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2010 – 2015 Philippine Plan of Action to Control Tuberculosis (PhilPACT)

DOH logo

Global Fund logo

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List of abbreviations

ACSM	advocacy, communication and social mobilization
AIDS	acquired immunodeficiency syndrome
ARMM	Autonomous Region of Muslim Mindanao
AO	Administrative Order
BHS	<i>barangay</i> health station
BHW	<i>barangay</i> health worker
BHFS	Bureau of Health Facility Services
BIHC	Bureau of International Health Cooperation
BJMP	Bureau of Jail Management and Penology
BLHD	Bureau of Local Health Development
BuCor	Bureau of Corrections
CBO	Community based organization
CDR	case detection rate
CHO	City Health Office / Officer
CHD	Center for Health Development
CIPH	City Investment Plan for Health
CNR	case notification rate
CR	cure rate
CUP	Comprehensive Unified Policy
DEPED	Department of Education
DILG	Department of Interior and Local Government
DOH	Department of Health
DOJ	Department of Justice
DOLE	Department of Labor and Employment
DOT	directly observed treatment
DOTS	directly observed treatment, short-course
DRS	drug resistance survey
DSSM	direct sputum smear microscopy
DSWD	Department of Social Welfare Development
DST	drug susceptibility test
EO	Executive Order
EQA	external quality assurance
ETR	electronic TB registry
F1	Formula One (Health Sector Reform in the Philippines)
FAP	Foreign Assisted Project
FHSIS	Field Health Service Information System
GAA	General Appropriations Act
GDF	Global Drug Facility
GIDA	geographically isolated and depressed area
GFATM/Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
HC	health center
HCP	health care provider
HPDP	Health Policy Development Program
HPDPB	Health Policy Development and Planning Bureau

HUC	highly urbanized city
IEC	information, education and communication
IDO	Infectious Disease Office
ILHZ	Interlocal Health Zone
ISTC	International Standards on TB Care
JAC	Joint Appraisal Committee
JATA/RIT	Japan Anti-TB Association / Research Institute of TB
LCE	local chief executive
LCP	Lung Center of the Philippines
LHB	local health board
LGU	local government unit
MC	microscopy center
MDG	millennium development goal
MDR-TB	multidrug resistant tuberculosis
ME3	monitoring and evaluation for effectiveness and equity
MHO	municipal health office/officer
MOP	manual of procedures
NCDPC	National Center for Disease Prevention and Control
NCC	National Coordinating Committee
NCHFD	National Center for Health Facility Development
NCHP	National Center for Health Promotion
NCIP	National Commission on Indigenous Population
NDHS	National Demographic Health Survey
NEC	National Epidemiology Center
NEDA	National Economic and Development Authority
NGO	non-government organization
NOH	National Objectives for Health
NPS/NTPS	National TB Prevalence Survey
NTP	National Tuberculosis Control Program
NTRL	National TB Reference Laboratory
OOP	out-of-pocket
P2P	public-to-public
PBG	performance based grant
PCC	provincial coordinating committee
PIPH	Province-wide Investment Plan for Health
PhilCAT	Philippine Coalition Against Tuberculosis
PhilHealth/PHIC	Philippine Health Insurance Corporation
PhilPACT	Philippine Plan of Action to Control TB
PHO	Provincial Health Office / Officer
PHS	Philippine Health Statistics
PPMD	public-private mix DOTS
PIR	program implementation review
PTSI	Philippine Tuberculosis Society Inc.
QAS	quality assurance system
RCC	regional coordinating committee
RDC	Regional Development Council
RICT	Regional Implementation and Coordination Team
RITM	Research Institute and Tropical Medicine

RHU	rural health unit
SA	situational assessment
SteerCom	Steering Committee on the TB Control Strategic Plan Development
TA	technical assistance
TACT	Technical Assistance and Coordination Team
TB	tuberculosis
TBDC	TB Diagnostic Committee
TB DOTS OPB package	TB-DOTS Outpatient Benefit Package
TB/HIV	tuberculosis-human immunodeficiency virus
TB LINC	Linking Initiatives and Networking to Control TB
TDFI	Tropical Disease Foundation Inc
TF	Task Force on the TB Control Strategic Plan Development
TSR	treatment success rate
USAID	United States Agency for International Development
WPR	Western Pacific Region
WPRO	Western Pacific Regional Office
WHO	World Health Organization
WV	World Vision

EXECUTIVE SUMMARY

From March – September, 2009 the National Center for Disease Prevention and Control (NCDPC) of the Department of Health (DOH) led the process of formulating the 2010 – 2015 strategic plan to control TB in the Philippines in collaboration with partners. The Steering Committee oversaw and guided the planning process while the Task Force conducted the situational assessment, drafted the plan and consulted stakeholders.

The key findings of the situational assessment of TB burden and efforts to control TB in the Philippines are;

- Tuberculosis is a major public health problem in the Philippines. The 2007 National TB Prevalence Survey (NTPS) found that the prevalence rate of smear (+) TB was 2 per thousand and culture (+) was 4.7 per thousand. Philippines ranked ninth among the 22 high TB burden countries. TB prevalence and mortality rates have been declining since 1990 but based on the 2007 NPS, the current annual rate of decline will not be enough to achieve the MDG in prevalence. TB is the number 6 cause of deaths in 2005 with mortality rate of 31.2/ 100,000.
- Through the National TB Control Program (NTP), the Philippines achieved the global targets of 70% case detection rate and 85% treatment success rate in 2004 and has sustained them. Five of the 17 regions did not achieve the CDR target. Provincial / city performance showed wide variation.
- DOTS strategy, introduced in 1996, is available in almost all the Rural Health Units and the Health Centers and some privately-initiated PPMDs. However, other health care providers such as the hospitals, private practitioners and other government health facilities generally provide TB services that are not in accordance with NTP policies and standards.
- Direct sputum smear microscopy (DSSM) is generally available in most of the municipalities but relatively inaccessible in some cities and underserved areas. Only around 60% of the microscopy center (MCs) provide DSSM within the EQA standards. Drugs for the entire duration of treatment are provided free of charge. In 2008, there was a widespread shortage of first line anti-TB drugs in the DOTS facilities due to problem in the central procurement.
- There are initiatives to engage all the health care providers such as the public-private mix DOTS (PPMD), the hospital DOTS, Comprehensive Unified Policy (CUP) mechanism and the promotion of the International Standard of TB Care (ISTC).
- Although awareness of TB is high among the general population, knowledge on causation, transmission and DOTS is generally low. Health seeking behaviour is still poor with majority still consulting non-DOTS providers. Poor treatment outcome is still found in some provinces and cities. DOT had not been strictly observed in some areas. Initiative to increase access to DOTS by vulnerable population is still limited.
- Advocacy, social mobilization and communication (ACSM) activities are being done in collaboration with partners but quality of IEC materials is variable and support is inadequate. Community participation in TB control is through the barangay health workers (BHWs) and community-based organizations but still limited.
- There is strong political commitment at the national level. However, LGU support and ownership of TB control program is variable.

- Although routine recording and reporting is in place to track program performance and survey conducted to determine TB burden, there are problems in generating, reporting and using TB data.
- Various studies had shown gap in financing the TB control program. Although the national government had substantially increased its budgetary support to NTP, LGU support is variable and unsustainable. Philhealth finances TB control program through the outpatient benefit package and payment for inpatient services of its members with TB. Resources are also provided by the foreign assisted projects (FAPs). Due to TB care funding inadequacy and inefficiency of fund utilization, out-of-pocket expenditures remain substantial and serve as deterrent to access to DOTS.

Based on the situational assessment, the 2010 – 2015 Philippine Plan of Action to Control TB (PhilPACT) was formulated in consultation with stakeholders. The vision is TB-free Philippines while the goal is to reduce by half TB prevalence and mortality compared to 1990 data. Case detection target is 85% of incident cases and treatment success rate of at least 90%. To achieve the goal and targets, the plan has four objectives, eight strategies and 30 performance targets.

Objectives:	Strategy	Performance Targets
Reduce local variation in TB control program performance (Governance)	<i>1. Localize implementation of TB control</i>	1.1 70% of provinces and highly urbanized cities (HUCs) include clear TB control plan within the Province-wide Investment Plan for Health (PIPH) or ARMM Investment Plan for Health (AIPH) or City Investment Plan for Health (CIPH) 1.2 70% of provinces / HUCs are at least DOTS compliant 1.3 90% of priority provinces and HUCs with performance grant have achieved program targets 1.4 DOH and partners have capacity to provide support to provinces and cities 1.5 Public-private coordinating body on TB control at national, regional and provincial levels established and sustained to include Comprehensive Unified Policy (CUP) mechanism
	<i>2. Monitor health system performance</i>	2.1 Trend of TB burden tracked 2.2 TB information generated on time, analyzed and used 2.3 TB information system integrated with national M & E and FHSIS
Scale-up and sustain coverage of DOTS implementation (Service delivery)	<i>3. Engage both public and private TB care providers</i>	3.1 60% of all DOTS facilities in the provinces with provincial PP mechanisms are with functional public-private collaboration/ referral system (service delivery level) 3.2 90% of public hospitals and 60% of private hospitals are participating in DOTS, either as DOTS providers or referring center 3.3 70% of 9,000 targeted PPs are referring patients to DOTS facilities 3.4 All frontline health workers are equipped to deliver TB services
	<i>4. Promote and strengthen positive behavior of communities</i>	4.1 Reduced by 30% the proportion of TB symptomatics who are self-medicating and not consulting 4.2 Default rate of provinces and cities with $\geq 7\%$ is reduced by 40% 4.3 No. of barangays that have organized CBOs participating on TB control and are linked with DOTS facilities increased by 50%.

	<i>5. Address MDR-TB, TB/HIV and needs of vulnerable populations</i>	<p>5.1 A total of at least 15,500 MDR-TB cases have been detected and provided with quality assured second line anti-TB drugs</p> <p>5.2 TB/HIV collaborative activities in areas with populations having high risk behaviour and with at least 80% of TB pts tested for HIV</p> <p>5.3 Nationwide implementation of childhood TB control program</p> <p>5.4 DOTS services accessible to all inmates with TB</p> <p>5.5 Policies, operational guidelines and models developed, disseminated and locally adopted to address needs of vulnerable populations</p>
Ensure provision of quality TB services (Regulation)	<i>6. Regulate and make available quality TB diagnostic tests and drugs</i>	<p>6.1 TB laboratory network managed by the National TB Reference Laboratory (NTLRL) ensures that 90% of all microscopy centers (MCs) are within the standard</p> <p>6.2 TB microscopy services expanded in cities and underserved areas</p> <p>6.3 Every province and HUCs have access to functional TB Diagnostic Committee</p> <p>6.4 Quality-assured anti-TB drugs are always available in DOTS facilities</p>
	<i>7. Certify and accredit TB care providers</i>	<p>7.1 At least 70% of DOTS facilities are DOH/PhilCAT-certified and PhilHealth-accredited</p> <p>7.2 Standards for hospital participation in TB control included in DOH licensing and PhilHealth accreditation requirements</p> <p>7.3 Infection control measures in place in all treatment centers / sites and DOTS facilities</p>
Reduce out-of-pocket expenses related to TB care (Financing)	<i>8. Secure adequate funding and improve allocation and efficiency of fund utilization.</i>	<p>8.1 Reduced redundancies and gaps in and harmonized national, local govt and FAPs financing</p> <p>8.2 Government funds are redirected to LGUs for fixed commodities and variable tranche</p> <p>8.3 PhiHealth's role expanded through greater availability of accredited providers and increased utilization of TB-DOTS OPB package</p>

The total cost of the plan is 20 billion pesos with Strategy 5 and 6 accounting for 66% of the required resources. The sources are the foreign assisted projects (45%), national government (24%), local government units (16%), out-of-pocket (14%) and Philhealth (1%). Estimated total funding gap is _____.

In accordance with the health sector monitoring and evaluation for effectiveness and equity and the Stop TB partnership's recommendation, the M&E plan for PhilPACT defines the indicators and data management system. M&E implementation will be coordinated by the Health Planning Policy Development Bureau with the support from the National Center for Disease Prevention and Control and National Epidemiology Center. Annual performance report will be prepared and disseminated. Mid-term and terminal evaluation will be conducted.

The Department of Health, through NCDPC, will be the over-all coordinator for PhilPACT implementation with support from the Center for Health Development at the regional level and PHO/CHO at the provincial/city level. Public-private coordinating groups will assist these organic units: National Coordinating Committee, Regional Coordinating Committee and provincial/city PP group. Public and private DOTS facilities will be the service delivery points.

The plan is synchronized and aligned with the Philippine health sector reform and the global TB control plan. Its emphasis on governance especially localized implementation and the universal access to DOTS to include responding to needs of MDR-TB, TB/HIV co-infection and vulnerable populations may contribute to enhancing global strategies to stop TB. To jumpstart the implementation of PhilPACT requires the development of implementing guidelines, enhancing the implementing arrangement, and mobilization of support from various stakeholders.

1. INTRODUCTION

1.1 Rationale and process of the strategic plan formulation

The desire for the Philippines to achieve the millennium development goals (MDGs) on TB control in 2015 prompted the National Center for Disease Prevention and Control (NCDPC) of the Department of Health (DOH) in January 2009 to review and update the 2006 – 2010 national strategic plan to control TB and craft plan of action until 2015. Specifically, DOH sees the need to; (1) align the TB control strategic direction with the sector-wide approach of the Health Sector Reform Agenda / Fourmula One (F1) and incorporate the TB control plans of the Province-wide / ARMM Investment Plan for Health (PIPH/AIPH), (2) define the long-term actions to address key issues and constraints identified by various program evaluation and monitoring teams, (3) utilize the results of 2007 National TB Prevalence Survey (NTPS) to generate better estimates of the TB epidemiological situation and set realistic programmatic targets, (4) strategize how substantial resources from the government, FAPs and other sources could be effectively and efficiently utilized, and (5) define how to maximize recently-developed technologies and global guidelines to achieve the MDGs in TB control¹.

With the concurrence of the Technical Assistance Coordination Team (TACT) of DOH, NCDPC mobilized technical and logistical support from the Global Fund Against AIDS, TB and Malaria (Global Fund), World Health Organization (WHO) and United States Agency for International Agency (USAID) through the Linking Initiatives and Networking to Control TB (TB LINC) and Health Policy Development Program (HPDP). DOH organized two groups to work on the plan with the issuance of Department Personnel Order (DPO) no. 2009-2125. The Steering Committee, chaired by the Director of the NCDPC and co-chaired by the Director of the Infectious Disease Office (IDO), provided policy and strategic oversight while the Task Force, headed by the NTP manager and assisted by the short term consultant of WHO, conducted the situational assessment, drafted the strategic plan and consulted stakeholders. The composition and function of the two groups is in Annex 1. TACT reviewed and approved the TF outputs endorsed by the Steering Committee.

Guided by the health sector/logical framework and the four implementation pillars of the health sector reform, the Task Force systematically assessed the TB burden and TB control efforts in the Philippines through review of published and unpublished literature and interview of key informants. The comprehensive situational assessment (SA) report was the basis for the drafting of the 2010 – 2015 strategic plan to control TB. Stakeholders critically reviewed it during a consultative meeting held on July 8 – 9, 2009 at the Grand Opera Hotel in Manila. Based on the agreements, financial plan including resource requirements, implementing arrangement and monitoring and evaluation plan were then developed and presented during the second stakeholders meeting done on August 5 – 6, 2009. Eighty participants attended the first consultation while 70 participants were present at the second meeting. NCDPC pursued this multi-sectoral and broad based participation not only to solicit inputs to the plan but also to strengthen its linkages and ensure support from the different stakeholders. The list of participants is in Annex 2.

The purpose of the strategic plan is to serve as a roadmap for the country to reduce TB to a level where it is no longer a public health threat. Expected users are policy makers, managers of TB control program at all levels, implementers, local and international partners and others who dream and are working towards a TB-free Philippines.

1.2 Brief Profile of the Philippines

Situated in Southeast Asia, the Philippines is an archipelago of 7,107 islands with a land area of 300,000 square meters. The 2007 population based on national census was 88,574,614 with estimated population in 2009 of 92,230,000². Annual rate of population increase was 2.04%. The sex ratio is 101.4 in 2000, with the life expectancy at birth higher among females at 74.34 years, compared to males at 68.81 years. The population distribution according to age groups in 2000 - 37% belong to the 0 to 14 age group, 59.2% belong to the 15 to 64 group, while 3.8% belong to those who are 65 and older. As of March 2008, the country is divided into 17 regions, 81 provinces, 136 cities (with 16 highly urbanized cities or HUCs and one urban municipality), 1,495 municipalities and 42,008 barangays.

In 2006, 24% of Filipino families were not able to earn enough to meet the daily food and non-food requirements. It is estimated that about 4.7 million families in the country are considered poor. Among the regions, poverty incidence is highest in ARMM where it was estimated that more than 55% of families are poor; NCR has the lowest percentage of poor families at 7.1%. GDP growth rate in 2008 was 4.6% with poverty incidence among families of 26.9%³. Average family income is P147,000. The literacy status in the country based on the 2003 Functional Literacy, Education and Mass Media Survey (FLEMMS) was 93% simple literacy rate. However, the functional literacy rate is only 84% and is higher among females.²

The country has a decentralized health delivery system that is managed by the Department of Health (DOH) and implemented by the local government units (LGUs) in accordance with the Local Government Code of 1991. The private sector is also a substantial provider of health care. Total health expenditures in 2005 were P180.8 billion (3.3% of GDP)². Out-of-pocket expenses followed by the government are the major sources of health care financing. The social health insurance program managed by the Philippine Health Insurance Corporation (Philhealth) covers 66 million active members served through 1,536 hospitals and 1,211 health centers.

1.3 Basic Facts about Tuberculosis

Tuberculosis (TB) is a disease caused by a bacteria called *Mycobacterium tuberculosis* that is mainly acquired by inhalation of infectious droplets containing viable tubercle bacilli. Infectious droplets can be produced by coughing, sneezing, talking, and singing. Coughing is generally considered as the most efficient way of producing infectious droplets and exposing other people to the TB bacilli. These droplets are produced mainly by patients with respiratory TB, especially those who are positive by sputum smear microscopy. Only 10% of those infected with TB will develop the disease.⁴ Majority of cases have TB of the respiratory tract particularly the lungs, and approximately 15% of cases have extra-pulmonary TB. Infectiousness and case fatality among TB cases are generally higher among smear positive cases⁵. Diagnosis is primarily through the direct smear sputum microscopy (DSSM). Treatment is for at least 6 months. BCG vaccine prevents fatal forms of TB among children.

2. TB BURDEN AND CONTROL EFFORTS IN THE PHILIPPINES

2.1 Magnitude of TB problem in the Philippines

2.1.1 TB prevalence, incidence and mortality

Globally, there are 9.27 million incident cases of TB in 2007 of whom 4 million were smear positive cases. Asia accounts for 55% while Africa for 31%⁶. Table 1 shows that in 2007, the estimated TB incidence, prevalence and mortality of the Philippines are higher compared to the average global and regional (Western Pacific Region) levels.

Table 1. TB burden at Global, Western Pacific Region and Philippines, 2007

Indicators	Global	Western Pacific Region	Philippines
TB incidence rate, all forms (per 100,000)	139	108	290
Estimated incident cases	9.27 million	1.92 million	255,084
TB incidence, smear positive (per 100,000)	61	48	130
Estimated smear positive cases	4 million	.86 million	114,701
TB prevalence rate (Per 100,000)	206	197	500
Estimated prevalent cases	13.7 million	3.5 million	440,035
Mortality rate	20	16	41
No. of deaths	1,756,000		36,305

Source: Global TB control 2009, WHO

The Philippines **ranked ninth** among the 22 high burden countries that account for 80% of the TB burden. This is two ranks lower than the seventh place that the country occupied in 1998.

The national TB prevalence survey done in 2007 showed that the prevalence rate of smear positive TB is 2 per 100,000 while culture positive was 4.7 per 100,000⁷. Prevalence increases by age. Bacteriologically confirmed TB is higher among males compared to females, with rates of 3.5/1000 vs. 1.9/1000 for smear (+) TB, and 9.3/1000 vs. 3.5/1000 for culture (+) TB, respectively. There was, however, no statistical differences in prevalence of x-ray positive, smear positive and culture positive by strata. In 2009, bacteriologically positive TB cases in the Philippines is estimated to be around 430,000. Twelve million (13% of the population) are estimated to have signs and symptoms of TB or called TB symptomatics.

The increasing TB prevalence by age is corroborated by the results of the WHO analysis of TB notification rates from 2000 to 2006⁸. The rate of sputum smear-positive TB for both the males and females increases with age until it peaks at the age group of 55–64 years and decreases after age 65 years. The sex ratio (male:female) is about two to one in all age groups.

In the last 25 years, there is a declining trend of prevalence of smear positive, culture positive and annual risk of TB infection in the Philippines as shown by Table 2.^{7,9,10}

Table 2. TB magnitude in 1982, 1997 and 2007, Philippines

Indicator	1981 – 82	1997	2007
Estimated prevalence of:			
Smear positive TB cases / 1000	6.6	3.1	2.0
Culture positive TB cases / 1000	8.6	8.1	4.7
Radiographic findings suggestive of TB (percent)	4.2	4.2	6.3
Multi-drug resistant TB among new cases (%)		1.5	2.1
TB symptomatics (percent)	17	18.4	13.5
Annual risk of infection (percent)	2.5	2.3	2.1

Source: National TB Prevalence Survey 1982-83, 1997, 2007

Comparing the 1997 and 2007 findings, the 2007 study concluded that the “burden of the TB disease has declined over the past ten years since the launching of the DOTS program”. It estimated that there is “38% decline in the prevalence of culture-positive PTB and 28% decline in smear positive PTB.” However, the prevalence of those with x-ray findings suggestive of TB was “significantly higher in all stages of the disease”.

Based on the analysis done by WHO, global TB prevalence and mortality has continuously declined from 1990 until 2006⁸. In the Philippines, these had declined by around 45% from 1990 until 2006. WHO then projected that the Philippines is on track to meet the MDG targets in 2015. However, a revised estimate based on the 2007 NPS revealed a lower annual rate of decline of the TB prevalence of only around 2%. Thus, unless the rate of decline increased, the MDG goal in reducing by half the TB prevalence might not be met in 2015. (personal communication with the WHO country office).

Due to prohibitive cost of doing a national TB prevalence survey, only national data on TB burden could be generated. Regional variation in TB burden, though, was demonstrated by a survey done in three regions in 1992. The study revealed that the risk of TB infection in children aged 6 – 8 years was estimated to be 1.9% in Region 5, 1.6% in Region 8 and 1.2% in Region 10¹¹.

TB was no. 6 among the ten leading causes of mortality with 26,588 deaths and mortality rate of 31.2 per 100,000¹². There were 18,229 deaths among the males for sex-specific mortality rate of 42.5 and 8,359 deaths from the females for a rate of 19.7. Among these TB deaths, 63.8% or 9,632 were not medically attended, hence, diagnosis was based on data provided by the lay informants. The completeness of the mortality data is also affected by the compliance to reporting of deaths. For example, deaths in ARMM are generally left unreported due to different cultural practice. TB mortality greatly varied by region and province. In 2004, the highest TB mortality rate was registered by Western Visayas region (51.4) while the lowest rate was reported by ARMM (5.2). The top five provinces and cities in terms of TB mortality rate are Guimaras, Silay City, Himamaylan, Bacolod City and Bago City. All these areas are in Western Visayas.

WHO has a higher estimate of TB mortality in the country than the PHS report. In 2005, WHO estimate was 47 per 100,000 while PHS figure was 31.2. Thus, the 1990 baseline data for MDG also varied: it was 87 for WHO and 39.1 for PHS.

2.1.2 MDR-TB

The 2003 – 2004 national Drug Resistance Study (DRS) revealed that the prevalence of MDR-TB among new cases was 3.8%; among previously treated was 20.9% and combined was 5.7%¹³. This placed the Philippines 9th among the 27 countries with 85% of the global burden of MDR-TB. In 2007, WHO estimated that there are 12,125 MDR-TB cases in the country (all forms) and 6,451 among the smear positive cases⁶. Based on the 2007 NTPS, the “combined MDR-TB rate was lower in 2007 at 3.9% compared to 1997 at 4.3%.”

2.1.3 TB/HIV co-infection

In 2007, an estimated 7,490 adults are living with HIV with the prevalence of 0.0168 %¹⁴. The estimates were based on Workbook Method prescribed by UNAIDS/WHO for countries with low level and concentrated epidemics. The most-at-risk population groups are partners of former and current overseas Filipino Workers (OFWs), female partners of men having sex with men (MSM) and male clients of female sex workers. The WHO estimated that the prevalence of HIV among TB patients in the country as less than 1%. No routine surveillance system for HIV and TB co-infection is in place.

2.1.4 Socio-economic burden of TB

In 2003, it was estimated that over 500,000 disability adjusted life years (DALYs) are lost due to illness and premature mortality from TB in the Philippines annually. This is equal to 9% of all years of life lost. The combined economic losses due to premature mortality and morbidity total P8 billion¹⁵.

The economic burden of TB largely due to premature deaths and lost productivity in the Philippines from 2006 – 2015 is 131.24 billion dollars without DOTS and with sustained DOTS would be reduced to 81.49 billion dollars and with Global Plan, 8.04 billion. Benefit-cost ratio would be 263 and 219¹⁶.

