PHILIPPINE TUBERCULOSIS INITIATIVES FOR THE PRIVATE SECTOR PROJECT (PHILIPPINE TIPS)

SECOND SITUATION ANALYSIS OF FOUR TB DOTS CLINICS – FINAL REPORT

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Executive Summary

The Philippine TIPS project, in cooperation with the Institute of Philippine Culture (IPC) of the Ateneo de Manila University, undertook the second situation analysis of four prototype model TB DOTS clinics: a hospital-based model; a local coalition-based model; a multi-specialty clinic-based model; and a health maintenance organization (HMO)-based model. These four facilities were the subject of a first situation analysis that assessed current practices and operations, and the results became the basis of an enhancement plan for each facility that was implemented from January to April 2004. The IPC was contracted to collect data, using seven research instruments developed by Philippine TIPS and revised by the IPC, for a period of six days beginning 21 June 2004. A total of 87 respondents and informants were interviewed for the study. An initial report was written and subjected to validation. This present report is the final deliverable to Philippine TIPS. This executive summary highlights the key findings of the second situation analysis.

Political commitment in PPM-DOTS represents the continuing desire and efforts of a group of individuals or an organization to provide or mobilize available resources to sustain the operations of the TB DOTS facility. Political commitment is essential for the other four components to be implemented and sustained. Crucial for success is the presence of a leader-champion, a set of committed clinic staff, a clear organizational set-up, and adequate clinic space and equipment provided by the parent organization. The two most successful clinics in the study, however, have relied on external funds, which may hamper future operations should external support terminate. The least successful clinic, the multi-specialty clinic-based model, has not received solid commitment due to financial considerations by the parent organization. The clinic should also have a network of trained and committed (with a sense of social duty) referring physicians, who must be assured they will not lose patients, but given benefits from PhilHealth arrangements.

Quality-assured sputum smear microscopy is used for case finding under DOTS. The study reveals that many private physicians still request chest x-rays as a screening procedure, together with the symptom check, even if they eventually request for sputum smears. Flow charts of clinic procedures, especially those patterned after the NTP procedures, may not show this practice. There is a need to find ways to maximize the benefits of the chest x-ray as an early diagnostic tool without minimizing the central role of sputum microscopy in clinching the diagnosis.

After referral, the patient should expect a delay of a few days to a few weeks before they are started on treatment. The delay may be attributable to the patient, the TB laboratory (that may take one to seven days to release results), or the Diagnostic Committee (that

have no standard manner of functioning in the clinics studied). Reliance on outside laboratories may not be a disadvantage if results are made available quickly and if the laboratory is reliable. The ideal would be for the cost of the three smears to be comparable to that of a chest x-ray to make it appealing to patients and physicians as an initial diagnostic test. The reverse was true in the clinics studied. In the multi-specialty clinic, one sputum test costs more than a chest x-ray.

The use of **standardized short-course treatment with direct observation** for case holding involves a short-course chemotherapy treatment regimen that lasts six to eight months using combinations of five first-line anti-TB drugs. There are three standard regimens under the NTP for all cases of pulmonary and extrapulmonary TB. Ideally, direct observation by the designated treatment partner should be done daily during the intensive phase. However, on days when the clinic is closed, DOT is supervised by family members who serve as generally dedicated treatment partners, and many of whom have undergone some form of training or orientation. Some clinics allow flexibility in the frequency of clinic DOT for those who find it difficult to go to the clinic on account of their place of residence or work. During the maintenance phase, clinic visits may be once a week or even two weeks. In most cases, family members serve as the primary treatment partners during this stage. DOTS Clinics are required to have a mechanism for tracing persons who fail to meet their clinic appointments and are considered as having defaulted. Text messaging and hiring fieldworkers who visit patients in their homes reduce defaulter rates.

A **regular, uninterrupted drug supply** is a key element of DOTS. The Department of Health has made an unprecedented commitment to provide the anti-TB drug requirements of certified PPM DOTS Clinics. Most of these clinics have received their initial stocks of FDC and have started dispensing them, while some are still using up their remaining stocks of SDF before shifting completely to FDC. Lately, drug supply (for buffer stocks) has been threatened by the new DOH memorandum that directs the local government health offices to distribute the drugs to PPM DOTS clinics, most of whom have MOAs with the DOH Central Office but not with their respective local health offices. The ruling is also problematic for HMO-based clinics that do not have a strictly defined catchment area since clients are qualified policyholders regardless of place of residence or work. DOTS clinics with a big patient load should explore additional drug sources aside from the DOH, as a hospital-based clinic in the study has done.

The **recording and reporting system** is important because it is needed to systematically evaluate patient progress and treatment outcomes, as well as track overall program performance. It allows for individualized follow-up of patients. The reporting system, on the other hand, allows program managers to evaluate the effectiveness of TB control activities in any given area, and involves the submission of quarterly reports.

Treatment Cards are the responsibility of the DOTS Nurse or Treatment Supervisor but other members of the DOTS Clinic are usually asked to maintain and complete them. The Treatment Cards are filled up during each follow-up visit of the patient, so clinic staff usually do not have problems in updating and completing them. The TB Registry, on the

other hand, presents the most problem in terms of completion and updating, and is usually filled up during whatever free time clinic staff may have. There is some confusion with filling up the TB Symptomatic Masterlist. Reporting is generally seen as tedious and it detracts clinic staff rendering quality DOTS services to the clients. This task may be seen as a “tradeable” service that a central office can perform in exchange for delivery of quality DOTS service.

Chapter I. Introduction

Research Objectives

The Philippine TIPS aims to help reduce the prevalence of tuberculosis, one of the country's ten leading causes of mortality and morbidity. The TIPS project seeks to upgrade the accessibility and quality of TB services by improving and standardizing TB control and management in the private sector using the DOTS approach. It is targeting an 85-percent success rate for cases in private-sector DOTS programs, where the project is making direct intervention. The best practices derived from models developed by the TIPS project will be used to expand the DOTS programs nationwide and integrate DOTS into existing infrastructure, such as workplaces, pharmacies, hospitals, and clinics.

Philippine TIPS has extended assistance to four existing facilities to enhance DOTS service delivery. These facilities represent four prototype models: a hospital-based model at the Manila Doctors Hospital (MDH) along UN Avenue, Manila; a local coalition-based model at the De La Salle University-Health Sciences Campus (DLSU-HSC) in Dasmariñas, Cavite; a multi-specialty clinic-based model at the FriendlyCare Clinic in Cubao, Quezon City; and a health maintenance organization (HMO)-based model at the PhilamCare Clinic in UN Avenue, Manila.

These four facilities were the subject of a first situation analysis that assessed current practices and operations, and the results became the basis for an enhancement plan for each facility. The plans identified areas of improvement, objectives of enhancement, and specific enhancement activities for the key components of the DOTS strategy (see box below). The respective plans were implemented from January to April 2004.

Box 1.1 Key components of the DOTS strategy
1. ***Political commitment*** to ensure sustained, comprehensive TB control activities
2. ***Access to quality-assured sputum smear microscopy*** for case detection among symptomatic persons self-reporting to health services
3. ***Standardized short-course chemotherapy*** for at least all confirmed sputum smear positive cases, with directly-observed treatment during the intensive phase of all new sputum positive cases, the continuation phase of rifampicin-containing regimens and the whole re-treatment regimen
4. ***Regular, uninterrupted supply of quality-assured essential anti-TB drugs***, with reliable drug procurement and distribution systems
5. ***Standardized recording and reporting system*** enabling outcome assessment of each patient and the overall TB control program performance

There is a need to determine the outcomes of the enhancement plans in the four DOTS facilities. The second situation analysis meets that need. The Ateneo de Manila University, through its major social science research organization, the Institute of Philippine Culture (IPC), conducted the study of four DOTS facilities that represent four model types. The aim is to provide Philippine TIPS with an empirical database to distill and crystallize best practices and lessons learned, to serve as inputs in revising the guidelines or framework for the nationwide replication of the PPM DOTS program.

The central hypothesis that guided this study is that the enhancement plans for each of the model-type clinics have significantly upgraded the implementation of DOTS at different points of the system and subsystem, leading to the fulfillment of the key components of the DOTS strategy.

Specifically, the research reviews operations of the four clinics along three main lines of inquiry:

A. Situation analysis. Using instruments developed by Philippine TIPS, and with the participation of the DOTS program management in each of the four clinics, the situation analysis seeks to answer the following questions:

1. What are the current practices of the four DOTS clinics? How do they compare with the practices observed during the first situation analysis?
2. What improvements in DOTS implementation were made during the enhancement period? The assessment will look into a) quality of care; b) compliance with DOTS procedure; c) efficiency; and d) effectiveness of DOTS service delivery based on the enhancement plans.
3. What has been the overall impact of the changes made during the enhancement period on the implementation of the clinics' DOTS?
4. What are the factors that have facilitated the improvements in a) quality of care; b) compliance with DOTS procedure; c) efficiency; and d) effectiveness of DOTS service delivery?
5. In case of no significant improvements during the enhancement period, what are the factors that compromise the implementation of DOTS? What are the causes?

B. Lessons learned and best practices. Part of the operations review is to draw up a list of lessons learned and best practices that contribute to improvements in a) quality of care; b) adherence to the DOTS procedure; c) efficiency; and d) effectiveness of the DOTS program in each of the four clinics. The identification of lessons learned and best practices is based on the results of the second situation analysis.

C. Inputs for the revision of the replication guidelines. The distillation of lessons learned and identification of best practices is expected to generate inputs for the revision of the replication guidelines prepared by FACE.

Research Methodology and Plan of Analysis

This study follows the methodology of situation analysis (SA), which involves a description and evaluation of: 1) current DOTS service delivery standards, and the availability and functioning of subsystems in a number of service delivery points (SDPs) or model clinics; 2) the readiness of these subsystems to deliver quality of care to clients; 3) the actual quality of care received by clients at these SDPs; and 4) the impact quality of care has on the treatment of TB clients. The SA framework is summarized in the following diagram:

Framework Underlying Situation Analysis

Program Readiness	Quality of Care	Impact
▪ Medicines and Supplies ▪ Facilities and Equipment ▪ Staff training and attitudes ▪ IEC materials ▪ Supervision and management	▪ Choice of methods ▪ Information exchange ▪ Interpersonal exchanges ▪ Technical competence ▪ Mechanisms to encourage continuity ▪ Appropriate constellation of services	▪ Client KAP ▪ Client satisfaction & commitment ▪ DOTS service delivery - Case detection - Case holding ▪ Client health ▪ Reduce TB prevalence

The SA methodology is innovative in integrating different approaches to program evaluation. These approaches include: 1) a systems perspective to identify crucial subsystem components of program operation; 2) research team visits to service providers; 3) a client-oriented perspective on quality of care; 4) structured interviews of managers, providers, and clients; 5) recording of clinic facilities, equipment, and commodities available on the days of the team visits; and 6) direct observation of DOTS client-provider interactions on the day of the team's visit. These approaches will be used in the second situation analysis of four DOTS clinics representing four different model types.

