



RESEARCH MONOGRAPH

of the Updated 2010-2016
Philippine Plan of Action
to Control Tuberculosis



RESEARCH MONOGRAPH OF THE UPDATED 2010-2016 PHILIPPINE PLAN OF ACTION TO FIGHT TUBERCULOSIS

Copyright 2014 Department of Health
All Rights Reserved.
First Printing, 2014.

An electronic copy of this publication may be downloaded at <http://www.doh.gov.ph/publication.html>

The mention (if any) of specific companies or of certain manufacturer's products does not imply that they are endorsed or recommended by the DOH in reference over others of a similar nature. Articles may be reproduced in full or in part for non-profit purposes without prior permission, provided credit is given to the Department of Health.

Cover design by Michael P. De Guzman



Department of Health
San Lazaro Compound, Rizal Avenue
Sta. Cruz, Manila, 1003 Philippines
Telephone No: (+632) 743-8301 to 23
Website: <http://www.doh.gov.ph>

DOH acknowledges the contribution of the following partners in the facilitation and development of this monograph:

- Lung Center of the Philippines – National Center for Pulmonary Research
- National TB Reference Laboratory (NTRL)
- Innovations and Multisectoral Partnerships to Achieve Control of Tuberculosis (IMPACT)
- Technical Assistance Support to Countries (TASC)
- The Global Fund to Fight Aids, Tuberculosis and Malaria (GFATM) through Philippine Business for Social Progress (PBSP)
- World Health Organization (WHO)

RESEARCH MONOGRAPH

of the Updated 2010-2016
Philippine Plan of Action
to Control Tuberculosis

Published by
Department of Health

Manila, Philippines
2014

FOREWORD

Public health workers rely heavily on policies and protocols to guide their work and ensure the quality of service delivery. Policies and protocols must be evidence-based to ensure their effectiveness and the efficiency by which they are carried out. For this reason, the generation of such evidence applicable to our local context is critical.

This monograph is an essential reference that will advise researchers on which research topics are relevant. By making this kind of information available, the likelihood of the generation of practical evidence to inform policy-makers and program manager increases.

Much effort was taken to ensure that the research topics contained in the monograph are the most relevant, that they contribute to the Kalusugang Pangkalahatan (KP) thrust, and that they are consistent with the updated 2010-2016 Philippine Plan of Action to Control TB (PhilPACT). Truly, this monograph should be in the list of essential references of researchers on Tuberculosis in the Philippines. I congratulate all those who were involved in its preparation.

Researchers and TB Control Program Managers are encouraged to use this research monograph as guidance in the selection of research topics to study or to support. Let us be partners in the fight against TB in the country.



JANETTE P. LORETO-GARIN, MD, MBA-H
Secretary of Health

ACRONYMS

ADR	Adverse Drug Reaction	DR-TB	Drug-Resistant Tuberculosis
AIPH	ARMM Investment Plan for Health	DST	Drug Susceptibility Test
AOP	Annual Operation Plan	EQA	External Quality Assurance
BHW	Barangay Health Worker	ETAP	Enhanced Transportation Allowance Package
BUB	Bottom-Up Budgeting	EPTB	Extra-pulmonary Tuberculosis
CBO	Community-Based Organization	FLD	First Line Drug
CIPH	City Investment Plan for Health	GFATM	The Global Fund to Fight AIDS, Malaria and Tuberculosis
CDR	Case Detection Rate	GOP	Government of the Philippines
CHT	Community Health Team	GX	GeneXpert
ComPCare	Community PMDT Care	HBC	High Burden Country
CUP	Comprehensive Unified Policy	HPDPB	Health Policy Development and Planning Bureau
CXR	Chest X-ray	HUC	Highly Urbanized City
DOH	Department of Health	ICRC	International Committee of the Red Cross
DOTS	Directly Observed Treatment, Short-Course	IMPACT	Innovations and Multisectoral Partnerships to Achieve Control of Tuberculosis
DRS	Drug Resistance Survey	INH	Isoniazid

ACRONYMS

IPH	Investment Plan for Health	PMDT	Programmatic Management of DR-TB
IPT	Isoniazid Preventive Therapy	PPD	Purified Protein Derivative Tuberculosis Skin Test
JPR	Joint Program Review	PPMD	Public Private Mix DOTS
LCP-NCPR	Lung Center of the Philippines-National Center for Pulmonary Research	PP	Public- Private
LGU	Local Government Unit	PPV/ NPV	Positive Predictive Value/ Negative Predictive Value
LTBI	Latent Tuberculosis Infection	RIT JATA	Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association
MDR-TB	Multi-Drug Resistant Tuberculosis	RHU	Rural Health Unit
NCC	National Coordinating Committee	SIAPS	Systems for Improved Access to Pharmaceuticals and Services
NTP	National Tuberculosis Control Program	SLD	Second Line Drug
NTRL	National Tuberculosis Reference Laboratory	TASC	Technical Assistance Support to Countries
PBG	Performance-Based Grant	TA	Technical Assistance
PhilPACT	Philippine Plan of Action to Control Tuberculosis	TB	Tuberculosis
PIPH	Province-wide Investment Plan for Health	TSR	Treatment Success Rate
		WHO	World Health Organization

SUMMARY OF THE RESEARCH AGENDA

	Research Title	PhilPACT Strategy/ Performance Target	Research TYPE*						YEAR			Agencies	
			BS	ES	FS	OR	S	O	2014	2015	2016		
1	Evaluation of Investment Plan for Health and AOP as one of the sustainable financing models for TB Control	S1.1										✓	IMPACT
2	An Analysis of the Impact of PBGs on Local TB Program Implementation	S1.3										✓	IMPACT
3	Assessment of Functionality of PP Coordinating Bodies at the national, regional, and provincial/ city levels	S1.5										✓	IMPACT
4	2015 National TB Prevalence Survey	S2.1								✓			GOP HPDP IMPACT TASC SIAPS
5	2016 Drug Resistance Survey	S2.1										✓	NTRL
6	Subnational TB mortality study	S2.1										✓	WHO
7	Gaps in TB Mortality Reporting	S2.1										✓	WHO
8	An Assessment of the Philippine NTP Information System: looking at the whole NTP information system in the systems perspective	S2.1							✓				SIAPS