2.2 Performance of the National TB Control Program

In 1997, DOH, through the NTP, adopted the WHO-recommended DOTS strategy. The DOTS strategy has five key elements, namely, (1) Political commitment to implement and sustain the program, (2) Diagnosis of cases using TB bacteriology particularly quality-assured sputum microscopy, (3) Regular and uninterrupted supply of anti-TB drugs and other supplies, (4) Standardized TB chemotherapy with direct observation of treatment (DOT) by a responsible treatment partner, and (5) Standardized recording and reporting system that allows the monitoring and evaluation of the program, and of the individual cases who underwent treatment¹⁷.

The NTP has a passive case finding policy, and diagnosis is mainly through three sputum smear examinations done over two days¹⁸. However, patients with negative smears, or those suspected of having extra-pulmonary TB undergo further examinations (e.g., chest X-ray), a trial of symptomatic treatment, and evaluation by the TB Diagnostic Committee. Treatment policy for active cases utilizes the internationally recommended anti-TB short-course regimens that are administered to patients under the daily direct observation of a trained treatment partner throughout the entire course of treatment (DOT). The various categories of treatment regimen are: Category 1 for new smear positive PTB, new smear negative PTB with parenchymal lesions on chest x-ray examination; Category II for treatment failure, relapse, return after default and other; Category III for new smear-negative PTB with minimal parenchymal lesions on chest x-ray examination and Category IV for chronic (still smear positive after supervised re-treatment). Standard case holding policies require scheduled follow-up sputum examinations during the treatment period.

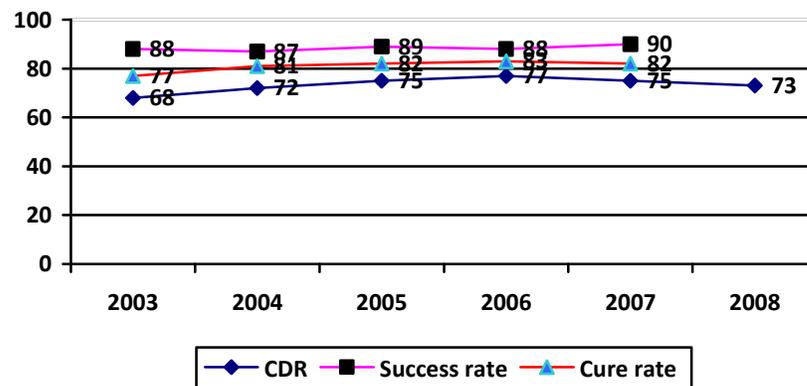
The two major programmatic indicators that capture TB control program performance are: (a) *case detection rate (CDR)* which represents the proportion of TB cases detected out of the estimated incident cases, and (b) *treatment success rate (TSR)* which represents the proportion of those who completed treatment (cured plus completed) out of a cohort of registered TB patients.¹⁹ The Philippines also set a target for *cure rate (CR)*. This measures the number of TB cases who completed treatment with two smear negative results of which one is at the end of treatment. At the provincial level, due to the limitation of CDR, *the case notification rate (CNR)* that indicates the number of notified TB cases per 100,000 population is being used.

2.2.1 Overall TB control performance in the Philippines

With CDR of 75% and treatment success rate of 88% in 2007, the Philippines performed better in TB case finding and case holding compared to the average global performance. Global case detection rate in 2007 was 63% while treatment success rate was 85%.⁶

Figure 1 shows that in the last six years, the programmatic indicators namely CDR, TSR and CR have increased. Targets in CDR and TSR had been achieved in 2004 and have been sustained since then. The CR, though, is still slightly below the 85% national target.²⁰

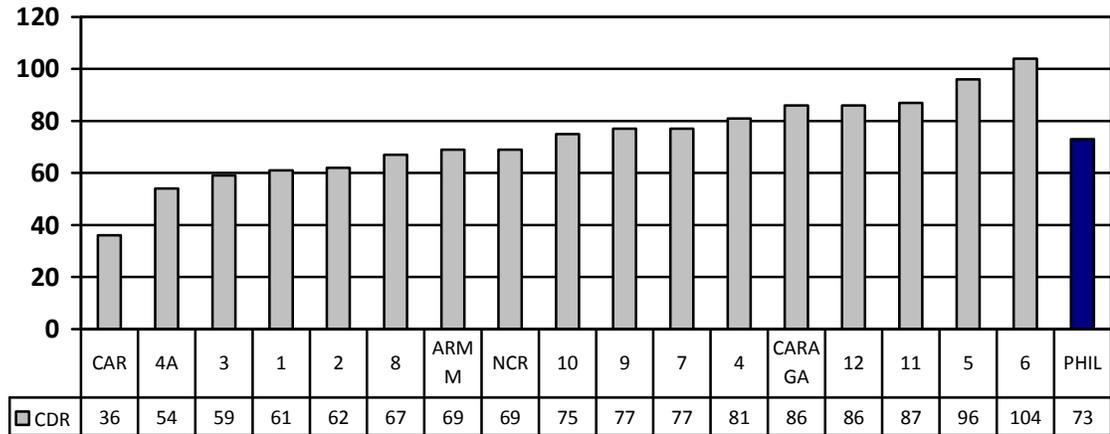
Figure 1. Trends of CDR, Cure and Treatment Success 2003 – 2008, Philippines



Source: NTP

At the sub-national level, Figure 2 reveals that eight regions (CAR, 4A , 3, 1, 2, 8 ARMM and NCR) were not able to reach the CDR target of 70%.

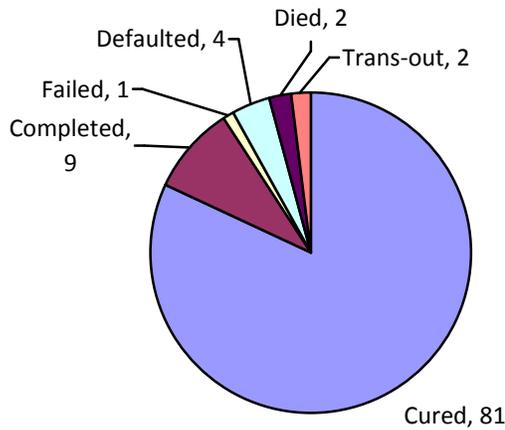
Figure 2. Case Detection Rate (%) by Region, 2008



Source: NTP

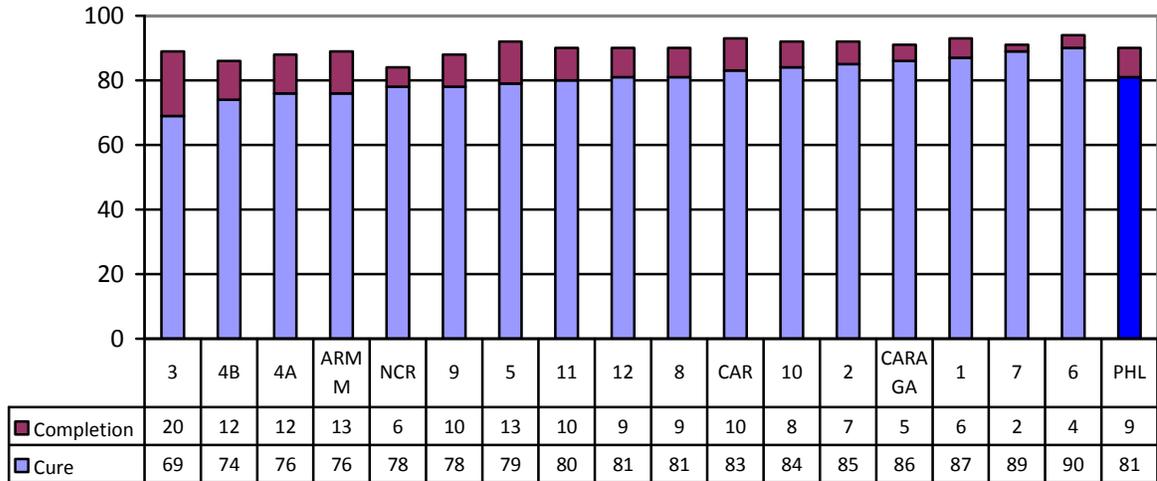
Figure 3 below shows that of the 84,715 new smear positive TB cases registered and evaluated in 2007, 81% were cured and 9 % completed for a treatment success rate of 90%. Four percent, however, defaulted from treatment.

Figure 3. Treatment outcome (%) of 2007 cohort of new smear positive TB cases



Although all regions had reached the 85% target for treatment success rate. However, 12 regions failed to reach the 85% cure rate target as shown in Figure 4.

Figure 4. Cure and Completion Rates by Region, 2007 Cohort



Based on the analysis of TB data done in December 2008, WHO observed that the increased notifications is consistent with improved case finding efforts and do not reflect an increase in incidence²¹. TB mortality rate, however, was deemed questionable. WHO further noted that there is wide variation of performance among and within regions which could either be due to inconsistent case finding or reporting or low incidence in CAR and high in CARAGA. This finding is supported by the analysis of the 2006 NTP performance in 21 provinces assisted by TB LINC that showed wide variations in case notification rates of new smear positive cases and cure rate. There are provinces with high CNR and high CR (“high performers”) but there are also with low CNR and low CR (“low performers”).

The conclusions during the program implementation review done by DOH of selected public health programs in January 2008 were as follows²²;

- Extent and quality of nationwide TB-DOTS coverage reached levels necessary for eventual control in 2004 to date;
- Program indicators support this conclusion;
- Many program activities, output and achievements made this possible, and
- Program continues to add enhancements and improvements.

Lessons could also be extracted from the experiences of the Western Pacific Region. The following factors were cited in the attainment of the two global targets by WPR; (a) strong leadership, (b) strong commitment, (c) effective partnership, and (d) persistent efforts of front-line TB programmes in NTP.²³

2.3 Assessment of TB Service Delivery

2.3.1 Provision of TB services

2.3.1.1 *Strengths and opportunities:*

- Nationwide, a wide array of health facilities are providing health services including TB care to the general population. There are 2,266 Rural Health Units (RHUs) and health centers (HCs), 16,219 Barangay Health Stations (BHS), 1,771 public and private hospitals, 2,373 TB microscopy centers, 2,671 clinical laboratories and thousands of private clinics²⁴.
- Health human resources under the LGUs include 3,047 doctors, 4,577 nurses, 16,821 midwives and 1,717 medical technologists. There are 199,546 active Barangay Health Workers or a ratio of one BHW per 443 population or 74 families²⁵. It is estimated that there are 15,000 private practitioners¹⁶.
- Coverage of DOTS services, at least in the public primary care network, has reached 100% in late 2002. In addition, DOTS services are also provided by some public or private hospitals - including public non-DOH hospitals, and by some private clinics including the non-profit NGOs.
- TB diagnostic and treatment services are integrated with the basic health services being provided by the public health centers. DSSM and anti-TB drugs, in the public health sector, are generally free²⁶.
- Despite the varying knowledge, attitudes and practices (KAP) on TB by the private practitioners (PP), most of them were willing to collaborate with the NTP (83.3%) provided they were paid (38.4%)²⁷. Majority of the hospitals in Metro Manila said that they are willing to support NTP.
- Training on TB care of different types of health workers such as the physicians, nurses, midwives, microscopists, supervisors, private practitioners and barangay health workers are being conducted.
- DOH issued Department Circular 104 s. 2004 that defined the operational guidelines for the public-private mix DOTS (PPMD) and AO no. 154 s. 2004 that organized the National and Regional coordinating committees (NCC/RCC) to oversee PPMD implementation. PPMD provides the venue for the private health care providers to support the TB control program either through provision of TB diagnostic and treatment services or referral of TB symptomatic and patients to DOTS facilities^{28,29}. Currently, there are 220 public-initiated and private initiated PPMDs in 16 regions covering 36 million population. In 2008, there were 6,914 new smear (+) cases detected leading to 6% contribution to national CDR and 18% of the local CDR. The 2007 cohort analysis of 5,593 smear (+) showed a cure rate of 84% and treatment success rate of 90%³⁰.
- A.O. 24-A, issued in 1997 and revised in 2004, defined how government hospitals should implement DOTS strategy. Some hospitals adopted the strategy, either by establishing a DOTS clinic or referring TB cases. Assessment showed that many of these hospitals are not implementing the revised guidelines mainly due to lack of resources³¹. Staff of unknown number of provincial and district hospitals had been trained on DOTS while some of their medical technologists attended basic course on DSSM. Some district and provincial hospitals provide DSSM. Public-to-public Mix DOTS (P2P) was piloted with the assistance of USAID-funded LEAD for Health project in 2005 – 06 to improve the referral of TB patients between hospitals and RHUs/HCs in ten hospitals in Pangasinan, Tacloban City and Davao del Norte. P2P contributed from 8– 45% of the CDR in the pilot areas³². P2P has been replicated by other areas notably Region XI.

- The comprehensive and unified policy (CUP) ,defined by Executive Order 187 that was signed by the President in March, 2003, instructed 17 government agencies and enjoined 5 private organizations to adopt DOTS³³. This policy has been disseminated to the stakeholders at the national and regional levels. DOLE issued DO 73-05 on August 2005 prescribing policy guidelines on handling TB in the workplaces. DPED, DOJ-BJMP and NEDA had also issued circulars on CUP/ TB management. In 2007-08, TB LINC assisted in the orientation of CUP members at the regional / provincial level and in assessing its implementation. Quarterly meeting with CUP members is being convened by the NTP.
- The Health Human Resource Development Bureau (HHRDB) of DOH is implementing the Health Human Resource Strategic Plan that would address general human resource issues such as health staff turn-over and inadequacy of skills³⁴.
- The International Standard for TB Care (ISTC) that describes a widely accepted level of care in the diagnosis and treatment of TB and the public health responsibilities of all practitioners, public and private, had been issued and endorsed by many international organizations such WHO, Center for Disease Control and International Union Against TB and Lung Diseases³³.

2.3.1.2 Weaknesses and threats

- Most of the health care providers are located in the urban centers. There are areas where population to health provider ratio is high such as in ARMM and in geographically isolated and depressed areas (GIDA)³⁶. There is rapid turn-over of some health workers.
- Local studies done in the last seven years have shown that the KAP of private health care providers are not consistent with the NTP policies and guidelines . Interview of 1,355 private practitioners showed that TB was diagnosed mainly through X-ray (87.9%) and usually treated with inappropriate regimens of anti-TB drugs (89.3%). The PPs did not follow-up their TB patients, did not trace the defaulters (97.9%) and did not identify contacts (91.4%). Only 24.2% knew the NTP policies in depth²⁷. A 2003 survey done among private physicians in Manila Doctors Hospital showed that all respondents use chest X-ray as the initial diagnostic tool. Only 14.6% request sputum AFB smear as a routine diagnostic work-up³⁷.

The private provider study done by UP School of Economics Foundation (UPECON) in 2005 supported the previous studies³⁸. Of the 1,535 private physicians who were interviewed nationwide, non-TB treating physicians refer only 20 percent of adult suspect TB patients to DOTS facilities. Only 60% of TB treating physicians indicated sufficient knowledge about clinic practice guidelines as shown by vignette score; general practitioners posted the lowest scores. 45% of TB treating physicians still use x-ray exclusively as primary diagnostic tool for suspect TB patients. Only about a fourth of TB treating physicians belonging to reference specialties employ treatment regimens that coincide with SCC. Only ten percent rely on reliable monitoring device for treatment compliance. General practitioners report low completion rates and high failure rates. 70% of all physicians are aware of TB DOTS; lowest among work-based doctors. Of those aware, only 29% adopt the strategy.

Survey done by NTP in 2005-2006 of 74 public and private hospitals in MM show that majority have not yet adopted the DOTS. Almost half of private hospitals are using x-ray as diagnostic tool and anti-TB drugs are not provided for free³⁹.

- Paradoxically, many cities failed to meet the national standard of one microscopy center per 50,000 – 100,00 population. Some of these are Quezon City, San Fernando, Antipolo, Batangas,

Puerto Princesa, Legaspi, Bacolod and Tacloban⁴⁰. Furthermore, due to lack of plantilla position other health center staff such as the nurse, midwife or sanitary inspector man the microscopy center instead of a medical technologist.

2.3.2 **Utilization of TB services**

2.3.2.1 *Strengths and opportunities:*

- Awareness of TB is high in the general population. The NTPS 2007 findings indicate that most (86.9%) have heard about TB. The belief that TB can be cured is known to the majority of the population especially in urban areas^{41, 42}.
- Various communication strategies to influence the behavior of clients have been developed and implemented by the NTP in coordination with the National Center for Health Promotion (NCHP) and by different partners such as PhilCAT, World Vision, Catholic Relief Services, TB LINC and many others. Communication campaigns have been done during the World TB Day on March 24 and National TB Day on August 19. Mass media through TV and radio were used to disseminate TB messages.
- Templates for information, education and communication (IEC) materials such as posters, pamphlets and radio plugs have also been developed by NCHP and produced by CHDs and PHOs/CHOs. Most of the RHUs and BHWs have some form of TB IEC material displayed⁸.
- Findings from Joint Program Review in April, 2008, showed that most health staff and volunteers are strongly committed to undertake ACSM activities, with good utilization of peer and inter-personal communication.
- Communities have also been mobilized to improve the KAP of the community members and access to TB care. Barangay Health Workers (BHWs) have long been helping the TB control program by; (a) disseminating TB messages in the community, (b) motivating TB symptomatics to seek care, (c) sending sputum specimens to TB laboratory, and (d) supervising treatment of TB patients²⁶.
- Community-based organizations (CBO) were organized to facilitate community participation in the fight against TB. World Vision has organized 384 TB Task Forces under Global Fund that include BHWs, barangay officials and other community leaders to coordinate TB control activities and ensure early detection of TB cases and compliance to treatment⁴³. WV evaluation in 2004 found that “a strong sense of community awareness and community ownership of the problem and the program was evident” but “it is difficult to specifically and solely link the community-based efforts to the successful program results given the multiple interventions employed by the KB II project”⁴⁴. The initiative is being expanded by WV with the support of Global Fund.

The USAID assisted-ENRICH project in ARMM in 2004 - 2006, implemented various community-based activities through the CBOs⁴⁵. This is being continued in ARMM by another USAID funded project, the Sustainable Health Improvement and Empowerment in Local Development (SHIELD) project. Currently, there are 427 barangays in ARMM with CBOs helping in ARMM.

- TB patients have also been organized to help disseminate TB information, identify TB symptomatics and facilitate treatment of TB patients. A representative of the Lusog Baga, based at Lung Center of the Philippines, seats in the Country Coordinating Mechanism of Global Fund.

2.3.2.2 Weakness and Threats:

- Knowledge of communities about the cause and transmission of TB is substantially inadequate. The 2007 NTPS showed that only 8.3% considered bacteria as the cause of TB, while 46.1% attributed TB to smoking, 37.9% to alcohol drinking, 14.2% to fatigue, and 9.1% to genetic causes. More than 38% did not know the cause of TB. The 2003 National Demographic Health Survey (NDHS) showed that only about half of the respondents know that TB is transmitted through the air when coughing (51 percent for women and 46 percent for men) ⁴¹. Other perceptions regarding TB causes include poor living conditions, air pollution; smoking; and 31.2% believed it was an inherited disease⁴⁶. About two decades ago, only 14% said that TB is acquired through “contact with TB case” ⁴⁷.
- Studies have also shown varying perceptions regarding disease susceptibility that could delay consultations and lead to self-medication. The 2003 NDHS revealed that 53% of respondents did not consult since they perceive that TB is harmless. Patients also often attribute TB signs and symptoms, such as prolonged cough and weight loss, to drinking and/or smoking and considered these harmless⁴⁸. Many still perceive TB as an ordinary disease; and the perception of susceptibility to TB is low even among close contacts of TB patients, and in the general population ⁴².
- Stigma regarding TB is still prevalent. Phrases used when people think of TB in general include “batik sa pamilya” (bad mark to the family), “nakakahiya” (shameful), “habag” (pity), and “iniwasan” (avoidance)⁴². Local semantics such as “weak lungs” are used by both laymen and health providers ostensibly to avoid stigma. However, this encourages self-treatment with anti-TB drugs that are considered “vitamins for the lungs” and which lead to drug resistance. Stigma was more extra-familial than intra-familial ⁴⁹. Six in ten who have heard of TB say they are willing to work with someone who has previously been treated for TB. The higher the respondent’s age, level of education and wealth index quintile, the greater the percentage of willingness to work with a treated TB patient. ARMM has the lowest level of acceptance of a TB patient, followed by Zamboanga Peninsula ⁴¹.
- Among TB symptomatics, only 32% consult a health provider, 25.1 % took no action and 43% self medicated as revealed by the 2007 NTPS. A little less than half of the women and men who have ever had at least one symptom of TB sought consultation or treatment for the symptom.
- The percentage seeking consultation or treatment (for both sexes) increases with age, education, and wealth index quintile ⁴¹.
- Majority of TB symptomatics consult health care providers who are generally not adopting DOTS as shown in Table 4. Despite the free service and drugs available in public facilities, majority of TB patients seek diagnosis and treatment outside of the public sector. According to the 2007 NTPS, nearly two out of every five TB symptomatics are seeking treatment in the private sector (37.7%) with 21.7% contacting private physicians and the remaining 16% going to private hospitals.

Table 3. Health Care Providers consulted by TB suspects (%), 1997 and 2007

	2007 NPS		1997 NPS
DOTS center	26.7	Private MD	36.2
Public hospital or clinic	26.4	Health center	24.5
Private physician	21.7	Hospital	19.9
Private hospital	16	Traditional healer	10
NGO clinic	1.5	Family member	9.4
Outreach clinic	1.1		

The above table shows that from 1997 to 2007, there was only a negligible increase of those who went to health centers and DOTS centers (24.5% to 26.7%). In 2007, although majority (53.1%) went to public health facilities (DOTS centers and public hospitals) still more than a third (37.7%) are being managed by the private practitioners and private hospitals. A worrisome development was the doubling of those who went to hospitals (both public and private), 42.2% compared to 19.9% in 1997 since most of the hospitals are not adopting DOTS.

- In the 2003 NDHS, the most common reasons given for going to a government health center were: proximity (46%), cost (28%), and service (18%). On the other hand, reasons given for going to a private doctor were: service (65%), proximity (14%), and quality of drugs (10%). These statistics seem to suggest that proximity is a strong driver for selection of type of health provider to consult. Service was a stronger factor for TB symptomatics choosing a private doctor (65%) compared to those who chose an RHU (18%).
- In Metro Manila, health seeking behavior in case of TB symptoms correlates with average family income. Subjects with low income (less than 2,000 pesos monthly) are 7x more likely not to seek care compared to those with medium or high incomes. Subjects with low income are 2x more likely to self-medicate than the others⁴⁶.
- Only 62% of symptomatics who sought care followed doctor's advice for diagnosis⁴¹.
- Comparison of survey results of TB prevalence among males and females and NTP service reports showing proportions of TB patients initiating treatment may suggest gender disparities in terms of access to treatment. The NTPS 2007 shows that prevalence of TB symptoms for males is at 14% while for females was at 12.8%. In terms of treatment however, the 2006 NTP report shows that among those who initiated treatment, majority were males (66%) compared to females (28%). Reports on TB case notification show that there are more male than female cases being detected. The reason for the disparity in gender-specific case notification is still unclear.
- Poor compliance to treatment protocol is a major concern. Among TB patients, duration of intake of drugs is well below the prescribed period of 6 months. Only 49.5% are able to complete six months of treatment or longer. Default rate is 21.2% among females and 18.8% among males⁷. Likewise, the 2007 TB LINC study indicated that only about 90 percent of the patient-respondents were still under medication at the time of the survey implying that 10 percent had either discontinued or defaulted on their treatment. The main reasons for defaulting were: an improvement in bodily conditions, not being able to get their supply of drugs because distance of their house from health center, or that their treatment partner missed to send their supply of drugs, transfer of residence and the size of the drug. In 2008, Lagrada found that treatment completion is most likely to be higher among the middle-aged

female, being above per capita poverty threshold, unemployed and having at least on sign and symptom of TB⁵⁰.

- Awareness of the government's TB control program is relatively low^{7, 41}. Awareness of what "DOTS" stand for seems even lower. The awareness of the advantages of DOTS treatment strategy is not well known to most of the general population, or even among most of the patients.
- Availability and accessibility to TB services is still limited in many areas especially in remote island or mountain villages where these are available only in the main town centers (*poblacions*), and where transport services are not always available and expensive. Travel itself can be difficult because of geography, and in some areas, because of security concerns. The opportunity cost for visiting the RHU is generally high for the poor.
- The following key weaknesses were identified regarding the ACSM activities during the 2008 Joint Program Review; (a) The overall quality of print materials disseminated DOTS facilities is variable with some poor design elements. Many materials contain inappropriate messages (i.e. fear-based messages that would create stigma and lead people to the private sector) or have no useful or useable message. (b) ACSM work is not targeted at anyone other than the 'general public', with much of the activities done around World TB Day or Lung Month, (c) print materials were in short supply and were generally not provided to support consultation work done by RHU health staff. and (d) financial support for ACSM activities is limited at all levels. The reviewers concluded that the wide variation in the quality of ACSM implementation within provinces, districts and municipalities reflects on the lack of leadership, technical capacity and coordination in the area of ACSM at all levels.
- Community participation in TB control is still low. Most of the areas where organized community support for TB control exists are in externally-funded project areas. Most of the local initiatives to organize community participation for TB control come from NGOs, faith based groups, and other civil society organizations. Government support, whether at national or local level, for community or social mobilization remains inadequate.
- Access to services is also limited for vulnerable or marginalized groups particularly the urban and rural poor, those in prisons, the workers in the informal sector, the internally displaced people, indigenous people, and the elderly. The residents of urban poor settlements and prison inmates are at a particularly higher risk of developing TB because of the living conditions associated in those settings.

