2018 Q2 2018	NTRL, RO RO, PHO
Machine delivery and installation	1. Ensure readiness of all RTDL to receive Xpert machine	• Covered during on-site assessment	Q4 2018	
Start of operation and routine implementation	1. Ensure 100% operation of machines	• Request back-up machines to ensure uninterrupted service delivery, for at least 4 units • Devising mechanism on proper disposal of used cartridges	Q4 2017	NTP, NTRL, PBSP NTRL-RITM
Monitoring, supervision and evaluation	1. Strengthen conduct of monitoring and timely submission of reports	• Building capacity of PDOHO on supervising RTDLs (operations, logistics, etc.) • Building capacity of MTDPs in submission and validation of reports	Q3 2018 Q3 2018	RO, PHO, PDOHO

Region 2

R2 Goal: By the end of 2020, all patients should have access to point of care molecular and test as a primary diagnosis tool

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Identify partners for RTDL expansion 2. Set criteria for prioritization of site selection	• Consultative meeting with stakeholders • Capacity building of PHO/CHO in the expansion process	October 2017	RO
Advocacy	1. Ensure involvement/ commitment of LGU/ recipients/ stakeholders in the implementation of expansion	• Holding advocacy meetings/activities through lab	October 2017–Q1 2018	PHO/ RO/ CHO
Site assessment	1. Assess readiness of facility 2. Identify issues	• On-site assessment using checklist • Discussion of assessment results to provide feedback/recommendations	October 2017 onward	PHO/ CHO/ DMO
Staff capacity building	1. Set criteria for identification of staff to be trained 2. Enhance capacity of RO/PHO in the decentralization of training	• Identifying core team per province for screening process • Making requests for training/ orientation	October 2017 (ASAP)	PHO/ CHO/ DMO
Machine delivery and installation	1. Determine date or delivery and installation 2. Ensure readiness of facility in preparation for delivery	• Coordinating with NTRL and RTDL / PHO regarding schedule of delivery and installation		RO/ NTRL/ RTDL
Start of operation and routine implementation	1. Enhance referral/ transport of specimen	• Identifying zoning of catchment areas • Conducting meeting to disseminate zoning and to demonstrate proper packaging and transport of specimen	October 2017 as need arises	RO/PHO
Monitoring, supervision and evaluation	1. Improve system on MSE	• Developing interim guidelines on MSE for RTDLs • Building capacity of RO/ PHO on MSE • Development of standard monitoring tool	ASAP	RO/NTRL

Cordillera Administrative Region (CAR)

CAR RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Ensure that all identified stakeholders are involved in the planning.	• Conduct regional Phil-STEP planning and validation with all stakeholders • Fourth quarter RCC meeting • Identify counterpart of LGU in manpower	• September 12–13, 2017 (all provinces) • October 2017—Apayao • November 23, 2017—regional	NTP regional coordinator
Advocacy	1. Ensure that all stakeholders are informed of the plan expansion of RTDL	• Conducting regional Phil-STEP planning and validation with all stakeholders • PHB meeting • MLB meeting • Counterpart of LGU manpower • Lobby generator	Fourth quarter 2017–first quarter 2018	• NTP regional coordinator • DMO V • DMO IV • Provincial and municipal NTP coordinator
Site assessment	1. Ensure that stakeholders are aware of the on-site assessment checklist and the processes and procedures involved in the selection of RTDLs	• Provision of assessment checklist to different provinces/municipalities • Conduct on-site assessment • Submission of filled-in assessment form	• September and October 2017 • Third and fourth quarters	Regional, provincial, and municipal NTP coordinator
Staff capacity building	1. Train core of trainers in the conduct RTDL roll-out training 1. Ensure that committed and hardworking RTDL operator/analyst are trained and equipped before its operation	• Regional training for core-trainers • Rollout of training • Identification of targeted no. of patients per site	• First quarter 2018 • Second and third quarters 2018	• Regional, municipal, and provincial NTP coordinator • City health officer (NTP coordinator) • MT/nurse coordinator
Machine delivery and installation	1. Ensure RTDL provides that Xpert sites are ready to accept the machine about to be delivered	• Close coordination with NTRL and NTP MO • Ensure availability and delivery of machine	• Fourth quarter 2017 to first quarter 2018	Regional and provincial MT/nurse coordinator
Start of operation and routine implementation	1. Ensure that SOG in the operations of RTDL are widely disseminated and	• Dissemination of the regional SOG • Circulation of regional and	• Fourth quarter 2017-coordination	• Regional and provincial NTP coordinator