The SA utilizes research instruments developed by Philippine TIPS, but with revisions. The research instruments used are as follows:

1. Inventory of TB DOTS Clinic Facilities, Recording, Equipment, & Services Provided
2. Interview Guide for TB DOTS Service Providers
3. Observation Guide for Interaction Between TB Patient and Service Provider
4. Exit Interview for TB DOTS Patients
5. Interview Guide for Referring Physicians
6. Interview Guide for Treatment Partners
7. Interview Guide for Revisiting the TB DOTS Clinic's History and Background

The main units of analysis are the inventories, the service providers, the TB patients, and the observations of patient-provider interaction. Referring physicians and treatment partners are also units of analysis.

The following steps guided this study:

STEP 1: The situation analysis of each clinic describes and evaluates the units of analysis. It discusses: 1) the current TB DOTS clinic systems operations; 2) statistics: DOTS process and outcome indicators; 3) TB DOTS clinic physical infrastructure set-up; 4) human resources set-up: 5) DOTS clinic staff experience, training, and KAP; 6) DOTS partners' perceptions: clients, treatment partners, and physicians; and 7) institutional commitment. The situation analysis concludes with a SWOT analysis: strengths, weaknesses, opportunities, and threats. The highlights of the findings are summarized in relation to the five key elements of the DOTS strategy.

STEP 2: To determine the effects of the enhancement plans, the findings of the first and second situation analysis (SA1 and SA2) are compared and analyzed for each clinic based on the variables identified above. A comparison is made of clinic practices along the five key elements of the DOTS strategy. Achievements made during the enhancement period are identified.

STEP 3: The initial findings are presented to the individual clinic administrator and subjected to validation and consultation. Comments from the model clinics are incorporated in the revised reports.

STEP 4: The findings from all four clinics are consolidated to discern common patterns. The framework is one of comparative analysis. The findings are presented for validation by FACE and Philippine TIPS.

STEP 5: Lessons learned and best practices are distilled, based on the results of the situation analysis and comparative analysis.

STEP 6: Inputs for the revision of the nationwide replication guidelines prepared by FACE are identified.

The participation and cooperation of the DOTS program management in the four clinics and of the Philippine TIPS are crucial elements in the whole research process.

The Study Team

The study is headed by Dr. Filomeno V. Aguilar, Jr., as Principal Investigator and Dr. Vincent M. Balanag, Jr., as the DOTS Specialist. Dr. Aguilar is the Director of the Institute of Philippine Culture (IPC), Ateneo de Manila University. He holds a PhD in Development Sociology from Cornell University. Dr. Balanag is a Pulmonologist and Internal Medicine Specialist at the Lung Center of the Philippines. He received his Doctor of Medicine degree from the UP-Manila College of Medicine He is a Diplomate

and Fellow of the Philippine College of Chest Physicians (PCCP), where he is Chair of its Council on Tuberculosis.

They are supported by a highly competent and experienced research staff. The research team included: Ms. Nota F. Magno and Ms. Amparo C. de la Cruz (MDH); Mr. Mark Anthony M. Ramirez and Ms. Gee D. Bilog (PhilamCare Manila); Ms. Meliza O. Calleja and Ms. Ida Carmela C. Ramos (FriendlyCare Cubao); and Ms. Eunice Anne M. Enriquez and Ms. Reneli Ann B. Gloria (DLSU-HSC Cavite). Ms. Engracia S. Santos served as the digital information specialist. In addition to the Principal Investogator and DOTS Specialist, the chapter contributors included Ms. Magno, Mr. Ramirez, and Ms. Calleja. Mr. Ramirez prepared the comparative analysis, and Ms. Gloria organized the quantitative data. Other IPC staff also assisted the study.

Data Collection

In the original plan, four teams, each composed of two research assistants who have been trained in the DOTS strategy and in the research instruments of the situation analysis, are to be fielded for six days of data collection in each of the four prototype clinics. Due to unforeseen circumstances, there has been a time lag between the preparatory period and the start of fieldwork. Preparations started on 25 May 2004, on which date a two-day training of the research staff commenced.

The first day of training was held at the IPC. The topics covered included: 1) the etiology of tuberculosis, 2) the DOTS strategy, and 3) the situation analysis instruments, which were discussed in detail, with instructions on how to use them for optimum results. In attendance was Ms. Aniette Masulit, Program Assistant of Philippine TIPS.

The second day started at the IPC to train the staff in the SA instruments not covered during the first day. By mid-morning the staff visited a DOTS clinic within the compound of the Lung Center of the Philippines, which gave the staff the opportunity to familiarize themselves with a DOTS facility and interact with a service provider. The afternoon session of the second day of training was held at the Philippine TIPS Office. The research team was instructed concerning the recording and reporting components of the DOTS strategy, specifically in the private sector in partnership with the public sector.

During the preparatory period, the SA research instruments were updated and revised. Formal liaison with the four clinics also began.

Based on prior agreement with Philippine TIPS, fieldwork began on 21 June 2004. However, because 24 June was a public holiday in Manila, it was decided to undertake fieldwork from 21 to 23 June (Monday, Tuesday, and Wednesday), pause for the holiday, and resume fieldwork from 1 to 3 July (Thursday, Friday, and Saturday). This schedule was observed for the two prototype clinics in Manila (PhilamCare and MDH) and the DLSU-HSC DOTS clinic in Dasmariñas, Cavite. The FriendlyCare Clinic in Cubao was supposed to be observed continuously from 21 to 26 June, but because there were no enrolled patients at that time fieldwork was postponed to the following week.

The schedule of key informants, particularly service providers in the study clinics, compelled the research team to continue with data collection beyond the contracted six days. In reality, fieldwork was undertaken on the following dates:

Model Clinic	Inclusive Dates of Fieldwork	Total Number of Days
Hospital-based	21-23 June; 28 June-3 July; 5 July	10
HMO	21-23 June; 1-3 and 5-8 July	9
Multi-specialty	22 June; 26-30 June; 1-3 July	7
Local coalition	21-23 June; 1-3 July; 16 July	7

The table below shows an aggregate of 87 respondents and informants who were interviewed for the study. The actual number of respondents per research instrument is also shown. In the HMO model clinic, no observation guides and exit interviews could be made because no enrolled TB patient visited the clinic during the period of study, and it was not ethically possible to get names of patients from the clinic without the patients' permission. In the same manner, no treatment partners could be interviewed. Nonetheless, the second situation analysis interviewed a sizeable number from whom a rather large database was collected.

Table 1-1. Total number of respondents and informants in the second situation analysis

	Instrument							
Facility	1	2	3	4	5	6	7	Total
Hospital-based	2	3	2	5	3	5	2	22
HMO	2	5	0	0	3	0	2	12
Multi-specialty	5	5	4	3	1	1	1	20
Local coalition	4	9	4	6	5	4	1	33
Total	13	22	10	14	12	10	6	87

The initial report was submitted to Philippine TIPS on 23 July 2004. The period of validation was from 25 July to 4 August. The DOTS clinic administrators were provided with copies of the initial report for their respective clinics, and feedback was sought. All but the UN PhilamCare facility gave feedback, which have been incorporated in the consolidated reports. In the case of the local coalition-based model in Cavite, a meeting was held on 3 August to discuss the administrator's reactions to the report; officials of Philippine TIPS attended the meeting.

Organization of the Report

This final report presents final data for the second situation analysis. The presentation follows the sequence of research objectives and steps of analysis presented earlier. Thus, the next four chapters that follow this introductory chapter present the findings from each

of the model prototype clinics. Each of these chapters abide by a standard format and structure that deal with the following topics:

1. The DOTS Facility;
2. Organization of the DOTS Facility and Data on Service Providers;
3. Referring Physicians and the Implementation of TB DOTS;
4. Recording and Reporting System and Service Statistics;
5. Delivery of TB DOTS Services from the Perspective of TB Patients;
6. The Treatment Partners of TB Patients; and
7. Evaluation of Changes since the Enhancement Plans.

The four case-study chapters are followed by the comparative analysis of the findings across the four clinic sites, including a textual explanation of best practices and lessons learned, a matrix of key variables along the five major components of the DOTS strategy, and program indicators for the four model clinics. The concluding chapter provides inputs for the revision of the framework for the replication of the PPM DOTS program nationwide.

Chapter II. The Hospital-based Model TB DOTS Clinic

Fieldwork at the Manila Doctors Hospital Tuberculosis Directly Observed Treatment Short-Course (MDH TB DOTS) Clinic was conducted from June 21 to 23 and from July 1 to 3, with some occasional visits in between. Two researchers observed the operations of the clinic, interviewed health providers, patients, treatment partners and doctors regarding the TB DOTS program. Using seven recommended survey instruments, they accomplished the following:

Research Instrument	Number of Respondents
Inventory of TB DOTS Clinic Facilities, Recording, Equipment and Services Provided	2
Interview Guide for TB DOTS Service Providers	3
Observation Guide for Interaction Between TB Patient and Service Provider	2
Exit Interview for TB DOTS Patients	5
Interview Guide for Referring Physicians	3
Interview Guide for Treatment Partners	5
Interview Guide for Revisiting the TB DOTS Clinic's History and Background	2

They also collected other documents such as the clinic's NTP TB register, quarterly reports, progress reports, list of referring physicians, and drug inventory. To depict the clinic's setting, some illustrations of the clinic were also made and pictures of it were taken. To supplement the present data, this report makes reference to the first situation analysis conducted by the Foundation for the Advancement of Clinical Epidemiology (FACE) in October 2003.

The objective of this situation analysis is to see whether and how enhancements identified by the first assessment were implemented in this setting. It aims to show what the concerns of the MDH TB DOTS clinic have been in the past, what they are at present, and what they can be in the future. Thus, based on the experience of the MDH TB DOTS Clinic, this research can identify guidelines for the replication of a hospital-based TB DOTS clinic nationwide.

To present the context in which the MDH TB DOTS Clinic is found, this report begins with a background of the MDH TB DOTS Clinic. This includes its history and a description of the facility and equipment. Part Two elaborates on the services it provides. Part Three presents the organizational set-up that facilitates the TB DOTS program at MDH. Part Four gives a quantitative description of the facility's service statistics. Part Five talks about the implementation of TB DOTS from the perspective of referring physicians. Part Six narrates the actual delivery of TB DOTS services, especially in

relation to how the patients and their treatment partners feel or think about their treatment at MDH TB DOTS. Part Six then summarizes the changes that have occurred in the MDH TB DOTS Clinic, particularly towards enhancement. The last part then presents a summary of key points regarding the MDH TB DOTS Clinic and possible areas of improvement for future replication nationwide. In particular, it will discuss the clinic's strengths, weaknesses, opportunities and threats (SWOT).