2.4 Assessment of the Regulatory Environment of TB Control

2.4.1 Strengths and opportunities

- A.O. 2007-0019 provides the policies and guidelines for quality assurance of the direct sputum smear microscopy not only for the public but private TB laboratories as well. The external quality assurance (EQA) system that ensures the provision of quality assured DSSM is through on-site visit and blind slide re-checking. This system is being implemented by the Research TB Reference Laboratories (NTRL) of the Research Institute of Tropical Medicine (RITM) that manages a network of regional and provincial quality assurance (QA) centers⁵¹.
- Laboratory supplies such as reagents, sputum cups and slides are provided by DOH. Some LGUs bought lab supplies when there are shortages .

- There are 5 laboratories providing culture namely NTRL, Cebu Regional Reference Laboratories, TDFI, LCP and Philippine TB Society Inc. (PTSI). Only NTRL and TDFI are doing drug and sensitivity test (DST) ⁵².
- TB Diagnostic Committee (TBDC) was organized in 1998 to improve the quality of diagnosis among smear negative PTB cases (but with findings in x-ray examination suggestive of TB) by reducing the over-diagnosis and over-treatment of these cases and ensuring that active cases are detected and treated ¹⁸. TBDC is composed of the provincial/city medical and nurse coordinator, radiologist and clinician / internist. Meeting is held once or twice a month. Some are being financially assisted by the LGUs. Part of PhilHealth reimbursements could be used to support its operations. In 2004, 34 of 74 functional TBDCs were assessed: Of the 12,725 smear (-) and extrapulmonary cases evaluated, 49 % were decided not to be treated compared to 51% in 2002. Decision to treat widely varied – from 1% to 100% ⁵³. As of 2007, there are 67 TBDCs in the country.
- TB patients are managed in the DOTS facilities according to the disease category. Fixed dose combination (FDC) anti-TB drugs, packaged as TB kit I and II, are provided for free to TB patients. Daily treatment supervision is either done by the health staff, barangay health workers and family member. Anti-TB drugs that are provided at the DOTS centers are purchased by the DOH from Global Drug Facility (GDF) from 2004 – 2007 and in 2008 from domestic suppliers. These are distributed to the Provincial Health Offices through the CHDs through a push mechanism while distribution to DOTS centers is mainly through a pull system ⁵⁴.
- Philippine Health Insurance Corporation (PhilHealth) issued Circular 17 series of 2003 that provides for accreditation of the DOTS facilities as providers of the TB-DOTS outpatient benefit package (TB-DOTS OPB package). DOH and PhilCAT started certification of DOTS facilities (public and private) using ten standards in 2003. Regional certifiers visit health facilities that are interested and recommend action on the application. RCC approves the application while the NCC issues the certificate. Those certified could apply for accreditation by PhilHealth and are eligible to receive P4,000 for new TB patients who are PhilHealth members. Those not certified could also apply for accreditation using the “meritorious path”. The allocation of the reimbursement has been defined by DOH and endorsed by PhilHealth ⁵⁵. Currently, Philhealth with assistance from USAID is conducting a comprehensive review of its outpatient benefit package including TB-DOTS that will be completed in September, 2009. It is also reviewing NTP’s proposal to develop an outpatient benefit package for MDR-TB ⁵⁶.

2.4.2 Weaknesses and threats

- The 2008 Joint Program Review Team noted the organizational and technical weaknesses of NTRL to effectively oversee the TB laboratory network. This includes inadequate human and financial resources and weak information and monitoring system. Furthermore, the team observed incomplete coverage of quality assurance and insufficient performance of some microscopy units. NTRL is also not yet within infection control standards ⁵⁷.
- In mid-2009, NTRL has initially identified at least 120 microscopists who need to be trained and at least 100 microscopy centers with non-functional microscopes.
- In 2007, TB LINC conducted a comprehensive assessment of 498 microscopy centers covering 23 million or 27% of the country’s population in 29 USAID-supported provinces and cities. Some of the key findings were ⁵⁸: (a) The capacity of the provincial QA teams, regional coordinators, and NTRL to provide technical support to lower level laboratories is limited largely by logistical constraints, (b) Of the 21 project sites, 17 (81%) are implementing QAS during the

assessment period but only 43% in ARMM. (c) Only 388 of the 498 TB laboratories (78%) submitted slides for assessment in 2006 and reports on slide rechecking results are available for only 13 of 17 (71%) provinces, (e) Assessment of 13,692 slides showed that smear quality needs improvement in most of the project sites. Rechecking microscopy results showed that of the total slides rechecked, 790 slides (6%) have discrepant results, and (f) Most of the QA teams have experienced difficulties in carrying out the activities for EQA, particularly on-site supervision, slide collection, and in providing feedback due to limited travel logistics available to the QA teams.

- Anti-TB drug shortages were reported in 2008 due to delay in procurement that resulted from the strict implementation of fiscal policy regarding use of government funds for drug procurement outside the country⁵⁹. Some LGUs purchase anti-TB drugs but most are single drug formulation and of a higher cost than the GDF-supplied drugs. Weaknesses in the storage of drugs were observed in some DOTS facilities²⁶.
- Program monitoring showed that daily supervision of drug intake is not strictly done in some areas^{8, 26}.
- Anti-TB drugs could also be easily purchased from the private drug stores. Although selling is legally limited to those with prescription, over-the-counter sales are widespread. In 2006, the TB Alliance reported that the total TB Market Value in 2005 was approximately \$31.2m of which public expenditures was at \$2.6 m (7%) while the private \$28.9 (93%). In the private sector, TB drugs are the 15th top selling category in the Philippines reaching \$23 million or 2% of the total drug market⁶⁰. Most of the sales are FDCs. Twelve leading branded manufacturers account for 96% of the TB market, only 3 are MNCs. The cost of drug regimen purchased from private local market is 7.6 – 9.6 times higher than those purchased by DOH from the GDF.
- As of March 2009, DOH registry shows that only 745 health facilities are certified: public=701 and private = 44 and 587 facilities are PhilHealth accredited: public = 545 and private = 42.
- In 2007, PhilHealth reported that 1,214 TB patients had been claimed which is less than 1% of total TB patients. A total of P4.72 million had been reimbursed which is a negligible fraction of the P18.5 billion for all benefits paid by PhilHealth. PhilHealth reimbursement is on the average only 20% of total income of PPMDS. FGD / interview with providers showed that private sector participation increased when they are given the PhilHealth share. However, public health facilities did not renew accreditation nor pursue certification due to inability to receive their share from reimbursements which were given to the LGUs^{61, 62}. The 2007 NTPS point to a low utilization rate (28.8%) of PhilHealth benefits among eligible members. Even in urban areas where private providers are mostly present, utilization was likewise low (26.2% in Metro Manila, 27.2% in other urban areas). Moreover, most of the reported utilization of the benefit was for in-patient or hospital-based services (23.1 %)

2.5 Assessment of Governance in TB Control

2.5.1 Strengths and opportunities

- The national government demonstrates high political support to NTP primarily through increasing budgetary support to NTP. As early as 1998, the DILG issued Department Circular 98-115 that instructed all local government units (LGUs) to adopt DOTS strategy for their local TB control efforts.

- The Department of Health provides strong leadership in coordinating the country's response to the TB problem through the National TB Control Program (NTP) that is being managed by IDO of the NCDPC. Various DOH offices support NTP. NTP is a priority public health program under the PPA "Intensified Disease Control" as articulated in the health sector reform initiative called Fourmula One or F1 based on A.O. 2005-002 issued on August 2005. The 2006 – 2010 national strategic plan to control TB has been formulated that is congruent with the MDG and Stop TB Partnership's global TB control strategy⁶³. DOH has also issued administrative orders that specified the guidelines and standards for various TB control initiatives
- A team of national, regional and provincial staff provides managerial and technical support to NTP implementation. The group of NTP staff -four regular and Global Fund-supported ten contractual- coordinate the development of national TB control plan, policy and standards, provision of technical support, monitoring and evaluation and resource mobilization. A team of regional TB coordinators composed of a physician, nurse and medical technologist from the seventeen CHDs provides technical back-up and oversees that implementation of provincial TB control efforts.
- The Philippine Coalition Against TB PhilCAT), organized in 1994 and currently with 69 member-organizations from the public and private sector, is a strong ally of DOH in the fight against TB. It manages a GF-supported project that mobilizes the private sector to participate in the control of TB^{64,65}. Local TB coalitions have also been organized in some regions⁶⁶.
- Seventeen government agencies, under the umbrella of the Comprehensive Unified Policy, have been organized to ensure that they contribute to the TB control efforts in the country. Five have health service delivery capacity (DOH, DND, DOJ, DILG and DEPED), six are with large constituents (DOLE for the workers, DA and DAR for the farmers, DSWD for the marginalized groups, OWWA for the OFWs and NCIP for the indigenous people) while four have capacity to finance TB control efforts (PhilHealth, SSS, GSIS, ECC) and the other two could assist in the areas of research and policy (DOST and NEDA).
- The 2005 NTP manual of procedures (MOP) defines the functions of different institutions namely the DOH, LGUs, international partners, etc and specifies the tasks of individuals from national, regional, provincial, municipal and barangays. It also contains the policies and technical guidelines in the diagnosis and treatment of TB cases and management of the TB control program at the lower levels. .
- The local TB control program is managed by the Local Government Units (LGUs) through their Provincial Health/City Officer (PHO) assisted by the provincial/city medical / nurse coordinator. TB services are provided by both the public and private health care providers. Almost all of the Rural Health Units and Health Centers implement the national TB policies and guidelines in the diagnosis and treatment of TB. LGUs provide program support in terms of purchasing Category 3 anti-TB drugs and laboratory supplies, providing funds for monitoring, supervision and training, issuing of local policies, providing support to initiatives such as TBDC and childhood TB, etc²⁶.
- Under F1, 44 provinces have crafted their province-wide investment plan for health (PIPH) since 2006 which includes TB control plan. This will facilitate in the mobilization and coordination of funding support.
- Successful implementation of TB control efforts due to strong local leadership had been documented⁶⁷. Following the success of multi-sectoral participation in addressing HIV/AIDS, Zamboanga City organized the Hermosa TB Council in 2007 by virtue of an Executive Order issued by the City Mayor. In Bohol, following the provincial orientation on CUP attended by various government and non-government organizations, the participants decided to organize

themselves into PROCAT (Provincial Council Against TB-Bohol). Under Global Fund, PhilCAT has been organizing provincial coordinating committee (PCC) to “provide technical support, oversee engagement of all care providers and ensure sustainability of partnership”.

- The interlocal health zones (ILHZ) had been organized all over the country as a cooperating mechanism among a number of municipal LGUs through a Memorandum of Agreement as provided in A.O. 2006-0017. This involves resource sharing, procurement, information sharing and patient referral system such as in Sorsogon and Negros Oriental (interview). In Capiz, ILHZ was utilized to improve local TB program performance. It allowed sharing of strategies between LGUs and comparison of performance among zones and among ILHZ members. Poor performing LGUs felt pressure as their outputs affect the zone’s over-all accomplishments⁶⁸.

2.5.2 Weaknesses and threats

- NTP has only four regular staff since the DOH re-engineering initiative in 2000. Despite the presence of contractual staff, the issue is staff adequacy and sustainability of gains beyond Global Fund.
- Varying LGU support NTP has resulted into varying performance as measured by the case notification rate and success rate⁶⁹. Health is generally not a top priority of the LGUs. There is a mistaken perception that since the program is called the National TB Control Program that it is DOH program.
- Of the 392 municipalities in TB LINC sites, only 121 or 32% have purchased TB drugs to augment DOH-supplied stocks. Stock out rates range up to 39% and 26% only have issued local ordinance on TB⁶⁹.
- There is varying provincial capacity to implement DOTS in the province / city. Although there are designated provincial and city TB coordinators, due to limited PHO manpower, most are multi-tasking and saddled with other health programs to supervise. The presence of key DOTS ingredients such as budgetary support, province-wide QA system, monitoring and evaluation, network among health care providers, availability of drugs is variable.
- Varying level of program implementation by CUP partners specially among other government agencies.

2.6 FINANCING OF TB CONTROL

2.6.1 Strengths and opportunities:

- The funding support of the national government, primarily through the NTP, has been increasing. From 236 million pesos in 2007, NTP budget went up to 680 million pesos in 2008 and the 2009 general appropriations act (GAA) allocated even a higher budget at 1.3 billion pesos⁷⁰.
- The added budgetary support has enabled NTP to substantially increase the program scale and scope. The 2008 NTP budget allowed for the coverage of MDR patients (250 cases) as well as for support for TB in children (68,000 cases) and increased capacity building, technical assistance and improved quality of care. The 2009 NTP budget was further marked by an increase in both scope and scale of funding for TB control activities. Provision for second line drugs to treat MDR cases increased in scale from allotment for 250 to 1,500 MDR cases. Support

for quality care expanded in scope with additional funding for facility upgrades in addition to technology upgrades.

- To assess the adequacy of funds for service provision, anti-TB drug allotments were compared with estimated prevalence. Using bacteriologic prevalence as size measure for the TB population based on 2007 NTPS, the estimated number of TB cases seeking treatment was compared with the anti-TB drug allotments (expressed in number of TB cases covered). The 2008 NTP budget allows for 223,000 cases while the 2009 NTP budget allows for 268,000 cases. Even allowing for an increase in TB cases due to population growth, the allotment for anti-TB drugs exceeds the 159,000 TB cases projected to seek treatment from public facilities and approximates the projected 229,000 cases projected to seek treatment in both public and private facilities.
- Many LGUs are supporting various TB initiatives such as the meetings of the TB diagnostic committee, procurement of drugs for Category III patients and laboratory supplies, monitoring and evaluation, etc²⁶.
- Implementing various TB control efforts supported by the foreign assisted projects (FAPs) namely the Japan Anti-TB Association/Research Institute of Tuberculosis (JATA/RIT), Global Fund Against AIDS, TB and Malaria, World Health Organization, Korean International Cooperation Agency and United States Agency for International Development through its cooperating agencies – TB LINC, HPDP, HealthGov, HealthPRO and SHIELD.
- FAP covers most TB control activities particularly those not funded by national government. Global Fund financing in the TB control effort has been significant. Its funding covers most of the major TB control activities with particular focus on MDR and technical assistance.
- PHIC benefit payments to TB patients who are PHIC beneficiaries are coursed through two mechanisms - in-patient benefits accruing from the regular PHIC benefit package and case payments through the TB DOTS out-patient benefit package. The latter involves a case payment of 4,000 pesos, distributed in two tranches – P2,500 for intensive phase and P1,500 for maintenance phase. TB DOTS claim payments amounted to 4.5 million pesos in 2007. This however, pales in comparison to in-patient claim payments of 55 million pesos made to PHIC beneficiaries confined at hospital.

2.6.2 Weaknesses and threats

- While the distribution of NTP coverage approximates the distribution of TB prevalence, NTP coverage is consistently lower than estimated prevalence (both AFB positive and bacteriologic positive) in all the regions except NCR. The observed gap between the number of TB cases treated in the DOTS network (public sector plus PPMDs) with TB prevalence is partly explained by the high proportion of TB patients who self-medicate (47% according to 2007 NTPS).
- It is projected that if there is a sudden change in behavior leading to comprehensive treatment seeking scenario, the allotment for anti-TB drugs programmed in the NTP budgets may not be sufficient to cover the increase in anti-TB drug requirements due to added demand.
- While allocation for TB drugs to LGUs coincides with the number of TB cases, TB drug allotments do not coincide with CDR .
- Budget capacity is not fully utilized (with exception of 2006) while disbursed funds are not fully exhausted⁷¹.
- Although there is also greater potential for Increased LGU support as can be seen from the proposed PIPH where 63 million pesos has been allocated for TB control activities in the 2009

plans. A quick comparison of the proposed allocations for TB control activities and estimated bacteriological TB prevalence, however, shows that the two figures do not necessarily coincide.

- The absorptive capacity of the local infrastructure to translate allocated funds into realized expenses was generally not achieved as shown by Pangasinan. A cursory look of 2005 and 2006 appropriations, allotments and obligations shows that while allotments mirror appropriations, obligations fell short of allotments in 2005 but approximated it in 2006.
- The distribution of non-Global Fund FAPS in PIPH does not seem to coincide with perceived need (as measured through bacteriologic TB prevalence). Perhaps this is accounted for by the non-service provision nature of FAPS. Nevertheless, a reconciliation and comparison of sources and uses of funds for TB control would provide a better picture of the synchronicity of fund allocation across different sources with uses and ultimately with need.
- Available FAPS are not fully utilized and FAPS funding is not always assured.
- The PhilHealth website reports the latest membership coverage at 76% of population. Estimates from the 2003 NDHS and 2007 NTPS are significantly lower at 30% and 50% of population respectively. PhilHealth membership data indicates a relatively wide coverage of the population. The membership coverage however does not translate into benefit claims. Comparing estimates of bacteriologic prevalence among PhilHealth members with claims (intensive phase), it was observed that TB DOTs claim rate is quite low.
- PhilHealth data indicate an increase in accredited DOTS facilities from 387 in 2006 to 474 in 2007. Preliminary results from a PhilHealth study indicate that a subsequent increase to 735 TB DOTS centers in 2008.
- IMS reports that in 2005, TB drug sales in the private sector accounted for 2% of the total private drug market, or roughly 23 million USD.
- Patients incur substantial out-of-pocket expenses in availing of TB services even from the public sector. This includes transportation and meal costs, payment for x-ray services and other diagnostic tests, purchase of non-TB drugs, etc.

3. Assessment of the 2006 – 2010 National Strategic Plan to Control TB

Table 4. Status of the 2006 – 2010 National Strategic Plan to Control TB

Vision: TB-free Philippines		
Goal / Strategy	Status	Recommendation
Goal: To reduce the prevalence and mortality by half by 2010 contributing to the achievement of the over-all MDG	The target of achieving the MDG goals in 2010 was aligned with the target of the Western Pacific Region set in its 2006 – 2010 Regional Plan to control TB. It is projected that the Philippines will not be able to achieve the MDG targets in 2010.	<i>Reset the attainment of MDG to 2015</i>
1. Ensure the high political support for TB control as a priority of the national health plan and among the local government units	National government’s budgetary support to NTP has substantially increased from below P200 million prior to 2006 to P1.3 billion in 2009. Consequently, more resources were made available for the purchase of pediatric and second line drugs, capacity building, quality care enhancements and infrastructure upgrade. Under the Fourmula One framework, 44 provinces and cities developed their multi-year PIPH/AIPH that included TB control plan. There is varying LGU support in terms of purchasing of anti-TB drugs and laboratory supplies, issuance of TB local policies, mobilizing local partners, etc. The CUP that provides the legal basis for participation of 17 government agencies in TB control has been limitedly localized and weakly implemented.	<i>Strengthen local implementation of TB control. Secure commitment for support to TB control especially among LGUs through advocacy and counter-parting of national and FAPs assistance and provision of performance-based grant.</i>
2. Improve the capabilities of a critical mass of DOTS workers, both public and private to sustain quality implementation of DOTS services	Training courses for various categories of health workers have been conducted. Almost all RHU/HC and PPMD staff have been trained. However, there is rapid turn-over of health staff and less than 25% of private health care providers and insignificant number of hospital staff have been trained on DOTS. Although some training activities were need-based most are budget driven.	<i>Tap accredited non-DOH training institutions. Integrate some aspects of DOTS training such as microscopy and infection control with other infectious disease control training activities. Coordinate with specialty societies to adopt ISTC. Support national HRM strategic plan.</i>

3. Strengthen the implementation of DOTS certification and accreditation	<p>There was an increase in the number of health facilities certified and accredited from 2005 to 2008 but the roll-out is quite slow. Less than 25% of DOTS facilities have been accredited and certified as of 2008 and less than 1% of total TB patients had been claimed under PhilHealth reimbursements.</p>	<p><i>Improve performance through streamlining of processes, social marketing of package and ensuring flow of PhilHealth reimbursements to DOTS facilities.</i></p>
4. Maintain the support to key management functions, particularly monitoring and evaluation of NTP-DOTS implementation.	<p>M& E structure and tools in place. National and regional PIR are regularly conducted. However, local monitoring and supervision are still being done irregularly done due to inadequate logistical support.</p>	<p><i>Strengthen local program implementation and monitoring through (a) introduction of DOTS compliance standards for provinces and cities, (b) PBG and (c) enhanced TA support from the region and partners.</i></p>
5. Scale-up and enhance Public-private Mix DOTS Units in strategic sites.	<p>220 PPMDs had been established as of the end of 2008 and had contributed 6% to national CDR and 18% to the local CDR. Sustainability mechanisms have been developed and implemented. Some PPMDs had shown high sustainability potential. However, still a big proportion of the private practitioners and private hospitals are not yet adopting the DOTS.</p>	<p><i>Shift strategy to developing provincial and city capacity to implement PPMD and establish network among health care providers.</i></p>
6. Strengthen Public-to-Public collaborations between public hospitals and health centers to increase access to and improve efficiency of DOTS services.	<p>Majority of hospitals did not comply with the AO issued in 200. Pilot testing of P2P was done and replicated in few areas.</p>	<p><i>Develop an operational manual on hospital participation in DOTS to include P2P. Expand hospital involvement either as DOTS provider or referral center using financial incentive or regulatory power.</i></p>
7. Support the existing DOTS(+) initiatives and institutionalize these in the public sector.	<p>The number of MDR-TB detected and managed increased with good treatment outcome. LCP capacity is being developed to be the referral center for MDR-TB. NTRL is also being developed to provide over-all laboratory support to PMDT. Six treatment centers were established (5 in Metro Manila and 1 in Cebu). Treatment sites were also organized in Metro Manila. DOH issued a policy for the programmatic management of MDR-TB (PMDT). DOH allocated funds for the treatment of 500 MDR-TB patients in 2008 and was increased to 1,500 in 2009.</p>	<p><i>Expand implementation of PMDT and develop a DOH unit to act as PMDT manager.</i></p>
8. Strengthen the integration of TB/HIV in accordance to the country's disease scenario.	<p>In 2007, DOH issued a policy on TB/HIV coordination. Coordinated activities are being implemented only in 10 cities of NCR. 1,500 TB cases were provided with PICT and screened for HIV/AIDS.</p>	<p><i>Expand coordinative activities in high HIV/AIDS risk areas.</i></p>

4. THE 2010 – 2015 PHILIPPINE PLAN OF ACTION TO CONTROL TB (PhilPACT)

4.1 Context, Principles and Strategic Thrusts

4.1.1 The Philippine Health Sector Reform and Global TB control Plans:

In 2005, DOH adopted Fourmula One (F1) as the implementation framework for the health sector reforms that were designed to implement “critical interventions as a single package, backed by effective management infrastructure and financing arrangement” as provided by Administrative Order no. 2005 – 0023. Its specific objectives are to: (a) Secure more, better and sustained financing for health, (b) Assure the quality and affordability of health goods and services, (c) Ensure access to the availability of essential and basic health packages, and (d) Improve performance of the health system. F1 has four implementation pillars: financing, service delivery, regulation and governance. TB control is one of its priority programs under the “intensified disease control”. The implementing arrangement for F1 is explained in the above A.O. PhilPACT is organized in accordance with the four implementation pillars of F1 to provide clear guidance to managers and implementers⁷².

At the international arena, the STOP TB Partnership developed the 2006 – 2015 Strategic Plan to Stop TB⁷³. Its development was triggered by the significant changes in the social context in which TB control is carried out and more resources required due to emerging public health challenges⁷⁴. This was the basis of the WHO’s six-point agenda for TB control in 2006 – 2010, namely, (a) Pursue high quality DOTS expansion and enhancement, (b) Address TB/HIV, MDR-TB and other challenges, (c) Contribute to health system strengthening, (d) Engage all care providers, (e) Empower people with TB and communities, and (f) Enable and promote research⁷⁵. Prior to this plan, the Western Pacific Regional Office led the development of the 2006 – 2010 regional plan to Stop TB⁷⁶.

To support these global and regional plans, the Philippines formulated the 2006 – 2010 national strategic plan to control TB that contains eight strategies as discussed in the previous section.

4.1.2 Guiding principles of strategic plan formulation:

The strategic plan must:

- Contribute to the achievement of the MDG 6 (Combat HIV/AIDS, malaria and other diseases) and target 8 (To have halted and begun to reverse the incidence of malaria and other major diseases).
- Take off from the 2006 – 2010 National TB Control Plan and be consistent with the Philippine health sector reform, National Objectives for Health, and STOP TB Partnership / WHO strategy to stop TB.
- Recognize the current and potential contribution of various stakeholders, both public and private, in the control of tuberculosis.
- Adapt to the decentralized health delivery system by contributing to strengthened local health systems.
- Include strategies that scale-up and sustain the gains, address program weaknesses and threats and that have demonstrated to be effective and feasible, internationally or nationally.
- Ensure the plan’s sustainability vis-à-vis resources and health system’s absorptive capacity.