CAR RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
	that national policies are circulated to the different health facilities	national policies to the different health facilities	• First quarter 2018	• Regional provincial with MT/nurse coordinator • DMOs
Monitoring, supervision, and evaluation	1. Ensure conduct in monitoring and mentoring of all RTDLs and DOTS facilities	• Monitoring and mentoring • Semiannual DQC • Semiannual PMDT meeting	• Monitoring done all year round • DQC—October 2017 and (2) for 2018 • PMDT meeting—October 26, 2017 and (2) for 2018	• Regional, provincial, and city NTP coordinator • CDOH and PDOH (DMOs)

Region 3

R3 RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Identify other potential stakeholders & partners for expansion 2. Identify sites for expansion 3. Prepare expansion sites by establishing functional systems (structure, manpower, and logistics) 4. Create MSE team 5. Institutionalize 6. Identify potential problems as to operationalization of sites	• MLGP meeting/MOA signing • Communicable disease summit	Q4 2017 Q1 2018	RO 3 / PHO
Advocacy	1. Advocate policies on the implementation and utilization of GX 2. Disseminate resource map 3. Encourage LGU initiative and ownership (CLEXA)	• CLEXA • Advocacy activities per municipality	Q1 2018 Q1–Q4 2018	DMO/PHO/ MHO/ CHO
Site assessment	4. Provide finalized checklist for expansion 5. Do necessary preparation/ orientation on readiness of site	• Consultative meeting with identified expansion sites • On-site visit (DMOs and PHO)	Q4 2017	RO-3 / PHO
Staff capacity building	1. Ensure 100% training or on-the-job training (OJT) of all GX staff 2. Building capacity of alternate staff	• TOT of pool of trainers on GX (for PHO and existing GX sites per province) • OJT/mentoring of alternate staff		NTRL/ PHO/ existing GX sites
Machine delivery and installation	1. Ensure proper coordination with NTRL 2. Confirm exact date of delivery and installation	• Installation proper • Confirm availability of staff to receive the machine/accountability		
Start of operation and routine implementation	1. Ensure implementations of manual of procedures 2. Adopt national/regional policies to local policies (e.g., waste management) 3. Ensure availability of troubleshooting hotlines 4. Achieve 100% functionality of referral system and specimen transport mechanism	• On-site visit		
Monitoring, supervision, and evaluation	1. Engage monitoring team for regular monitoring 2. Ensure 100% utilization of GX machine	MSE	Quarterly	CHO/PHO/ MHO

Region 4-A

R4-A Goal: By 2022, all public health facilities and selected private health facilities are implementing a molecular RDT for TB.

Problem	Objectives	Activities	Timeline	Persons responsible
Underutilization of Xpert	1. Increase utilization of Xpert (public and private HF)	• Increasing utilization of Xpert (public and private HF)	2018	RO, PFO, and other development partners
Weak referral from public and private HF	1. Increase accessibility availability and affordability of Xpert services	• Indicator: Increase in the # of participating public and private HF	2018	RO, PHO, and other development partners
		• Establishment of 50 priority Xpert sites Indicators: no. priority Xpert sites established and no. priority Xpert sites functional	2018–2019	
	1. Expand regional supplies management unit to LGU	• Training on supplies management for LGUs	2018–2019	NTP NTRL
	1. Establish a functional specimen referral and transport system by 2020	• Outsourcing courier for specimen transport • Provision of sputum transport box	2018	RO
		Indicator: Increase in the number of diagnosed cases (TB) tested with GXpert		
PHO with limited capacity for Xpert / RTDL monitoring and evaluation	1. Adapt new policies on M&E of GXpert services in the entire region	• Dissemination forum: Indicator: No. policies adopted by the region disseminated and implemented among GX sites	2019	NTP NTRL
		• M&E in priority areas Indicators: no. priority sites monitored, no. tests generated by GX, and no. errors per device	2019	RO PHO
	1. Adopt a training program on Xpert by 2018	• Developing pool of trainers from PHO/ CHO • Training of ILHZ point person on Xpert operation • Training of LGUs (in priority areas) on Xpert operation	2018 2018–2020	RO, NTRL RO, PHO, ILHZ RO, PHO
Poor data analysis and utilization	1. Develop the capacity of the RO and PHO in data management, analysis and info utilization for planning and decision-making.	• Training on using data management info for planning and decision making Indicators: no. reports submitted, no. decisions made based on the analyzed data	2018	NTP NTRL

Region 4-B

R4-B Goal: By the end of 2020, 100% of RTDL expansion in MiMaRoPa (Oriental/Occidental Mindoro, Marinduque, Romblon, Palawan) health facilities was delivered and functional.