	Research Title	PhilPACT Strategy/ Performance Target	Research TYPE*						YEAR			Agencies
			BS	ES	FS	OR	S	O	2014	2015	2016	
9	Assessment of the referral system for TB	S3.1									✓	IMPACT RIT JATA
10	Study of factors contributing to PPMD sustainability	S3.2								✓		IMPACT
11	Effectiveness of behavior change strategies	S4.1								✓		IMPACT
12	Assessment of various approaches to DOT	S4.1								✓		IMPACT
13	Effectiveness of incentives to CBOs/ CHTs/ BHWs	S4.3								✓		
14	Analysis of risk factors for drug resistance in new TB cases	S5.1									✓	WHO
15	Analysis of reasons for delays of time and initial loss between TB diagnosis and detection of drug-resistance and time to initiating appropriate treatment	S5.1								✓		WHO
16	Evaluation of decentralization of MDR-TB patients in PMDT implementation.	S5.1								✓		GFATM TASC WHO LCP-NCPR
17	Drug Resistance among patients on self- administered treatment (SAT)	S5.1								✓		
18	Surveillance of Moxifloxacin and Pyrazinamide Resistance among TB patients in the Philippines	S5.1							✓			NTRL WHO
19	Evaluation of Reasons for Patients' Loss to Follow-up During MDRTB Treatment in the Philippines	S5.2							✓			TDF TASC IMPACT

	Research Title	PhilPACT Strategy/ Performance Target	Research TYPE*						YEAR			Agencies
			BS	ES	FS	OR	S	O	2014	2015	2016	
20	Pilot Testing and Evaluation of the Enhanced Transportation Allowance Package (ETAP) for MDR-TB patients	S5.2								✓		NTP LCP-NCPR GFATM TASC
21	Pilot testing of iDOTS	S5.2								✓		TASC GFATM
22	Pilot Testing and Evaluation of Community-Based PMDT Care Initiative (ComPCare)	S5.2								✓		NTP LCP-NCPR GFATM TASC
23	A Feasibility Study of the Effectiveness and Safety of the 9-Month Treatment Regimen for MDRTB in the Philippines	S5.2								✓		TASC GFATM WHO TASC LCP-NCPR NTRL
24	Feasibility, Safety, and Effectiveness of Bedaquiline in the Treatment of MDR-TB	S5.2								✓		TASC GFATM WHO
25	An Analysis of the Strategies for Improving Treatment Adherence of Patients with DR/ MDR-TB	S5.2							✓			

	Research Title	PhilPACT Strategy/ Performance Target	Research TYPE*						YEAR			Agencies
			BS	ES	FS	OR	S	O	2014	2015	2016	
36	GX in Children Study	S5.4								✓		IMPACT PPS
37	Evaluation of diagnostic algorithm for children	S5.4							✓			WHO PPS USAID NIH
38	Utilization of CXR and GX in Active Case Finding (TB Mass Screening) among inmates	S5.6							✓			ICRC IMPACT WHO
39	Assessment of the implementation of Xpert MTB/Rif	S6.3							✓			NTRL GF TASC
40	Evaluation of the impact and cost-effectiveness of using Xpert for diagnosing TB, especially for smear-negative, pediatric, and EP cases	S6.3									✓	WHO USAID PEER HEALTH
41	Feasibility study and pilot testing of including distribution as part of the procurement package	S6.4								✓		SIAPS IMPACT
42	Feasibility study on restricting private market access to anti-TB drugs	S6.4								✓		

	Research Title	PhilPACT Strategy/ Performance Target	Research TYPE*						YEAR			Agencies	
			BS	ES	FS	OR	S	O	2014	2015	2016		
43	Effectiveness, safety of Novel Anti-TB Drugs and shortening of treatment regimen	S6.4								✓			
44	Identifying and analyzing the factors/ reasons for high and low rates of accreditation and certification of DOTS facilities	S7.1							✓				IMPACT
45	Assessment of the rates and risk factors for LTBI and active TB among healthcare workers	S7.3								✓			WHO
46	Assessment and analysis of the barriers to the optimal use of the NTP budget at all levels (central and regional)	S8.1								✓			HPDP IMPACT
47	Determine potential resource, capacities, gaps of private sector to beef-up support for PhilPACT implementation according to strategic instruments or goals	S8.1										✓	
48	Situational Analysis and Development of sustainable financing model for a comprehensive MDR TB package	S8.1										✓	IMPACT
49	Analysis of the Effects of TB/DOTS Benefit Package as Provider Incentive in Improving Local Financing and TB Control Program Performance	S8.3							✓				IMPACT
50	Actuarial analysis for socialized insurance schemes for DR-TB	S8.3									✓		
51	An analysis of the economic costs of TB (susceptible and DR-TB) at the individual, household, community, and country level	S8.3							✓				IMPACT

	Research Title	PhilPACT Strategy/ Performance Target	Research TYPE*						YEAR			Agencies
			BS	ES	FS	OR	S	O	2014	2015	2016	
52	An Analysis of the Effects of DOTS Benefit Package at Patient, Provider, LGU, NTP Levels	S8.4								✓		IMPACT
53	Evaluation Study of Bottom-Up Budgeting on Improving Local TB Control Program Performance	S8.4								✓		IMPACT
54	Pilot testing of alternative financing models/strategies	S8.4								✓		GFATM

***Legend:**

- BS** Baseline Study
- ES** Evaluation Study
- FS** Feasibility Study
- OR** Operational Research
- S** Surveillance
- O** Other types of studies

CONTENTS

1	Introduction
6	About This Monograph
8	Potential Users of This Monograph
9	Implementing Mechanism
10	<i>List of Researches</i>
	PhilPACT Strategy 1: Localize Implementation of TB Control
13	PhilPACT Strategy 2: Monitor Health System Performance
16	PhilPACT Strategy 3: Engage Both Public and Private Health Care Providers
18	PhilPACT Strategy 4: Promote and Strengthen Positive Behavior of Communities
21	PhilPACT Strategy 5: Address MDR-TB, TB/HIV and Needs of Vulnerable Populations
34	PhilPACT Strategy 6: Regulate and Make Available Quality TB Diagnostic Tests and Drugs
39	PhilPACT Strategy 7: Certify and Accredite TB Care Providers
41	PhilPACT Strategy 8: Secure Adequate Funding and Improve Allocation and Efficiency of Fund Utilization
47	ANNEX: TB Research Committee Members

INTRODUCTION

According to the 2013 Global Tuberculosis Report (WHO), the Philippines is one of 22¹ High Burden Countries (HBC) that together account for 80 percent of the world's tuberculosis (TB) cases and is the 4th among countries with high burden of Multi-Drug Resistant Tuberculosis (MDR-TB).