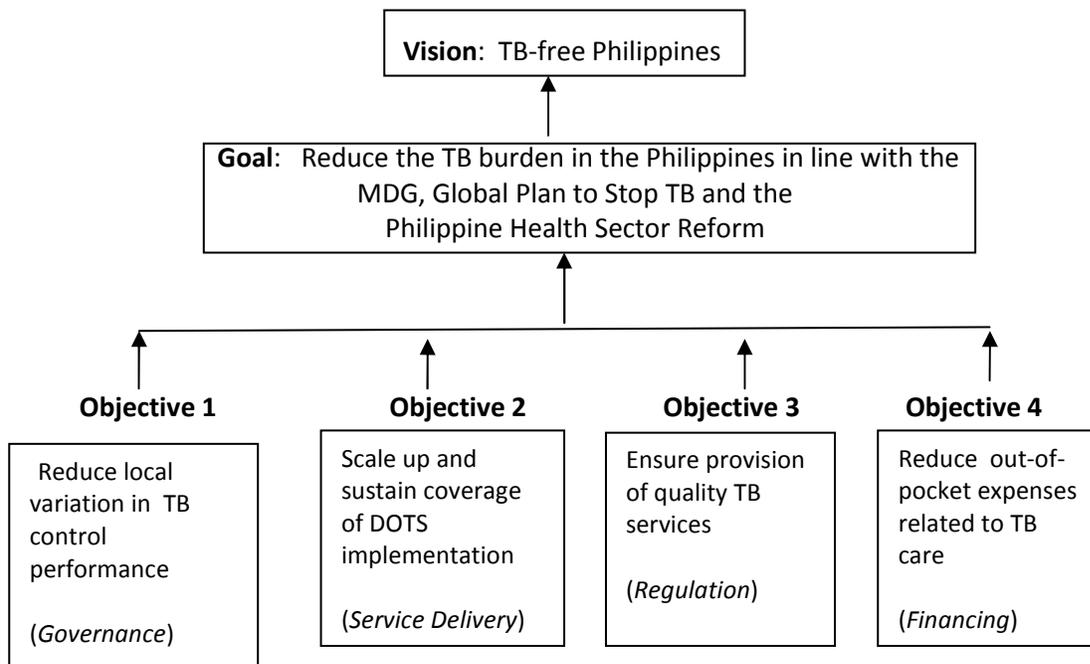
4.1.3 Strategic Thrusts for 2010 – 2015

The 2010-2015 Philippine Plan of Action to Control TB or PhilPACT is the Philippines' medium term plan to achieve the TB related MDG and the National Objectives for Health on TB Disease Prevention and Control. The plan forms part of the health sector reform initiatives on disease control management.

Consistent with the Fourmula One for Health framework, PhilPACT mobilizes the LGUs as the main drivers of TB control program implementation in accordance with the Local Government Code. Moreover, PhilPACT adopted an inclusive governance framework and a broader engagement process for planning and implementation. These processes provide another experience for the health sector to decentralize program management while moving the nexus of control into the LGUs. This direction in effect brings the TB program into the hands of local leaders and stakeholders, especially for the patients whose successful treatment are the ultimate goals of the program. The national agencies headed by the DOH, therefore, has to provide appropriate and adequate technical guidance and logistical support to enable the LGUs to implement an effective local TB control program.

The second major thrust of the plan is ensuring that the internationally recommended DOTS strategy is scaled-up and sustained to enable not only the general population to continuously access quality TB services but also ensure that the needs of the vulnerable populations are addressed.

4.2 Vision, Goal, Objectives and Targets:



Targets in 2015:

Impact: Reduce TB mortality from 87 / 100,000 in 1990 to less than 44 per 100,000 in 2015
Reduce TB prevalence of all forms of TB from 799 per 100,000 in 1990 to less than 400 per 100,000 in 2015.

Outcome: At least 85% of new smear positive TB cases are detected and at least 90% have successful treatment.
A total of at least 15,500 MDR-TB cases have been detected and provided with quality-assured second line anti-TB drugs.

Outputs:

Table 5. Beneficiaries of PhilPACT in 6 years

Indicator	Number
Total no. of TB symptomatics to be provided with DSSM	5 million
Total no. of adult TB patients(all forms) to be provided with treatment	1 million
Total no. of children to be provided with treatment and preventive therapy	730,000
Total no. of MDR-TB cases to be detected and provided with second line anti-TB drugs	15,500
Total no. of TB patients to be provided with provider initiated counselling and testing on HIV/AIDS	15,000

4.3 Strategies, Performance Targets and Key Activities:

4.3.1 Objectives and strategies

Table 6: Objectives and major strategies of PhilPACT

Objectives	Strategies
1. Reduce local variation in TB control program performance	1. Localize implementation of TB control 2. Monitor health system performance
2. Scale-up and sustain coverage of DOTS implementation	3. Engage both public and private health care providers 4. Promote and strengthen positive behavior of communities 5. Address MDR-TB, HIV/TB and needs of vulnerable populations
3. Ensure provision of quality of TB services	6. Regulate and make available quality TB diagnostic tests and drugs 7. Certify and accredit TB care providers

4. Reduce out-of-pocket expenses related to TB care	<i>8. Secure adequate funding and improve allocation and efficiency of fund utilization.</i>
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4.3.2 Performance Targets and Key Activities

Strategy 1. Localize implementation of TB control

This strategy aims that the LGUs at the provincial, city and municipal levels manage and implement the TB control program within the decentralized health system set-up and in support of the health sector reform initiatives under F1. This strategy is a response to the review of NTP conducted by the DOH in 2008 that recommended to reduce the gaps and risks in the program implementation. This includes reduction of local variations in extent and quality of TB-DOTS coverage and LGU non-ownership of local TB control objective²³. The PIR concluded that the best approach to sustaining TB control is the adoption of province/city-wide model(s) of implementation. The situational analysis affirmed the above findings and highlighted the following challenges in implementing a localized approach to the TB program such as (a) varying TB control program performance among provinces and cities, (b) NTP is perceived as predominantly a “national” or central DOH program causing some LGUs to declare “non-ownership” of the program, (c) inadequate LGU support in many areas, and (d) uncoordinated program stakeholders.

The health systems approach for the effective implementation of the TB program requires that the national and local health systems are integrated in the planning, implementation, monitoring and evaluation of the program. This also requires that both health systems subscribe to the same program vision, mission, goals and strategies. As such, the governance framework, TB program plans and implementation design should be tailored to local health systems in devolved set-up. This further necessitates that the roles and relationships of the different levels of governance structures and health service delivery providers be defined. The LGUs have the following roles for the program:

- Provide leadership in the development and implementation of local TB control plans, policies and programs consistent with the national direction.
- Coordinate public-private sector participation.
- Mobilize finances for local TB control program.
- Ensure adequate and trained workforce.
- Implement the Quality Assurance (QA) system for TB laboratory services.
- Manage logistics including drugs from all sources.
- Collect, analyze and use TB data for local program management.

Within the context of the PhilPaCT, the National Government’s key roles for the TB control program include the followingⁱ:

- Develop national plan, programs, policies and standards attuned with international recommendations.
- Provide technical assistance to LGUs and other program partners.
- Regulate the quality of TB service provision.
- Monitor and evaluate program performance.

There should be a supportive environment for the scaling up of local TB control implementation. This may include “establishing national and local performance targets, developing appropriate standards and protocols for service delivery, coordinating financing from various sources and providing enabling environment”⁷⁷.

To implement Strategy 1, the specific performance targets and activities are:

Performance Target 1.1. Seventy percent (70%) of provinces and highly urbanized cities (HUCs) include clear TB control plan within the Province-wide Investment Plan for Health (PIPH) or ARMM Investment Plan for Health (AIPH) or City Investment Plan for Health (CIPH)

The PIPH or AIPH or CIPH and the Annual Operational Plan (AOP) are the current venues for LGUs to declare their development plans for the health sector including the investment plans needed to achieve their health goals. The said plan should be integrated in their comprehensive development plan and include a TB program part which should be consistent with PhilPACT. As of 2008, 44 provinces already have PIPH and the ARMM already has an AIPH. The CIPH are currently being developed by the chartered and highly urbanized cities.

The activities at the local level will focus on assisting the LGUs develop their capacities to assess their TB program implementation and develop TB strategic plans based on their current situations. The incorporation of the PhilPACT in their PIPH / AIPH / CIPH will be guided by a standard TB plan endorsed by NTP. Technical assistance will be provided by the national and regional offices in the crafting of the LGU plan which will be annually reviewed and updated. To support these activities, NTP will formulate guidelines and assist LGUs in developing TB control strategic and operational plans for the PIPH/CIPH/AIPH and the subsequent AOPs. These plans will then be regularly collated, reviewed and analyzed as inputs to the PhilPaCT annual plans and reviews. This will also be part of the PIPH/AIPH/CIPH/AOP that will be reviewed by the Joint Appraisal Committee (JAC).

Performance Target 1.2 Seventy percent (70%) of provinces / highly urbanized cities are at least DOTS compliant

The concept of a DOTS compliant LGU rests on the attainment of the following proposed eight standards necessary for effective DOTS implementation;

1. With a province/city-wide multi-year TB control plan incorporated within the PIPH/AIPH/CIPH that responds to local situation);
2. A governance structure that manages implementation of the province wide TB control program and that coordinates public-private participation in TB control;
3. A network of provincial and municipal TB laboratories that maintains quality assured DSSM, both public and private laboratories;
4. With capacity to ensure uninterrupted supply of anti-TB drugs in all the DOTS facilities within its catchment;
5. A DOTS service network for TB care and diagnosis, involving both public and private health care providers and other levels of health care;
6. With program of activities being implemented to increase demand for TB services;
7. With system that regularly analyzes program performance (e.g. regular monitoring and evaluation), at least an annual PIR and quarterly reporting to CHD, and
8. Secured funding for TB control program implementation.

A classification scheme on the stage of compliance by the province / HUC is also proposed:

- a. DOTS compliant - achieves the 8 standards
- b. DOTS performing - DOTS compliant and achieves the case finding and case holding targets and EQA standards
- c. DOTS sustaining - achieves targets for at least 3 consecutive years and with initiatives on MDR-TB and vulnerable populations

To guide the LGUs adherence to the DOTS compliant criteria, DOH will pre-test and finalize the above standards in coordination with stakeholders, develop implementing guidelines, assessment and advocacy tools and service packages. The capacity of the national and regional units will be enhanced in doing the assessment of the provinces/cities vis-à-vis the DOTS compliant standards and in providing technical assistance to enable the provinces/HUCs to be at least DOTS compliant.

Performance Target 1.3 Ninety percent (90%) of priority provinces and HUCs with performance-based grant have achieved program targets

AO 2006-0023 (financing of F1) provides that budget allocations and releases shall be shifted from historical or incremental budgeting to those conditioned on the achievement of performance targets. The NTP performance based grants (PBGs) are intended to assist the provinces strengthen their management of the program, improve delivery of TB services and engage other stakeholders and community partners to achieve the provincial performance targets in TB control. The main objective of the PBG is to assist provinces/HUCs in reducing the gaps in the NTP implementation with preferential support for the poor performing provinces/HUCs. The reduction in the identified gaps in the provinces/HUCs should result in the increase in case detection and treatment outcomes leading to the reduction of transmission of TB disease in the said provinces/HUCs. The inputs to sustain these improvements in the program performance relative to the NTP goals and targets should be reflected in the PIPH/AIP/CIPH. The PBG scheme will distil lessons from the on-going PBG of other programs.

DOH will identify priority provinces / HUCs based on the TB burden, performance and absorptive capacity. These will serve as the basis for the performance grants for which a grant implementation and monitoring schemes will also be developed. The LGUs will be provided assistance in implementing their AOPs which includes the performance grants. LGUs who received performance grants will be assessed as to their compliance to agreed targets with DOH.

Performance Target 1.4 DOH and partners have capacity to provide TA to provinces and cities

An integral part of the program is the capacity building of DOH and partners to provide TA to LGUs in support of the PhilPACT in general and to comply with DOTS standards in particular. This is a very important activity considering that the new strategies and approaches are being introduced where national and regional staff need to be provided new knowledge and skills for them to be able to manage the new plan at their level.

DOH will develop guidelines for the provision of TA to provinces and cities while strengthening regional level coordination mechanisms like the Regional Coordinating Committees (RCC), Regional Social Development Committees (RSDC) and Regional Implementation and Coordinating Team (RICT).

The TA requests from the CHDs and other partners will have to be prioritized and scheduled to ensure a more even spread of TA provision. LGUs will identify the deficiencies in their TB control program and request technical assistance from the CHDs to meet these needs. The result of these TA activities are the enhanced TB program plans of the respective LGUs which they are expected to implement, monitor, evaluate and revise if necessary.

Performance Target 1.5 Public-private coordinating body on TB control at national, regional and provincial levels established and sustained to include adoption of Comprehensive Unified Policy (CUP) mechanism

Successful implementation of PhilPACT rests on the effective collaboration between the public and private sector in implementing various TB control interventions. As described under the implementing arrangement for PhilPACT (see section 4.5), a national TB coordinating committee will be established based on the current national coordinating committee for PPMD (NCC-PPMD). The functions and membership of the Regional Coordinating Committee for PPMD (RCC-PPMD) will be correspondingly expanded.

Recognizing that there are various mechanisms in the provinces and cities of coordinating public and private organizations to harmonize health efforts, the plan promotes utilizing similar groups such as the local health board, provincial coordinating committee being established by PhilCAT, provincial CUP or other provincial public-private (PP) bodies such as AIDS council. This group will facilitate the development of local policies, guidelines and initiatives to address issues especially related to non-NTP health care providers' involvement in TB control. The group would strengthen TB control efforts in the province and city through coordinated assessment and planning, sharing of resources and involvement of wider constituencies. Key local activities include identification and orientation of partners, planning and tracking of plan implementation.

Through the CUP TB mandate and coordination mechanisms, inter-government agency coordination for TB control will be enhanced at a local and national level. Nationally, CUP members will meet regularly for joint planning activities and develop and issue policies and guidelines on TB in accordance with the agency's mandate and sectoral needs. Regional and provincial CUP TB orientation and planning activities will also be conducted to establish the coordination and referral mechanisms. Locally, the LGUs will coordinate the implementation of the various agencies' policies and establish the referral mechanism for the coordination and documentation of the TB program outputs/activities. Local issuances in support of the multisectoral initiative for TB and interagency coordination will also be pursued in the respective LGUs.

Strategy 2. Monitor health system performance

To regularly determine the country's progress in its efforts to control TB, program performance must be monitored and evaluated. The M&E of PhilPACT which goes beyond programmatic monitoring is described in detail in Section 4.6.

Performance Target 2.1 Trend of TB Burden Tracked

The impact and outcome of the health system performance is usually done through national surveys to assess whether objectives have been achieved. In the last five years, NTP used the results of the following surveys to monitor the TB burden in the country: 2004 Drug Resistance

Survey (DRS); 2007 National TB Prevalence Survey (NTPS) and the 2003 National Demographic and Health Survey (NDHS). Results of the 2008 NDHS have yet to be released.

Reporting of mortality data has been noted to be poor and has affected the quality of TB mortality reports. The activity in this strategy aim to improve the capacity of the local health staff on quality documentation and timely reporting of TB mortality . A TB mortality study through verbal autopsies is planned at the local level. At the national level, the following surveys will be conducted to determine the trend of the TB burden in the country: 2nd Drug Resistance Survey in 2011, 1st TB mortality study in 2011 and 4th National Prevalence Survey in 2014. To capture more data regarding the disease specifically the health seeking behaviour and other socio-economic determinants of TB, specific questions on TB will be included in 2013 NDHS and Annual Poverty Index Survey (APIS).

Performance Target 2.2: TB information generated on time, analyzed and used

Complete, accurate and timely information is necessary to guide program implementation. Findings in the PIRs and program evaluations indicate a six month delay in reporting and inconsistent data in some areas. To address this, training courses on TB data and information management will be conducted at the local level. The LGUs will also be assisted in the use of the expanded web-based TB information system that will serve to enhance program planning, monitoring and evaluation.

NTP will develop the courses on TB data and information management and coordinate with NEC in the expansion of the web-based TB information system. Technical assistance will be provided to the LGUs on the conduct of the courses and initiation of a web-based TB information system. The annual performance reviews from these improved data and information systems will then serve as inputs in the program planning and implementation activities of the DOH and LGUs.

Performance Target 2.3: TB information system integrated with national M & E and Field Health Services Information System (FHSIS)

Harmonization and integration of various health information sub-systems is key to effective decision making. Currently, NTP performance is separately reported through the Field Health Services Information System (FHSIS) managed by NEC and through the provincial and regional TB coordinators that leads to discrepancy in NTP report and an additional work to field health staff. Two TB indicators namely CDR and TSR are included in the LGU scorecard being coordinated by the Bureau of Local Health Development (BLHD) of DOH. At the local level, there is need to collect, consolidate and analyze the LGU scorecard to determine local performance in health specifically in TB and craft corresponding actions. At the national level, the activities will focus on enhancing NEC's capacity to develop the TB M&E and manage an integrated TB information system.

Strategy 3. Engage both public and private health care providers

Health care providers (HCP) and their corresponding actions are critical on patients' access to quality TB services. WHO states the "competent health care providers and managers are critical in the successful implementation of the DOTS strategy to reach and sustain the targets for global tuberculosis

control. The development and maintenance of a competent workforce for TB control is therefore a key component of the activities of national TB control program”⁷⁷.

In 2001, WHO strongly urged countries to engage the private sector due to attendant risks and opportunities in TB control program implementation. Lack of private sector involvement leads to many undetected and untreated TB cases and reduction of the epidemiological impact of DOTS. It further contributes to evolution and spread of MDR-TB⁷⁸. and worsens financial burden to patients. Engagement is through the public-private mix (PPM) strategy that represents a comprehensive approach not just the private sector but all relevant health care providers”. Evidences from many countries show that PPM is feasible, productive and cost effective”⁷⁹. As of 2008 there are 220 PPMD units that contributed 6% to the national CDR and 18 % to the local CDR. On the other hand, involvement of government health facilities is mandated through Executive Order 187 signed by the President in 2003 instructing 17 government offices and urging four private organizations to adopt DOTS. Regional orientation had been conducted and few provinces organized provincial level CUP coordinating group.

The biggest challenge is to rapidly scale-up the participation of the non-NTP health care providers to detect the “missing TB cases”, hence, contribute to the attainment of the MDG goals. This would also reduce exposure by TB symptomatics and TB patients to non-DOTS providers, thus, shortening the delay in TB care seeking and ensuring proper diagnosis and treatment⁸⁰.

Performance target 3.1: 60% of all DOTS facilities in the provinces with provincial PP mechanisms are with functional public-private collaboration/ referral system (service delivery level)

To ensure that the TB symptomatics and TB patients receive continuous TB care in accordance with the national protocol, all service delivery points such as the rural health units/ health centers, hospitals, private / NGO clinics, TB diagnostic centers in the municipalities or component cities must adopt DOTS and participate in an effective referral network. The process for collaboration have to be clearly described in the guidelines, agreement among participating units expressed in memorandum of agreement and tools disseminated. Mechanisms should be strengthened and optimized to ensure adequate and prompt feedback on referrals for diagnosis and treatment between private and public providers⁸¹.

The NTP will develop and disseminate guidelines on how to establish, sustain and monitor DOTS referral network. It will also specify the service delivery packages and how their provision would be managed, coordinated and supported by key stakeholders. An example of this package is in Annex 3. LGUs will map out the TB service providers in the area, advocate for participation in the delivery of TB services and establish the DOTS referral network. Establishment of public-private partnerships will be continued and measures to sustain this will be implemented. Examples of enablers and incentives are attendance to capability-building activities, access to free anti-TB drugs, support by the LGUs and availment of financial incentives from PhilHealth TB-DOTS outpatient benefit package.

Performance 3.2: 90% of public hospitals and 60% of private hospitals are participating in TB control either as DOTS provider or referring center

Hospitals are critical partners in TB control since four out of 10 TB symptomatics had consulted a hospital and TB is one of the leading causes of hospital admissions and deaths. Of the 1,771 hospitals

nationwide, only few have maintained a DOTS clinic and few are irregularly referring TB cases to DOTS facilities.

Hospital participation will be systematized and expanded to both the public and private either through establishment of a DOTS clinic that would provide diagnostic and treatment services or strengthening their referral system to peripheral DOTS centers for the discharged and outpatient TB patients. The two-way referral system will be strengthened using the tools developed under the public-to-public (P2P) initiative. Major activities will include advocacy to hospital management, training of staff and putting the intra- and inter- hospital referral system in place. Financial incentives through the PhilHealth packages, both inpatient and outpatient, will be maximized to enhance hospital participation. Other regulatory measures for hospital participation are described under strategy 6.

Performance target 3.3: 70% of targeted 9,000 private practitioners are referring patients to DOTS facilities

One in three TB symptomatics consult private practitioners who are using a different protocol for diagnosis and treatment. They do not also report their cases to NTP. International organizations have endorsed the International Standard for TB Care (ISTC) for adoption by health care providers with accompanying document on patient rights. It contains specific standards on diagnosis, treatment and public health responsibilities related to TB services. There is an on-going training of private practitioners on DOTS and around 50% are usually referring TB cases to DOTS facilities⁸².

At the local level, members of the six professional societies who endorsed the International Standards for TB Care (ISTC) will be prioritized for training. PhilHealth outpatient package will be used to motivate them to participate in TB control. At the national level, the ISTC will be adapted to the local setting and incorporated in all DOTS training courses. The major indicator would be their referral to DOTS facility. ISTC will also be advocated for other health care providers and health related institutions such as the schools.

Performance target 3.4: All frontline health workers are equipped to deliver TB services

Turn-over of staff especially in the peripheral health facilities and engagement of other non-NTP facilities require a systematic and regular capacity-building mechanisms that are anchored on the training needs rather than on the availability of budget. All frontline health workers must have the skills and attitude to deliver TB services in accordance with the national protocol and adapted to the patient's needs. NTP has developed various training courses for specific health worker e.g modular DOTS for doctors and nurses, referring course for private practitioners, basic microscopy for microscopist and DOTS for barangay health workers.

NTP will improve the capability-building interventions by integrating all training courses on DOTS, e.g. basic DOTS and childhood TB, to reduce time spent by health workers in training. Some training courses on DOTS will also be integrated with other training courses on communicable diseases that could start with the integrated microscopy training and training on infection control for public health care settings. NTP will outsource conduct of some training courses to other educational institutions. They will develop a regular schedule for training of newly hired health workers and At the local level, training needs analysis will be conducted to identify health staff who needs skill enhancement.

A human resource information system on TB that would generate information on the number of TB workers trained and untrained will be established. The training officers at the CHD and province/city level will be involved in doing training needs analysis especially of the priority provinces / cities. To address a broader problem such as shortage of health workers, NTP will support the implementation of the HR strategic plan coordinated by the Health Human Resource Development Bureau (HHRDB).

Strategy 4. Promote and strengthen positive behavior of communities

Care seeking behavior among many Filipino TB symptomatics is often characterized by non-action taking, prolonged delays in consultation, self-medication with traditional remedies or with anti-TB drugs, and poor adherence to treatment. Social, economic, cultural, and political factors in both the provider and consumer side strongly influence care-seeking behaviour⁸³. These factors are either intrinsic or extrinsic, and serve as barriers in practically every step in the pathway towards successful TB care. Other factors are extrinsic, but are equally important, including stigma in the community and among health providers; and the accessibility, affordability, acceptability, and quality of DOTS services.

Advocacy, communication, and social mobilization (ACSM) initiatives have been implemented in the NTP but improvements are still needed in terms of quality, financing, and leadership. The coordination and evaluation of these activities has been inadequate. At the local level, the health workers' insights and understanding of the TB patients' behavior needs further improvement. The utilization of DOTS services, especially by the poor and marginalized, can still be improved through interventions that would facilitate care-seeking in DOTS facilities, compliance to diagnostic procedures, and adherence to treatment. Community participation in TB control remains limited.

Performance target 4.1: Reduced by 30% the proportion of TB symptomatics who are self-medicating and not consulting health care providers

The 2007 national TB prevalence survey showed that 68% of TB symptomatics did not take any action, and 43% of them self-medicated. The activities under this target will contribute to the increase in the number of TB symptomatics who are taking appropriate action including full compliance to diagnostic procedures.

IDO will coordinate with NCHP to develop a national ACSM plan to serve as the blueprint for the strategies and activities to be implemented at sub-national level. Communication materials will be developed targeting specific audiences to (a) increase their awareness on TB signs and symptoms, mode of transmission, (b) correct misconceptions, and (c) reduce stigma. Information materials promoting DOTS services, and highlighting its advantages and benefits for patients will also be developed and disseminated. The development of prototype materials will be led by NCHP/IDO, including the establishment of systems for financing, quality assurance, and monitoring and evaluation of communication activities and materials.

Capability building for health providers, and partner NGOs and community organizations will be done to improve their skills in disseminating information effectively, and to reduce stigma among health workers and program managers. Advocacy to LGUs will be undertaken to solicit their financial and logistical support for the production and distribution of IEC materials, and the conduct of mass media campaigns. The private sector and faith-based organizations will be tapped to help disseminate TB information.