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Identify sites for RTDL expansion	• Coordination with NTP Coordinator and LGU	September 2017	RO
Advocacy	1. Conduct advocacy to the PHO, LCE, LGU	• Meeting with PHO, LCE, and LGU	October 2017	RO, PHO
Site assessment	1. Provide technical assistance on site assessment	• Onsite assessment	Q4 2017	RO, PHO
Staff capacity building	1. Provide, designate staff for RTDL	• Training for identified staff	Q2 2018	NTRL; provision of staff—LGU
Machine delivery and installation	1. Follow up on delivery and installation of machine	• Delivery and installation of machine (Macare)	Q3 2018	Macare
Start of operation and routine implementation	1. Provide technical assistance for the awareness of the community and referrals from physicians	• Launching of RTDL • Provision of IEC materials	1 month after installation	• PHO, LGU, and All partners • RO
Monitoring, supervision, and evaluation	1. Conduct technical assistance on monitoring and evaluation	• DQC Monitoring	Semiannual	NTP, PBSP, NTRL, RO, PHO
		• Mentoring	Q1–Q4	RO, PHO

Region 5

R5 RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Develop a plan on the implementation of the RTDL expansion (provincial/city)	• Orientation of DMOs and PHOs on RTDL expansion • Orientation of LCEs o Importance of RTDL expansion o Assessment tool o How to address priority gaps (CamSur Prov, Masbate and Catanduanes) o MOA signing • Developing a plan (provincial/city) o Identify and prioritize RTDL site for expansion (omni or 4 placer)	October 24, 2017—during NTP coordinators meeting Q2 2018	RO-V NTP Team PHOs and DMOs
Advocacy	1. Increase awareness of the presence of RTDL to all private & public practitioners & other stakeholders to get their commitment & support on RTDL expansion	• Advocacy meetings	Q2 2018	PHO/RHU
Site assessment	1. Ensure all sites are ready	• On-site assessment validation	Q2 2018	PHO/DMO
Staff capacity building	1. Ensure that all identified GX staffs are trained	• Identification of staff for training • Organization of pool of trainers at regional level • Development of a training plan	Q3 2018	RO-V / NTRL PHO
Machine delivery and installation	1. Ensure readiness of the HF to accept the machine	• Informing the receiving HF of delivery and installation of the machine o Flow of communication: RO-V to PHO to HF HF to PHO to RO-V	Q3 2018	RHO/PHO/HF
Start of operation and routine implementation	1. Ensure all RTDLs are functional and accessible	• Monitoring of the operation; plans/policies	Q1 2018	RHO/PHO/RO-V
Monitoring, supervision, and evaluation	1. Ensure that all RTDLs are fully utilized	• Quarterly monitoring visit	Quarterly	RO-V/PHO/RHU

Region 6

R6 Goal: By 2020, 100% of health center and selected hospitals will be provided with POC molecular machine.

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Involve all identified stakeholders in addressing issues and concerns	• Orientation and updating of the PHO, CHO, LCEs, HR in the latest technology of detecting TB *Emphasize importance of sputum quality	Remaining quarter of 2017, WS 3 of PhilSTEP-1	RCC, RO, PHOs, CHOs, and other stakeholders
		• Policy making on waste management and specimen referral (implementing guideline) *Regional memo on site assessment (PHO/CHO)		
Advocacy	1. PHOs to advocate the expansion of the POC machines to all health centers	• Advocacy to LGU level on expansion of RTDL *Dovetailed with PhilSTEP WorkShop 2	Sept–Oct 2017	RO, PHO, CHO
Site assessment	1. Ensure readiness of the sites in compliance with the requirements in the checklist	• On-site assessment/ ocular inspection of the selected sites (RP/PHO/CHO)	Fourth quarter 2017	RO, PHO, CHO
Staff capacity building	1. Attend and pass the TOT on GX together with selected core trainers	• Request for TOT on GX to PHO/CHO staff (NTRL) • Training on GX to identified GX staff	Second quarter 2018	NTRL, RO
Machine delivery and installation	1. Ensure delivery and installation of the POC machine within the specified time	• Coordination and confirmation of the readiness of the site (NTRL/PBSP/DOH-CO/PHO/CHO)	Third quarter of 2018 onward	NTRL/PBSP
Start of operation and routine implementation	1. Address all obstacles and hindrances in starting the operation and during routine implementation	• Preliminary visit to the site in order to obtain problems encountered	Third quarter 2018 onward	RO, PHO, CHO, NTRL
Monitoring, supervision and evaluation	1. Ensure mentoring of staff during MSE	• Scheduled monitoring and mentoring with NTRL, PHO, CHO • Request for data analysis	Fourth quarter 2018 onward	RO, PHO, CHO

Region 7

R 7 Goal: By the end of 2020, region VII who have achieved 100% expansion on RTDL target and functionality.