However, since adopting the Directly Observed Treatment Short-course (DOTS) strategy in all public facilities in 2003, the country has made significant progress in the battle against TB. National indicators for TB case detection rate (CDR) and treatment success rate (TSR), which are as of 2011 are at 84 percent and 87 percent respectively, demonstrate that the country is meeting the global targets; however, in cities and municipalities, TB program performance is variable. And, as TB control continues to gain broader support and greater momentum, it still needs to keep pace with the rate of infection.

Research is an important element in addressing the TB problem because it provides program planners and implementers with critical information that can strengthen and enhance the country's TB response. In 2010, the first research monograph was developed to provide a range of research topics that were based on the needs of the National TB Control Program (NTP) that time.

This edition of the research monograph builds on the gains of the previous monograph and of the Philippine Plan of Action to Control Tuberculosis (PhilPACT) implementation from 2010 to 2013. The 2013 review of PhilPACT facilitated the clear outlining of the research needs of the TB response. After research activities are carried out, program

¹The 22 HBCs are Afghanistan, Bangladesh, Brazil, Cambodia, China, the Democratic Republic of the Congo, Ethiopia, India, Indonesia, Kenya, Mozambique, Myanmar, Nigeria, Pakistan, the Philippines, the Russian Federation, South Africa, Thailand, Uganda, the United Republic of Tanzania, Viet Nam and Zimbabwe.

planners, implementers, and advocates will have access to data and information that will help them perform better and consequently, achieve the performance targets set by the PhilPACT.

The updated PhilPACT has eight strategies and thirty-two performance targets. The research items outlined in this monograph are expected to contribute to the achievement of the performance targets they were based on.

PHILPACT STRATEGIES	UPDATED PERFORMANCE TARGETS
<p>1. Localize implementation of TB control</p>	<p>1.1 Eighty percent (80%) of provinces and highly urbanized cities (HUCs) include TB control plan based on a set criteria within the Province-wide Investment Plan for Health (PIPH) or ARMM Investment Plan for Health (AIPH) or City Investment Plan for Health (CIPH)</p> <p>1.2 Seventy percent (70%) of provinces/HUCs are at least Directly Observed treatment Short Course- (DOTS) compliant</p> <p>1.3 Ninety percent (90%) of provinces and HUCs given performance based grants (PBGs) have achieved and sustained program targets(CDR andTSR)</p> <p>1.4 At least 70 percent of national, regional, provincial, and HUC teams have been trained and supported to manage TB control program</p> <p>1.5 All Public-Private (PP) coordinating bodies at the national and regional and 70 percent at the provincial levels/ HUC have been established and sustained to include the Comprehensive Unified Policy (CUP) mechanisms</p>

PHILPACT STRATEGIES	UPDATED PERFORMANCE TARGETS
<p>2. Monitor health system performance</p>	<p>2.1 Trend of TB burden tracked</p> <p>2.2 TB information generated on time, analyzed, and used</p> <p>2.3 TB information system integrated with the DOH Unified Health Management Information System</p>
<p>3. Engage both public and private health care providers</p>	<p>3.1 At least 50 percent of all provinces and HUCs have functional province / city-wide referral system</p> <p>3.2 Ninety percent (90%) of public hospitals and 65 percent of private hospitals are participating in TB control either as DOTS provider or referring center</p> <p>3.3 Fifteen percent (15%) of notified TB cases contributed by the private providers</p> <p>3.4 All DOTS facility staff are equipped to deliver TB services</p>
<p>4. Promote and strengthen positive behavior of the communities</p>	<p>4.1 Proportion of TB symptomatics who are self-medicating and not consulting health care providers reduced by 30 percent</p> <p>4.2 Ninety five percent (95%) of provinces and 70 percent of HUCs with lost to follow-up of less than five percent (5%)</p> <p>4.3 Percentage contribution on referral of TB cases by community-based organizations (CBOs)/ community health teams (CHTs)/ barangay health workers (BHWs) is at least ten percent (10%) of total TB cases notified</p>

PHILPACT STRATEGIES	UPDATED PERFORMANCE TARGETS
<p>5. Address MDR-TB, TB/ HIV, and needs of vulnerable population</p>	<p>5.1 A total of 19,500 MDR-TB cases have been detected and provided with quality-assured second-line anti-TB drugs</p> <p>5.2 At least 75 percent of MDR TB patients are successfully treated</p> <p>5.3 At least 80 percent of registered TB cases in HIV Category A and B areas and DR-TB cases are given HIV counseling and testing</p> <p>5.4 At least 730,000 children are initiated into anti-TB treatment or given INH preventive therapy</p> <p>5.5 Jails / prisons at all levels provide access to DOTS service for all inmates</p> <p>5.6 Policies, operational guidelines, and models developed, disseminated, and locally adopted to address needs of vulnerable populations (rural/urban poor, indigenous population, those living in congregate setting, those in disaster affected areas, diabetics)</p>
<p>6. Regulate and make available quality TB diagnostic tests and drugs</p>	<p>6.1 At least 95 percent of TB microscopy laboratories within the NTP laboratory network are providing TB diagnostic services within EQA standards.</p> <p>6.2 TB microscopy services are expanded to improve access</p> <p>6.3 Culture, drug susceptibility test (DST), and new technologies are scaled up</p> <p>6.4 No stock-outs of anti-TB drugs [both first line drug (FLD) and second line drug (SLD)] and laboratory supplies in 90 percent of DOTS/laboratory facilities in the last six months</p>

PHILPACT STRATEGIES	UPDATED PERFORMANCE TARGETS
<p>7. Certify and accredit TB care providers</p>	<p>7.1 At least 70 percent of DOTS facilities are DOH/PhilCAT-certified and Philhealth-accredited</p> <p>7.2 DOTS standards/evidence for hospital engagement are included in DOH licensing and PhilHealth accreditation requirements</p> <p>7.3 Infection control/laboratory biosafety measures in place in all DOTS / PMDT facilities and laboratories</p>
<p>8. Secure adequate funding and improve allocation and efficiency of fund utilization</p>	<p>8.1 Reduced redundancies and gaps by harmonizing financing of TB prevention and control</p> <p>8.2 National government and Philhealth funds leveraged to secure local government unit (LGU) commitments</p> <p>8.3 PhilHealth's role expanded through greater availability of accredited providers and increased utilization of TB-DOTS package</p> <p>8.4 Alternative funding models developed</p>

ABOUT THIS MONOGRAPH

Background

The 2010-2016 Philippine Plan of Action to Control TB (PhilPACT) is the roadmap guiding the National TB Control Program (NTP) to achieve its goal of reducing the TB incidence, mortality, and prevalence, fulfilling the vision of a TB-free Philippines.