Local strategic communication plans anchored on the results of barrier analysis, suitable approaches, and available resources will be developed.

Advocacy for TB at the national and local level will be strengthened so that this will be a continuous rather than seasonal undertaking, and will help address strategic concerns in TB control especially delayed consultation and self-medication, service quality and accessibility, stigma, lack of social support for TB patient care, and other program gaps. Well-targeted and participatory local information campaigns will be conducted to highlight the importance of timely and appropriate TB care-seeking. Researches aimed at improving the understanding of patients' behavior, as well as trainings to increase health workers' capacity for interpersonal communication and counselling will be conducted.

Performance target 4.2: Default rate of provinces and cities with $\geq 7\%$ is reduced by 40%

Unfavorable treatment outcomes of TB cases include deaths, failures, defaulters, and transfer-outs and are due to patient and program factors. Recent program reports show high default rates exceeding 7% in some areas. Treatment default is usually the strongest factor that reduces the level of treatment success.

The application of DOT throughout the entire duration of treatment will be improved through better counselling skills among health workers, better clinical care, and stronger community involvement to make DOT more accessible and accommodating to patients' needs.

Health workers and community volunteers will be trained in inter-personal communication and counselling focusing on the use of relevant messages important to patient care. The recruitment of community volunteers who will act as treatment partners to allow community or home based treatment will also be pursued through community mobilization. Advocacy to LGUs and barangay leaders, as well as the private sector, to provide financial and logistical support for treatment partners will be done.

Enabling mechanisms (e.g. food aid for impoverished families) will be developed to facilitate treatment adherence, particularly among the poor and marginalized patients. IEC materials for patients under treatment will be developed to help maintain their motivation to complete treatment especially during the continuation phase. Again, advocacy for LGU and private sector support for this initiative will be undertaken.

Performance target 4.3: Number of barangays in low performing municipalities with organized community-based group participating in TB control and are linked with DOTS facilities increased by 50%

Assessment of community involvement in TB care, implemented in some countries in Africa, Latin America and Asia, revealed varying modes of participation and results showed good treatment outcomes and higher cost-effectives compared with other health facilities⁸⁴. WHO, hence, recommends that "NTPs, health service providers and communities should take steps towards harnessing community contribution to TB care"⁸⁵.

At the local level, more community based groups will be organized or mobilized to provide support to TB control activities at the barangay level. These groups are envisioned to disseminate TB information, assist in DOT, provide social support for patients and/or their family, participate in advocacy for local

political and financial support for the program, and assist in networking among health providers. Guidelines for community mobilization will be developed by the IDO/NCHP, in partnership with other relevant agencies.

Capacity building activities for community support groups will be led by the IDO/NCHP with the support of other government agencies, and the private sector. A scheme for financing, coordinating, and the monitoring and evaluation of these initiatives will be developed. Operational researches will also be conducted to help identify and address operational gaps.

Strategy 5. Address MDR-TB, TB/HIV and needs of the vulnerable populations

At the 62nd World Health Assembly in May 2009, the 193 Member States of the World Health Organization adopted a resolution urging countries to strengthen the prevention and control of drug resistant tuberculosis ⁸⁶. This resolution was based on a Call for Action agreed during the Ministerial Meeting in Beijing in April 2009 of which the Philippines was a signatory. MDR-TB threatens the gains of the NTP because they are costly and difficult to treat, hence, may lead to transmission, development of XDR-TB and death. Aside from strengthening basic DOTS implementation to avoid emergence of MDR-TB, there is a need to implement a program that would detect most of the MDR-TB cases and ensure that they receive quality – assured second line anti-TB drugs ⁸⁷. The Philippines is one of the few countries that had earlier recognized the need to address MDR-TB and had piloted it in Metro Manila since 1998 through the Tropical Disease Foundation Incorporated under the guidance of the Green Light Committee and scaled-up under Global Fund ⁸⁸. The issuance of a DOH policy on the programmatic management of MDR-TB in 2008 had initiated the integration of this initiative within the NTP. The country also recognizes the threat of HIV/AIDS to the TB control efforts, hence, DOH issued a policy for collaboration between the NTP and the National AIDS and STI Prevention and Control Program (NASPCP) to jointly address this co-morbidity.

Generally, vulnerable population such as the poor, children, elderly, refugees, inmates and those living in geographically isolated and depressed areas (GIDA) have difficulty accessing health services. Hence, their health status is worse compared to general population ^{89,90,91}. Except for children and inmates, NTP had not yet introduced interventions to address the needs of these populations. To achieve the MDG goals, universal coverage of DOTS is a must.

Performance benchmark 5.1: A total of at least 15,500 MDR-TB cases have been detected and provided with quality assured second line anti-TB drugs

Management of MDR-TB had started in 1998 and continued until the present through the assistance of Global Fund. Five treatment centers and many treatment sites have been established in Metro Manila. About 500 MDR-TB cases were initiated treatment in 2008.

PMDT implementation will be expanded to other regions to ensure better access to diagnostic and treatment services by MDR-TB cases. This is quite challenging since enormous amount of resources are needed for a two-year treatment with second line anti-TB drugs, upgrading of infrastructure that would provide a safe and convenient environment for staff and TB patients, longer training activities and ACSM activities that would address stigma attached to MDR-TB. Quality assured second line anti-TB drugs for MDR-TB cases will be purchased with the support of the government and Global Fund. The necessary infrastructure and systems to diagnose and treat MDR-TB cases will be established.

These include; (a) 37 culture centers and 5 DST sites where these cases will be diagnosed and treatment response be monitored, (b) 42 treatment centers where patients will be correctly assessed and provided with treatment and psychological support, (c) many treatment sites where those who had converted to culture negative could be referred for continuity of treatment, (d) integrated management system of the second line anti-TB drugs, (e) conduct of regular monitoring, supervision and evaluation, (f) referral system for MDR-TB suspects from both the public and private DOTS facilities and (g) information system. Capacity-building of the program managers and the service providers will be conducted. The possibility of including MDR-TB services within the outpatient benefit packages of PhilHealth will be explored.

A DOH unit will be designated and capacitated to support the NTP in ensuring that management of MDR-TB will be within the NTP's strategic direction, policies and standards. The Lung Center of the Philippines (LCP) that will establish and operate the National MDR-TB Referral Center with the assistance of the Korean International Cooperation Agency (KOICA) is being considered to be the manager of the MDR-TB network under the oversight of NTP and in coordination with TDFI. Likewise, the NTRL, as the manager of TB laboratories, shall serve as the over-all laboratory structure for MDR-TB laboratory management.

Performance target 5.2: TB/HIV collaborative activities established in priority sites with populations having high risk behaviour and with at least 80% of TB cases tested for HIV

Experiences in other countries with high prevalence of HIV/AIDS like those in Africa shows that HIV/AIDS fuels TB epidemic by increasing the probability of latent TB progressing to active TB among those with HIV is 50% and this would lead to high mortality rate⁹². There is a strong call to scale-up HIV and TB control program collaboration to “effectively treat those with infected with both diseases, to prolong their survival and to maximize limited human resources”⁹³. WPRO issued framework on how to address HIV/TB co-infection⁹⁴. Although the Philippines has low prevalence of HIV/AIDS, there is a need to be vigilant and put in place measures to prevent the threat of HIV/AIDS to the TB control program and at the same time respond to the needs of those with TB/HIV co-infection. TB/HIV collaboration has been implemented in the ten cities of Metro Manila⁹⁵.

There will be two strategic actions; (a) expand the collaborative activities in areas identified as having populations with high risk behaviour that includes 23 cities and municipalities (on top of the 10 in NCR) identified by NASPCP, and (b) conduct of surveillance of HIV among TB patients. These areas were prioritized due to the following reasons, (a) burden of TB/HIV co-infection is expected to be higher due to presence of high risk behaviour, (b) HIV/AIDS care and support services are existent which could be easily be extended to TB/HIV co-infected patient, and (c) presence of a unit that has staff who had been systematically trained on both programs. Major activities would include provision of provider initiated counselling and testing (PICT) to TB patients, conduct of HIV testing and provision of anti-retroviral treatment (ART) for those identified with TB/HIV co-infection. The staff of HIV treatment hub will also be trained to manage HIV/AIDS cases with concomitant TB.

Performance target 5.3 Nationwide implementation of childhood TB program

Although prevalence and infectiousness of TB among children is lower than the adult, the risk of being infected and progressing to active TB disease is higher especially for the pre-school age group. With

the issuance of guidelines on the management of TB among children that is consistent with those of WHO⁹⁶, the TB control initiative started in 2005 is currently being expanded to other provinces.

Nationwide coverage of TB control program for children is planned in 2013. Local activities include training of the frontline workers to diagnose and treat children and also provide preventive therapy for those who are contacts of TB cases, distribution of drugs and PPD supplies, coordination with stakeholders and monitoring. At the national level, collaboration with the Philippine Pediatric Society and the Philippine Ambulatory Pediatric Association (PAPA) and other agencies dealing with children such as DSWD and DEPED will be conducted. Policy-wise, single dose formulation will be changed to fixed dose combination to enhance compliance and facilitate drug supply management.

Performance target 5.4 DOTS services are accessible to all inmates with TB

International and local studies have shown that prevalence of TB among prisoners is more than four times than that of the general population and the chance of having drug resistant TB is also higher⁹⁷. WHO encourages NTP to coordinate with the authority to provide TB services to prisoners since they also have the same right as those living outside. Besides, prison could be an ideal environment for TB control since prisoners are captive audience that could “facilitate identification of prisoners with TB, promotion of adherence to treatment and accurate recording and reporting”⁹⁸. DOTS has been irregularly implemented in some prisons and jails⁹⁹.

The strategic direction is to ensure that this group will have access to TB diagnostic services such as sputum microscopy and treatment, either from the health clinic within the jails/prisons or by coordinating with the nearest DOTS facility for provision of services. The prevalence survey that is currently being conducted by the PTSI will provide a better estimates of the TB burden in prisons and will provide information on the KAPs of inmates and jail workers. This will guide in crafting TB services responsive to the needs of the inmates. Technical policies and guidelines have been issued by both DOH and adopted by DILG. This initiative will be implemented by the Bureau of Jail Management and Penology (BJMP) of DILG for inmates in 1,075 prisons, by LGU in 103 provincial/city jails and by the Bureau of Corrections (BuCor) of the Department of Justice (DOJ) for its inmates from seven prisons and penal farms. Technical and logistical support will be provided by DOH, LGUs, Global Fund and the International Committee of Red Cross for an estimated 130,000 inmates.

Performance target 5.5 Policies, operational guidelines and models developed, disseminated and locally adopted to address needs of vulnerable populations

Vulnerable groups have a higher risk of getting TB and dying from it because of their (a) poor health status, (b) poor TB care seeking behaviour due to their disadvantaged position such as low level of literacy and (c) inadequate access to health services due to lack of communication and transportation facilities and financial barrier¹⁰⁰. Many are in the geographical and isolated areas such as the mountains, island barangays or municipalities that have been constantly isolated due to weather. WHO called on countries to address needs of the vulnerable populations and had issued guidelines e.g. poor, children and refugee and displaced population¹⁰¹.

The priority activity at the local level is to identify and map out these vulnerable groups such as the urban and rural poor, indigenous people, internally displaced persons due to man-made or natural disasters, cross-border users of care, elderly and those in congregated settings. The study will generate

information on their socio-demographic situation, health status and health-seeking behavior that would affect any effort to improve their access to TB services. This will guide in the formulation of policies and models that would respond to their specific needs. Concerned government agencies such as the NCIP for indigenous people and DSWD for the elderly will be assisted in developing policies and implementing guidelines and pilot initiatives to reach the TB patients. NTP will develop and issue policies and guidelines on appropriate interventions for the vulnerable groups and put in place information system to monitor effectiveness of these efforts.

Strategy 6: Regulate and make available quality TB diagnostic tests and anti-TB drugs

Quality health service is defined as effective, efficient, accessible, acceptable/patient-centered, equitable and safe. Availability of quality assured diagnostic tests and standardized treatment are keys to prompt diagnosis and treatment of TB cases.

Performance target 6.1 TB laboratory network managed by the National TB Reference Laboratory ensures that 90% of all microscopy centers are within the quality standards

Direct smear sputum examination (DSSM), the main tool used to detect TB cases under the NTP is being provided by more than 2,000 TB microscopy centers in the country. DSSM is being quality assured through the external quality assurance (EQA) system that is being managed by the National TB Reference Laboratory (NTRL) with the assistance of the regional and provincial QA centers. In accordance with the protocol of EQA, provincial TB coordinators collect quarterly a pre-determined number of slides from the microscopy centers and these are read by the provincial or city validator. Results are provided to the participating MCs.

The major activity to achieve the performance target is to strengthen the capacity of NTRL to manage the TB laboratory network by ensuring (a) adequate and trained manpower, (b) increased and secured funding support for its activities, (c) established systems such as human resource development for TB laboratory staff and information management, and (d) linkage with supranational laboratory and laboratory experts. An NTRL organizational assessment and a TB laboratory strategic sub-plan will guide on the activities to enable NTRL to effectively perform its role as over-all TB laboratory manager. NTRL will develop and implement a certification system for public and private laboratories providing DSSM and this certification will be linked with the Philhealth accreditation for laboratories. Regional and provincial QA centers will be also capacitated to implement and sustain the EQA. Coverage of EQA will be expanded to microscopy units based in hospitals and private laboratories. This will require strict implementation of the DOH administrative issuance that mandated NTRL to scale-up the quality assurance to include all microscopy centers doing sputum microscopy. As part of the retooling process, NTRL will also pilot new diagnostic tests that should be “cost-effective and robust enough to be used at peripheral levels “ and “should allow sensitive, specific and timely detection of TB cases”¹⁰³

Performance target 6.2 TB microscopy services expanded in cities and underserved areas

To ensure access and adequate workload to maintain the proficiency of microscopists, the international standard for microscopy center to population ratio is one per 50,000 – 100,000. Big cities have worse ratio than the provinces such as the big cities of Quezon City, San Fernando, Antipolo, Batangas, Puerto Princesa, etc. Expectedly, residents of GIDA (geographically isolated and depressed areas) such as island municipalities of ARMM have no access to microscopy services.

For the big cities, the intervention will be to establish new microscopy centers through advocacy to the local government units or to utilize microscopy unit of hospitals or private laboratories. In difficult areas, innovative strategies will be adopted to bring the services closer to the communities. This may include (a) utilization of community volunteers to do smearing and fixing and transporting the slides to the microscopy centers, and (b) inclusion of smear examination during outreach services or itinerant team's visit to areas.

Performance target 6.3. Every province and HUCs will have access to TB Diagnostic Committee

Many studies have shown that no radiographic pattern is diagnostic of tuberculosis, hence, is unreliable. This low specificity of x-ray examination as diagnostic procedure for smear negative TB cases leads to over diagnosis and waste of resources. Thus, TB Diagnostic Committee (TBDC) has been established.

Systematic evaluation of the TBDC will be conducted to improve its operations and ensure its sustainability. Operational guidelines for TBDC will be revised to adopt its TBDC composition to the area situation, incorporate additional information in its reporting such as quality of x-ray film, reduce the delay in the release of reading and provide options to support its operations. Additional TBDCs will be established in priority sites where they are most needed – big population, high number of smear negative cases that exceeds the smear positive cases and with many private practitioners and private hospitals. Its performance will be regularly monitored through reports and PIRs. Its sustainability will be assured through the share of PhilHealth outpatient benefit package, advocacy for issuance of local policy backed with budgetary support, conduct of regular assessment and monitoring of performance. An operational study on the effectiveness and feasibility of a QA system for TBDC will be conducted.

Performance target 6.4: Quality-assured anti-TB drugs are always available in DOTS facilities

A critical element in ensuring compliance to treatment by TB patients is the continuous availability of quality-assured first line anti-TB drugs at DOTS centers. This in turn is dependent on an effective drug distribution system that includes; (a) selection and quantification of drug needs, (b) procurement, (c) distribution, and (e) utilization¹⁰⁴. This also includes ensuring the quality of anti-TB drugs by a drug regulatory authority and establishment of drug information system.

To ensure that TB patients have uninterrupted supply of anti-TB drugs, budget allocation and procurement of all anti-TB drugs for both adult and pediatric TB cases will be the responsibility of the Department of Health. This will be a policy shift from the previous policy of having the LGUs provide anti-TB drugs for Cat. 3 TB cases. In practice though, DOH has mainly supplied the first line anti-TB drugs to DOTS centers. The advantage of this mechanism will be (a) uniform formulation and packaging of the drugs that facilitates patient compliance (fixed dose combination in blister pack and packaged as TB kit), (b) ensures procurement of quality- assured drugs, and (c) reduces the cost due to bulk procurement compared to small scale purchase of individual LGUs. However, there is a need to strengthen the procurement process within DOH to prevent delay. Distribution pathway will be shortened by distributing the drugs directly to the provinces and cities. CHDs will be provided with information to monitor the drug allocation and distribution. Capacity of the program managers and supply officers on drug management will be strengthened. Modern communication technology such as the internet or SMS will be explored to assist in managing the supply of drugs at the peripheral levels.

The program will participate in reforms by the National Drug Policy and BFAD that would ensure availability of quality and safe drugs.

Strategy 7. Certify and accredit TB care providers

There are many strategies to ensure quality health care – some are internal and others are external to the health care providers¹⁰². The three common external quality assurance (EQA) interventions are (a) licensure, (b) accreditation and (c) certification. **Licensure** is a process by which a governmental authority grants permission to an individual practitioner or health care organization to operate or to engage in an occupation or profession. **Accreditation** is a formal process by which a recognized body, usually a non-governmental organization (NGO), assesses and recognizes that a health care organization meets applicable pre-determined and published standards. **Certification** is a process by which an authorized body, either a governmental or non-governmental organization, evaluates and recognizes either an individual or an organization as meeting pre-determined requirements or criteria.

Performance target 7.1 At least 70% of DOTS facilities are DOH/PhilCAT-certified and PhilHealth-accredited

PhilHealth's contribution in ensuring quality TB services through its role of regulating accredited facilities so that only DOTS compliant services are provided is less than exceptional. The TB situational assessment indicated that only a limited number of TB providers were accredited for the TB DOTS out-patient benefit package. Likewise, payments for TB DOTS amounting were dwarfed by reimbursements for TB in-patient cases that were not necessarily treated with NTP protocol.

The relatively low number of PhilHealth accredited TB DOTS centers has been attributed to the cumbersome TB DOTS certification and accreditation process as well as the lack of incentives on the part of RHU staff to work for PhilHealth TB DOTS accreditation. This strategic plan thus calls for the streamlining and harmonization of the certification and accreditation processes. A part of the effort thus involves streamlining the certification and accreditation process by removing duplicative activities, and fast-tracking by replacing taxing requirements with less tedious processes. PhilPACT also calls for the harmonization of the TB DOTS certification and accreditation processes by removing redundant requirements present in the separate certification and accreditation processes.

The strategic plan also realizes that gains from the streamlining and harmonization of the TB DOTS certification and accreditation processes may not be fully realized without the support of RHU staff. To secure the active participation of the RHU staff not only in obtaining PhilHealth TB DOTS accreditation but also in improving the quality of provided TB DOTS services, a review of guidelines for TB DOTS case payments will be made so that RHU staff benefit directly from the provision of TB services. One possibility considered is the incorporation of provisions in the TB DOTS case payment mechanism to allow for a proportion of the case payment to accrue to the TB DOTS center staff.

Performance Target 7.2: Infection control measures in place in all treatment centers/sites and DOTS centers

An undiagnosed or an untreated TB patient has the potential to infect other patients and health staff. In the Philippines, many hospitals do not have the capacity to provide adequate isolation areas with

ventilation systems that prevent isolation room exhaust from re-circulating into the general circulation. Congestion, late detection due to low suspicion, late initiation of treatment and insufficient or improper use of personal protective equipment (N95 masks) all compound the transmission of TB in hospitals. The same holds true for most DOTS facilities. The uninterrupted transmission of TB and threat of MDR-TB compel the national government to develop clear policies on infection control in all DOTS facilities.

WHO strongly recommends that “all health-care facilities, public and private, caring for TB patients or persons suspected of having TB should implement infection control measures based on the local epidemiological, climatic and socioeconomic conditions, as well as the burden of TB, HIV, MDR-TB and XDR-TB” to reduce transmission of TB in health facilities¹⁰⁵. The administrative controls should be complemented by the environmental controls and personal protective equipment (PPEs), because evidence shows that these measures also contribute to a further reduction of transmission of TB.

In accordance with the recommendations of WHO, the following national and subnational managerial activities will be pursued; (a) integrate TB infection within other TB control activities such plan and policy development, training and monitoring, (b) in coordination with NCHFD, develop standards and policies to ensure that the design, construction, renovation and use of health facilities including the treatment center adhere to TB infection control standards, and (c) monitor and evaluate the TB infection control measures. At the local level, LGU will ensure that proper infection control measures are being implemented in the DOTS facilities as part of the certification and accreditation requirements of DOH, PhilCAT and PhilHealth. At congregate settings such as prison, isolation and use of ventilation and personal protective measures will be implemented. Establishment of treatment centers catering to MDR-TB will be monitored to ensure that proper administrative and environmental measures are being complied.

LGUs should seek assistance from the national government to craft their own infection control guidelines based on national standards. Regular monitoring and reporting of all infectious diseases and rational antibiotic use should be part of these infection control measures.

Strategy 8. Secure adequate funding and improve allocation and efficiency of fund utilization

Out of pocket spending for TB, in general, is due to the inadequate funding of TB control program. The key challenge in financing that PhilPACT 2010-2015 seeks to address is ensuring that there is adequate financing for its key strategies, particularly in strengthening local implementation of TB prevention and control. To achieve this, it is critical that adequate resources are secured from multiple funding sources. Securing these resources require instruments and mechanisms to estimate needs, identify and secure fund commitments and optimally allocate resources. With public sector funding as the predominant source with substantial FAPs support in specific areas and aspects of TB control, there is need to leverage these resources against each other and on other underutilized sources of TB financing. On the other hand, managing funds coming from multiple resources demand higher efforts at coordination in terms of its sources and use, particularly in a decentralized health system where more than half of patients either do not seek care or self-medicate, and of those that seek care, around 40% end up in the private sector. Lastly, ensuring efficiency in fund utilization needs mechanisms and tools to ensure proper and timely disbursement of funds as well as having a tracking mechanism that provides feedback to the planning system of the program.

Performance target 8.1 Reduce redundancies and gaps by harmonizing financing of TB prevention and control

Securing national and local government financial commitments to TB control is critical to ensuring adequacy of available funds. Despite increasing NTP budgets from national government and sustained FAPS support, full funding of TB control remains inadequate and uncertain. With more than half of TB cases currently not seeking care, resources currently mobilized by national government alone may not be sufficient to satisfy funding requirements if demand for DOTS increases dramatically. Furthermore, the recent round of budget increases are subject to annual budget deliberations and dependent on the fiscal situation and priorities of government. FAPS support on the other hand have finite project life with no systematic pipeline development effort ensuring its continuous and sustained flow.

Obviously, funds within the ambit of national government influence would have to be supplemented by financing from local government, PhilHealth reimbursements, FAPS and out-of-pocket expenses to meet the financing requirements of TB control. Satisfying funding requirements for TB control however is not a simple matter of consolidating available funds since redundancies (e.g., duplicate funding of the same activity) and restrictions to fund use (e.g., FAPS limited to training and other TA) could easily dissipate potential funding. It also involves proper planning mechanisms and tools, advocacy for sustained funding and deliberate pipeline development for FAPS.

These would require the development of a financing roadmap that identifies the funding requirement as well as financing commitment of alternative sources of TB financing. A multi-sector financial plan for TB control that identifies the funding commitments of the different stakeholders in the TB control effort e.g., national and local government, FAPS, PhilHealth, other third party payers, and out-of-pocket must be developed. The multi-sector financial plan would serve as a road map describing not only how much is allocated to specific TB control activities but also who pays for specific activities. In addition, the multi-sector financial plan ensures continuity by outlining financing commitments through time (e.g., commitment and allocation of funds for each year of the medium term plan – 2010-2015).

Given the multi-year character of the financial plan, flexibility in projected budgets and expenditures is a requirement. One such flexibility mechanism would be the use of rolling multi-year adjustment. Operationally, this implies an annual review of the financial plan and the allowance for changes in budget and cost parameters e.g., financial worksheets would have to be developed to allow adjustments should realized budget and cost parameters vary relative to projections. Another feature to enhance flexibility would be the development of separate national and local province-wide financial plans. The national financial plan would reflect the Philippine aggregate while local province-wide financial plans would be integral to the PIPH through the incorporation of TB sub-plans in the PIPH.

The use of local province-wide financial plans requires the development of the TB sub-plan template as well as TB costing protocol of the PIPH costing module. The TB sub-plan template and TB costing protocol standardizes investment and costing formats, thereby allowing for consolidation and comparability across AOPs/PIPHs/AIPHS/CIPHs. As multi-year rolling plans, the national and local province-wide financial plans would have to be reviewed and presented on an annual basis.

Due to substantial support expected from FAPS, pipeline development for FAPS needs to be programmed on a periodic basis, following the life cycle of projects in TB. As a matter of principle, FAPS should be directed at raising resources for innovations in TB control and meeting service delivery gaps.