The TB DOTS Clinic

Background

The TB DOTS Clinic was established in Manila Doctors Hospital as a pilot project for a hospital-based TB DOTS program, in line with the attempt to gain private sector involvement in the National Tuberculosis Program (NTP) by developing TB DOTS-PPM models in the country[1]. Dr. Abundio Balgos, a practicing pulmonologist at MDH and a board member of PhilCAT, worked with Dr. Rodrigo Romulo and Dr. Charles Yu of PhilCAT in conceptualizing and operationalizing a hospital-based model for TB DOTS at MDH between March 2002 and May 2002. In April 2002, they conducted a Knowledge Attitude Practice (KAP) survey among active medical staff of MDH[2]. The findings showed that:

1) An average of seven to eight (14-16%) out of 50 patients seen by doctors each week were diagnosed with PTB or concomitant PTB,[3]

2) All doctors used chest x-rays as an initial diagnostic tool. However, others also used sputum AFB smear (80.49%), PPD (41.46%), sputum culture (31.71%), and ESR (2.44%). Some of the reasons cited for not performing sputum AFB smear as a routine diagnostic workup were that chest x-rays are enough basis, there is no known reliable laboratory for its analysis, it is expensive, it is inconvenient for patients, and not all patients yield sputum.

3) Fifty percent of respondents based their diagnosis on a guideline, either the Philippine TB consensus and PhilCAT. A majority were not following the ATS or WHO guidelines for diagnosis and treatment.

4) There was little documentation (recording and reporting) of TB patients.

MDH has five Pulmonary Specialists and two Infectious Disease Specialists who handle the TB cases that a majority of other MDH physicians refer / diagnose. When the charts

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[1]In 2002, the Philippine Coalition Against Tuberculosis (PhilCAT) undertook a research (funded by CDC) on creating and developing sustainable TB DOTS-PPM models in five areas: hospital-based, multi-practice, local coalition, corporate social responsibility, and HMO.

[2]Source: DOTS Model Progress Report, pages 1 and 2.

[3]Source: MDH TB DOTS Progress Report.

in the clinics of three of the Pulmonary Specialists were surveyed retrospectively (1999)[4], it revealed that 30% of patients fail to complete their treatment because they cannot afford the cost of drugs or other related expenses.

The findings of the KAP and retrospective surveys confirmed the need for private sector involvement in the TB DOTS program worldwide. This would standardize the diagnosis and treatment regimen for TB. At the same time, it would provide much needed assistance in shouldering drug and other related costs, while facilitating a rigorous monitoring of all the TB patients. Around MDH itself, the prevalence of TB is at 10%, estimating the patient population of TB symptomatics as 13,000 every year or 3,000 patients every quarter.[5]

Thus, PhilCAT and Dr. Balgos envisioned an MDH TB DOTS clinic that serviced patients whom physicians within and outside MDH referred. Other health service providers in this area can be found in four private hospitals, two government hospitals, and three microscopy centers. To achieve a public-private mix (PPM), the target group includes both low-income and upper-income groups. However, for purposes of following patients up and tracing defaulters, the catchment population is defined as those people who live and work within a two-kilometer radius of MDH. This encompasses about half of District V of Metro Manila, which has a total population of 284,624.

As the project leader of the MDH TB DOTS Clinic, Dr. Balgos acted as a liaison between PhilCAT and MDH. Despite changes in the MDH administration, he held frequent meetings with them to discuss the potential of a TB DOTS program. Two of the major points that he raised were: 1) that the TB DOTS facility would not need funding from MDH during its pilot operation, and 2) that its schedule would not conflict with the current schedule of the Industrial Medical Services Department where it would be located. After careful deliberation on the project's viability, the MDH TB DOTS Clinic was established.

Thus, the MDH TB DOTS was opened in June 2002. A Memorandum of Agreement (MOA) was signed by PhilCAT and MDH in August 2002. It was in that same month when the MDH TB DOTS received its first patient. Initial training was provided by the project leader himself to the team members or staff until the official NTP Workshop conducted by PhilCAT and DOH. The staff familiarized themselves with the NTP manual and were guided by a resource person from DOH to fill up the standardized NTP forms (June to July 2002). Only after almost a year that the MDH TB DOTS had been operational were formal training activities held for the TB DOTS staff. These activities are presented in Table 1 below.

The NTP workshop covered NTP policies and procedures, case finding, case holding, recording, reporting, logistics, monitoring and supervision. The participants were oriented in the National TB Control Program and the Comprehensive and Unified Policy

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[4]Source: DOTS Model Progress Report, page 1.

[5]The "best estimate of patient population in catchment area" taken from an informal survey of physicians at MDH. Source: Powerpoint presentation prepared by the MDH TB DOTS project leader.

on TB Control. The FDC training covered new guidelines regarding the use of Fixed Dose Combinations of anti-TB drugs. Both training are required for health service providers in TB DOTS. After accreditation, the MDH TB DOTS staff were also oriented in the forms and documents of Phil Health to facilitate the proper processing of documents for patients with Phil Health insurance.

Table 2-1. List of training activities for the MDH TB DOTS

Activity	Date	Place	Participants
NTP Workshop by PhilCAT	14-16 May 2003	Glaxo Smith Kline	MDH TB DOTS Clinic Supervisor and Research Assistant
DOH Training for Sputum AFB Smear	31 March – 4 April 2003	Research Institute for Tropical Medicine (RITM)	2 MDH Medical Technologists
FDC Workshop by DOH	27 March 2004	Las Palmas Hotel Pedro Gil	MDH TB DOTS Team
Phil Health Workshop Orientation on Forms	9 June 2004	-	MDH TB DOTS (Clinic Supervisor and Research Assistant), MDH Medicare staff, and Chief Clerk of Pre-Paid Clinic
DOH Training for NTP	5-9 July 2004	Quezon Institute (QI)	1 MDH Medical Technologist

Meanwhile, other lectures were conducted in order to disseminate information regarding the TB DOTS at MDH. Meetings were coordinated between the TB DOTS staff and members of its institutional partners in order to exchange ideas for the enhancement of TB DOTS operations. These are shown in Table 2-2 below.

Table 2-2. List of Other Activities Conducted for the MDH TB DOTS

Activity	Date	Place	Participants
Committee on Education and Training (COMETRE) Lecture on TB and DOTS by Dr. Charles Yu	27 January 2003	Tangco Hall, MDH	20 Resident Doctors and Consultants, Department of Medicine at MDH
Meeting and Site Visit	27 January 2003	MDH Canteen	The PhilCAT and TIPS team: Drs. Balgos, Mario Juco, Cecilia Montalban, Camilo Roa, Rodrigo Romulo, Melencia Velmonte, Aileen Wang, Charles Yu, Karen Villanueva;

Activity	Date	Place	Participants
			Ms. Dagudag and Marilou Costello
TB DOTS Clinic Staff Meeting with Medical Residents	1 February 2003	Room 308, Medical Arts Center Building	Drs. Balgos and Villanueva; Ms. Dagudag, ~20 Medical Residents
NTP DOTS Workshop: Diagnosis, Management and Reporting Facilitated by Drs. Hernandez and Vianzon of DOH NTP	23 February 2003	Capiz Room Holiday Inn Hotel Manila	MDH TB DOTS Clinic Supervisor and Research Assistant, 20 doctors and medical staff
Workshop for Secretaries on DOTS: Diagnosis, DOT and Reporting	2 August 2003	MDH Penthouse	8 secretaries of MDH doctors
Worskhop on TB for workers of the National Park Development Committee (NPDC) at Luneta by Dr. Balgos	31 March 2003	Luneta	MDH TB DOTS Team and 21 workers
Lecture with MDH doctors	10 February 2004	Tangco Hall, MDH	-
Meeting with Dr. Asa and Head of MDH laboratory	16 June 2004	-	-
Lecture for MDH laboratory staff by Dr. Balgos	30 June 2004	-	26 personnel

Between August and September 2003, another MOA was signed by MDH but with PhilTIPS. Currently, a new MOA is being proposed for MDH, PhilCAT and DOH. It is awaiting further information regarding a financial plan that ascertains the MDH TB DOTS facility's sustainability and has not been signed yet.

Location and Infrastructure

The MDH TB DOTS Clinic is located in the Industrial Medical Services Department ("Pre-Paid" Clinic) of the Manila Doctors Hospital. It is a five-minute walk from the Light Rail Transit 1 (LRT1) station at the corner of United Nations Avenue and Taft Avenue. Any visitor can easily find a huge sign (banner) in the MDH emergency area indicating that there is a TB DOTS Clinic at MDH and where it is.

The Pre-Paid Clinic can be found in the first level of the building right behind the main building of MDH. Its entrance is immediately visible to anyone passing the main building's backdoor. It is on the way to the Psychological Testing Center, the Cafeteria,

and the Medical Arts Center Building. Outside the door are signs and posters about the Industrial Medical Services Department and the schedule of the TB DOTS Clinic. This recently (July 2004) included a sign announcing the accreditation of the TB DOTS Clinic in Phil Health and its certification by PhilCAT.

The Pre-Paid Clinic delivers comprehensive health care programs to health care beneficiaries ("card holders") working in MDH, nearby establishments (e.g., Metrobank and Shell) and other agencies (e.g., recruitment agencies for overseas workers). Services include medical retainers services, nursing retainers services, dental services, and overseas employment screening.[6] It houses three Family Medicine doctors, one Gynecologist, one Pediatrician, and one Dentist. It has a staff of six persons, one of which is a nurse.

Sharing Spaces

Initially, the TB DOTS program was set up in one corner of the reception area of the Pre-Paid Clinic. The reception area is about 2 x 4 sq.m. and can seat a maximum of 14 people. It is a busy spot in the Pre-Paid facility, with people coming and going. A television set is also propped up on the side of the TB DOTS corner, obliquely facing the waiting area and the reception counter. It adds to the sounds that can be heard in the Pre-Paid clinic. In that small and simple corner, with only a desk and a filing cabinet, the TB DOTS program gradually began servicing some 16 TB patients from June to November 2002.

[6]Source: MDH website (www.maniladoctors.com.ph).