In 2013, the Department of Health (DOH), with the participation of local and international partners, conducted a mid-term assessment of PhilPACT. Based on the findings and recommendations, some of PhilPACT's targets and activities were revised and modified for the next three years.

To ensure the achievement of these targets, information on the progress of implementation, the factors influencing key NTP processes, and effective interventions are needed by the NTP. These will be generated through the conduct of programmatic monitoring and evaluation activities and researches.

In the December 2013 harmonization workshop of the technical assistance to NTP to support PhilPACT implementation, participants strongly recommended that researches for 2014 to 2016 be harmonized as well.

The group further recommended the development of a TB research monograph similar to the 2010 TB Research Priority Setting document, which was prepared by the Philippine Coalition Against TB (PhilCAT) through the Philippine TB Society (PTSI) in coordination with NTP. After the mid-term review of the 2010-2016 PhilPACT, NTP saw the need to revise and update the monograph.

Development process

A TB research committee led by NTP reviewed the proposed researches by partners and revised the research matrix. The research matrix contains the research topics and questions, implementers, and the schedule of implementation. A Technical Assistance/Research Planning workshop was conducted to address the need to identify priority operational researches for 2014-2016.

The revised and updated research matrix, along with the research-related recommendations generated by the mid-term review of PhilPACT, comprised the basis for this updated monograph.

PBSP, the PR of the GFATM TB Grant, contracted a consultant who--under the supervision of the NTP, drafted the research monograph and presented it to stakeholders in a consultative meeting. The comments and suggestions were integrated as the research monograph was finalized and prepared for publication.

POTENTIAL USERS OF THIS MONOGRAPH

This monograph highlights research topics and questions, methodologies, key implementers, and schedule of implementation of all TB priority researches. It aims to present information that will be beneficial to all stakeholders interested in research, project planning, and evaluation for TB. The research topics have been listed according to the PhilPACT strategies.

Researchers and research agencies will be able to get a bird's eye view of the NTP's research agenda for the next two years. This monograph can guide them whether they are identifying research topics to pursue or looking for a means to align their current or future research activities with national strategies and priorities.

Some of the researches outlined in this monograph do not have implementers yet so this presents an opportunity for TB Control Program Managers at all levels and development partners and donor agencies who are interested in doing research to select specific research activity to support and implement.

This monograph is by no means the exhaustive list of TB research in the Philippines. Due to the dynamic nature of research and of TB itself as a public health issue, there may be other research topics that have not been covered by this monograph. The research topics inside this monograph reflect the priorities recommended by the national program's research committee and the stakeholders. Other research topics may be considered. However, there is no assurance of funding unless the research proposal is highly recommended by the Research Committee.

IMPLEMENTING MECHANISM

The NTP, in coordination with the other DOH offices, will oversee the implementation of the researches outlined in this monograph. If you want to implement or contribute to any of the researches outlined in this monograph, you can contact:

NAME	AGENCY	CONTACT DETAILS
Dr. Anna Marie Celina Garfin	DOH- NCDPC	garfinamc@gmail.com
Dr. Vivian Lofranco	LCP- NCPR	vivslofranco5000@gmail.com
Dr. Noel Macalalad	RITM- NTRL	nmacalalad@yahoo.co.uk

The **Lead Agency**, in the context of this monograph, can either be the lead implementer of the research activity or its funding source.

In turn, the **Cooperating Agencies** are comprised of development partners, health care professional groups, and other stakeholders who participate in the activities under and aligned with PhilPACT, including research. The results of the research activities are also expected to benefit the activities of these agencies.

LIST OF RESEARCHES

PhilPACT Strategy 1: Localize Implementation of TB Control

This strategy aims to have LGU at all levels manage and implement the TB Control Program within the decentralized health systems set-up and in support of the health sector reform initiatives. There are five performance targets under this strategy.

According to the results of PhilPACT's mid-term review, the first performance target has been achieved. However, the quality of these TB Control plans as sustainable financing models for TB control needed to be studied and validated. At the time of the mid-term review, the achievement of the third performance target was deemed not on track because the implementation of PBG was delayed. Therefore, conducting the study on 2016 will provide the NTP with important information on the impact of PBGs on local TB control programs and consequently, its contribution to the national program. The achievement of the fifth performance target has been affected by inconsistent coverage. Local structures have been established and are functioning in some areas only. The research items outlined under this strategy will contribute to the effective localization of TB Control implementation.

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 1.1: 80 percent of provinces and HUCs include TB Control Plan based on a set criteria within the PIPH/ AIPH/ CIPH				
Evaluation of Investment Plan for Health (IPH) and Annual Operation Plan (AOP) as one of the sustainable financing models for TB Control	How effective and sustainable have the IPH and AOP been as financing models for TB Control?	This will be the first study on the IPH and AOP as sustainable financing models for TB Control.	IMPACT	2016
Performance Target 1.3: Ninety percent (90%) of provinces and HUCs given PBGs have achieved and sustained program targets (CDR and TSR)				
An Analysis of the Impact of PBGs on Local TB Program Implementation	How has the implementation of PBGs on local TB Programs affected the delivery of local health services and its contribution to the NTP performance?	This study will determine and analyze the impacts of implementing PBGs on local TB programs and how it contributed to the NTP performance.	IMPACT	2016

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 1.5: All Public- Private (PP) coordinating bodies - national, regional and provincial levels - have established sustainable CUP mechanisms				
Assessment of Functionality of PP Coordinating Bodies at the national, regional, and provincial/ city levels	How efficient and effective are PP Coordinating Bodies in fulfilling their mandate in the areas where they have been established?	This research will determine and analyze the efficiency and effectiveness of PP Coordinating Bodies.	IMPACT	2016

PhilPACT Strategy 2: Monitor Health System Performance

This strategy aims to determine the progress in TB control through the influences of the different initiatives of public and private institutions, and by actions in health systems strengthening (health human resource development, logistics management, information system, local system development, financing system harmonization, etc.). There are three performance targets in this strategy.

Based on the results of PhilPACT's mid-term review, the NTP will achieve the performance target of tracking the TB burden. The researches outlined in the matrix below will complete the achievement of this performance target. There is a need to improve health service delivery through accurate data and timely analyses as bases for appropriate interventions.