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
RTDL expansion process		• Provincial partners stakeholders orientation on RTDL expansion • Output All partners and stakeholders oriented and provide commitment	Q1 2018	Regional NTP team
		• Provide TA to provincial partners in planning for RTDL expansion • Output: Provincial plans for RTDL		
		• Establish regional referral system and provincial referral system for GX (diagnosis and treatment)		
Develop supply management system for RTDL	1. Develop supply management system for RTDL	• Capacity development on supply management for region, province and LGUs with assistance of central office and partners. • Output: All levels trained	Q1 (region) Q2 (provinces and LGUs)	Regional NTP team NTRL/province partners
	1. Develop system on specimen transportation	• Meetings with PHO, Hospitals, LGUs and partners (transportation referral system)	Beginning Q1 2018	Regional NTP NTRL, partners
	1. Ensure capacity building for human resource for RTDL	• Meeting on partners/ stakeholders, prov., LGUs and lobby additional HR (8 meetings) • Output: All Xpert partners trained staff	Beginning Q1 2018 onward	Regional PHO
	1. Ensure Xpert sites are following waste management and biosafety guidelines	• Orientation on waste management and biosafety • Output: Xpert sites adhering policies		
Advocacy	1. Employment of private sectors/partners and LGUs and province	• Meeting with private sector, partners, LGUs, and provinces • Output: Increased referrals from private sector • Provision of IEC materials • Output: Inc. GX sites	Starting Q1 2018	Regional, provincial NTP team
Site assessment	1. Ensure all potential GX sites	• Engagement of PHO in site assessment • Assessment of all potential sites	Starting Q4 2017	

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
	2. Assess after selection	• Sharing with PHO number of allocated sites (no. potential sites assessed vs. target) • No. potential sites ready for installation		
Staff capacity building	1. Develop capacity to decentralize training on GX 2. Ensure regional, provincial, and LGU staff are trained	• TOT participants from provinces • Training of operators • Output: All levels trained	National TOT Q4 2017; regional TOT Q1 2018; implementers (starting Q1)	NTRL and partner region, NTRL, partner, region PHO, partners
Machine delivery and installation	1. Ensure machine delivery on time with complete equipment and supplies	• Communication with NTRL and PBSP on availability and delivery and installation • (All machines, equipment and supplies are delivered to GX sites completely on time and with proper documentation) • Coordination with PHO on delivery of machines, equipment and supplies • Monitoring delivery and installation of machines (% accomplished vs. target)	Starting Q1 2018	Regional province
Start of operation and routine implementation	1. Identify challenges/successes is operation	• Monitoring implementation and operation • On-site visits • Issues and problems identified, solutions discussed with provincial and LGUs	2017 for existing 2018 expansion	Region, province, LGUs
Monitoring, supervision, and evaluation	1. Monitor, supervise, and evaluate implementation of plan for RTDL expansion	• On-site visits (issues and problems identified, solutions discussed with province and LGUs)	2017 for existing 2018 expansion	Region, province, LGUs
	1. Monitor, supervise, and evaluate the operation of GX site	• Review of reports and records (provide feedback)	Starting 2018	Region to province Province to GX sites

Region 8

R8 RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Assist PHO/CHO in the expansion of RTDLs	• Orientation to PHO and LGU on the expansion of RTDL *Referral and specimen *On-site checklist *Memo and policy	Q2 2018	RO/PHO coordinators
Advocacy	1. Create awareness of LCEs on the expansion	• Communication with LCEs on new technology • Courtesy call/feedback to the PHO/CHO on expansion of RTDL • Facilitation of MOU	Q2 2018	RO coordinators
Site assessment	• Provide technical assistance on the site readiness	• On-site visits to expansion areas	Q3–Q4 2018	RO/PHO
Staff capacity building	1. Build capacity of PHO/LGU MTs 2. Build capacity of PHOs, DMOs, CHOc	• TOT on GXpert RIF/assay to RO/PHO • Orientation on MSE to RO/PHO/DMOs • Training on Xpert for MTs of expansion areas	Q1–Q4 2018	NTRL
Machine delivery and installation	• Ensure machine delivery and installation	• Communication with LGU on status of delivery and installation	Q4 2018	NTRL/RO
Start of operation and routine implementation	1 Ensure functionality of RTDL	• Mentoring of MTs on the start of operation	Q4 2018	RO/PHO
Monitoring, supervision and evaluation	1. Strengthen monitoring activity	• PHO/CHO/DMOs, regular monitoring visits • Feedback of monitoring results	Q4 2018	RO/PHO

Region 9

R9 Goal: By year 2020, all health facilities in Zamboanga peninsula will have a functional rapid TB diagnostic laboratory.