In November 2002, they moved to the clinic of one of the Family Medicine doctors (Dr. Socorro Garcia), located at the farther end of the Pre-Paid facility. Having a bounded floorspace of 3.5 x 3 sq.m.,[7] it was a place where TB DOTS materials (equipment) could be stored safely and where patients could be seen with some privacy. Many things are conducted in this room - counseling, lectures, treatment and recording but not diagnosis, sputum collection, chest x-ray or other laboratory services. This clinic has adequate lighting but does not have windows and sufficient ventilation. There is a door but it is left open since the Pre-Paid facility's air conditioning is centralized. Thus, there is really little visual and auditory privacy. Moreover, right beside this clinic are the dental and pediatric clinics. Patients visiting these clinics share the waiting area right outside the TB DOTS Clinic. This waiting area accommodates a maximum of six patients. Ventilation is intimately shared among these patients. Nonetheless, this clinic has been the home of the MDH TB DOTS operations up to the present.

[7]Source: First Situation Analysis by FACE, page 13.

Dividing Hours

To accommodate patients who were working, the TB DOTS Clinic hours were at first set at 5:00 pm to 9:00 pm on weekdays and from 8:00 am to 12:00 nn on Saturdays. Some time after it moved to the physician's clinic (after January 27, 2003), it was eventually able to extend its clinic hours to 3:00 to 9:00 pm because the physician only occupied the clinic from 8:00 am to 2:00 pm on weekdays. Clinic hours on Saturdays remained at 8:00 am to 12:00 noon.

On busy days when the physician has patients until after 2:00 pm, she and the TB DOTS staff still freely share her clinic once TB DOTS clinic hours have begun. For example, the doctor sees her patients at her desk, while the TB DOTS staff administer DOT to their patients in another corner of the clinic. Another option they take is for either the physician or the TB DOTS staff to use other spaces available to them in the Pre-Paid Clinic (e.g., other physician's clinics). There is flexibility among them with regard to such arrangements.

The schedule of the MDH TB DOTS Clinic also proves flexible to circumstances. Initially, the staff (mostly the research assistant) stayed during the full length of official clinic hours. Gradually, as the TB DOTS gained a greater number of patients, so did the staff gain a greater familiarity with their patients and become accustomed to the routine of their tasks. The staff was then able to schedule individual treatment such that they would know when all their enrollees for each day would arrive. Thus, there are days when the staff do not stay until 9 pm. This, however, means that new / potential patients who might arrive around 9 pm could not be accommodated on certain days. It was also observed during fieldwork that there were days when the staff were at the clinic either

earlier or later than scheduled. The clinic supervisor and research assistant arrive earlier for the monthly meetings with the diagnostic committee. Sometimes, they also arrive later than expected. However, unstructured interviews with patients reveal that this rarely happens. One such reason for the staff arriving late was that they were stalled by obtaining the necessary buffer stock of anti-TB drugs from DOH. Table 2-3 below shows a comparison of official clinic hours versus and actual clinic hours as observed from fieldwork.

Table 2-3. Official Clinic Hours Versus Actual Clinic Hours at MDH TB DOTS

OFFICIAL CLINIC HOURS						
Time	Days of the Week					
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
AM	-	-	-	-	-	8-12
PM	3-9	3-9	3-9	3-9	3-9	-
ACTUAL CLINIC HOURS						
Time	Days of the Week					
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
AM	-	-	-	-	-	9-12:30
PM	4-8:30	2:30-8:30	2:30-8:30	3:50-8:30	2:30-8:45	-

There are also other interruptions in schedule, such as the scheduled floor cleaning and polishing every Thursday evenings when most of the clinics in the Pre-Paid are closed, except for dental and TB DOTS. This makes it difficult to pass the hallway and waiting area to get to the end of the Pre-Paid facility where the TB DOTS Clinic is found. However, since the staff have an idea of which enrollees to expect every night, the research assistant just takes the necessary medicines and drinking cups with her to the main reception area of the Pre-Paid where she awaits the TB DOTS patients.

Inventory of Equipment and Facilities

As previously mentioned, the MDH TB DOTS operations began with some simplicity, armed with only a desk for writing and a filing cabinet for storage. Office and medical supplies were independently purchased through project funding. Moving to the physician's clinic allowed them to both share and accumulate facilities. Two telephones are available in the clinic. These are very useful for reminding and following up patients to complete their treatment. The bookshelf is now used to contain NTP treatment cards, medical supplies and the current enrollees' share of anti-TB drugs. Another shelf is used for keeping disposable drinking cups and as a ledge for the water dispenser. Meanwhile, the project was able to purchase a filing cabinet, in which to place TB DOTS files, records, and the buffer supply of drugs. Information education campaign (IEC) materials such as brochures and pamphlets are also placed on top of this filing cabinet. The project had also purchased covered garbage bins for proper waste segregation and disposal. The following text describes these materials / equipment and their usage in greater detail.

Communications. The two telephone lines found in the MDH TB DOTS Clinic are very valuable to the DOTS operations, especially for tracing defaulters. One is connected to the MDH trunkline, which allows them to easily access other physicians and offices within MDH. This also makes the MDH TB DOTS accessible to outsiders who are enrolled in the program or may be interested in the program. The other line is a direct line, which is shared with the Pre-Paid Clinic. Both telephones may be answered from either the Pre-Paid facility's reception or from the MDH TB DOTS Clinic.[8]

Ventilation. As this is an important concern for the TB DOTS program and for the Pre-Paid facility, it is fortunate that an exhaust fan is installed in that particular clinic. The exhaust fan is located at the uppermost part of the wall to the right of the door. An electric fan (previously a stand fan, presently a desk fan) is also available for their use in this clinic. The electric fan is steadily pointed towards the door, blowing the air out toward the waiting area.

Basic Medical Equipment. A stethoscope, BP apparatus and examination bed are available in the clinic, but are rarely used for TB DOTS operations. A weighing scale is shared with the entire Pre-Paid facility. The TB DOTS Clinic has its own supply of masks, sputum collection containers, disposable needles and syringes, tally counter, pickup forceps, megatoscope, sterile cotton swabs, and cleaning supplies.

Filing Cabinet. The MDH TB DOTS was able to purchase a secondhand metal filing cabinet in which to store their files and buffer stock of anti-TB drugs. As previously mentioned, this also holds the IEC materials and the electric fan (until early July 2004) or the water dispenser (recently, late July 2004). This was purchased for P2,500 but was transported by the clinic supervisor herself.

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[8]MDH Trunkline is 5243011, with extension number 3350 for the MDH TB DOTS Clinic at the Pre-Paid facility. Direct line for the MDH TB DOTS Clinic is 5256623.

Drug Storage Box. Each enrollee is allotted a box wherein her/his share of anti-TB drugs for the full course of treatment are kept. It is a miscellaneous item that helps the MDH TB DOTS Clinic organize its drug supply and gives its staff a ready idea of the buffer stock. These boxes are labeled properly (with the date of registration and the initials of the patient to retain privacy) and piled at the topmost part of the bookshelf. All the staff need to do is to retrieve the box, obtain the necessary anti-TB drugs from a patient's reserved supply. This also ensures them that they will never run out of drugs for their current enrollees. The cost for 100 pieces of storage boxes was P5,000.

Anti-TB Drugs. The basic anti-TB drugs provided in this facility include isoniazid (H), rifampicin (R), pyrazinamide (Z), ethambutol (E), and streptomycin. Prior to May 2004, these drugs were dispensed in single doses, the amount depending on a patient's body weight: 300 mg of H, 450 mg of R, 500 mg of Z, 400 mg of E, and 1 g of streptomycin. Except for streptomycin, which is given intramuscular, these drugs are now found in blister packs of fixed dose combination (FDC). The MDH TB DOTS Clinic does not provide drugs to counter the side-effects of anti-TB drugs. Patients who need these must shoulder the cost and buy them on their own. The following table presents a detailed list of drugs that are and are not available at the clinic.

Table 2-4. List of Drugs and Their Availability at the MDH TB DOTS Clinic

Drugs	Provided		Free		Available	
	Yes	No	Yes	No	Yes	No
Type I (HRZ)	/		/		/	
Type II (HR)	/		/		/	
Ethambutol (400 mg)	/		/		/	
Streptomycin (1 g)	/		/		/	
INH tab (100 mg)	/		/		/	
PZA tab (500 mg)	/		/		/	
INH syrup (100 mg/tsp 120 ml)		/	Not applicable			/
RFP syrup (100 mg/tsp 60 ml)		/				/
4-drug FDC tablets	/		/		/	
3-drug FDC tablets	/		/		/	
2-drug FDC tablets	/		/		/	
Antihistamines		/	Not applicable			/
Pyridoxine		/				/
Aspirin or NSAID		/				/
Allopurinol		/				/
Antipyretics		/				/

The next table presents a detailed list of their current buffer stock of what is available at the MDH TB DOTS Clinic. During the time of fieldwork, the MDH TB DOTS Clinic did not meet the desired 10 percent buffer stock (See Table 2-5 below).[9] This was attributed to the difficulty in obtaining enough medicines from DOH, even as the staff regularly submitted their drug inventories. However, the MDH TB DOTS Clinic has never turned down a potential patient due to lack of drug supply. The staff have found other sources from which to obtain anti-TB drugs whenever necessary. First, they use their funds from PhilCAT (CDC) to purchase anti-TB drugs. Secondly, they solicit medicines from physicians (usually pulmonologists) and medical representatives from pharmaceutical companies. These are usually near expiry drugs, but are nonetheless valuable not just in providing a supply, but also to supplement the new FDC medicines. At the MDH TB DOTS, TB patients with adverse reactions to anti-TB drugs in FDC form usually revise their treatment through single dose anti-TB drugs or loose tablets, in accordance with the evaluation of the diagnostic committee.

Table 2-5. List of Current Buffer Stock of Anti-TB Drugs at the MDH TB DOTS Clinic

Drugs	Buffer Amount	No. of Patients This Covers for Length of Full Treatment
FDC A	896 tablets	4
FDC B	672 tablets	1 if maintenance phase, 3 if intensive phase
PZA (500mg, single dose)	308 tablets	(supplementary medicine)
PZA (400 mg, fixed dose)	28 boxes	(supplementary medicine)
Ethambutol (400 mg)	100 tablets	Not even good enough for 1 (good only for 50 days if intensive)
Streptomycin (0.75 g vial)	115 vials	2
Type II Medicines - RH (single dose)	420 capsules of R 420 tablets of H	3.75 if maintenance phase 7.5 if intensive phase

Notes: 1) PZA dispensing operates on first in-first out (FIFO) basis, with single doses ("loose" tablets) having closer expiry dates than fixed doses. It is also used for patients with adverse reactions to anti-TB drugs.
2) Type II medicines are also given to patients with adverse reactions to anti-TB drugs.

Follow-up visits, however, reveal that the DOH has recently (as of July 23) given MDH TB DOTS enough medicine for 15 new patients.