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 2.1: Trend of TB burden tracked				
2015 National TB Prevalence Survey	<p>What is the burden of TB in the country?</p> <p>What are the health seeking behavior of presumptive TB and TB patients?</p> <p>What are the risk factors of TB?</p>	The results of the survey will guide the national program and other implementers in developing and planning TB Control initiatives at various levels.	<p>GOP</p> <p>WHO</p> <p>HPDP</p> <p>IMPACT</p> <p>TASC</p> <p>Systems for Improved Access to Pharmaceuticals and Services (SIAPS)</p>	2015
2016 Drug Resistance Survey	What is the drug resistance TB burden in the country?	The results of this study will help the national program and other implementers plan appropriate responses to address drug resistance in TB treatment.	<p>NTRL</p> <p>WHO</p>	2016

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 2.1: Trend of TB burden tracked				
Subnational TB mortality study	<p>What is the mortality of TB in certain areas of the Philippines?</p> <p>What is the proportion of TB deaths captured by the vital registry and not notified to the NTP?</p>	This study will give an accurate estimate of TB mortality in the country.	WHO	2016
Gaps in TB mortality reporting	What are the gaps in TB mortality reporting and what are the best approaches to address these?	The results of this study will help identify and address gaps in TB mortality reporting.	WHO	2016
An Assessment of the Philippine NTP Information System: Looking at the whole NTP information system in the systems perspective	How complete, accurate, and timely are the information generated and provided by the IT IS?	The results of this study will help NTP improve the implementation of ITIS	SIAPS	2014

PhilPACT Strategy 3: Engage Both Public and Private Health Care Providers

This strategy outlines the different activities to involve all health care providers in improving access to quality TB care. There are four performance indicators under this strategy.

According to the updated PhilPACT, the Philippines is a pioneer and model in public private mix (PPM) implementation. There are currently 220 operational public private mix DOTS (PPMD) units supporting the NTP nationwide. However, results of PhilPACT's mid-term review indicated that reaching the second performance target of the third strategy is not on track. An assessment and analysis of the factors that affect PPMD sustainability will generate information that will help the national program and its regional/ local counterparts in sustaining PPMDs beyond the end of project funding.

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 3.1: At least 50 percent of all provinces and HUCs have functional province/ city-wide referral system				
Assessment of the referral system for TB	<p>What are the strengths and gaps in the TB referral system; and what are the corresponding impact to case detection and treatment success?</p> <p>How to sustain a functional referral system?</p>	This study will influence policies on referrals for TB management from all sectors.	IMPACT RIT JATA	2016
Performance Target 3.2: 90 percent of public hospitals and 65 percent of private hospitals are participating in TB control either as DOTS provider or referring center				
Study of factors contributing to PPMD sustainability	<p>What are the factors affecting PPMD sustainability?</p> <p>How can we make PPMD more sustainable?</p>	This study will help national planners and stakeholders in identifying strategies to make partnerships with the private sector sustainable.		2015

PhilPACT Strategy 4: Promote and Strengthen Positive Behavior of Communities

The attainment of the first performance target under this strategy will be confirmed by the upcoming National TB Prevalence Survey. However, the Joint Program Review (JPR) found that monitoring of the impact of communication and advocacy approaches has been limited. A study analyzing the effectiveness of behavior change strategies in terms of generating demand for TB services will effectively address this limitation and will be a good complement to the survey.

Furthermore, data from this study will help the national program in developing future behavior change messages and strategies that can effectively increase demand for TB services. According to the results of PhilPACT's mid-term review, the third performance target of engaging community-based organizations for TB control has been reached. As such, this process indicator has been changed to an output indicator of accounting for the number of TB cases contributed by the CBOs. The research identified is expected to improve the contribution of the community to the total of notified TB cases.

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 4.1: Proportion of TB symptomatics who are self-medicating and not consulting health care providers reduced by 30 percent				
Effectiveness of behavior change strategies	<p>How have the current behavior change strategies affected the demand for TB services?</p> <p>Which strategy was most effective and why?</p>	This study will assist national planners and partners in designing and developing behavior change strategies and messages to increase demand for TB services.	IMPACT	2015
Assessment of various approaches to DOT	Which approach to DOT is most effective?	The results of this assessment will help the national program in determining which DOT approach is best in terms of effectiveness, cost-efficiency, and coverage.	IMPACT	2015

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 4.3: Percentage contribution of TB cases by CBOs/ CHTs/ BHWs at least ten percent of notified TB cases (all forms)				
Effectiveness of incentives to CBOs/ CHTs/ BHWs	How effective are incentives for CBOs/ CHTs/ BHWs in contributing to the improvement of case finding and case holding?	<p>To improve the contribution of CBOs/ CHTs/ BHWs referrals to the total TB cases notified.</p> <p>This study will help the program to determine if provision of incentives to CBOs/ CHTs/ BHWs is efficient for TB control.</p>		2015

PhilPACT Strategy 5: Address MDR-TB, TB/HIV and Needs of Vulnerable Populations

Drug resistance is a significant issue in the country's battle against TB. It has been detected in all regions, with an estimated number of 13,300 multi-drug resistant TB (MDR-TB) cases. Results of PhilPACT's mid-term review showed that achieving the first performance target is not on track. The range of researches laid out in the matrix below will each contribute critical information on issues like the effects of decentralization on TB treatment outcomes, risk factors to drug resistance, and the effectiveness of Enhanced Transportation Allowance Package (ETAP), which will collectively provide the national program with insight and the means to reaching this performance target.

In addition, an assessment of the implementation of the TB in children program will address issues like over- and under-diagnosis of TB in children and the weak reporting of children receiving treatment in DOTS facilities. Other topics of interest under this strategy include the impact of human resource constraints on treatment success, the expansion of pilot projects with the urban poor, and examining the needs of other vulnerable people like the malnourished, smokers, diabetics, prisoners, indigenous population, and internally displaced population, among others.