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Select and prioritize sites for RTDL expansion based on strategic location, laboratory	• Provision of feedback on RTDL expansion workshop during flag ceremony in office • Orientation of RTDL expansion during the regular	Sept 25, 2017 Oct 2017	RO 9 medical technologist coordinator

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
	workload, and commitment	Regional Coordinating Committee (RCC) meeting • Orientation of development management officers regarding the RTDL expansion during their quarterly DMO meeting. • Orientation and planning workshop on RTDL expansion for the provincial/city coordinators during regional NTO PIR	Nov 2017 March 2018	
Advocacy	1. Conduct advocacy on RTDL expansion by means of meetings, TV appearances, radio plugging, and on-site visit	• Conducting advocacy, including discussion on the RTDL expansion and logistic support during the Regional PhilSTEP1 Final Workshop. • Providing information during TV/radio interview on RTDL expansion • Conducting advocacy during monitoring visits to LCEs and MHO	• Sept 26–28, 2017 • March 2018 (World TB Day) • Sept 2017–Dec 2018	
Site assessment	1. Submit the completed and approved assessment checklist on time	• Orientation of coordinators from the province and city on RTDL assessment checklist form during orientation and workshop on RTDL expansion • Delegation to provincial and city coordinator in assessing sites using prescriber checklist	March 2018 March 2018–2020	RO 9 medical technologist coordinator
Staff capacity building	1. Build capacity of a regional core of trainers on Xpert MTB RIF assay test	• Attendance of regional medical technician coordinator to attend the TOT on MTB RIF assay • Identifying qualified personnel to undergo TOT on Xpert MTB RIF assay	November 13–17, 2017—CTRL	NTRL and SIAPS
	1. Select and train qualified RHU/hospital personnel on MTB RIF assay test	• Creation of personnel list for training by batches and year in coordination with the province/city and NTRL	2018—25 sites 2019—30 sites 2020—33 sites	Provincial/city coordinator
Machine delivery and installation	1. Ensure fast delivery and installation of machine in a shorter period of time	• Establishing good coordination from the National Office and partners • Establishing feedback mechanism on the status of delivery and installation between the facility, province, region, and national levels	2018—2020	RHU/hospital/ province/city/ region
Start of operation and routine implementation	1. Establish immediate operations and implementation of RTDL once site is ready	• Development of a regional memorandum on the immediate operation of RTDL		
Monitoring, supervision and evaluation	1. Establish good quality and effective MSE on RTDL	• Coordination with NTRL in the development of standardized monitoring tool for RTDL • Semiannual DQC and meetings • Quarterly monitoring to RTDL sites		

Region 10

R10 RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Improve the monitoring and validation of TAT and error rate within the region	• Consultative meeting with stakeholders and partners. • Discussion of monitoring schedule and challenges encountered. • Request for additional manpower • Review & revision of job description • Regular meeting (update technical staff on new policy and guidelines on RTDL)	Quarterly First quarter 2018 First quarter 2018	Cluster head, regional MT coordinator, region, PHO RO - X
Advocacy	1. Present expansion to HUC, MHOs, and hospital	• Planning and orientation on HUC, INHO, hospital	Quarterly	PHO
Site assessment	1. Orient site assessment checklist to HUCs, PHOs, and RHUs	• Orientation • Request for technical assistance from NTRL • Orientation of regional coordinator; staff orient the provincial and local	First quarter 2018	RO - X
Staff capacity building	1. Build capacity of RTDL staff for HUCs, PHOs, and RHUs	• Request for TOT on Xpert • Request for NTRL structure on-the-job training for Xpert • Request for Xpert training for the alternate staff	First quarter 2018 First semester 2018	RO - X
Machine delivery and installation	1. Ensure prompt delivery and installation of RTDL	• Coordination with national level re: status of the installation • Follow-up and documentation of agreement on proposed date of installation	October 2017 First quarter 2018	RO - X
Start of operation and routine implementation	1. Improve laboratory information system on RTDL	• Request for technical assistance on troubleshooting of the ITIS	First quarter 2018	RO - X
Monitoring, supervision, and evaluation	1. Strengthen coordination RTDL activities	• Request for technical assistance for RTDL monitoring • Organization of consultative meeting • Scheduling on-site monitoring visit • Exit conference	First quarter 2018	RO - X

Region 11

R11 Goal: All health centers, government hospitals and selected private health facilities are providing quality Xpert services by 2020.