Water Supply. Although there is no running water in the MDH TB DOTS Clinic itself, drinking water and drinking cups have been made available to patients since June 8, 2004. A water dispenser and disposable drinking cups were purchased by the MDH TB DOTS facility. This is very important for those who are taking their anti-TB drugs in the clinic as part of DOT and for the research assistant who no longer has to fetch water for the patients.

Garbage and Disposal. Drinking cups and empty blister packs are the most common kind of waste produced by TB DOTS operations. These are placed in a garbage bin for non-

[9] The equivalent of a ten percent buffer stock for the MDH TB DOTS Clinic is having enough medicines for 10 new patients. It derives from the target of obtaining 100 patients at least by the end of 2003.

biodegradable items. Meanwhile, used cotton swabs, disposable needles, syringes and sharps are put in their appropriate disposal bins, specifically the biodegradable and infectious materials garbage bins. However, before disposing the needles, syringes and sharps, they are placed inside a plastic bottle.

Sputum Collection Booth. Because the MDH TB DOTS Clinic is too small to accommodate sputum collection, a collapsible sputum collection booth was acquired in January 2004 to facilitate sputum collection for incoming patients, particularly for those who would avail of sputum smear services at the MDH (microbiology) laboratory. Made of light material (aluminum and plastic), it is attached to a storage facility located outside the Pre-Paid clinic. Anytime that it needs to be used, the staff will only unlock it, expand it and use it. It was not observed during fieldwork, however, that the sputum collection booth was ever used. Most sputum collection is still done either in the homes of the patients or in the laboratories that provide sputum smear service. Both the MDH TB DOTS Clinic and the MDH laboratory give free sputum collection cups to the patients.

IEC Materials. In addition to the brochure that MDH TB DOTS Clinic prepared, they were also able to obtain two pamphlets from PhilTIPS and a pamphlet from Wyeth Pharmaceuticals. The MDH TB DOTS brochure shows an English explanation of the DOTS as a strategy for curing TB. It is basically addressed to potential referring physicians and health providers. Thus, it includes the MDH TB DOTS contact address and numbers. There is a black and white and a colored version of this same brochure. One PhilTIPS pamphlet contains a brief English description of what a TB DOTS clinic can do for TB patients. It is also addressed to referring physicians who are interested in

being certified by undergoing training with PhilCAT. Thus, it also contains the contact addresses and numbers of four of the TB DOTS-PPM models. The other PhilTIPS pamphlet is an English guide for treatment partners. It provides a more lengthy description of basic facts about TB, its symptoms, misconceptions, how it spreads, how to control and prevent it, DOTS, possible reactions to treatment, and the role of treatment partners. It contains the contact address and numbers of PhilTIPS but not the MDH TB DOTS. The Wyeth pamphlet gives a fully illustrated and colored description of TB in Tagalog – facts, misconceptions, steps toward prevention and control, and possible reactions to treatment. However, it does not contain information regarding DOTS. These pamphlets and brochures were observed during fieldwork as not very visible to all patients, being partially blocked by the electric fan standing on the filing cabinet.

Other IEC materials include two TB DOTS flowcharts and three educational posters on TB and sputum collection. The two flowcharts present the steps in case finding and diagnosis of TB patients and the approach to TB Asymptomatics. One poster narrates in both Tagalog and English the steps for proper sputum collection. A second poster is a set of smaller posters explaining in Tagalog some facts about TB. A third poster illustrates seven steps on how to stop TB. It is written in English. It was observed, however, that very few patients actually view these posters and flowcharts. This is partly because not all of them are very visible. For example, the flowchart on case finding and diagnosis is partially hidden by the water dispenser. The third poster, which is posted below the flowchart on approach to TB asymptomatics, is inconveniently below eyelevel.

There is also a huge map of the catchment area in the MDH TB DOTS Clinic. Enrollees are encouraged to each plot their place of residence or work on the map to show the coverage of the clinic in that area. Yellow pins represent workplace, while purple pins represent place of residence.

Documentation and Recording. Recording and reporting are guided by certain forms that are standardized by the NTP. These provide a documentation of the progress of patients and of the program itself. These are filled up by both the clinic supervisor and the research assistant. Both of them are also assigned to write up reports. Table 2-6 shows the various forms, records and reports that are accomplished by the MDH TB DOTS Clinic.

Table 2-6. List of Records and Reports Accomplished by the MDH TB DOTS Clinic

NTP Recording Forms		Reporting Forms / Counting Sheets		Financial Accounts / Statements	
1. TB Symptomatics Masterlist	/	1. Quarterly Report on Laboratory Activities	X	1. Balance Sheet	/
2. Laboratory Request Form for Sputum Examination	/	2. Counting Sheet for Laboratory Activities	X		
3. Laboratory Register	X	3. Quarterly Report on New Cases and Relapses	/	2. Income Statement	/
4. Treatment Card	/	4. Counting Sheet for Treatment Outcome	/		

NTP Recording Forms		Reporting Forms / Counting Sheets		Financial Accounts / Statements	
5. Identification Card	/	5. Quarterly Report on Drug Inventory and Requirements	/	3. Cash Flow Statement	/
6. TB Register	/	6. Summary of Reports	X		
7. Referral / Transfer Form	/	7. Report on Program Management	/		

Copies of the TB Symptomatics Masterlist are available to the MDH TB DOTS Clinic. However, since the standardized form cannot accommodate remarks or other relevant information about patients, the MDH TB DOTS staff have decided to make a TB symptomatics masterlist using a logbook. Meanwhile, they do utilize the laboratory request for sputum examination, the treatment card, the identification card, the TB register, and the referral / transfer forms. The laboratory register is accomplished and kept by the MDH laboratory medical technologist. Occasionally, the clinic supervisor crosschecks the laboratory register with their TB register.

It was observed that the TB Register and treatment cards are generally up to date, with only a slight delay in inputting some information (i.e., treatment partners and treatment outcome). However, these are generally updated by the staff. These forms are also accomplished and legibly written. On the other hand, there are more instances when patient identification cards are not up to date because patients sometimes forget to bring these with them, or even forget where they placed them. The staff always remind them to keep their identification cards and bring them each time they go to the clinic for DOT.

The MDH TB DOTS staff also accomplish the quarterly report on new cases and relapses, counting sheet for treatment outcome, and quarterly report on drug inventory and requirements. These reports are submitted to the DOH. The MDH TB DOTS staff do not summarize these reports. They also submit a report on program management to the MCHO and write progress reports for PhilCAT. Meanwhile, the quarterly report on laboratory activities and the counting sheet for laboratory activities are for the MDH laboratory to accomplish. However, the MDH TB DOTS staff remarked that these are not accomplished.

Services Provided by the MDH TB DOTS Clinic

The MDH TB DOTS Clinic is a center that provides initial diagnosis, counseling and education, treatment, and monitoring of TB patients according to NTP guidelines. The clinic also facilitates the processing of Phil Health, SSS and GSIS papers for health benefits. Patients may be walk-in or referred by other physicians.

A written manual of operating procedures provides the guidelines for the MDH TB DOTS staff. Among others, it includes details on the following:

- duties and responsibilities of the staff
- supervision, monitoring and evaluation of the staff and their activities
- sputum collection
- case finding
- case holding
- treatment and drugs
- recording and reporting

Moreover, the MDH TB DOTS complies with the NTP Manual of Procedures.

Case Detection

Initial Diagnosis by Diagnostic Committee. Although initial diagnosis does not include chest x-ray and sputum smear microscopy, a diagnostic committee interprets their results. Patients are referred to MDH (radiology or microbiology) laboratories for chest x-rays, sputum collection and sputum smear microscopy. At MDH, chest x-rays cost P395 while sputum smear microscopy costs P200 for each sputum sample. (Three samples are required for standard TB DOTS diagnosis. This is repeated after completion of treatment, and may be repeated in between treatment as necessary.) Should the patients decide to avail these services elsewhere, they are referred to other health centers, clinics or hospitals that offer the same. For those who cannot afford the cost of sputum smear microscopy at MDH, they are referred to the Philippine Tuberculosis Society (PTS) in Tayuman (a few stations from MDH) which offers it for free. The diagnostic committee also evaluates the cases received by the TB DOTS Clinic, especially for stopping / changing the drugs taken by patients who have adverse reactions to the anti-TB drugs.

Case Holding

Once incoming patients are diagnosed with TB and once they agree to enter the program, they sign a contract with the MDH TB DOTS Clinic and begin their treatment.

Counseling and Education. Information regarding TB are given to TB patients at the DOTS facility especially during the initial phase of treatment. Lectures are conducted for individuals or groups, depending on the availability of the patients and their treatment partners. Prior to fieldwork, it was gathered that a lecture for new patients and their treatment partners was conducted in June 17. Another lecture for new patients was held in June 19. During fieldwork, two lectures were witnessed – one was held for some five new patients and their treatment partners (June 21) and the other for two new patients (June 23). Lectures emphasize the following key messages:

1. TB is infectious.
2. TB can be cured.
3. A patient must cover her/his mouth when coughing.

4. There should be regularity in taking a combination of drugs
5. Patients must complete their treatment.
6. There are consequences to irregular drug taking
7. Anti-TB drugs have side-effects.
8. Proper nutrition and good hygiene are important.
9. Follow-up sputum smear examination is important.
10. Family and treatment partner support are important.

The staff distributes the IEC materials during lectures or initial consultations. They also answer questions and try to resolve any issues related to TB treatment on a daily basis.

Treatment and Monitoring. Treatment includes supplying free anti-TB drugs to patients, and facilitating a close monitoring of each patient's treatment through DOT, recording / documentation and by assigning treatment partners.

Various mechanisms are involved in monitoring patients. First, there is a standardized system of recording and documenting patients according to NTP guidelines. Each patient is given an NTP identification card, which records the patients daily treatment, drug intake, and schedule for sputum smear. This card is signed by the treatment partner and cross-checked by the TB DOTS staff. The clinic also holds an NTP treatment card for each patient, which contains a patient's basic profile and mirrors the patient's daily treatment, drug intake, and schedule for sputum smear. The staff sign the treatment cards. Aside from these, all currently enrolled patients are also registered in an NTP TB register containing all relevant information on each patient, except for daily drug intake.

Secondly, each patient is assigned a treatment partner. The staff refer to the NTP Manual for guidelines on assigning treatment partners. That is, the patient can decide to do DOT with a treatment partner from the family, from the MDH TB DOTS Clinic health providers, and from one's locality (e.g., a barangay health worker, government official or former TB patient). As a hospital-based model that aimed to service patients from lower, middle and upper income groups, the MDH TB DOTS had considered providing three options for its patients beginning August 2003. Patients can choose to:

1. conduct DOT at the MDH TB DOTS Clinic
2. conduct DOT at the clinic of the five pulmonary specialists and two infectious disease specialists at MDH; trained secretaries serve as treatment partners
3. conduct DOT at home with a family treatment partner

So far, most patients have decided to take the first option. The TB DOTS staff serve as treatment partners for the patients, especially during the initial phase of treatment. A few do DOT at home, although most of them do so when the clinic is closed or during holidays. No one does DOT with their private physicians.