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.1: A total of 19, 500 MDR-TB cases have been detected and provided with quality-assured second-line anti-TB drugs.				
Analysis of risk factors for drug resistance in new TB cases	Which risk factor most likely predisposes a TB patient to drug resistance?	This study will establish a means to identifying priority groups for rapid testing for new cases of drug resistance thus contributing to case notification.	WHO	2016
Analysis of reasons for delays of time and initial loss between TB diagnosis and detection of drug-resistance and time to initiating appropriate treatment	What are the reasons for delays and initial loss in the diagnosis and treatment of TB and drug resistant-TB (DR-TB) and how can these be addressed?	This will help shorten the time between TB diagnoses, detection of DRTB, and treatment, which will lead to less transmission of the disease and better treatment outcome.		2015

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.1: A total of 19, 500 MDR-TB cases have been detected and provided with quality-assured second-line anti-TB drugs.				
Evaluation of decentralization of MDR-TB patients in Programmatic Management of DR-TB (PMDT) implementation	How has decentralization contributed to improved treatment outcomes?	This study will show if decentralization will improve treatment outcomes, especially in decreasing defaulter rate.	GFATM Technical assistance Support to Countries (TASC) WHO Lung Center of the Philippines-National Center for Pulmonary Research (LCP- NCPR))	2016
Drug resistance among patients on self-administered treatment (SAT)	What is the incidence of drug resistance among patients on SAT?	This study will show if SAT can be an effective strategy in providing treatment among DR-TB cases.		2015

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.1: A total of 19, 500 MDR-TB cases have been detected and provided with quality-assured second-line anti-TB drugs.				
Surveillance of Moxifloxacin and Pyrazinamide Resistance among TB patients in the Philippines	What is the proportion of resistance to Moxifloxacin and Pyrazinamide among TB cases in the Philippines?	Information generated will be needed to assess the feasibility of introduction of new drugs and shorter regimens for the treatment of TB.	NTRL WHO	2014
Performance Target 5.2: At least 75 percent of MDRTB patients are successfully treated				
Evaluation of Reasons for Patients' Loss to Follow-Up During MDR-TB Treatment in the Philippines	What are the reasons for default among MDR-TB patients based on the Sociological Model? How did patients perceive enablers?	This will provide the means to decrease the default rate (36%) among MDR-TB patients and thus contribute to the performance target on case holding.	TDF IMPACT TASC	2014

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.2: At least 75 percent of MDRTB patients are successfully treated				
Pilot Testing and Evaluation of the Enhanced Transportation Allowance Package (ETAP) for MDR-TB patients	How effective and efficient is the ETAP in improving the treatment adherence of MDR-TB patients?	This study will provide the evidence that provision of enablers to DR-TB patients will decrease the defaulter rate.	NTP LCP-NCPR GFATM TASC	2015
Pilot testing of iDOTS	How effective and efficient is the iDOTS in improving treatment adherence of MDR-TB patients?	This will determine how effective and efficient is the iDOTS in improving treatment outcomes of MDR-TB patients.	TASC GF	2015
Evaluation of Community-Based PMDT Care Initiative (ComPCare)	How effective and efficient is the community based MDR-TB care in improving the treatment adherence of MDR-TB patients?	This will determine how effective and efficient the community-based MDR-TB Care initiative has been in improving treatment outcomes of MDR-TB patients which will help replicate the strategy.	NTP NCPR GFATM TASC	2015

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.2: At least 75 percent of MDRTB patients are successfully treated				
A Feasibility Study of the Effectiveness and Safety of the 9-Month Treatment Regimen for MDRTB in the Philippines	How effective and suitable is the 9-month treatment regimen for MDR-TB patients in the Philippines?	If found suitable and effective, the current 18-month treatment regimen which is long and expensive will be shortened to the 9-month treatment regimen. This will help reduce the default rate of MDR-TB patients (at 36%), which will contribute to reaching the performance target of 75 percent.	TASC GFATM WHO LCP- NCPR NTRL	2015
Feasibility, Safety, and Effectiveness of Bedaquiline in the Treatment of MDR-TB	How effective and safe is Bedaquiline as part of the treatment regimen for MDR-TB	Bedaquiline could be one of the options for treatment of those with resistance to fluoroquinolones or injectibles.	TASC GFATM WHO	2015

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.2: At least 75 percent of MDRTB patients are successfully treated				
<p>An Analysis of the Strategies for Improving Treatment Adherence of Patients with DR/ MDR-TB</p>	<p>What strategies, whether individual or in combination, can significantly improve adherence to treatment?</p> <p>What social support services (food assistance, nutritional support) are preferred by most patients?</p> <p>What is the impact of social support services to treatment compliance?</p> <p>How effective are enablers and incentive models in improving treatment adherence especially among MDR-TB patients?</p>	<p>This will improve treatment outcomes among MDR-TB patients, thus contributing to achieving the performance target.</p> <p>The results can also guide program managers in designing community-based approaches to TB service delivery.</p>		<p>2015</p>

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.2: At least 75 percent of MDRTB patients are successfully treated				
An assessment of risk factors for poor treatment outcomes (death, failure, default) among patients with drug-susceptible and drug-resistant TB	What are the risk factors for poor treatment outcomes among patients with TB and DR-TB?	The results will help identify strategies to improve treatment outcomes.	WHO	2016
An assessment of the frequency and risk factors for adverse events in patients on first and second-line TB treatment	What are the frequent adverse drug reactions (ADRs) during TB treatment and the associated risk factors for their incidence?	The results will help TB treatment professionals in planning & monitoring the treatment of TB/ DR-TB patients who are at-risk for ADRs to first and second-line TB treatment.	NCPR	2015

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.2: At least 75 percent of MDRTB patients are successfully treated				
Descriptive study of the economic cost of MDR-TB management	How much does it cost to diagnose, treat and support MDR-TB cases?	The results of this study will contribute to program planning and in developing MDR-TB service package.	GFATM	2016
Performance Target 5.3: At least 80 percent of enrolled TB cases in Category A and B areas and 80 percent MDR-TB cases are provided with HIV counseling and testing				
Evaluation of Non-Medical Technologists who do Rapid HIV testing	How do non-medical technologists (doctors, nurses, etc.) who do rapid HIV Testing perform based on the following areas & standards (competencies, laboratory performance, infection control, and quality assurance)?	The results of this study will help improve the capacity of non-medical technologists in doing rapid HIV testing, which in turn will address the lack of available personnel who can administer the test in clinics, which was revealed in the performance review of 2010-2012.	GFATM TASC	2015

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.3: At least 80 percent of enrolled TB cases in Category A and B areas and 80 percent MDR-TB cases are provided with HIV counseling and testing				
Evaluation of the strengthened TB-HIV Service Delivery Mechanism	How effective was the implementation of the strengthened TB-HIV service delivery mechanism?	The results of this evaluation will contribute to the further improvement of the strengthened TB-HIV service delivery mechanism.	GFATM	2016
Performance Target 5.4: At least 730,000 children were provided with anti-TB drugs or Isoniazid (INH) preventive therapy (IPT)				
Evaluation of the Implementation of the TB in Children Program	What are the reasons for the high rate of diagnosed TB in children among all diagnosed TB? What factors led to the low implementation of IPT among children? What are the sensitivity/ specificity/ Positive Predictive Value (PPV)/ Negative Predictive Value (NPV) of the current diagnostic algorithm for children?	The results of this study will provide the means to address the gaps in the implementation of the TB in children program, e.g. the weak reporting of the number of children receiving treatment in the DOTS facilities.	WHO	2015