Performance target 8.2 National government funds are leveraged to secure LGU and PHIC commitments

To obtain the commitment of partners such as local governments and PhilHealth, it may be necessary to leverage resources within the ambit of the national government (e.g., national government funds and FAPS). One way of leveraging partner commitments would be to offer performance based grants to LGUs in return for either achieving desired TB outcomes or undertaking needed local TB control activities.

This requires the development of a performance based grant mechanism and the corresponding monitoring tool. The desired characteristic of the performance based grant and its corresponding monitoring tool would be the ability to deploy the scarce TB resources to areas that have high TB prevalence as well as improve the absorptive capacity of LGUs to employ the nationally provided resources e.g., funds or commodities.

Performance based provision of central resources will be in terms of fixed (lifeline) and incremental (variable) tranches. A fixed amount of resources, specifically, the historical allocation of the anti-TB drug requirement of the LGU will be provided by national government. The deployment of both the variable (incremental) and fixed national government transfers to LGUs however will be governed by agreements between the national government (thru its agent the CHDs) and LGUs and enforced with use of appropriate monitoring and evaluation tools.

Performance Target 8.3: PhiHealth’s role expanded through greater availability of accredited providers and increased utilization of TB DOTS package

Increasing PhilHealth share in TB expenditures entails rapid expansion of DOTS-accredited providers to service members. This effort therefore, ties up with increasing enrolment in LGUs, technical assistance and capital support for accreditation, improving the TB DOTS benefit structure to focus payments on current funding gaps in TB care and ensuring that its payment mechanisms provide incentives for providers to offer higher quality services and for local health system managers and decision makers to provide funding and logistic support by linking benefits with overall public health goals.

The table below contains the specific key activities and corresponding time frame to achieve the performance targets.

Table 7. Strategies, Performance Targets, Activities and Time Frame

Strategies	Performance Targets	Activities	2010	2011	2012	2013	2014	2015
Strategy 1. Localize TB control program implementation	1.1 70% of provinces and highly urbanized cities (HUCs) include clear TB control plan within the Province-wide Investment Plan for Health (PIPH) or ARMM Investment Plan for Health (AIPH) or City Investment Plan for Health (CIPH) <i>Baseline:</i> 44 provinces with PIPH as of 2008 but with varying quality of TB control plan	Local:						
		Assess status of local TB control program implementation	x	x	x	x	x	x
		Develop local TB strategic plan based on the analysis considering the absorptive capacity of the LGUs and national plan	x	x	x	x	x	x
		Incorporate TB strategic / operational plan within the PIPH / AIPH / CIPH and AOP	x	x				
		Update TB control plan yearly and incorporate into annual operational plan (AOP)		x	x	x	x	x
		Support advocacy to integrate PIPH / AIPH with the Comprehensive development plan / Annual Investment Plan of the LGUs	x			x		
		National:						
		Formulate guidelines in developing TB control strategic and operational plan for PIPH/AIPH / CIPH and AOP	x					
		Provide technical assistance in the development of TB control plan	x	x	x	x	x	x
		Consolidate, review and analyze all PIPHS/AOPs	x	x	x	x	x	x
1.2 70% of provinces / HUCs are at least DOTS compliant <i>Baseline: no information</i>	Local:							
	Conduct self-assessment vs DOTS standards to identify gaps and needs	x	x	x				
	Develop and implement plan to be DOTS-compliant	x	x	x	x	x	x	
	National:							
	Develop standards, assessment tools and implementing guidelines for a DOTS- compliant, performing and sustaining province / city	x						
	Build capacity of national and regional units to use the assessment tools	x	x					
	Asses provinces / cities vis-à-vis standards	x	x	x	x	x		
	Develop DOTS packages and corresponding TA	x						
Provide TA based on local needs	x	x	x	x	x	x		
1.3 90% of priority provinces and HUCs with performance grant have achieved program targets <i>Baseline: no prioritized areas</i>	Local:							
	Conduct annual PIR	x	x	x	x	x	x	
	Submit quarterly progress monitoring report to CHD	x	x	x	x	x	x	
	National							
	Identify priority provinces based on TB burden, performance and absorptive capacity	x		x		x		
	Develop and implement performance-based grant mechanism	x	x	x	x	x	x	
	Conduct semi-annual monitoring with priority provinces given grants	x	x	x	x	x	x	
Conduct quarterly assessment of provinces given grants	x	x	x	x	x	x		
1.4 DOH and partners have capacity to provide support to provinces and cities <i>Baseline:</i> NTP with 4 regular staff All regions except ARMM have TB regional	Local:							
	Identify TA needs and request for assistance	x	x	x	x			
	National							
	Develop guidelines for provision of TA to provinces and cities	x						
	Capability-building of national and regional staff	x	x	x	x	x		
	Strengthen RCC to oversee PhilPACT implementation	x	x	x				
	Prioritize requests for TA on capability building activities for CHDs	x	x	x				

	5.4 DOTS services accessible to all inmates with TB <i>Baseline: 23% of around 130,000</i>	Local:							
		Conduct phased expansion of TB in prison initiative to cover all inmates.	40% of inmates (50% of inmates	60% of all inmates	75%	90%	100%	
		Detect and provide treatment	x	x	x	x	x	x	
		National:							
		Coordinate implementation of TB prison initiatives with national government partners (BuCor, BJMP and others)	x	x	x	x	x		
		Conduct external evaluation of current guidelines for TB in prisons			x	x			
		Conduct regular monitoring of the implementation of TB in prison initiatives	x	x	x	x	x	x	
	5.5 Policies, operational guidelines and models developed, disseminated and locally adopted to address needs of vulnerable population (poor, IPs, displaced, elderly or those living in congregate settings, PWDs, CICL) <i>Baseline: no national policy and guidelines except for children and prisoners with TB</i>	Local:							
		Identify and profile vulnerable groups in the locality	x	x					
		Implement local initiatives in accordance with national guidelines		x	x	x	x	x	
		National:							
		Conduct a comprehensive study on the size, distribution, health-seeking behaviour and needs of vulnerable population (IPs, displaced population, elderly, PWDs, Children in conflict with the Law (CICL))	x						
		Develop plan, policies and models to ensure access to DOTS services by the vulnerable populations		x	x	x			
		Develop implementation tools such as operational guide, training module, training materials, advocacy, etc		x	x	x			
Coordinate implementation and monitoring of models with concerned government agencies e.g. DSWD, NCIP, NASPCP	x	x	x	x	x	x			
Strategy 6. Regulate and make available quality TB diagnostic tests and anti-TB drugs	6.1 TB laboratory network managed by the National TB Reference Laboratory (NTRL) ensures that 90% of all microscopy centers (MCs) are within the standard <i>Baseline: 75% of MCs are participating in EQA and 76% are within the standards</i>	Local:							
		Expand province/city-wide EQA for direct smear sputum microscopy (DSSM) of both public and private	x	x	x	x	x	x	
		Provide local support to TB microscopy centers	x	x	x	x	x	x	
		Capability-building for provincial/city QA center validators	x	x					
		National:							
		Capacitate NTRL and regional QA centers	x	x	x	x	x	x	
		Establish and implement certification of TB laboratories	x	x	x	x	x		
		Establish and implement QA for Culture and DST	x	x	x	x	x	x	
		Explore new diagnostics through ORs		x	x				
		Review and revise QA guidelines for microscopy centers		x					
		Conduct semi-annual TB lab performance review	x	x	x	x	x	x	
		Procure and distribute laboratory supplies	740,416 TBS	778,341	824,207	853,569	882,050	904,475	
		58							
	6.2 TB microscopy services expanded in cities and underserved areas	Local:							
		Identify / assess needs of GIDA and urban areas	x	x	x				
		Establish additional TB laboratories to attain one TB lab for less than 100,000 population either through establishment of new TB	x	x	x	x	x	x	

Strategy 7. Certify and accredit TB care providers	7.1 At least 70% of DOTS facilities are DOH/PhilCAT-certified and PhilHealth-accredited <i>Baseline: Less than 25% are certified by DOH and Phil CAT: 70 % of the 25% are accredited by Philhealth</i>	Local							
		Address gaps identified in the self-assessment based on Quality Assurance Plan	x	x	x	x	x		
		Implement social marketing activities	x	x	x	x	x	x	x
		Establish mechanism for public DOTS facilities to utilize reimbursement based on policies such as trust fund for TB outpatient package	x	x	x	x	x	x	x
		National:							
		Review certification/ accreditation process and explore separate certification of “Sentrong Sigla” and “DOTS Facility			x				
		Streamline certification / accreditation processes based on assessment	x	x	x	x	x	x	x
		Incorporate DOTS facility standards into the PhilHealth Benchbook			x				
		Organize more certifiers team	x	x	x	x	x	x	x
		Disseminate and implement TB DOTS PHIC manual on accreditation	x	x	x				
Certify and accredit DOTS facilities	25%	35%	45%	55%	65%	70%			
7.2 Standards for hospital participation in TB control included in DOH licensing and PhilHealth accreditation requirements <i>Baseline: Not yet included</i>	Local								
	Incorporate DOTS standards for hospitals in training activities	x	x	x	x				
	Implement DOTS standards in local hospitals		x	x	x	x	x	x	
	National								
	Incorporate DOTS standards in PhilHealth benchbook	x							
	Incorporate DOTS standard in DOH licensing requirements	x	x						
7.3 Infection control measures in place in all treatment centers / sites and DOTS facilities <i>Baseline: estimated to be in less than 25% of all DOTS facilities</i>	Local:								
	Conduct training on infection control	x	x	x	x	x	x	x	
	Implement local infection control based on national guidelines	x	x	x	x	x	x	x	
	National								
	Develop and disseminate national policies and guidelines on infection control	x	x						
	Provide technical assistance to LGUs in order to put in place infection control		x	x	x	x	x	x	
Evaluate and monitor infection control practices									
Strategy 8 Secure adequate funding and improve allocation and efficiency of fund utilization.	8.1 Reduced redundancies and gaps in and harmonized national, local govt and FAPs financing <i>Baseline: Varying estimates of financing gap</i>	Local							
		Develop and cost the TB subplan in the AOP/PIPH using the TB costing module	x	x					
		Present the plan to local LCE for approval and support	x	x	x	x	x	x	x
		Update yearly the TB control plan under AOP/PIPH	x	x	x	x	x	x	x
		Provide local budget for TB control (e.g. to include provision of anti-TB drugs buffer stock)		x					
		Utilize performance-based grant	x	x	x	x	x	x	x
		National							
		Develop / update a national TB account and financial planning tool	x		x			x	x
Establish FAPs development pipeline and enhance coordinating mechanism for FAPs for TB	x	x	x	x	x	x	x		

4.4 Financing Requirements

4.4.1 Costing methodology

The PhilPACT costing tool was developed for the estimation of the financing requirements of the medium-term TB control strategy. Following the PhilPACT planning horizon, the costing tool computes annual costs corresponding to activities listed for each year of PhilPACT implementation i.e., annual costs from 2010 to 2015. The costing tool also allows for the disaggregation of costs by major strategy and by prospective financing agent.

In addition to the estimation of financing requirements, the costing tool also estimates potential funding commitments and provides an approximation of possible funding gaps e.g., financing requirements less funding commitments by stakeholders. The stakeholders identified in the costing tool are national government (NG), local government units (LGUs), foreign assisted projects (FAPs), PhilHealth and out-of-pocket (OOP).

To enhance alignment with financial tools on TB care expenditures particularly those employed by international organizations, the costing tool draws heavily from the WHO costing templates for national TB control programs. This is evident in the costing tool's use of cost structures similar to budgeting tool developed by WHO for NTPs.

The cost calculations involve computing cost per activity given the item list per activity and the associated unit cost e.g., unit cost of meetings multiplied by number of meetings per LGU multiplied by number of LGUs. The phasing of activities also follow the timeline specified in the planning matrix e.g., number of warehouses to be upgraded increases or decreases depending on the phasing of warehouse upgrading.

The unit cost parameters used in the calculations were obtained from the following sources: national government agency reports, FAPS records, project data and key informants and agreed upon by the TF members for standardization. To simplify calculations, financing requirements are cast in 2010 prices.

Aside from unit costs, estimates of the prospective number of TB patients were derived from TB incidence parameters which were derived from WHO and NTP reports.

4.4.2 Summary of financing requirements and funding gaps

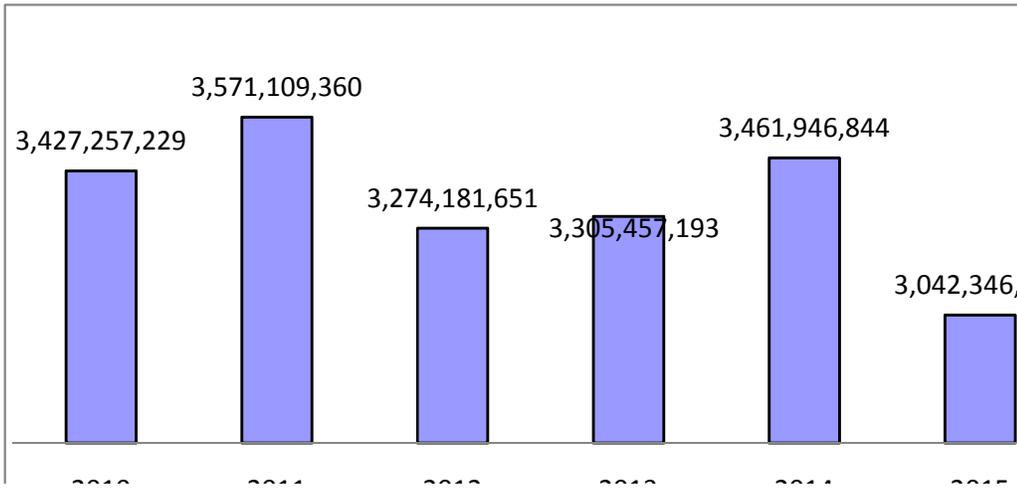
The total financing requirement for PhilPACT implementation is **20 billion Philippine pesos (Php)**. The breakdown by strategy and year is shown in Table 8.

Table 8. PhilPACT financing requirements by time and strategy

Strategy		2010	2011	2012	2013	2014	2015	TOTAL
1	Localize TB control program implementation	273,462,691	217,657,674	218,475,156	220,085,305	216,860,781	37,240,557	1,183,782,165
2	Monitor health system performance	82,088,900	86,196,605	13,856,600	7,539,600	79,125,600	12,060,000	280,867,305
3	Engage both public and private TB care providers	449,696,141	450,074,415	424,384,032	384,164,499	385,621,612	378,658,424	2,472,599,033
4	Promote and strengthen positive behavior of communities	562,742,312	549,755,258	448,331,348	396,747,719	289,301,166	136,847,369	2,383,725,172
5	Address MDR-TB, TB/HIV and needs of vulnerable populations	1,443,117,521	1,597,621,254	1,472,585,394	1,541,417,865	1,716,468,970	1,838,194,645	9,609,332,650
6	Regulate and make available quality TB diagnostic tests and drugs	553,573,520	576,587,010	596,242,542	643,518,621	667,613,736	534,265,716	3,571,501,145
7	Certify and accredit TB care providers	50,013,144	70,035,644	66,273,580	64,752,083	52,577,980	43,127,980	346,780,409
8	Secure adequate funding and improve allocation and efficiency of fund utilization	12,563,000	23,181,500	34,033,000	47,231,500	54,377,000	61,951,500	233,337,500
TOTAL		3,427,257,229	3,571,109,360	3,274,181,651	3,305,457,193	3,461,946,844	3,042,346,192	20,081,925,379

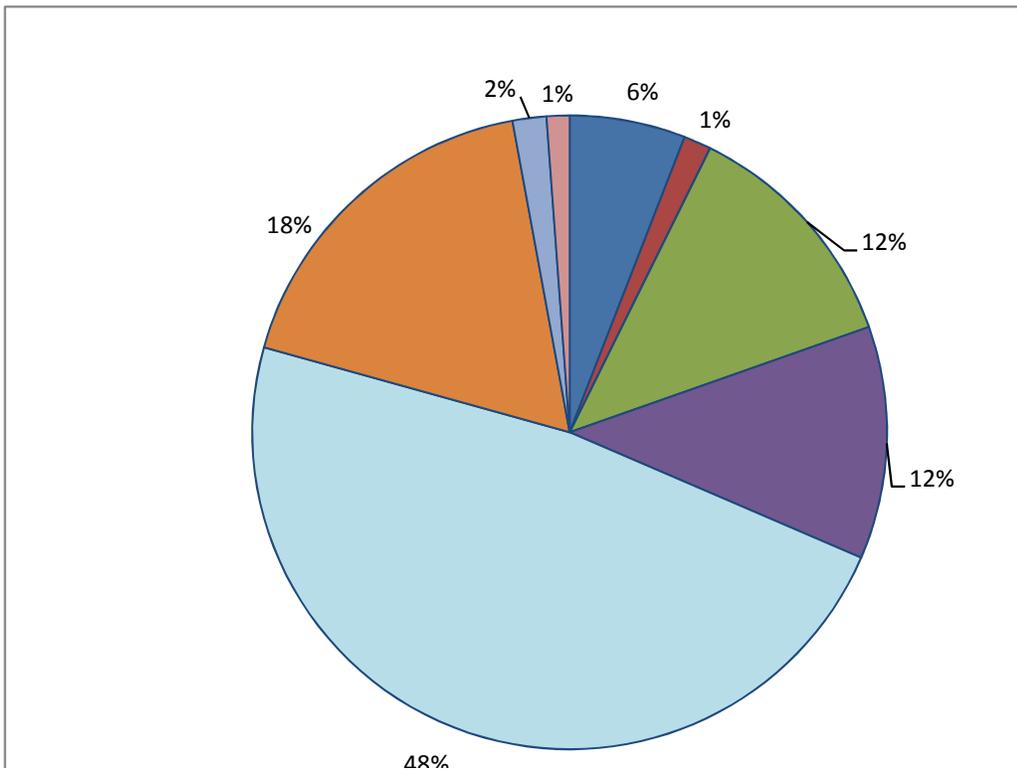
Annual costs vary from 3.4 billion pesos in 2010 to 3 billion in 2015. Frontloading of activities occur mostly during the first two years.

Figure 5. Estimated annual financing requirement of PhilPACT from 2010-2015



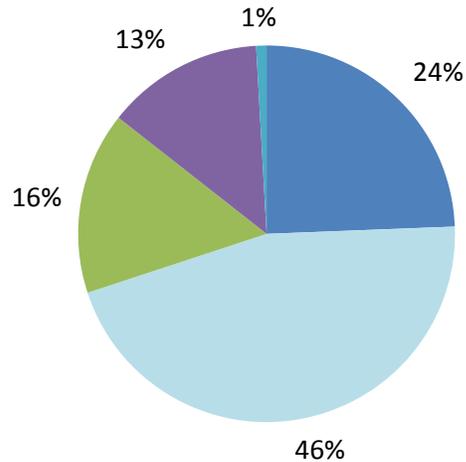
Strategy 5 and strategy 6 account for most of the financing requirements at around 66%.

Figure 6 . Distribution of estimated PhilPACT cost by major strategy



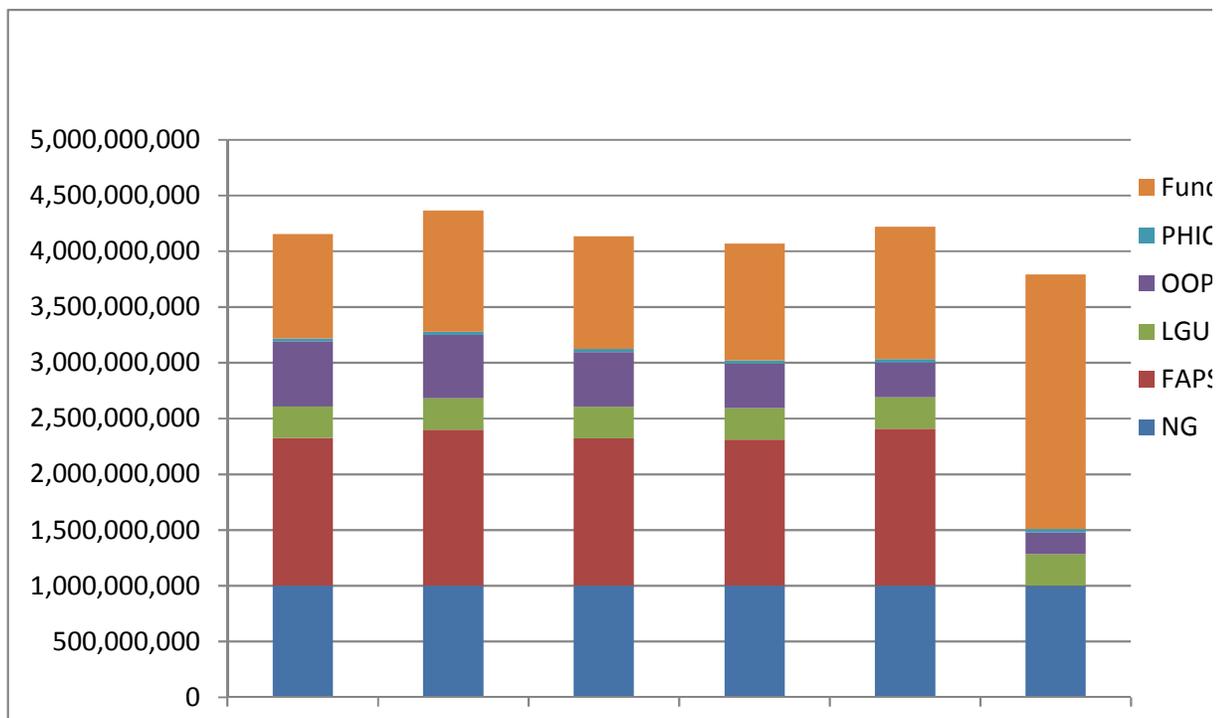
FAPs account for the lion's share of prospective PhilPACT funding (46%), followed by national government (24%) and LGUs (16%). Projected out-of-pocket expenditures for TB DOTS, however, remains significant at 13% due to the payments to private providers as well as the transportation costs incurred.

Figure 7. Share of PhilPACT financing by stakeholder / source



Despite known commitments by FAPS and expected national government funding, funding gaps are expected to persist due to out-of-pocket expenditures and programmed LGU expenditures that remained to be secured. The funding gap is expected to increase in 2015 due to the end of Global Fund support. The total Total funding gap is estimated to be _____.

Figure 8 . Estimated funding gap, 2010 - 2015



Strategies to address the financing gap is described under Strategy 8.

4.5 Implementing arrangement

The effective and efficient implementation and monitoring of the PhilPACT will be guided by the following principles;

- There is a unified and coordinated management of TB control efforts in the Philippines that clearly describes the roles and relationships of implementing structures
- It maximizes the existing structures and implementing arrangement to ensure efficiency and prevent duplication.
- It is linked with the Fourmula One implementing arrangement
- It recognizes importance of support of key stakeholders both from the public and private, including the LGUs who are the main implementer of TB control under a decentralized system

The implementing arrangement is described below;

National Level

The Department of Health through the National Center for Disease Prevention and Control will be responsible and accountable for the implementation of PhilPACT. It shall ensure that activities of various stakeholders are consistent with the strategic plan. NCDPC will be supported by the National Coordinating Committee (NCC) based on the expanded National Coordinating Committee for PPMD that was created under A.O. 154 s. 2004 and integrate some provisions of the CUP. It will coordinate with the

Sectoral Management Committee that is responsible for the overall development, monitoring and coordination of policies, mechanisms and guidelines for health sector

Functions of NCC:

- (a) Oversee the implementation of PhilPACT;
- (b) Ensure that plan is disseminated to various stakeholders;
- (c) Review and approve the annual operational plan of PhilPACT;
- (d) Monitor plan implementation;
- (e) Assist mobilize resources, and
- (f) Discuss and resolve strategic issues.

Composition:

Chairperson: DOH Undersecretary

Vice-chairperson: Director of NCDPC

Members:

Representative from:

PhilHealth

League of provinces or cities

Philippine Coalition Against TB

National CUP group

NGO

Donor: bilateral and multilateral

Community based group

TB patient

The Infectious Disease Office of NCDPC will be the technical secretariat of the NCC

Regional level:

The Center for Health Development, led by the CHD Director, in coordination with the Regional Development Council (RDC) and the Regional Implementation and Coordination Team (RICT), will be the main regional implementing body for PhilPACT. The current Regional Coordinating Committee for PPMMD that has been created under the same A.O. above will be expanded to include CUP members, PhilHealth, regional NEDA, private sector from the local TB coalition, NGO and representative from PHO or CHO. The regional TB team composed of regional TB coordinators will be the technical secretariat.

Provincial/HUC level:

The Provincial /City Health Officer, under the Governor/City Mayor, will be responsible for the over-all implementation of the PhilPACT in the province or city. S/he will be supported by a multisectoral body that is composed of representatives from other government agencies, private sector including the NGOs, people's organization / civil society and TB patient. The province will have an option of selecting a PP coordinating body that suits its needs. It could be any of the existing functional coordinating body: (a) provincial health board, (b) provincial CUP, (c) provincial coordinating committee being established jointly with PhilCAT and (d) local implementation and coordination team (LICT), a body that coordinates developmental activities in the province/city. Provincial / city and district hospitals are the implementing facilities for DOTS.