Thirdly, the staff also trace defaulters by calling them up or visiting their homes to encourage them to continue and complete their treatment. Despite this, the MDH TB DOTS has lost some patients. Table 2-7 shows a summary of seven cases.[10]

[10]Source: MDH TB DOTS Progress Report.

Table 2-7. List of Lost TB Cases at MDH TB DOTS Clinic (August 2002-August 2003)

Patient	Date Enrolled	Date Dropped Out	Reason for Dropping Out	Remarks
1	16 Sept 2002	27 Feb 2003	Financial difficulty in going to DOTS Clinic	The clinic paid for patient's fare from home to clinic. Patient promised to complete treatment through standard self-medication
2	22 Oct 2002	30 April 2003	Financial difficulty in going to DOTS Clinic	The clinic paid for patient's fare from home to clinic. Patient promised to complete treatment through standard self-medication
3	27 Nov 2002	6 Jan 2003	Personal difficulty in going to DOTS Clinic	DOT conducted by the physician at the Supreme Court clinic; treatment was completed; physician has performed follow-up examination
4	4 Apr 2003	9 Jul 2003	Overseas Employment	Completed intensive phase of treatment; was prescribed medications for completion of four months continuation phase
5	23 May 2003	27 May 2003	-	Could not be located in address that she reported; no contact number
6	16 Jun 2003	27 Jun 2003	Difficulty in going to DOTS Clinic	Promised to follow-up with his attending physician for non-DOTS treatment
7	22 May 2003	7 Aug 2003	Difficulty in going to DOTS Clinic due to personal and family problems	Good follow-up for initial three months; allegedly returned to province due to family problems; persuaded the clinic to re-enroll but dropped out again and finally refused to return

Reasons for dropping out from treatment at MDH TB DOTS Clinic usually has to do with some difficulty in going to the clinic on a regular basis. It is costly for many, while others are distracted by personal or family problems. The MDH TB DOTS staff exert a considerable effort in retrieving these patients and extend as much financial and moral support as possible.

Organizational Structure and Staffing

MDH TB DOTS Network

The MDH TB DOTS Clinic is also located in a network of various institutions that aid in its operations. This is illustrated in the following diagram below.[11]

The Department of Health (DOH) provides the supply of medicines and NTP recording forms to the MDH TB DOTS Clinic. It also provides technical assistance in training doctors/medical staff and the medical technologists in the reference laboratory of MDH. It also provides the NTP Masterlist through the Manila City Health Office (MCHO). The MDH TB DOTS submits a drug inventory to DOH and quarterly reports to MCHO.

The Philippine Coalition Against Tuberculosis (PhilCAT) provides technical assistance (in the form of training) and financial support[12] (through a research grant from CDC) to MDH TB DOTS. It also collaborates with DOH, WHO, PhilTIPS, other TB DOTS–PPM models, and other agencies. Like PhilCAT, the Philippine Tuberculosis Initiatives in the Private Sector (PhilTIPS) also provides technical assistance and collaborates with DOH, WHO, PhilCAT, other TB DOTS – PPM models, and other agencies. Moreover, it facilitates operations research and enhancement programs for the TB DOTS models. The MDH TB DOTS Clinic submits financial and progress reports to PhilCAT.

Meanwhile, the MDH administrative office takes the role of providing a physical facility for the TB DOTS operations. This includes the location at the Pre-Paid Clinic, whose staff also provide valuable assistance for incoming TB patients and receiving calls for the TB DOTS Clinic. The administration also provides other utilities and resources such as the MDH laboratory. Although the MDH laboratory is not directly part of the TB DOTS Clinic, it was trained through the TB DOTS program to provide sputum smear microscopy service to those who avail of it at MDH. The MDH administration also appointed the liaison officer (Dr. Balgos) who coordinates with PhilCAT and PhilTIPS.

A diagnostic committee within MDH was also established in January 2004 to provide initial assessment and diagnosis for the TB DOTS Clinic. The committee was initially composed of six doctors from varied fields of specialization: three pulmonologists (Drs. Balgos, Juco and Santiaguel), one doctor of family medicine (Dr. Pumanes), and two doctors of infectious disease (Drs. Montalban and Velmonte). Beginning May 2004, two radiologists (Drs. Uy and Sarmiento) were included in the committee. The diagnostic committee forms two teams that alternately meet each month to discuss diagnoses and case holdings of the MDH TB DOTS Clinic. Monthly meetings began in March 2004.

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[11]There is no organizational chart posted in the MDH TB DOTS Clinic. This diagram was adapted from an organizational chart provided by the project leader of MDH TB DOTS.

[12]An annual budget covers the cost for supplies and materials, salaries and honoraria of clinic staff, IEC materials, TB educational campaigns, maintenance and operating expenses, communication and transportation. Source: First Situation Analysis by FACE.

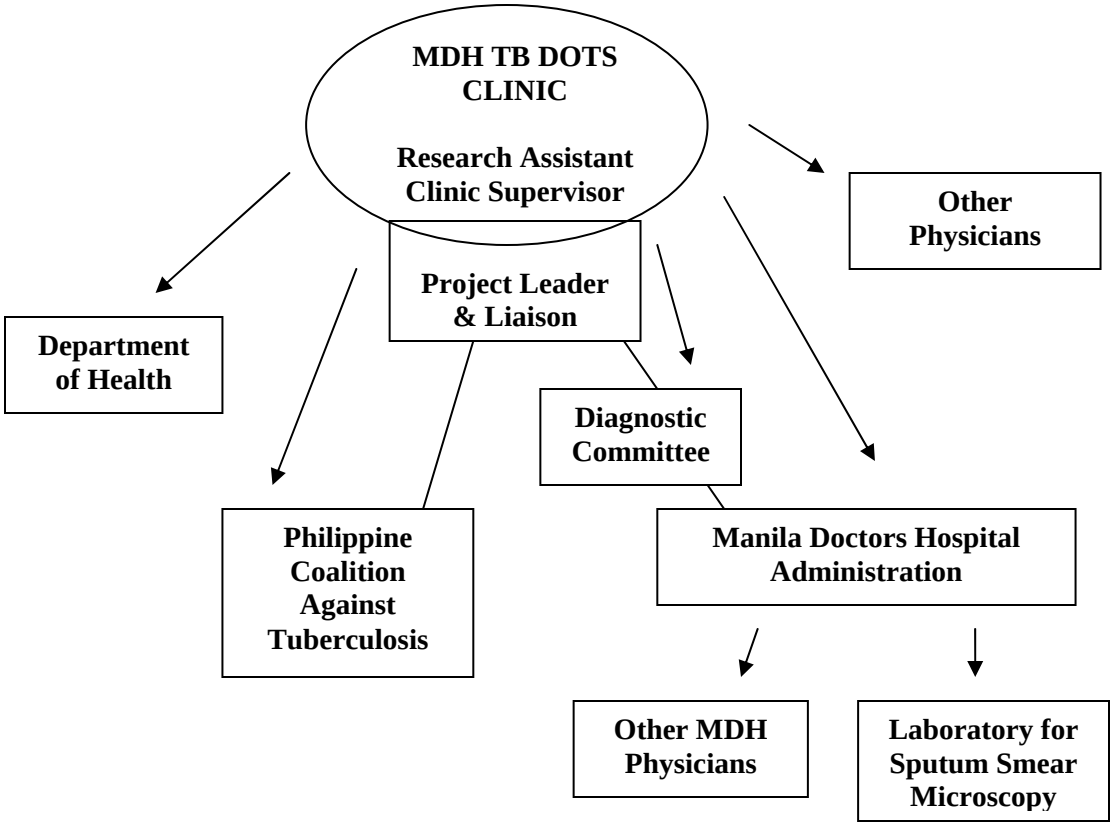


Figure 2-1. Organizational structure of the MDH TB DOTS Network and Team.

Referring physicians from within and outside MDH are also part of this network. They refer TB patients to the MDH TB DOTS Clinic. The latter in turn submits to them a monthly update of referred patients.

The MDH TB DOTS Clinic thus interacts with all these institutions. It is supplied with free medicine by DOH, standardized NTP forms by DOH and MCHO, funds by PhilCAT (and CDC), technical support from PhilCAT, PhilTIPS and DOH, diagnosis by the diagnostic committee, referred patients from other physicians, and support from the MDH administration.

Institutional Commitment

PhilCAT is considered by the MDH TB DOTS project leader and clinic supervisor as their mother organization. Since, the clinic supervisor oversees financial matters, she is the sole respondent for this aspect. She states that PhilCAT provides a regular annual budget (of about P800,000) for the implementation of TB DOTS in the MDH facility. This includes supplies and materials, salary of clinic staff, costs of training, maintenance and operating expenses of the clinic and transportation. PhilCAT itself also provides training in NTP and DOTS. She is unsure whether PhilCAT obtains funding from other sources for this facility. She is somewhat aware that PhilCAT is being funded by CDC and USAID. The source for anti-TB drugs in MDH is DOH. However, there are times

when the DOH fails to provide the MDH TB DOTS facility with the appropriate buffer stock. And recently, adverse reactions to FDC requires additional loose single dose tablets. In such cases, the staff obtains their anti-TB drugs from private institutions – either by purchasing them with the clinic's budget or by soliciting free (near expiry) anti-TB medicines from physicians and medical representatives at MDH.

MDH TB DOTS Team

Roles and Responsibilities

During the initial stages of the project, the project leader (Dr. Abundio Balgos) sought the services of a physician (Dr. Karen Villanueva) and a research assistant (Ms. Jorica Dagudag) to facilitate the MDH TB DOTS Clinic operations. However, the physician only stayed with the MDH TB DOTS for almost a year due to her continuing residency training at the Philippine General Hospital (PGH). She stayed with the team until March 2003. Needing a full-time health service provider in the TB DOTS program, the project leader decided to hire a nurse (Mrs. Jean Balgos) in February 2003 to take over as clinic supervisor. She and the research assistant have been working together in the MDH Pre-Paid Clinic as the TB DOTS program's health providers ever since. Thus, the MDH TB DOTS Clinic is now basically facilitated by the project leader, clinic supervisor and research assistant.