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.4: At least 730,000 children were provided with anti-TB drugs or Isoniazid (INH) preventive therapy (IPT)				
Review of cause of pneumonia, malnutrition, diarrhea, HIV to determine epidemic of childhood TB deaths	Is the cause of deaths among children really due to pneumonia, malnutrition, diarrhea, HIV and not TB? How many of these children really died due to TB?	This study will determine the real epidemic of childhood TB and will help in the planning for TB in children implementation	WHO	2016
Assess Barriers for child TB screening and treatment	What are the reasons for low number of children screened for TB and started on treatment? What is the best way to screen TB among children?	This study will determine barriers in the screening and treatment of TB among children. The results will guide the NTP in improving the provision of quality TB services among children	WHO	2016
Acceptability of IPT among mother, HCW and doctors	What are the reasons for low uptake of IPT among children?	This study will help improve provision of IPT among children	WHO	2015

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.4: At least 730,000 children were provided with anti-TB drugs or Isoniazid (INH) preventive therapy (IPT)				
Study on possibility of underreporting in secondary and tertiary hospitals	<p>Are TB cases among children in the secondary and tertiary hospitals reported to the NTP?</p> <p>What is the proportion of underreporting of TB in children in secondary and tertiary hospitals?</p>	This study will help determine the burden of TB among children	WHO	2016
GX in Children Study			IMPACT PPS	2015

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 5.4: At least 730,000 children were provided with anti-TB drugs or Isoniazid (INH) preventive therapy (IPT)				
Evaluation of diagnostic algorithm for children	Is the current diagnostic algorithm for children effective and efficient?	This study will help improve provision of IPT among children	WHO	2015
Performance Target 5.5: Jails, prisons at all levels provide access to DOTS services to all inmates				
Utilization of CXR and GX in Active Case Finding (TB Mass Screening) among inmates	<p>What is the prevalence of DR-TB in prison and jails?</p> <p>Will GX be more cost effective in screening TB compared to DSSM?</p> <p>How effective and efficient is MDR-TB screening among inmates?</p>	This will address the missing cases in prisons and jails and will help develop a model on the most cost effective way of identifying active cases in prison, therefore preventing further transmission.	ICRC IMPACT WHO	2014

PhilPACT Strategy 6: Regulate and Make Available Quality TB Diagnostic Tests and Drugs

Under this strategy, the enhancement and strengthening of laboratory facilities and services is a priority. The JPR identified a number of issues, ranging from procurement to coordination challenges that result in stock-outs of adult and pediatric FLD and Purified Protein Derivate (PPD) TB skin test. A couple of approaches to address this have been outlined here.

After the mid-term review, the third performance target was added while the fourth was re-phrased to make it measurable. The researches outlined below will generate valuable data on the impact of EQA implementation to microscopy and laboratory services, the cost-effectiveness of implementing new technology like Xpert, and TB drug procurement issues. Other areas worth looking into include strengthening of rational use of anti-TB drugs, pharmaco-vigilance, and analysis of ADRs and adverse events.

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 6.3: Culture, TB Drug Susceptibility testing (DST) and Rapid Diagnostics centers are scaled up.				
Assessment of the implementation of XpertMTB/Rifampicin	What are the factors that facilitate or hinder the implementation of XpertMTB/Rifampicin?	This study will help identify the factors that will facilitate the scale-up of Gene Xpert use.	GFATM NTRL TASC	2014
Evaluation of the impact and cost-effectiveness of using Xpert for diagnosing TB, especially for smear-negative, pediatric and EP cases	How effective and efficient is the use of Xpert in diagnosing TB among smear-negative, pediatric, and extra pulmonary (EP) cases?	The results of this study will validate the use of Xpert in diagnosing TB among smear-negative, pediatric, and EP cases, thus, providing local evidence to the current policy.	WHO USAID PEER Health	2016

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 6.4: No stock-outs of anti-TB drugs (both FLD and SLD) and laboratory supplies in 90 percent of DOTS/lab facilities in the last six months				
Feasibility study and pilot testing of including distribution as part of the procurement package	<p>Given government rules and regulations, is it feasible for the NTP to include in its procurement of TB drugs the storage and delivery costs to service points?</p> <p>How much will it cost to “bundle” these services in drug procurement?</p>	Drug distribution is a recurring problem, particularly from PHO to RHU. Utilizing the existing distribution system of private companies (i.e., pharmaceutical companies) may improve efficiency of this process.	SIAPS IMPACT	2014

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 6.4: No stock-outs of anti-TB drugs (both FLD and SLD) and laboratory supplies in 90 percent of DOTS/lab facilities in the last six months				
Feasibility study on restricting private market access to anti-TB drugs	What is the feasibility and effectiveness of restricting private market access to anti-TB drugs in terms of increasing availability in DOTS facilities?	A 2013 study by WHO Western Pacific Regional Office (WHO-WPRO) into market characteristics for TB drugs in the Philippines found that while publicly procured TB drugs were sufficient to treat all reported new TB cases from 2007 to 2011, the volume of TB drugs procured through the private market suffices to treat an additional 250,000 TB patients annually. The findings of this study will help develop the national policy.		2015

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 6.4: No stock-outs of anti-TB drugs (both FLD and SLD) and laboratory supplies in 90 percent of DOTS/lab facilities in the last six months				
Effectiveness, safety of Novel Anti-TB Drugs and shortening of treatment regimen	How safe and effective are the newly developed anti-TB drugs in the treatment of DR/MDR-TB?	Study results will help determine if compliance to treatment is improved and expands the current number of options for treatment of TB; reduction of economic cost		2015

PhilPACT Strategy 7: Certify and Accredite TB Care Providers

PhilHealth has streamlined its accreditation processes but coverage nationwide remains low. Several reasons were cited, including gaps in providing a safe environment for health workers and patients. Guidelines on infection control have been published and a training of trainers has been carried out in 2011, but the mid-term review still found areas that need to be improved in order to achieve performance targets mentioned below. Examining the factors that affect the certification and accreditation of TB facilities will help national and regional planners in devising ways to help the under-performing areas. A research on the rates and risk factors of LTBI among health workers will provide an important indicator in measuring the effectiveness of infection control and eventually, its accelerated implementation.