Municipality:

The Municipal Health Officer of the Rural Health Unit, under the municipal mayor will be responsible for PhilPACT implementation in the municipality. S/he will be supported by the municipal health board that

would also mobilize participation from the private sector. The DOTS facilities that include RHUs/HCs, PPMDs and TB laboratories will be the service delivery points for PhilPACT.

Barangay:

The Barangay Health Station (BHS) will provide TB services to the communities to be supported by the barangay health workers and in some areas by the Barangay TB Task Force or any community/faith-based organizations.

4.6 Monitoring and Evaluation

4.6.1 Purpose and context:

The over-all purpose of M&E is to measure program effectiveness, efficiency and equity, “identify problem areas, gather lessons learned and improve over-all performance.”¹⁹ The M & E Plan of the 2010 – 2015 PhilPACT will take into consideration the following; (a) Administrative Order no. 2008 – 0016 that describes the guidelines on monitoring and evaluation for equity and effectiveness (ME3) in support of the health sector strengthening through Fourmula One for Health, (b) current NTP monitoring and evaluation structure and system as described in the 2005 MOP, (c) the Stop TB Partnership’s recommended M&E as contained in the “Compendium of Indicators for Monitoring and Evaluating National Tuberculosis Programs” issued on August 2004, and (d) the planning framework of PhilPACT. ME3 is a DOH-developed system that aims to “determine if reforms have equitably and effectively achieved goals in the health system.”

Specifically, the M&E will be based on the vision, goals and objectives and on the performance targets and activities as shown in section 4. This is coherent to the ME3 framework which presumes that conduct of planned activities will lead to the achievement of the performance targets which in turn will contribute to the accomplishment of the objectives. This will then result into the planned outcomes and impact.

4.6.2 Implementing arrangement for M&E:

The National Coordinating Committee will be responsible for overseeing the implementation, monitoring and evaluation of the strategic plan. The Health Policy Development and Planning Bureau (HPDPB) of the Department of Health will be the technical unit responsible for the development and implementation of the monitoring and evaluation system for the strategic plan in accordance with the ME3. It will be assisted by IDO-NCDPC and the NEC of DOH. With the assistance of Global Fund, NEC will develop the M&E for TB, HIV/AIDS and malaria, hence, this plan will be further refined and regularly updated. Other participating units will be the DOTS facilities, both public and private, LGUs, international and local partners and other offices of DOH.

4.6.3 Indicators, Data Sources and Collection Methodologies:

There are programmatic or technical indicators and sectoral indicators. Indicators are also categorized into impact, outcome, output and process.

Primary and secondary data will be collected from various sources using different data collection methodologies to determine the progress of indicators. The impact of the plan, as measured by the TB

prevalence and TB mortality rates, will be tracked using population surveys and studies. The fourth National Prevalence Survey will be done in 2014 while the National Drug Resistance Survey will be repeated in 2011. TB mortality rate will be calculated from data collected from vital registration by the National Statistics Office and reported by NEC in its annual Philippine Health Statistics. Recognizing the limitation of the NSO-collected data, TB mortality study will be done in 2012. To track progress towards the MDG goals, the prevalence rate and mortality rate released by WHO in its annual surveillance report will be utilized.

Outcome indicators such as the *case detection rate, treatment success rate, cure rate and default rate* will be computed based on the quarterly case finding and case holding reports regularly submitted to IDO by various DOTS facilities, both public and private, through the provincial / city health office (PHO/CHO) and Center for Health Development (CHD). These reports are based on the TB register and laboratory register maintained by all DOTS facilities. Timeliness and quality of data will be enhanced through the integrated electronic TB information system and regular feedback. Data on the *number of MDR-TB cases* detected and treated and their treatment outcome will be collected and submitted by the PMDT treatment centers to IDO through the CHDs in coordination with TDFI. The NPS and NDHS will also generate data on the *health seeking behaviour* of the TB symptomatic.

Process indicators that are not included in the routine program performance report will be collected through local and international partners. For example, data on private sector participation such as *number of LGUs with DOTS referral network and number of private practitioners trained* are regularly collected and reported by the TB control projects managed by PhilCAT and TB LINC. Other DOH units such as the Bureau of Local Health Development (BLHD) will provide NTP data from the *LGU score card*, the National TB Reference Laboratory (NTRL) of the Research Institute of Tropical Medicine (RITM) on *TB laboratory indicators*, the Bureau of International Health Cooperation (BHIC) on *TB financing from FAPs* and their activities and the Finance Service for the information of the *performance grant*. CUP partners will provide information on the initiatives for their constituents such as the DOJ and DILG for the inmates with TB. Financing information will be generated from TB sub-account and DOH resource tracking information. Other sources of data will be through the (a) NTP Program implementation reviews (PIR), held three times a year at the national level and semi-annually at the regional level, (b) annual PIRs done for specific initiative such as PPM, TB laboratory, and PMDT, (c) Joint Program Review organized by WHO, and (d) monitoring reports of NTP and other partners. A midterm evaluation that will be participated by the stakeholders will be done in early 2013 and a terminal evaluation will be conducted in early 2015.

Information will be encoded into a digital format and will be stored electronically and in paper. Quality control of data will be done at all levels

4.6.4 Data analysis, dissemination and use:

The IDO and NEC will be responsible for ensuring that the needed information from the various sources are collected, submitted, consolidated and analyzed. HPDPB will help IDO and NEC enhance the system for regular reporting by partners and dissemination/use of results.

HPDPB will also ensure that a website that contains all the TB information related to the strategic plan will be developed, updated and sustained and an annual report that analyzes the progress of the strategic plan implementation will be issued. The report will be submitted to DOH management and disseminated to partners. Stakeholders meeting will be conducted after the mid-term and terminal

evaluation. Capacity-building activities to ensure effective use of information from the M&E are under Strategy no. 2.

The table in Annex 4 describes in detail the indicators, sources of data, data collection methodologies and frequency of reporting for each of the performance indicator/ target.

5. MOVING PHILPACT FORWARD

5.1 Alignment with other planning frameworks

Annex 5 shows that PhilPACT is synchronized with the DOTS strategy, the Global TB control plan, the 2006 – 2010 National Plan to Control TB, Fourmula One and the WHO-building blocks. Its technical strategies are fully consistent with all the planning frameworks. PhilPACT expands these technical strategies to explicitly plan to enhance the governance and financing of TB control implementation .

5.2 Contribution to global efforts to TB control

PhilPACT brings the NTP into the threshold of health sector reforms and decentralized governance for the health sector in the Philippines. As one of the first countries in the Western Pacific Region to decentralize health services, the NTP had to develop localized strategies to implement the TB program within a provincial/city model.

The strategic thrusts of PhilPACT help prepare the country's local health systems to integrate specific disease programs such as the TB program into a comprehensive health and development plan. The LGU Investment Plans for Health developed in support of the health sector reform initiatives ensures that the TB program is included and funded in the LGU programs for the next six years. The convergence with the TB related programs of the other national government agencies and the development of sectoral TB programs e.g. Childhood TB program and, TB in Jails and Prisons, broadens the program reach and scope while engaging a wider segment of the government sector. As these processes progress, the private sector contribution to the policy development and program services evolve into more coherent models of public-private partnership for the TB program.

The broader governance framework and approach adopted by PhilPACT now allows for a multi-nodal approach to the TB program. Such an approach provides for multiple level of engagements to address case detection and treatment issues. In all of these, the nexus of control is shifted to local governments who in the course of implementing and managing the TB program strengthens the local health system and its links to the national program.

The sector-wide orientation, local governance and health system strengthening approaches of PhilPACT could serve as a model for other countries to consider and emulate, thus, moving the world towards TB elimination in 2050.

5.3 Steps to jumpstart PhilPACT implementation

Recognizing that PhilPACT has been aligned with the health sector reform initiative, shifted its focus to local TB control implementation and expansion of quality DOTS to vulnerable populations, harmonized financing sources and introduced new policies, approaches and tools, there is a need to actively engage both the public and private stakeholders to support the plan's implementation. The engagement process must start early to bring on board key partners. Thus, before the start of its implementation in 2010, the following activities will be conducted.

- Issuance of the DOH Administrative Order adopting and endorsing PhilPACT as the country's medium-term plan for 2010 – 2016 for controlling TB to include the plan's implementing arrangement.
- Reproduction of the entire plan and corresponding advocacy materials, launching and dissemination to stakeholders.
- Development of the detailed PhilPACT implementation guidelines that would direct the formulation of TB subplan in the PIPH/CIPH/AIPH and AOPs.
- Crafting of guidelines for the performance-based grant that would be part of the on-going PBG for other public health programs.

ANNEX 1. Composition and tasks of the Steering Committee and Task Force

Steering Committee for the TB Control Plan:

Functions:

1. Set the direction, policies and parameters for the development of the strategic plan and ensure that these are adhered to.
2. Approve the planning framework and workplan proposed by the Task Force..
3. Critically review the key outputs of the Task Force and provide inputs and recommendations.
4. Identify and mobilize key stakeholders to support the planning process to include any unit or office of the DOH.
5. Coordinate and harmonize all activities by DOH and its partners that are related to the planning process.
6. Work with the TACT to ensure prompt action on the submitted deliverables.
7. Monitor the progress of the planning process to include resolution of identified issues and constraints.
8. Endorse the strategic plan to the senior officials of DOH for approval.
9. Recommend to NTP strategy and activities for the plan's dissemination and advocacy.

Composition:

Chairperson: Dr. Yolanda Oliveros, Director IV, NCDPC
Alternate chairperson: Dr. Jaime Lagahid, Director III, IDO
Vice-chairperson: Dr. Rosalind Vianzon, NTP manager, IDO

Members:

Dr. Virginia Ala, Director IV, HPDPB
Dr. Maylene Beltran, Director IV, BIHC
Dr. Lilibeth David, Director IV, BLHD
Dr. Leda Hernandez, M.O. VII, IDO
Dr. Madelaine Valera, SVP, PhilHealth
Ms. Arlene Ruiz, NEDA
Ms. Arlene Sarmiento, Executive Director, PhilCAT
Dr. Woojin Lew, Medical Officer, WHO country office
Dr. Padma Shetty, USAID
Dr. Jocelyn Gomez, PHO, Bulacan
Dr. Albert Herrera, CHO, Marikina

Secretariat:

Dr. Ernesto Bontuyan, NTP-IDO
Mr. Lorenzo Reyes, NTP-IDO

Task Force for the TB control plan:

Functions:

1. Propose the strategic planning framework, parameters and work plan including logistical requirements to the Steering Committee;
2. Conduct a situational assessment to determine the TB epidemiological situation, NTP status and strengths, weaknesses, opportunities and threats and present the results to the Steering Committee;
3. Draft strategic plan that would include goals, objectives, targets, strategies, financial plan, implementing arrangements and monitoring and evaluation scheme to achieve the MDG goal on TB control in 2015;
4. Conduct consultation with key stakeholders, either by group or individually;
5. Present key technical outputs to the Steering Committee and other groups if necessary, and
6. Act on the comments and recommendations of the Steering Committee and TACT.

Composition:

Chairperson: Dr. Rosalind Vianzon, NTP manager, IDO
Vice-chairperson: Dr. Mariquita Mantala, Short term consultant, WHO

Members:

Dr. Carlo Panelo, HPDP project
Dr. Carlos Antonio Tan, HPDP project
Dr. Mar Wynn Bello, BIHC
Dr. Liezel Lagrada, HPDPB
Dr. Ann Remonte, PhilHealth
Dr. Arthur Lagos, TB LINC
Dr. Dennis Batangan, TB LINC
Dr. Ma. Cecilia Ama, NTRL-RITM

Secretariat:

Dr. Winlove Mojica, HPDP
Ms. Yasmine Hashimoto, TB LINC

ANNEX 2. List of participants to the two consultative meeting held on July 8 – 9 and August 6 – 7, 2009 at Grand Opera Hotel, Manila

Office/Name of Participant
<p>Department of Health – central and regional</p> <p>Dir. Virginia Ala – HPDPB Dir. Lilibeth David – BLHD Dir. Myrna Cabotaje – CHD-CAR Dir. Irma Asuncion – CHD -NCR Dir. Susana Madarieta – CHD – Central Visayas Dir. Teogenes Baluma – CHD – Southern Mindanao Dir. Jaime Lagahid – IDO-NCDPC Dr. Leda Hernandez - IDO-NCDPC Dr. Mar Wynn Bello – BIHC Dr. Rosalind Vianzon – IDO-NCDPC Dr. Liezel Lagrada – HPDPB Ms. Evelyn Perez - NCHP Ms. Virginia Laboy – BFAD Dr. Sadaila Rakiin - DOH-ARMM Ms. Noraina Kamid – DOH ARMM Dr. Amelia Medina – CHD-MM Dr. Renato Pangan – CHD-Central Luzon Dr. Ma. Luisa Paran – CHD-CAR Ms. Joy Tabo-tabo – CHD-Central Visayas Dr. Eloisa Segurra – CHD Southern Mindanao Engr. Dave Masiado – MMD Dr. Cindy Ama – NTRL Dr. Celine Garfin – IDO-NCDPC Dr. Ernesto A. Bontuyan Jr. – IDO-NCDPC Dr. Lorella Averilla – IDO-NCDPC Dr. Marlo Tampon – IDO-NCPC Dr. Joel Flores- IDO-NCDPC Mr. Lorenzo Reyes – IDO- NCDPC Mr. Darwin Taban – IDO-NCDPC</p>
<p>Hospitals (DOH-retained)</p> <p>Dr. Vivian Lofranco – Lung Center of the Philippines Dr. Flora Marin – San Lazaro Hospital Dr. Myrna Rivera – Tondo Medical Center</p>
<p>Hospital (Private)</p> <p>Dr. Victoria Dalay – De La Salle University Dr. Lourdes Ursos – Silliman University Hospital</p>

Office/Name of Participant
<p>Local Government Units</p> <p>Dr. Pascuala Aguho – CHO-Manila Dr. Benjamin Yson – CHO-Manila Dr. Sonia Timbang-Madjus – CHO-Parañaque Dr. Florence Reyes – CHO-Baguio Ms. Brenda Valdez – CHO-Baguio Dr. Ma. Elisa Villanueva – MHO-Bulacan Dr. Edgardo Barredo – PHO-Negros Oriental Dr. Ashley Lopez – CHO Davao City Ms. May Fernando – PHO-Bulacan</p>
<p>International Partners</p> <p>Dr. Padma Shetty – USAID Dr. Cora Manaloto – USAID Dr. Pieter van Maaren – WHO-WPRO Dr. Woojin Lew – WHO Country Office Dr. Maarten Bosman – STC, WPRO Ms. Lilly Shu – WPRO intern Dr. Mariquita Mantala – WHO-STC</p>
<p>Local Partners</p> <p>Dr. Carlo Panelo – HPDP Dr. Cristopher Santiago – HPDP Dr. Carlos Antonio Tan – HPDP Dr. Winlove Mojica – HPDP Dr. Roderick Poblete – RIT/JATA Ms. Aurora Querri – RIT/JATA Ms. Amelia Sarmiento - PhilCAT Dr. Elizabeth Cadena – PTSI Dr. Dolores Castillo – TB LINC Dr. Julio Sabornido – TB LINC Dr. Elmer Soriano – TB LINC Dr. Dennis Batangan – TB LINC Dr. Arthur Lagos – TB LINC Dr. Ruth Orillaza Chi - TDFI Ms. Nona Rachel Mina - TDFI Mr. Virgil Belen – TDFI Mr. Edwin Onofre Merilles – TDFI Ms. Rhea Alba – World Vision</p>

Office/Name of Participant
<p>Other Government Agencies Supt. Carolina Borrinaga – BJMP Chief Ins. Dr. Ilna Maderazo – BJMP Dr. Minda Meimban – DepEd Ms. Viginia Clavel – DILG Ms. Marissa San Jose – DOLE-OSHC Dr. Ma. Beatriz Villanueva – DOLE Ms. Guidditta Gelera – DOST-PCHRD Dir. Thelsa Biolena – DSWD Dr. Jose Mari Castro – DSWD Ms. Loreta Labado – NCIP Ms. Rose Villar - NEDA Dr. Gio Roan – Philhealth Dr. Ann Remonte – PhilHealth</p>
<p>Medical Societies Dr. Alex Alip – PAFP Dr. Jubert Benedicto – PCCP Dr. Rontgen Solante – PSMID</p>
<p>Patient Group Anacleto del Rosario Ms. Melinda Merilles</p>
<p>Support Staff Ms. Emelina Almario – Overal Facilitator Ms. Michele Macalintal - Documenter Ms. Emylou Infante – Documenter Ms. Yasmin Hashimoto – TB LINC Ms. Arlene Rivera – IDO- NCDPC Mr. Ramon Eustaquio – IDO-NCDPC Mr. Ricardo Oraya – IDO-NCDPC Ms. Rachel Genato – IDO-NCDPC Ms. Leah Cruz – IDO-NCDPC Mr. Allan Abreo – IDO-NCDPC Mr. Gualberto Avila – IDO-NCDPC</p>

Annex 3. Proposed DOTS Service Packages

DOTS Service Packages	Description /Contents	Service delivery	Regulation	Governance	Financing			
					Natl	LGU	PhilHealth	OOP
1. <i>Hospital DOTS</i>	Advocacy to hospital management As DOTS center: Setting-up of DOTS facility Training Drugs Forms TA on certification / accreditation As referring-unit Orientation	Diagnosis and treatment in provincial , district and municipal hospitals if with DOTS clinic Identification and referral to RHUs if referring hospital	Licensing	PLCE / PHO Hospital owners / administrators	Drugs Dx's Training	Hospital operations Staff	PhilHealth inpatient and OPD	Xray exam
2. <i>MDR-TB</i>	Setting-up of treatment center and site Training of health staff Second line anti-TB drugs Referral to culture center Monitoring	Treatment centers / sites Culture center	Provision of quality-assured second line drugs	DOH unit to oversee PLCE / PHO	Drugs Training Dx's	Staff Structure	Dx service	
3. <i>Basic DOTS services at the RHU/HC level</i>	DOTS training First line anti-TB drugs Lab reagents if with TB lab Forms Supervision from province Data management TA on certification and accreditation EQA of DSSM	RHU / HC	DOTS certification	MLCE / MHO	Drugs PPD Forms Training	Staff Structure Operations	DOTS package	Xray exam
4. <i>TB in children</i>	Training PPD Pediatric anti-TB drugs	DOTS facility	DOTS certification	P LCE / PHO	Drugs PPD Forms Training	Staff	DOTS package	Xray exam
5. <i>TB in prison</i>	Training Anti-TB drugs Forms Data management Supervision from province Access to TB lab	DOTS facility within the prison / jails	Compliance to policies re: DOTS in jails	BJMP / PLCE / PHO	Drugs Dx's Forms Training			
6. <i>PPMD</i>	DOTS training for staff Anti-TB drugs Forms Sustainability training and tools Supervision Access to TB lab	PPMD unit	DOTS certification	MLCE / MHO	Drugs PPD Forms Training		DOTS package	Xray exam

ANNEX 4. MONITORING AND EVALUATION MATRIX

Strategy and Performance Targets	Indicator	Baseline / source	Target in 2015	Source of /responsible for data	Data collection methodology	Frequency/date of reporting
Goal:						
Attain MDG goals.	• TB Prevalence rate, all forms	799 /100,000 (1990 WHO est)	400/100,00	WHO	Estimate based on national prevalence survey	Annual
		310 / 100,00 (1997 NPS)		NPS	Population survey	2015
	• TB mortality rate	87/100,000 (1990 WHO)	44/100,000	WHO	Estimate	Annual
Outcome:						
Achieve program targets	• Case Detection Rate	75% (2007, WHO)	85%	WHO	WHO collects data from the country	Annual
	• Treatment success rate	88% (2006, WHO)	90%	WHO		Annual
	• Cure rate	82% (2007, NTP)	85%	NTP	Quarterly reporting by DOTS facilities	Annual
	• No. of MDR-TB cases detected and treated	500 (2008 NTP)	15,500cases in six years	NTP	Quarterly reporting by treatment centers	Annual
Strategy 1: Localize TB control program implementation						
1.1 70% of provinces and highly urbanized cities (HUCs) include TB control plan within PIPH/AIPH/CIPH	• % of provinces / HUCs with clear TB control plan within PIPH/AIPH/CIPH	44 provinces with varying quality (2008)	70% of provinces and HUCs	BLHD-DOH	Review of plans	Annual
1.2 70 % of provinces / HUCs are DOTS compliant	• % of provinces / HUCs that are DOTS compliant	none	70% of provinces and HUCs	NTP	National registry kept by NTP based on assessment	Annual
1.3 90 % of priority provinces / HUCs with performance grant have	• % of priority provinces / cities with performance grant have achieved targets	none	90%	NTP	Quarterly reporting by province	Annual

achieved targets	<ul style="list-style-type: none"> Extent of contribution of grant to performance 	No evidence yet since it is new initiative	Demonstrated significant effect of grant to performance	NTP	Evaluation of scheme	Midterm End of plan
1.4 DOH with capacity to provide TA to provinces / cities to strengthen local TB program implementation	<ul style="list-style-type: none"> % of CHDs with capacity to provide TA to provinces / HUCs 	Limited (could not be quantified)	All (based on criteria to be developed)	NTP	Regional assessment	Annual
	<ul style="list-style-type: none"> Extent of capacity of NTP 	4 regular and 15 contractual Limited on local enhancement	Additional regular NTPstaff With capacity	NTP	NTP capacity assessment	Annual
1.5 Public-private coordinating mechanism (structure / system) on TB control at all levels in place	<ul style="list-style-type: none"> Extent of existence of PP mechanism 	National Coordinating Committee National CUP group Regional Coordinating Committee in 16 regions Very few PP at province	Present at national incl. National coordinating group and all regions and 70% of provinces	NTP	Monitoring	Annual
Strategy 2: Monitor health system performance						
2.1 Trend of TB burden tracked	<ul style="list-style-type: none"> Status of surveys to determine TB burden 	2007 NPS done	2014 NPS	NTP	Popn Survey	2015
		2004 DRS done	2011 DRS	NTP	Popn Survey	2015
		Questionable quality of TB mortality	2011 TB mortality study	NTP/NEC	Random Survey	2012
		2008 NDHS done	2013 NDHS	NSO	Popn Survey	2014
		Not included in APIS	2011 APIS	NSO	Popn survey	2015
2.3 TB information generated on time, analyzed and use	<ul style="list-style-type: none"> Status of integration of TB information system 	Un-integrated 3 electronic TB information with plan for integration in 2009 and 6 month delay (2009 NTP)	Integrated electronic TB information system generating outputs within 3 months Annual TB report	NEC NTP	Review of project performance Consolidation of regional / provincial NTP reports and PIRs	Annual
2.3 TB information system integrated with national M&E	<ul style="list-style-type: none"> Status of TB information system within national ME3 	2 TB indicators in LGU scorecard (2009)	Yearly results from LGU scorecard	BLHD	LGU performance assessment	Annual

	<ul style="list-style-type: none"> Status of TB information vis-à-vis FHSIS 	TB information system not integrated with FHSIS (2009)	TB information system integrated with FHSIS	NEC	Review of project performance	Annual
Strategy 3. Engage both public and private health care providers to adopt DOTS						
3.1 70% of provinces / HUCs with public-private coordinating body at the provincial / city level	<ul style="list-style-type: none"> % with public-private coordinating body at the provincial / city level 	Insufficient data	70%	NTP	Monitoring Review of project reports incl. PhilCAT and TB LINC	Annual
3.2 60% of component HUCs and municipalities in the above provinces are with functional collaboration / referral system	<ul style="list-style-type: none"> Percent contribution of PPMD to case finding 	6% (2008 NTP)	12%	NTP	Review of project report	Annual
	<ul style="list-style-type: none"> % of component cities / municipalities with functional PP collaboration / referral mechanism 	220 PPMDs (2008 PhilCAT)	60% of DOTS in cities/municipalities with provincial PP mechanism	NTP	Monitoring and PIR Review of project reports incl. PhilCAT and TB LINC	Annual
3.3 90% of public hospitals and 60% of private hospitals are participating in DOTS either as DOTS provider or referring center	<ul style="list-style-type: none"> % of hospitals participating in DOTS either as DOTS provider or referring center 	Estimated to be less than 10% of total hospitals	90% of public hospitals 60% of private hospitals	NTP / NCHFD	Monitoring of hospitals NTP report by hospitals PIRs	Annual
3.4 70% of targeted 9,000 PPs are referring patients to DOTS facilities	<ul style="list-style-type: none"> % of trained private providers are referring patients to DOTS facilities 	50% of trained 4,000 PPs (Global Fund)	70% of 9,000 trained PPs	NTP	Review of project reports	Annual
3.5 All frontline health workers are equipped to deliver TB services	<ul style="list-style-type: none"> % of RHU / health center / DOTS facility staff trained on DOTS 	Estimated to be less than 90%	All HWs	NTP	Report of the TB Human Resource Information database	Annual
Strategy 4. Promote and strengthen positive TB behaviour of communities						
4.1 Reduced by 30% the TB symptomatics who are self-medicating and not consulting	<ul style="list-style-type: none"> % of TB symptomatic who are self-medicating and not consulting 	68% (2007 NPS)	48%	NTP	National Prevalence Survey	2015
	<ul style="list-style-type: none"> % of pharmacies complying with TB drug dispensing policy 	No data	70%	NTP	Operational study	2015
4.2 90% of provinces/cities with default rate of more than 7% have reduced rate by	<ul style="list-style-type: none"> % of provinces / cities with default rate of more than 7% that had been reduced by 40% 	8 provinces, 19 cities and 9 NCR (2008 provincial / cityreports)	90% will have reduced default rate by 40%	NTP	Review of cohort analysis of provinces/cities	Annual