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Develop the provincial plan for Xpert expansion	• Orientation and planning workshop on the expansion for PHO, PHO TB team, and DMOs • Identification of sites for expansion	Nov–Dec 2017	NTRL, PO
Advocacy	1. Disseminate policies/ guidelines on the implementation of Xpert	• Orientation / forum for CHO/ MHO TB team • Orientation / forum for private partners	Q1 2018	NTRL PO
	1. Strengthen referral and transport system	• Development of implementation guidelines on referral and transport system		
Site assessment	1. Assess the readiness of the site basing on the assessment/ selection criteria	• On-site visit to identified areas for expansion	Q1 2018	PHO, RO
Staff capacity building	1. Build capacity of the identified regional/provincial coordinators for Xpert training	• Identification and endorsement of pool of trainers to NTRL • Training of trainers • Mentoring/supervision on Xpert • Development of training plan • Rollout of training to RHU and private partners	Q2 2018	NTRL
Machine delivery and installation	1. Ensure the delivery / installation of Xpert within schedule time	• Coordination of the delivery of the machine from national level and provincial to identified sites	Q3 2018	RO and PO
Start of operation and routine implementation	1. Promote utilization of Xpert in the catchment areas	• Informing the catchment areas about the availability of expected services • Announcement during LGU programs	Q3 2018	RO and PO
	1. Ensure the availability of supplies at all times	• Submission of quarterly and inventory supply reports • Regular communication between the NTRL and LGU service provider	Q4 2018 onward	RO and PO
Monitoring, supervision and evaluation	1. Monitor/provide supportive supervision in the implementation of the Xpert services	• Development of monitoring plan • Development of monitoring tool for Xpert • Analysis of data from reports • Integration of Xpert MSE during DSSM on-site monitoring • Incorporation of Xpert implementation to PMDT PIR	Quarterly	RO and PO

Region 12

R12 RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Strategize/capacitate and assist provincial team 2. Ensure that all systems are ready for the placement of GX machines	• Meeting with PHO, PDOHO, DMOs, and NTP core team • Attendance at LHB sessions • Tackling issues during consultative meetings (regional/RCC/PCC)	September 2017	Regional TB core team, PHO, PDOHO, DMOs, provincial TB core team
Advocacy	1. Intensify knowledge of partners and stakeholders the importance of GX machines as primary tool in the diagnosis of TB	• Engagement of provinces, cities, and municipalities by orientation during meetings especially during the RCC/PCC/multi-sector stakeholders meetings	September 2017	Regional TB core team, PHO, PDOHO, DMOs, provincial TB core team, RD, ARD
Site assessment	1. Prepare identified sites and ensure their readiness	• Development/enhancement of regional standard criteria or guidelines for installation of OMNI • Inspection of the site • Capacity building of PHO/LGU to monitor site	First quarter 2018	Regional TB core team
Staff capacity building	1. Develop a program to orient or train staff on the use of GX	• Decentralization • TOT rollout • MSE	Second quarter 2018	Regional TB core team
Machine delivery and installation	1. Ensure timely delivery of GX	• Coordination with NTRL • Assuring identified facilities of possible delay in delivery	Upon NTRL advice	Regional TB core team
Start of operation and routine implementation	1. Ensure sustainability and functionality of GX	• Provision of TA by RO to identified facility in crafting referral system (financing, transport mechanisms, zoning and reporting schemes)	Third and fourth quarter 2018	Regional TB core team
Monitoring, supervision and evaluation	1. Engage LGU and PHO in the conduct of MSE	• RP giving TA to PHO and LGU on how to conduct MSE • Development by RO/PHO of monitoring tool • Anticipating readiness of LGU, PHO, RO for possible rollout of GX	Second quarter 2018	Regional TB core team, NTRL, KMITS

Region 13/CARAGA Region

Caraga Goal: By the end of 2020, 92 RTDLs functional

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Identify and prioritize RTDL expansion sites based on criteria	• Providing input during PMDT consultative meeting among provincial/city NTP coordinators • Orientation of coordinators on on-site assessment checklist • Creation of list for RTDLs expansions with consultations / coordinator / DMO	Fourth quarter 2017	Regional/provincial/ city coordinators/ DMO
	1. Strengthen transport mechanism of specimen	• Dissemination of the transport mechanism of specimen		Regional/provincial/ city coordinators/ DMO
Advocacy	1. Generate commitment and support from LGUs 2. Identify readiness of the facility	• RO/PHO/PDOHO conducting advocacy to LCEs/LGUs • Draft memorandum of understanding • Initial site assessment and providing technical assistance	First quarter 2018	Regional/ provincial/ city coordinators/ DMO
Site assessment	1. Assess preparedness of the site	• Identification / creation of assessment team (provincial/ city level) • On-site assessment using assessment tool	First quarter 2018	Regional / provincial / city coordinators / DMO
Staff capacity building	1. Building capacity for regional/ provincial and RHU level for RTDL implementation	• Identification of pool of trainers per province • Orientation for provincial/city coordinators • Training for RTDL technicians (decentralization) • Equipping CARAGA TB Reference Laboratory for training RTDL tech	Second quarter 2018	• Regional/ provincial/city coordinators • STC RTDLs technician • CTRL staff/STC RTDL technicians
Start of operation and routine implementation	1. Ensure uninterrupted supply of logistics	• Procurement/distribution of logistic requirements • Cartridges – stakeholders omni machine / 4-placer machine - PBSP • PPEs – DOH CO and DOH RO 13 • Forms – PHO and RHU • Disinfectants - LGUs	Second quarter 2018	Stakeholders / DOH/ PBSP/ PHO / LGU

Autonomous Region of Muslim Mindanao/ARMM

ARMM Goal: By the end of 2020, the laboratory network system of DOH–ARMM will be strengthened.