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 7.2: At least 70 percent of DOTS facilities are DOH-certified and PhilHealth-accredited				
Identifying and analyzing the factors and reasons for high and low rates of accreditation and certification of DOTS facilities	What are the factors influencing certification and accreditation of TB health facilities?	The results of this study will help in understanding why certain regions have a higher rate of certification and accreditation compared to others and come up with ways to help the low performing regions improve.	IMPACT	2015
Performance Target 7.3: Infection control measures in place in all treatment centers/ sites and DOTS centers				
Assessment of the rates and risk factors for latent TB infection(LTBI) and active TB among healthcare workers	What are the incidence and prevalence rates of LTBI and TB disease among health workers?	There is no information on the number of health workers who contracted TB infection and developed the disease. This is a critical indicator in the effectiveness of infection control.	WHO	2015

PhilPACT Strategy 8: Secure Adequate Funding and Improve Allocation and Efficiency of Fund Utilization

According to the results of PhilPACT's mid-term review, reaching the first and third performance target is on track. The researches laid out in the matrix below, ranging from the analysis of the barriers to the best use of the NTP sub-allotment to the exploration of the ways that the TB DOTS benefit package has been contributing to the improvement of local TB Control Programs, are expected to generate data and information that will help improve the efficiency of fund utilization. The fourth performance target is added to help address the funding gap.

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 8.1: Reduced redundancies and gaps by harmonizing financing of TB prevention and control				
Assessment and analysis of the barriers to the optimal use of the NTP sub-allotment	What are the barriers to the full utilization of the NTP sub-allotment?	The NTP sub-allotment to the regional offices is under-utilized. The results of this study will guide the national program in addressing the barriers to and in promoting the optimal use of the NTP sub-allotment among LGUs.	HPDP IMPACT	2015
Determine potential resource, capacities, gaps of private sector to beef-up support for PhilPACT implementation according to strategic instruments or goals	How can the private sector be better engaged in support of achieving the PhilPACT performance targets?	The results of this study will guide the national program in establishing a more productive relationship with the private sector in achieving the PhilPACT performance targets.		2016

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 8.1: Reduced redundancies and gaps by harmonizing financing of TB prevention and control				
Situational analysis and development of a sustainable financing model for a comprehensive MDR-TB package			IMPACT	2016
Performance Target 8.3: PhilHealth's role expanded through greater availability of accredited providers and increased utilization of TB-DOTS package				
Analysis of the Effects of TB/DOTS Benefit Package as Provider Incentive in Improving Local Financing and TB Control Program Performance	<p>In what ways has the TB DOTS benefit package been effective in improving local TB Control Program performance?</p> <p>Is the reimbursement of four thousand pesos enough? Why or why not?</p>	The results of this study will demonstrate the degree of use of the TB-specific reimbursements and its effects on improving local TB Control Program performance among LGUs	IMPACT	2014

RESEARCH TOPIC/TITLE	RESEARCH QUESTION/S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 8.3: PhilHealth's role expanded through greater availability of accredited providers and increased utilization of TB-DOTS package				
Actuarial analysis for socialized insurance schemes for DR-TB	How much DRTB-related claims do we expect to pay out in the next five years?	<p>Currently, funding of MDR-TB is supported by external partners. Part of reducing this dependency is for PhilHealth to support part of MDR-TB expenses.</p> <p>The results of this study will help PhilHealth in predicting with a reasonable degree of accuracy the amount of DRTB-related claims it will pay, which will help in determining the amount of premiums it must charge to remain profitable.</p>	IMPACT	2014
An analysis of the economic costs of TB (susceptible and DR-TB) at the individual, household, community, and country level	What is the economic cost of TB at the individual, household, community, and country level?	The last time a study on this topic was done was back in 2003. It is time for an update.	IMPACT	2014

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 8.4: Alternative funding models developed				
<p>An Analysis of the Effects of DOTS Benefit Package at Patient, Provider, LGU, NTP Levels</p>	<p>In what ways has the TB DOTS benefit package been effective in improving local TB Control Program performance?</p> <p>Is the reimbursement amount of Ph 4,000 enough?</p> <p>What is the effectiveness and impact of PhilHealth benefit package on TB support scale up or expansion of TB services?</p>	<p>The results of this study will demonstrate the degree of use of the TB-specific reimbursements and its effects on the scale-up of TB support and expansion of TB services.</p>	<p>IMPACT</p>	<p>2015</p>
<p>Evaluation Study of Bottom-Up Budgeting (BUB) on Improving Local TB Control Program Performance</p>	<p>Is BUB effective and sustainable in improving local TB program performance?</p>	<p>This will be the first study on BUB and its impact on improving Local TB Control Program performance.</p>	<p>IMPACT</p>	<p>2015</p>

RESEARCH TOPIC/ TITLE	RESEARCH QUESTION/ S	RATIONALE/ RELEVANCE	LEAD and SUPPORT AGENCIES	YEAR OF IMPLEMENTATION
Performance Target 8.4: Alternative funding models developed				
Pilot testing of alternative financing models and strategies	Which of these financing models/ strategies will be most effective and efficient in ensuring the financial sustainability of TB services?	<p>Based on PhilPACT costing, there is a funding gap in implementing the plan.</p> <p>The results of this study will guide the national program in selecting the most effective and efficient financing model/ strategy to ensure the financial sustainability of TB services and to decrease funding gap.</p>	GFATM	2015

ANNEX: TB Research Committee Members

NTP RESEARCH COMMITTEE MEMBERS

Department of Health – Disease Prevention and Control Bureau (DOH-DPCB)

Dr. Rosalind Vianzon

Dr. Anna Marie Celina Garfin

Dr. Ramon Basilio

Lung Center of the Philippines – National Center for Pulmonary Research (LCP-NCPR)

Dr. Vivian Lofranco

Mr. Stuart Pancho

National Tuberculosis Reference Laboratory (NTRL)

Dr. Noel Macalalad

Dr. Ma. Cecilia Ama

Mr. Dodge Lim

Technical Assistance Support to Countries (TASC)

Dr. Mariquita Mantala

Global Fund to Fight Aids, Tuberculosis and Malaria (GFATM) through the Philippine Business for Social Progress (PBSP)

Mr. Eric Camacho

Mr. Reno Carter Nalda

Mr. Ralph Bawalan

Innovations and Multisectoral Partnerships to Achieve Control of Tuberculosis (IMPACT)

Dr. Allan Fabella

Dr. Jose Hesron Morfe

Management Sciences for Health – Systems for Improved Access to Pharmaceuticals and Services (SIAPS)

Dr. Arthur Lagos

Ms. Nerizza Muñoz

World Health Organization (WHO)

Dr. Woojin Lew



National TB Control Program

Department of Health

Manila, Philippines