40%						
4.3 No. of barangays with CBOs participating in TB control increased by 50%	<ul style="list-style-type: none"> No. of barangays with organized CBOs 	TB Task Force= 384 CBOs in ARMM = unknown	50% increase of the baseline	NTP	Report of projects to NTP	Annual
Strategy 5: Address MDR-TB, HIV/TB co-infection and needs of vulnerable populations						
5.1 14,440 MDR-TB were detected and given second line anti-TB drugs in six years	<ul style="list-style-type: none"> Percent of MDR-TB cured 	Around 70% (2008 NTP)	75%	NTP	Review of cohort analysis of treatment centers	Annual
	<ul style="list-style-type: none"> No. of MDR-TB detected and given second line anti-TB drugs 	500 (2008 NTP)	Total of 15,500 in 6 years	NTP	Review of quarterly report of treatment centers	Annual
	<ul style="list-style-type: none"> No. of treatment centers 	5 treatment centers Established (2008 NTP)	42 treatment centers	NTP	Monitoring Review of project performance	Annual
5.2 TB/HIV collaborative activities in areas with populations having high risk behaviour and at least 80% of TB cases are tested for HIV	<ul style="list-style-type: none"> No. of areas with TB/HIV collaborative activities 	10 cities in NCR doing PICT and HIV testing (NCR report)	23 cities and municipalities as identified by NASPCP	NTP / NASPCP	Monitoring Review of performance report of priority areas	Annual
	<ul style="list-style-type: none"> Percent of TB patients tested for HIV/AIDS in high risk areas 	Less than 20% in NCR (NCR report)	80% of TB cases in priority sites	NASPCP/ NTP	Quarterly report to NTP/NASPCP by sites	Annual
5.3 Nationwide implementation of childhood TB control program	<ul style="list-style-type: none"> No. of provinces / cities implementing childhood TB program 	16 cities in 2008 and to be expanded to one province per region in 2009	All provinces and cities	NTP	Monitoring report PIR	Annual
	<ul style="list-style-type: none"> No. of children with TB detected and given treatment 	No data in 2008	At least 272,000 in 6 years	NTP	Review of quarterly report PIR	Annual
5.4 All inmates are with access to DOTS	<ul style="list-style-type: none"> % of prisoners with access to DOTS services 	23% in 2009	100%	NTP	Review of BJMP/BuCor report to NTP / PIR	Annual
5.5 Policies, guidelines and models on TB control for vulnerable population have been developed, disseminated and locally adopted	<ul style="list-style-type: none"> Number of CUP members with policies, guidelines and models on TB control for vulnerable population 	DOLE, DEPED, DILG-BJMP, NEDA and DOJ-BuCor with policies (July 2009)	16 CUP members	National CUP group	Report during CUP meeting	Annual
		No national policy for vulnerable population	With national policy on vulnerable population	National CUP group	Report during CUP meeting	Annual

	<ul style="list-style-type: none"> Types of vulnerable groups with initiatives to increased access to TB services 	Partly urban poo, children, prisoners	Expanded to at least 4 types of vul. popn	NTP	Review of CUP member report to NTP	Annual
Strategy 6: Regulate and make available quality TB diagnostic tests and anti-TB drugs						
6.1 TB laboratory network managed by NTRL ensures that 90% of microscopy centers are within EQA standards	<ul style="list-style-type: none"> Extent of institutional capacity of NTRL to manage TB network 	With limited staff, budget and weak information system	Increased staff and budget System such as information, HR & certification in place	NTRL	Review of plantilla, budget and performance of NTRL	Annual
	<ul style="list-style-type: none"> Percent of provinces with functional QA center 	Less than 80%	95%	NTRL	Monitoring PIR	Annual
	<ul style="list-style-type: none"> % of microscopy centers implementing EQA 	75%	95%	NTRL	Review of quarterly lab report of QA centers	Annual
	<ul style="list-style-type: none"> % of microcopy centers within EQA standards 	74%	90%	NTRL	Review of quarterly reporting by QA centers	Annual
	<ul style="list-style-type: none"> No. of TB symptomatics examined 	530,000 in 2008	5 million in 6 years	NTRL	Review of quarterly lab report	
6.2 TB microscopy services expanded in cities and underserved areas	<ul style="list-style-type: none"> No. of new microscopy centers established 	15 cities with poor MC:Popn standard (>one per 100,000)	At least one MC established in identified cities	NTRL	Monitoring PIR	Annual
	<ul style="list-style-type: none"> Access to microscopy centers in GIDA 	With undocumented initiatives and no guidelines	Guidelines and initiatives for increasing access to MC by GIDA	NTP	Assessment of guidelines	Annual
6.3 All provinces / HUCs with access to TB diagnostic centers	<ul style="list-style-type: none"> Access to TB Diagnostic Committee 	67 provinces / cities with TBDC	All provinces and HUCs with access to TBDC	NTP	Monitoring PIR	Annual
6.4 All DOTS facilities with available anti-TB drugs	<ul style="list-style-type: none"> % of DOTS facilities with available anti-TB drugs 	Widespread shortage in 2008	No shortage in all DOTS facilities	NTP	Systematic assessment and monitoring	Annual
	<ul style="list-style-type: none"> No. of TB patients provided with anti-TB drugs 	140,000 TB cases, all forms in 2008	1 million in 6 years	NTP	Quarterly report of DOTS facilities	Annual
Strategy 7. Certify and accredit TB care providers						

7.1 70% of DOTS facilities are certified and accredited	<ul style="list-style-type: none"> % certified and accredited DOTS facilities 	Less than 20% of DOTS facilities are accredited in 2008 (PhilHealth)	70% of DOTS facilities (RHUs/HCs/PPMDs)	NTP PhilHealth	Review of national registry and PhilHealth info system report	Annual
7.2 DOTS standards for hospitals included in licensing and accreditation standards	<ul style="list-style-type: none"> DOTS standards for hospitals within licensing and accreditation standards 	Not included	Included	Bureau of Health Facility Development and PhilHealth	Assessment of DOH / PhilHealth policy issuance	Annual
7.3 Infection control in place in at least 70% DOTS facilities	<ul style="list-style-type: none"> Adherence to national infection control guidelines 	All treatment centers and in less than 25% of DOTS facilities	At least 70% of DOTS facilities providing TB services and 100% MDR-TB tx centers	NTP	Monitoring List of certified / accredited facilities	Annual
Strategy 8: Secure adequate and sustainable funding and improving allocation and efficiency of fund utilization.						
	<ul style="list-style-type: none"> Out-of-pocket expenses on TB care 	No baseline	50% reduction	NTP	NPS or APIS	2010 2015
8.1 Reduced redundancies and gaps in and harmonized national, local government and FAPs financing	<ul style="list-style-type: none"> TB control financing gap 	_____	Reduced by 50%	NTP	Review of all sources of funds	Annual
	<ul style="list-style-type: none"> Functionality of TB sub-account 	No TB sub-account	Functional at least at the national level	NSCB / NTP	Review outputs	
	<ul style="list-style-type: none"> Level of government budget / spending on TB 	P1.2 billion in 2009 from NG	At least sustained	GAA NSCB/ TB sub-account	Review of allocation Review of annual report of TB sub-account	Annual
	<ul style="list-style-type: none"> % of provincers/ HUCs among those with PIPH/AIPH with budget for TB control 	No data	90% of those with PIPH/AOP	BLHD	Project reports	Annual
	<ul style="list-style-type: none"> TB care financing from donors 	GF, USAID, WHO, JATA, EU, KOICA	Proposals in the pipeline	BIHC / NTP	Review of contracts / project reports	Annual
8.2 PhilHealth's role expanded through greater availability of accredited providers and increased utilization of TB DOTS	<ul style="list-style-type: none"> PhilHealth share in TB control 	Less than 5% of PhilHealth members utilized benefit	Benefit utilization increased by at least 30%	PhilHealth	Report on claims	Annual

package						
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Annex 5. PhilPACT, HSR and Global TB control plans

Objectives of PhilPACT	Strategies	DOTS	Stop TB strategy	2006 – 2010 National Plan to Control TB	Fourmula One	WHO building blocks
1. Reduce local variation in TB control program performance	<i>1. Localize implementation of TB control</i>	Political will		Ensure the high political support for TB control as a priority of the national health plan and among the local government units	Governance	Leadership and governance
	<i>2. Monitor health system performance</i>	Program and patient monitoring	Contribute to health system strengthening Enable and promote research	Maintain the support to key management functions, particularly monitoring and evaluation of NTP-DOTS implementation	Governance	Information System
2. Scale-up and sustain coverage of DOTS implementation	<i>3. Engage both public and private TB care providers</i>		Engage health care providers	Improve the capabilities of a critical mass of DOTS workers, both public and private to sustain quality implementation of DOTS services Scale-up and enhance Public-private Mix DOTS Units (PPMDs) in strategic sites Strengthen Public-to-Public collaborations between public hospitals and health centers to increase access to and improve efficiency of DOTS services	Service delivery	Human Resource
	<i>4. Promote and strengthen positive behaviour r on TB care of communities</i>	DOT	Empower people with TB and communities		Service delivery	Service delivery

	<i>5. Address MDR-TB, HIV/TB co-infection and needs of vulnerable population</i>		Address TB/HIV, MDR-TB and other challenges	Support the existing DOTS(+) initiatives and institutionalize these in the public sector Strengthen the integration of TB/HIV in accordance to the country's disease scenario	Service delivery	Service delivery
3. Ensure provision of quality of TB services	<i>6. Regulate and make available quality TB diagnostic tests and drugs</i>	Quality-assured sputum microscopy Uninterrupted supply of anti-TB drugs	Pursue high quality DOTS expansion and enhancement		Regulation	Medical Products
	<i>7. Certify and accredit TB care providers</i>			Strengthen the implementation of DOTS certification and accreditation	Regulation	
4. Reduce out-of-pocket expenses related to TB care	<i>8. Secure adequate funding and improve efficiency of fund utilization.</i>				Financing	

REFERENCES

1. Task Force on TB Strategic Plan Formulation, *Inception Report*, Manila, May 2008.
2. National Statistical Coordination Board. <http://www.nscb.gov.ph>, 19 April 2009.
3. NSCB Philippine Poverty Statistics 2006. <http://www.nscb.gov.ph/poverty/2006> .
4. Crofton, John, et al. *Clinical Tuberculosis: second edition*. MacMillan Education Ltd, London and Oxford, 1999.
5. Reider, Hans. *Epidemiologic basis of tuberculosis control*. IUATLD, Paris, 1999.
6. World Health Organization. *Global tuberculosis control: surveillance 2009, epidemiology, strategy, financing*, WHO, Geneva, 2009.
7. Department of Health and Tropical Disease Foundation. *2007 National Prevalence Survey*. Manila, Philippines, 2007.
8. Western Pacific Regional Office. *Draft 2008 Joint Program Review of the Philippine TB Control Programme*. Manila, Philippines, 2008.
9. Department of Health. *1982-83 National Prevalence Survey*. Manila, Philippines, 1982.
10. Department of Health and Tropical Disease Foundation. *1997 National Prevalence Survey*. Manila, Philippines, 1997.
11. Department of Health and Italian Cooperation Development. "Risk of tuberculosis infection in the Philippines", Manila, 1992.
12. Department of Health. *2005 Philippine Health Statistics*. Manila, Philippines, 2005.
13. Philippine Nationwide Drug Surveillance Team. *Nationwide drug resistance survey in the Philippines*. Journal of IUATLD , April 2009, pp. 500-5007.
14. Department of Health. *2007 Estimates of Adults Living with HIV in the Philippines*. Manila, Philippines, 2007.
15. Peabody JW, Shimkhada R., Tan C and Luck J. *The burden of disease , economic costs and clinical consequences of tuberculosis in the Philippines*. Oxford University Press, London, UK, 2005.
16. Yu, Charles. *An evidence-informed challenge paper on tuberculosis control in the Philippines*, Manila, Philippines, 2008.
17. World Health Organization. *WHO Tuberculosis Programme: framework for effective tuberculosis control*. WHO, Geneva, 1994.
18. Department of Health. *Manual of Procedures for the National Tuberculosis Control Program 4th Edition*. Manila, Philippines, 2005.

19. World Health Organization. *Compendium of Indicators for Monitoring and Evaluating National Tuberculosis Programs*. WHO, Geneva, August 2004.
20. Department of Health. *National TB Control Program Accomplishment Report*. Manila, Philippines, 2008.
21. Glaziou, Philippe, et al. *TB disease burden estimates in the Philippines*. powerpoint presentation to NTP, Manila, Philippines, December 2008.
22. Taguiwalo, Mario. *Assessment of NTP*. powerpoint presentation during the Program Implementation Review of Selected DOH Programs, Manila, January 2008.
23. Van Maaren, Pieter, et al. *Reaching the global tuberculosis control targets in the Western Pacific Region*. Bulletin of the World Health Organization, WHO, Geneva, May 2007, p360.
24. Bureau of Health Facility Development, *List of hospitals in the Philippines*, Manila, 2007
25. Department of Health. *Field Health Services Information System Annual Report*. Manila, Philippines, 2007
26. Department of Health and Tropical Disease Foundation. *2009 Assessment and Action Planning for NTP: Documentation Report*. Manila, Philippines, 2009.
27. Portero, JL and M. Rubio. *Private practitioners and tuberculosis control in the Philippines: strangers when they meet?*. Tropical Medicine and International Health, vol. 8, no. 4, pp329 – 325.
28. Voniatis, M, et al. *Public-private Mix for DOTS: a strategy to engage all health care providers in TB control and to significantly increase access of the population to DOTS services*. Manila, Philippines, Dec. 2008.
29. Lonroth, Knut. *Measuring the contribution of Public-private Mix for TB care and control – lessons from the Philippines (draft mission report)*. Manila, December 2008
30. Philippine Coalition Against Tuberculosis. *Documentation Report: Celebrating 5 Year of PPMD Journey. The 2008 PPMD Program Implementation Review*. Quezon City, Philippines, 2009.
31. Lofranco, Vivian. *Draft Report: Assessment of Hospital Participation in DOTS in the Philippines*. Manila, August, 2009.
32. Mantala, Mariquita. *End-of-assignment report*. LEAD, Manila Philippines. 2006.
33. Department of Health and PhilCAT. *Comprehensive and Unified Policy (CUP 2004) for TB Control in the Philippines*. Manila, Philippines, 2003.
34. Department of Health. *Health Human Resource Development Strategic Plan 2006 – 2010*. Manila, Philippines, 2008.
35. Tuberculosis Coalition for Technical Assistance. *International Standards for Tuberculosis Care (ISTC)*. The Hague: Tuberculosis Coalition for Technical Assistance, 2006.
36. Department of Health. *National Objectives for Health 2006-2010*. Manila, Philippines, 2006.

37. Villanueva, Maria Karen Luisa. *A survey on the knowledge, attitudes and practices regarding PTB among Physicians at Manila Doctors Hospital*. Manila, Philippines, 2003.
38. UPECON. *Private Provider Study Final Report, Vol. 1 Executive Summary*. Quezon City, Philippines, August 2005.
39. Department of Health. *TB Practices Among Hospitals in Metro Manila*. DOH, Manila, Philippines, 2005.
40. National TB Reference Laboratories. *Report on EQA*. Muntinlupa, Philippines, 2009
41. National Statistics Office (Philippines) and ORC Macro. *2003 National Demographic and Health Survey*. Calverton, Maryland: NSO Philippines and ORC Macro, 2004.
42. Ramiro LS, Valbuena LV. *Knowledge, Attitudes, Practices, and Behavior of TB Patients, TB Symptomatics, Close Contacts, and Community in General: A Formative Research*. TB LINC (PBSP). Manila, Philippines, 2007
43. World Vision. *Kusug Baga II Tuberculosis Control Project, Final Evaluation Report*. Manila, September 2004.
44. World Vision and Synovate Health Care. *Social Mobilization on Tuberculosis*. Manila, Philippines, March 2009.
45. ENRICH project. *Assessment of Implementation of ENRICH*. Manila, Philippines, 2004.
46. Portero JL, Yuste MR, Pasicatan MA. *Socio-economic Determinants of Knowledge and Attitudes About TB Among the General Population of Metro Manila*. *IJTL* 2002; 6(4); 301-306.
47. Tiglao T, Tempongko S. *People's Perception of Tuberculosis*. *Acta Medica Philippina*; 1988
48. Auer Christian, et al. *Diagnosis and management of tuberculosis by private physicians in the Philippines: a survey of five private settings*. PhilCAT, Manila, Philippines, 2002.
49. Nichter M. *Illness Semantics and International Health: The Weak Lungs/TB Complex In The Philippines*. *Soc. Sci. Med.* 1994; 38; 649-663
50. Lagrada, Liezel, et al. *Analysis of factors of treatment completion in DOTS health facilities in Metro Manila, Philippines: A case control study*. *Kekkaku* vol. 83. No 12: 765 – 772, 1978.
51. Macalalad, Noel. *Laboratory Network for DOTS and programmatic management of Drug Resistant TB*. powerpoint presentation during NTP consultative meeting, Manila, Philippines, February 2009.
52. Ama, Cindy. *NTP Baseline Assessment for TB Culture Centers*. powerpoint presentation during 2009 NTP consultative meeting, Manila, Philippines, Feb. 2009.
53. Voniatis, Michael. *An introduction and overview of current NTP in the Philippines*. document used during the Joint NTP Review in the Philippines, Manila, Philippines, April 2008.
54. Wong, John. *TB Logistics Rapid Appraisal*. Manila, Philippines, 2007.

55. Mantala, Mariquita. *Certification and accreditation of TB Care Providers: Philippine Experience*. Manila, Philippines, February, 2009.
56. Vianzon, Rosalind. *Overview of the MDR-TB package for the PMDT in the Philippines*. powerpoint presentation during January 2009 PhilHealth Benefit Review meeting, Manila, Philippines, 2009.
57. Mittarai, _____. *Draft Mission Report on the Bio-Risk Assessment of NTRL*. Manila, Philippines, 2008.
58. TB LINC. *Assessment of TB Laboratories in Project Sites*. Manila, Philippines, 2007.
59. Keravec, Joel. *Preliminary Report on the GDF Mission in the Philippines*. Manila, Philippines, July, 2008.
60. TB Alliance: Global Alliance for TB Drug Development. *Analysis of the Global Drug Market and Country-specific Case Studies of TB Drug Distribution Channels: Philippine Case Study*. powerpoint presentation, Manila, Philippines, 2006.
61. Domingo, Shirley. *TB-DOTS outpatient benefit package*. powerpoint presentation during PPMD implementation review, Manila, Philippines, Sept. 2008.
62. Roa, Camilo and L. Llamido-Mortera. *Policy Scan on the Special Philhealth Outpatient TB DOTS benefit package*. HPDP, Quezon City, Philippines, 2008.
63. Department of Health. *National Strategic Plan to Stop TB 2006 – 2010*. Manila, Philippines, 2006.
64. Philippine Coalition Against Tuberculosis. *Evaluation of PhilCAT-DOH Public Private DOT Models*. Manila, Philippines, 2005.
65. Philippine Coalition Against Tuberculosis. *Our Journey Together. The Public-private Mix DOTS Report 2008*. Quezon City, Philippines, 2008
66. Philippine Coalition Against Tuberculosis. *Guide on Local Coalition Building and Strengthening*. Quezon City, Philippines, 2006.
67. Linking Initiatives and Networking to Control TB (TB LINC). *Project Notes*, Manila, Philippines, 2007-2008.
68. Health Policy Development Program. *Assessing Interlocal Implementation Initiatives in TB*. Manila, Philippines, 2008.
69. Health Policy Development Program. *Gaps, bottlenecks, challenges and opportunities*. Manila, Philippines, August 2008.
70. Republic of the Philippines. *General Appropriations Act 2009*. Manila, Philippines, 2009.
71. Yu, C. *Success stories in TB control. The Philippine Case Study*. HPDP, Manila, Philippines, 2008.
72. Health Policy Development Program. *Mainstreaming F1 into TB Control and Prevention*. Manila, 2008
73. World Health Organization. *The Global Plan to Stop TB 2006-2015: Progress report 2006 – 2008 (Pre-publication issue)*. WHO, Geneva, 2009.

74. Raviglione, Mario. *The new Stop TB Strategy and the Global Plan to Stop TB 2006 – 2015*. Bulletin of the World Health Organization. Geneva, May 2007, 327.
76. World Health Organization. *The Stop TB Strategy. Building on and enhancing DOTS to meet the TB-related Millennium Development Goals*. WHO, Geneva. 2006.
77. Western Pacific Regional Office. *2006 – 2010 Regional strategic plan to stop TB*. Manila, Philippines. 2006.
78. Health Policy Development Program. *Moving Towards TB Control in the Philippines: A Review of Achievements, Emerging Issues and Threats*. Manila, Philippines, 2007.
77. World Health Organization. *Checklist for Review of the Human Resource Development Component*. Geneva, 2005.
79. World Health Organization. *Involving private practitioners in TB control*. WHO, Geneva. 2001.
80. World Health Organization. *Engaging all health care providers*. WHO. Geneva, 2006.
81. Department of Health and the Philippine Coalition Against Tuberculosis. *Principles and Practices of Public-private Mix for Tuberculosis Care and Control*. Manila, Feb. 2009.
82. Alejandria, Marissa and Joseph Michel Zuniga. *Refining strategies for TB control in the private sector*. HPDP, Quezon City, Philippines, 2008.
83. Merilles, Jojo. *The Global Fund TB Grants (Rounds 2 and 5) in the Philippines: How far have we gone*. powepoint presentation during the 2009 NTP PIR, Manila, Philippines, February, 2009.
84. Ensor T, Cooper S. *Overcoming Barriers to Health Service Access: Influencing the Demand Side*. Health Policy and Planning 2004; 19(2); 69-79.
85. World Health Organization. *Empowerment and involvement of tuberculosis patients in tuberculosis control: documented experiences and interventions*. WHO, Geneva, February 2007.
86. World Health Organization. *Community Contribution to TB Care: Practice and Policy*. WHO, Geneva, 2003.
87. Sixty Second World Health Assembly. *Prevention and control of multi-drug resistant tuberculosis and extensively drug-resistant tuberculosis*. WHO, Geneva, May 2008.
88. World Health Organization and Stop TB partnerships. *The Global MDR TB and XDR-TB Response Plan 2007 – 2008*. WHO, Geneva, 2007.
89. Department of Health and Tropical Disease Foundation. *Documentation of the 1st Central Planning Workshop: Programmatic Management of Drug-Resistance Tuberculosis (PMDT) in the Philippines*. Manila, Philippines, April 2009.
90. Tupasi, Thelma. *Tuberculosis in the Urban Poor Settlements in the Philippines*. Int J Tuberc Lung Dis, 4(1), 4-11, 2000.

91. Population Reports: *Meeting the Urban Challenges. Population Information Program*. The John Hopkins Bloomberg School of Public Health. 2002: 30(4).
92. Trebucq A. *Tuberculosis and Big Cities*. IJTL 2007: 11(7); 709.
93. World Health Organization. *TB / HIV: A clinical manual*. WHO, Geneva, 1996.
94. Laserson KF and CD Wells. *Reaching the targets for tuberculosis control: the impact of HIV*. Bulletin of the World Health Organization, WHO, Geneva, May 2007, 377- 379
95. Western Pacific Regional Office. *A revised framework to address TB-HIV co-infection in the Western Pacific Region*. WPRO, Manila, Philippines, 2007.
96. Medina, Amelia. *TB-HIV Collaboration: The NCR Experience*. powerpoint presentation at NTP PIR, Manila, Philippines, February, 2009.
97. World Health Organization. *Guidance for national tuberculosis programmes on the management of tuberculosis in children*. WHO, Geneva, 2006.
98. Mayor, Edwin, et al. *TB control in prisons in Region XI*. FETP Scientific Paper, vol. 19, no.2, 2008.
99. World Health Organization. *Guidelines for the control of Tuberculosis in Prison*. WHO and International Committee of the Red Cross. Geneva, 1998.
100. Villanueva, Cecilia. *A look into the New Bilibid Prison*. a powerpoint presentation during NTP PIR, Manila, Philippines, February 2009.
101. World Health Organization. *Addressing poverty in tuberculosis control: options for national TB control programmes*. Geneva, WHO, 2005.
102. World Health Organization. *Tuberculosis care and control in refugee and displaced populations*. WHO, Geneva, 2007.
103. Montagu, Dominic. *Accreditation and other external quality assessment systems for health care*. DFID Health Systems Resource Center, London, May 2003.
104. Brosch Roland and Veronique Vincent. *Cutting-edge science and the future of tuberculosis control*. Bulletin of the World Health Organization, WHO, Geneva, May 2007.
105. World Health Organization. *Improving TB drug management: accelerating DOTS expansion*. WHO, Geneva. 2002
106. World Health Organization. *WHO policy on TB infection control in health-care facilities, congregate settings and households*. WHO, Geneva, 2009.