RTDL expansion process	Objectives	Activities	Timeline	Persons responsible
Planning	1. Identify & build capacity of a point person per province who will assist in RTDL expansion	• Dovetailing to regional consultative meeting a. Updates on RTDL expansion b. ARMM Situational analysis c. Regional target on case finding	Fourth quarter 2017	RO, PO, PBSP
	1. Develop a memo from DOH-ARMM secretary for the need of RTDL expansion	• Laboratory performance review • Conduct meeting among regional NTP core team	First quarter 2017 Second quarter 2017	RO and PO regional office
Advocacy	1. Engage provincial health officers to RTDL expansion	• Dovetail to regional consultative meeting • Provincial level orientation with provincial health officers • Create a team that will advocate RTDL expansion to LGU	Fourth quarter 2017 Second to third quarter 2018	PO, IMPACT, RO, MTPO, and PBSP
Site assessment	1. Build capacity of ROs and POs on usage or content of assessment checklist	• Dovetail to regional laboratory performance review	First quarter of 2018	RO and PO
Staff capacity building	1. Build capacity of trained RMTs for future decentralization of trainings (GX use) 2. Build capacity of alternate staff for future RTDL expansion	• Training of trainers • Provincial laboratory orientation for GXpert operator alternates	To be determined	NTRL, RO, PO, PBSP, and IMPACT
Machine delivery and installation	1. Ensure readiness of RTDL site	• Revisit identified sites prior to machine delivery	To be determined	RO and PO
Start of operation and routine implementation	1. Ensure 100% implementation of the NTP manual of procedures 2. Ensure good referral and specimen transport system 3. Ensure availability of RTDL supplies	• Orientation on implementation of SOPs based from the NTP MOP	Fourth quarter 2018	RO and PO
Monitoring, supervision, and evaluation	1. Engagement of PHOs and ROs in the MSE	• Create MSE team in the RO and PHO • Create monitoring tool/ checklist • Conduct quarterly consultative meeting	Second quarter 2018	RO and PO
	1. Develop quality assurance system for Xpert	• Panel testing		

ANNEX E. LIST OF WORKSHOP PARTICIPANTS

Batch 1: September 4–8, 2017			
Name	Gender	Position/Title Designation	Place of Assignment
1. Esmeralda M. Sales	F	Med Tech II / Provincial NTP MT Coordinator	PHO – Bataan
2. Lilian Rose Contessa T. Encisa	F	Regional NTP MT Coordinator	DOH – RO V
3. Juliana D. Ditan	F	Med Tech II	PHO – Masbate
4. Clint Gil S. Ildefonso	M	SHPO / Regional NTP Coordinator	DOH – CAR
5. Robinson A. Canson	M	Med Tech IV	ROH – RO VI
6. Adrian Hort D. Ramos	M	NTP Technical Staff	DOH – RO VI
7. Mary Jane S. Sabarillo	F	Med Tech II	PHO – Iloilo
8. Rachel Ashley P. Oriarte	F	NTP Technical Staff	DOH – RO II
9. Ana Jane M. Pagalilauan	F	Med Tech	PHO – Isabela
10. Aida Ruby D. Jeremias	F	Nurse V	DOH – RO V
11. Jeanelyn R. Taguinod	F	SHPO / Regional NTP MT Coordinator	DOH – RO II
12. Jocelyn R. Mapagdalita	F	Med Tech II	DOH – MiMaRoPa
13. Maria Cecilia B. Hernandez	F	Med Tech II	OMPH – Mamburao
14. Maria Luisa Canda-Baliao	F	Regional NTP Medical Coordinator	DOH – RO XII
15. Cecilia E. Dalisay	F	Med Tech II	IPHO – N. Cotabato
16. Cresilda T. Cases	F	Med Tech II	DOH – RO VII
17. Joseph Marben D. Gealon	M	Med Tech	PHO – Bukidnon
18. Emmanuelita R. Barrera	F	Nurse V	DOH – RO X
19. Perla N. Sanchez	F	Med Tech IV	DOH – RO X
20. Janet T. Ramos	F	Med Tech II	PHO – Cebu
21. Adelaida K. Abduladsis	F	Med Tech IV	DOH – RO XII
22. Catherine D. Toledo	F	Med Tech II	DOH – RO III
23. Cindy L. Canlas	F	Med Officer III	DOH – RO III
24. Sheena Angela R. dela Cruz	F	Med Tech II	DOH – NCRO
25. Girlie C. de Guzman	F	Med Tech IV	Marikina – NCR
26. Lynette P. Adorio-Arce	F	Tech Advisor	MSH – SIAPS
27. Joline C. Ariza	F	Med Tech II	PHO – Leyte
28. Glendine T. Porteza	F	Med Officer IV	DOH – RO VIII
29. Flor S. Jimenez	F	SHPO	DOH – RO VIII
30. Leveriza P. Coprada	F	Account Officer	NTPMO
31. Sherry Anne Marrero	F	Med Tech I	BHD – HSO
32. Francisco T. Vidal	M	Admin Aide VI	NTRL – RITM
33. Eddie V. Sistoso Jr.	M	Science Research Specialist (SRS) II	NTRL – RITM
34. Anna Marie Celina G. Garfin	F	Med Specialist IV / NTP Manager	DOH – DPCB
35. Arthur B. Lagos	M	Sr. Tech Advisor	MSH – SIAPS
36. Raiza Carmella C. Adao	F	SRS I	NTRL – RITM
37. Maria Althea Sabrina L. Perez	F	SRS II	NTRL – RITM
38. Anna Marie Rex	F	Admin Officer II	NTRL – RITM
39. Ramon P. Basilio	M	Med Specialist IV	NTRL – RITM
40. Ma. Cecilia G. Ama	F	Med Specialist III	NTRL – RITM
41. Ian Carlo D. Bustamante	M	SRS I	NTRL – RITM
42. Ronalyn Joy T. Armijo	F	SRS I	NTRL – RITM
43. Angela Carla J. de Ocampo	F	Bacteriologist I	NTRL – RITM
44. Artemio B. de Guzman	M	Admin Aide IV	NTRL – RITM
45. Ma. Cecilia Vanessa M. Serrano	F	SRS II	NTRL – RITM