Project Leader. Dr. Abundio A. Balgos leads the MDH TB DOTS team. From the beginning, his role as a liaison between PhilCAT and MDH had been to help PhilCAT develop a hospital-based model of the TB DOTS clinic at MDH. This meant an array of various tasks and responsibilities. He was involved in conducting the preliminary research on the viability of establishing a TB DOTS clinic in MDH, he coordinated with PhilCAT and MDH through frequent meetings and consultations, he was deeply involved (and at times facilitated) training and lectures for potential participants in the TB DOTS, and he selected the staff who would operate the MDH TB DOTS Clinic. Thus, his role originates from his being a board member of PhilCAT and an active and dedicated private practitioner in pulmonology who saw the potential of the TB DOTS program.

As project leader of the MDH TB DOTS his basic responsibility is to oversee the TB DOTS Clinic's operations – case finding, case holding, drug supply management, training and education. He is also a planner of the clinic's targets and does administrative work. He checks on the clinics records and documentation (treatment cards and NTP master list or TB register), its progress, and occasionally visits the clinic. He also provides guidance to the staff regarding general concerns in the TB DOTS program and any urgent issue that may arise (e.g., adverse drug reactions). Moreover, because he holds clinic at MDH on Mondays, Wednesdays and Fridays, there is great fluidity and efficiency in his coordination with the TB DOTS staff. His presence at MDH also makes possible the immediate diagnosis of severe and urgent cases among TB enrollees. However, since a formal diagnostic committee has begun to meet once a month, this has

become less so. But the availability of his medical advice remains crucial to the way that the MDH TB DOTS successfully enroll their patients and run the clinic.

Being a member of the diagnostic committee, the project leader is also able to gain immediate information about case holding and diagnoses. At the same time, in such a position he would be able to disseminate information to fellow committee members regarding the MDH TB DOTS operations. He is, however, cautious about the MDH TB DOTS Clinic having any single physician identified with it, including himself. He thinks that it is crucial to maintain the function of the diagnostic committee as a whole body.

He does not receive a salary for being a project leader for MDH TB DOTS. However, he receives a P5,000 transportation allowance monthly. Thus, he derives his income from his private practice and from teaching.

Clinic Supervisor. Mrs. Jean Balgos supervises the MDH TB DOTS Clinic's everyday operations. She works full-time at the MDH TB DOTS Clinic. This includes various tasks: administrative work, recruitment of patients, treatment of patients, education of patients and their treatment partners, documentation, drug acquisition, reporting to the project leader.

Being directly involved in the recruitment and treatment of patients, she asks for the medical background or history of patients. She also requests patients for their chest x-ray and sputum smear when the patients have not had any diagnostic work-up. She makes the appropriate references to MDH or other clinics and hospitals that can provide such services. Thus, her assistance and advices are valuable not just to the TB DOTS program, but also to patients who may not be qualified or enrolled in the program with MDH TB DOTS. For more complex cases of potential patients, she refers them to the diagnostic committee, usually through the project leader.

For currently enrolled patients, she dispenses their supply of drugs and also serves as their treatment partner in DOT. She is also primarily in charge of educating patients and their treatment partners about TB and the DOTS program. She does so by conducting lectures whenever there are new patients. Lectures can be scheduled for individuals or groups depending on the availability of the patients and their treatment partners. She also gives them informative and educational materials (brochures) on TB and DOTS.

The clinic supervisor also facilitates the acquisition of drugs either from DOH or other sources. This is done by submitting a drug inventory to DOH and receiving an appropriate amount of (buffer) drugs. When they cannot obtain an appropriate amount of drugs from DOH or when the clinic needs a greater amount of specific anti-TB drugs (especially in single doses), the clinic supervisor also takes charge of soliciting or purchasing them.

She also writes up documents and records for the clinic. She marks the patients' treatment cards, signs their NTP identification cards as a treatment partner, and fills up the NTP TB register. She also writes the clinic's financial reports and oversees any report

that the research assistant produces. Finally, the clinic supervisor reports whatever is going on in the MDH TB DOTS Clinic to the project leader.

She receives P25,000 from PhilCAT funds every month for her role as clinic supervisor of MDH TB DOTS.

Research Assistant. Since the research assistant was involved in the MDH TB DOTS model from its inception, she had helped in its preparation. She helped set up the clinic, made flyers regarding TB and the DOTS program, and distributed these to people in the catchment area.

Working full-time now with the clinic supervisor at the MDH TB DOTS Clinic, she shares most of the tasks that the clinic supervisor performs. More delicate matters are left to the supervisor, but more common and frequent (routine) tasks are left to the discretion and skills of the research assistant. She is the one who is most involved in the "groundwork," directly servicing the patients more often than both the project leader and the clinic supervisor. (At least during fieldwork, she was the most observed health service provider.) Thus, her tasks include: administrative work, recruitment of patients, treatment of patients, education of patients and their treatment partners, documentation, drug acquisition, reporting to the clinic supervisor and the project leader.

Administrative work involves some basic housekeeping such as keeping tabs on all the supplies (e.g., water, drinking cups, drugs, forms), submitting documents to DOH, PhilCAT, and MCHO, taking calls, and assisting patients in processing their SSS and PhilHealth for their TB DOTS treatment.

She performs the same tasks for patient recruitment that the clinic supervisor performs. That is, she asks for the patient's medical background and history, requests for chest x-ray and sputum smear when necessary, and refers patients to other health centers, clinics or hospitals that offer chest x-ray, sputum smear or TB DOTS services. Unusual and complex cases of potential patients are referred to the clinic supervisor.

She also provides the patients with their medicines and frequently acts as their treatment partner. She especially keeps track of the drug supply and the schedules of patients. For example, she monitors and prepares the appropriate drug supply for each patient. She prepares a box containing the drug supply for each patient's full treatment. Aside from this, she prepares the drug supply for patients who visit only weekly. She also updates their records – signing their ID cards, recording their progress in the treatment cards and in the NTP master list (register). When patients miss their scheduled DOT – whether for a day or longer - she calls them up. She and the clinic supervisor also visit defaulters in their homes to try to encourage them to continue treatment.

Since she is directly involved with the treatment of patients on a daily basis, she is also a prime source of information for these patients. Although more formal lectures are given by the clinic supervisor, daily informal questions about TB or the DOTS program are answered by the research assistant. For instance, patients would tell her about their

reactions to the drugs they are taking or ask her about their other worries and concerns. It is also part of her routine to ask the patients how they are and how they feel about their treatment every time they visit the clinic.

The research assistant is also directly involved in writing up the drug inventory and procuring an appropriate drug supply from DOH. She also facilitates the purchase or solicitation of other anti-TB drugs as necessary. Other reports that she prepares are quarterly reports for the MCHO and drafts of the clinic's financial reports (to be finalized by the clinic supervisor) for PhilCAT. Moreover, she also writes up monthly updates for referring physicians regarding their patients.

The research assistant receives P10,000 each month from PhilCAT funds for fulfilling her duties. Aside from this, she receives a P300 communication allowance monthly, which she uses to contact the clinic's patients through her mobile phone when necessary.

Knowledge and Practices

Training. The MDH TB DOTS project leader, clinic supervisor and research assistant each have their own specialization and training background in terms of higher education. This provides a context in which they locate their new knowledge on TB DOTS through training from PhilCAT and DOH.

The project leader's training includes three years of Internal Medicine, two years of Pulmonary Medicine, and a fellowship with the International Academy of Chest Physicians and Surgeons. He also underwent training in NTP guidelines and the TB DOTS program. He is also currently taking his masters in Hospital Administration. Meanwhile, he works as a physician in MDH and Makati Medical Center, is a professor at the Department of Medicine, University of the Philippines PGH Medical Center, and is the governor of the American College of Chest Physicians – Philippine Chapter. Some of his accomplishments include developing the Comprehensive Unified Program on Tuberculosis in the private sector[13] and trying to include the NTP / TB DOTS in the current curriculum of pulmonary medicine in UP.

He was trained in DOTS in 2003, then in the implementation of FDC in 2004. He recalls that the TB DOTS training covered NTP policies and procedures, case finding, case holding, recording and reporting, logistics management, monitoring and supervision. He is familiar with the NTP Manual of Procedures. And yet he feels that he needs more training in the sense that he wants to expand his skills towards a holistic practice of DOTS. For example, he is interested in learning a shortened version of the DOTS program, some administrative skills, and greater familiarization with sputum smear microscopy. Being in the academe is something of a training as well. Aside from this, he attends annual medical conventions.

Meanwhile, the supervisor's training includes Nursing and a master degree in Hospital Administration. Her working experience includes being clinic nurse, staff nurse,

[13]This was adapted by the DOH and implemented.

supervisor, and training officer at MDH for many years. For a year, she worked as a nurse in Boston and passed the board exam there. She has also been a nurse at Ayala Life HMO and has taught at a college of nursing. In addition to her expertise, she underwent a three-day training in NTP guidelines and the TB DOTS program in May 2003 under PhilCAT and training in the implementation of FDC under DOH in March 2004. She recalls that the NTP training covered NTP policies and procedures, case finding, case holding, recording and reporting, logistics management, monitoring and supervision. She is familiar with the NTP Manual of Procedures and the Comprehensive and Unified Policy on Tuberculosis. Nonetheless, she feels that she needs more training perhaps yearly or whenever there are new topics related to NTP and TB DOTS.

Lastly, the research assistant was trained for five years as a physical therapist. She has worked with pharmaceutical companies as a clinical research associate, assisting physicians making case studies for drug research. She has also experienced working in a pharmacy dispensing drugs. Her educational background includes only a brief case study on TB (prevention, control, signs, symptoms, diagnosis, treatment, management and distribution of drugs and supplies), but not the NTP policies, TB DOTS strategy, AFB smear microscopy, or laboratory quality assurance. She learned more about these when she underwent the same three-day training in NTP guidelines and the TB DOTS program in May 2003 under PhilCAT as well as the FDC training by DOH in March 2004. She recalls that the NTP training covered NTP policies and procedures, case finding, case holding, recording and reporting, logistics management, monitoring and supervision. She is also familiar with the NTP Manual of Procedures, but not with the Comprehensive and Unified Policy on Tuberculosis. She feels that she does not need more training, unless there were updates regarding TB DOTS. In such a case, she would be interested in attending a training once a year.

Services. A survey instrument answered by each member of the team reflects their awareness of the services the MDH TB DOTS delivers. Below are the findings.

The project leader mentioned that the clinic provides initial assessment and diagnostic services, dispenses free drugs and health education. His specific tasks are mostly administrative – that is, providing directions and making targets for the clinic, and assessing possible changes or improvements that can be made. He participates in case finding inasmuch as he is part of the diagnostic committee. He is not directly involved in case holding, sputum smear microscopy, and drug supply management. He has on several occasions facilitated education and training for his own staff, other medical staff, patients and treatment partners regarding TB.