Batch 2: September 18–22, 2017			
Name	Gender	Position/Title Designation	Place of Assignment
1. Joselito L. Cua	M	Med Tech IV	DOH – RO IX
2. Erna T. Cravajal	F	Med Tech IV	DOH – RO XIII
3. Napoleon Z. Montejo	M	Med Tech III	PHO – Agusan del Sur
4. Arlene M. Serrano	F	Nurse V	DOH – RO XIII
5. Rio Lorina A. Oriel	F	Med Tech II	PHO – Laguna
6. Maria Elena G. Castillo-Gonzales	F	Med Officer III	DOH – RO IV-A
7. Myla A. Velgado	F	Med Tech II	DOH – RO IV-A
8. Hansel V. Amoguis	F	Med Officer	DOH – RO XI
9. Sonia T. Dapitanon	F	Med Tech	DOH – RO XI
10. Ruby Rosal	F	Med Tech	PHO – Davao del Norte
11. Sittie Sara K. Dumo	F	Regional MT Coordinator	DOH – ARMM
12. Anam H. Nuh	M	Provincial MT Coordinator	IPHO – Sulu
13. Tito F. Rodrigo	M	Project Management Specialist	USAID
14. Leveriza P. Coprada	F	Account Officer	NTPMO
15. Jones Dizon	M	M&E Advisor	MSH
16. Lynette P. Adorio-Arce	F	Tech Advisor	MSH – SIAPS
17. Mauro A. Marzan	M	Med Tech IV	DOH – RO I
18. Christopher T. Romano	M	Lab Coordinator	PBSP
19. Helen J. Hipolito	F	Project Development Specialist	USAID
20. Arthur B. Lagos	M	Sr. Tech Advisor	MSH – SIAPS
21. Anna Marie Rex	F	Admin Officer II	NTRL – RITM
22. Ramon P. Basilio	M	Med Specialist IV	NTRL – RITM
23. Ian Carlo D. Bustamante	M	SRS I	NTRL – RITM
24. Ma. Cecilia G. Ama	F	Med Specialist III	NTRL – RITM
25. Francisco T. Vidal	M	Admin Aide VI	NTRL – RITM
26. Ronalyn Joy T. Armijo	F	SRS I	NTRL – RITM
27. Raiza Carmella C. Adao	F	SRS I	NTRL – RITM
28. Ma. Cecilia Vanessa M. Serrano	F	SRS II	NTRL – RITM
29. Maria Althea Sabrina L. Perez	F	SRS II	NTRL – RITM
30. Eddie V. Sistoso Jr.	M	SRS II	NTRL – RITM

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4) Basilio RP. NTP plan for RTDL expansion. National TB Reference Laboratory, Research Institute of Tropical Medicine DOH; Philippines, 2017.

5) Ama CG, Perez ASL. Leadership and management roles and functions of the Regional NTP Coordinators. National TB Reference Laboratory, Research Institute of Tropical Medicine DOH; Philippines, 2017.