He claims that the clinic adheres to the DOTS treatment guidelines, which are in line with WHO standards. In case finding, two or more weeks of coughing, fever and hemoptysis are signs and symptoms that help identify a TB symptomatic. Once a patient is identified as symptomatic, the patient is instructed to collect sputum and have his chest x-ray taken. Thus, the sputum specimen is not necessarily obtained during the patient's first visit. When it is collected, it is usually done in the patient's home or in the laboratory for sputum AFB smear. The sputum samples are sent to the appropriate lab, depending on the

patient's discretion. If the patient's smears were all found to be negative (but the chest x-ray shows some positive indication for TB), the patient is referred to the diagnostic committee. He classifies a TB symptomatic with two sputum smear-positive as smear-positive. A patient who is sputum-positive at the fifth month of treatment course is considered a treatment failure. The treatment regimen given to a pulmonary smear-positive case is Regimen I. Meanwhile, the treatment regimen given to a treatment failure case is Regimen III. Responses to treatment are monitored through follow-up sputum examination and chest x-ray. For example, patients in Category I are scheduled for follow-up smear examination after one month of treatment. Patients with adverse reactions to the anti-TB drugs are advised to discontinue medication and are assisted in trying a proper combination of drugs ("*bringing back the medicines one at a time*").

He thinks that the health education messages that should be emphasized to a TB patient are that TB is infectious, TB can be cured, regular drug intake of a combination of drugs is necessary, and that family and treatment partner support are important. Education is very important in making sure that TB patients comply with treatment through DOTS. It is also important for defaulters who come back for re-treatment. Defaulters who return must undergo the enrolment process all over again.

He has access to all the records of the MDH TB DOTS Clinic, including classification of patients according to laboratory examination results. They keep a record of treatment outcomes in the MDH TB DOTS clinic, but he has minimum involvement in keeping it. Most record keeping and documentation are performed by the clinic supervisor and research assistant.

The clinic supervisor, on the other hand, mentions that the clinic provides initial assessment, diagnostic services, dispenses TB drugs, and provides health education. She has specific tasks for almost every stage of the TB DOTS service. In case finding, she screens, assesses and evaluates patients suspected to have TB. She also requests for their sputum smear examination. For case holding, she prescribes the appropriate treatment regimen, assigns and supervises a treatment partner for patients undergoing DOTS, monitors patient responses to drugs, maintains and updates the TB registry, prepares and submits reports to the MCHO, and follows up the sputum examination of patients. In drug supply management, she facilitates the requisition and distribution of drugs and other supplies, coordinates with the DOH for drug supply, ensures the availability of drugs at all times, and finds other ways to procure the necessary anti-TB drugs (e.g., soliciting samples from doctors or medical representatives). In training and education, she conducts one-on-one counseling of patients and training of treatment partners.

She stated that the MDH TB DOTS Clinic follows the NTP policies and guidelines for managing TB patients. The signs and symptoms that help identify a TB symptomatic are coughing of two weeks or more, fever, sputum expectoration, significant weight loss, hemoptysis, chest and back pains, sweat and chills, fatigue and body malaise, shortness of breath, poor appetite, and non-response to medicines. Once a patient has been identified as symptomatic, she makes a request for sputum AFB smear to be done by a trained microscopist. If the patient comes without referral, she asks for a referral. Thus,

sputum specimen may not be collected during a patient's first visit. Sputum collection is done in the laboratory, where the sputum AFB smear services will be availed (e.g., at MDH laboratory, Philippine Tuberculosis Society). If a patient's sputum smears were found negative, the clinic supervisor takes the patient's history and the patient is referred to the diagnostic committee. She classifies a TB symptomatic with two sputum smear-positive results as smear-positive. If a patient is sputum-positive at the fifth month of the treatment course, that patient is a treatment failure. A new pulmonary smear-positive case is given a Regimen I treatment. A treatment failure, however, is given a Regimen II treatment. A patient's response to treatment is monitored by follow-up sputum examination and chest x-ray. For example, Category I patients are scheduled for their first sputum smear follow-up examination towards the end of the second month of treatment. Patients with adverse reactions are referred to the physician or the diagnostic committee for evaluation.

The clinic supervisor thinks that the health education messages that must be emphasized to a TB patient are that TB can be cured, a patient must cover one's mouth when coughing or sneezing, the importance of regular intake of a combination of drugs and completion of treatment, consequences of irregular drug taking, importance of family and treatment partner, and the effects of TB to the patients and community as a whole. The following are the steps she takes to ensure that a TB patient complies with treatment through DOTS, she:

1. explains to them the importance of treatment compliance
2. identifies, assigns and educates the treatment partner
3. administers the patient's drugs daily with the treatment partner, making sure that the patient swallows the drugs
4. ensures that a family member supervises the patient's intake of drugs on Saturdays, Sundays, and holidays when the clinic is closed
5. regularly motivates the TB patient to continue treatment by emphasizing key messages
6. immediately exerts efforts to retrieve patients if they fail to report as expected
7. introduces a daily scheme of DOT, especially during the intensive phase of treatment

If a defaulter comes back for treatment after more than two weeks, she would advise that patient to have a sputum smear examination so that the patient can be categorized again. If this patient had been gone for only less than two weeks, s/he is allowed to continue treatment.

As clinic supervisor, she has access to all the records of the MDH TB DOTS Clinic. She keeps a record of treatment outcome in the clinic (e.g., NTP treatment cards). Treatment outcomes are reported on a monthly basis to MCHO. It is she, not the project leader, who compares and verifies the TB register with the lab register at least monthly, and the TB register with the treatment cards at least every week. She also reviews the treatment cards and lab register twice a week, interviews patients informally through everyday interaction, conducts physical inventory of logistics and other supplies monthly, and

informs or advises the research assistant regarding the assessment of their work whenever something needs to be done. For example, she reminds the research assistant about reports every first week of the month and about financial reports at the end of each month.

The research assistant mentioned that the MDH TB DOTS Clinic provides initial assessment and diagnostic services, dispenses TB drugs, provides health education and facilitates Phil Health and SSS processing for patients. In case finding, her specific tasks involve screening and assessing patients suspected to have TB, evaluating TB patients, requesting for sputum AFB smear, maintaining and updating the records. In case holding, she examines TB patients, prescribes the appropriate treatment regimen, assigns and supervises a treatment partner for patients who will undergo DOTS, prepares and submits reports to the facility supervisor and project leader, and prepares and submits reports to the DOH, PhilCAT, and MCHO. For drug supply management, she facilitates the requisition and distribution of drugs and other supplies, prepares and submits the quarterly report on drug inventory and requirement to the clnic supervisor, coordinates with the DOH for drug supply, ensures availability of drugs at all times. With regard to training and education, she also conducts training of treatment partners and has helped conduct the training for secretaries of referring physicians.

She knows that the MDH TB DOTS facility adheres to the DOTS flowcharts in managing their TB patients. In particular, she is aware that the signs and symptoms that help identify a TB symptomatic are cough of two weeks or more, fever, significant weight loss, hemoptysis, chest and back pains, fatigue, poor appetite, and sleeplessness. Once a patient is determined as TB symptomatic, she instructs the patient to collect sputum specimen, requests for a sputum AFB smear to be done by a trained microscopist, and refers the patient to a physician or to the diagnostic committee. During a patient’s first visit, sputum may not be collected. In any case, this is done at home or in the laboratory itself (MDH, PTS or another referral lab). If the patient’s smears are negative, she tells the patient that it is not that infectious yet but will need treatment nonetheless. She classifies a TB symptomatic with two sputum-smear positive results as smear-positive. Moreover, a TB case that is sputum-positive at the fifth month of the treatment course is considered a treatment failure. She would assign Regimen I to a new pulmonary smear-positive case. A treatment failure case would, however, be assigned to Regimen II. Defaulters who come back for treatment are requested to have their chest x-rays taken and their sputum smear examined. Responses to treatment are monitored through follow-up sputum examination and chest x-ray. For example, Category I patients are scheduled for their first sputum smear follow-up examination towards the end of their second month of treatment. Patients who have adverse reactions to the anti-TB drugs are referred to the physician or diagnostic committee for assessment.

The key health messages that the research assistant thinks should be emphasized to TB patients are that TB is infectious, that it’s important to maintain good hygiene and proper nutrition, and to not be ashamed of TB. She also thinks that daily reminders, along with an immediate effort to retrieve patients who fail to report to the clinic, are steps to ensure that a TB patient complies with treatment.

The research assistant has access to the classification of patients through records that are kept in the lab. The record of treatment outcomes are kept in the MDH TB DOTS Clinic. She reports these quarterly to the MCHO. She says that records and activities are overseen by the clinic supervisor. The supervisor reviews treatment cards, interviews patients, conducts physical inventory of logistics and other supplies, informs or advises her and the project leader of the assessment of their work, and checks on everything that is done. These are done frequently, almost daily.

Quality Improvement. The staff were also asked for their suggestions on how to improve the MDH TB DOTS Clinic and its operations. The project leader had a few suggestions. First, the clinic needs to be more self-sustaining. It needs a particular type of organization with personnel working in it full-time. Secondly, the availability of drug supply must be assured. Lastly, ventilation in the clinic needs to be improved.

The clinic supervisor suggested that a separate clinic for DOTS must be established. This will allow the facility to extend its clinic hours. She also suggested that the MDH laboratory staff must be trained and educated in the DOTS strategy.

Lastly, the research assistant suggested that the place be renovated to improve the ventilation in the MDH TB DOTS Clinic. The air conditioner needs to be removed to allow fresh air to circulate instead. If ever such a facility is established, it will probably be built near the outpatient area where there is more space.

Evaluation of the MDH TB DOTS Team

There is no mechanism for external evaluation. However, the clinic supervisor and research assistant recall a few times when they were visited and asked questions by persons from USAID and PhilTIPS. They also recall the first situation analysis by FACE. However, the project leader says that there is some performance monitoring being done. He is also aiming for the implementation of a target list for the MDH TB DOTS Clinic, which identifies the particular goals of the clinic and the time by which these should be accomplished.

Service Statistics

This section presents a quantitative description of the MDH TB DOTS case holdings / accomplishments through time. It gives an idea of the breadth of the MDH TB DOTS operations beginning its inception - from August 17, 2002 when the first patient was seen to June 29, 2004 when the TB register was obtained by the researchers. The MDH TB DOTS enrolled a total of 97 patients in that span of time. Description of service statistics will be done by comparing data of August 2002 to September 2003 (Situation Analysis 1 or SA1) with the data of October 2003 to June 2004 (Situation Analysis 2 or SA2).

Enrolment Through Time

The number of enrollees over the months since the MDH TB DOTS Clinic has been in operation has generally been increasing. Figure 2-2 shows the distribution of enrollees per month of operation while Figure 2-3 shows the distribution of enrollees per quarter each year.

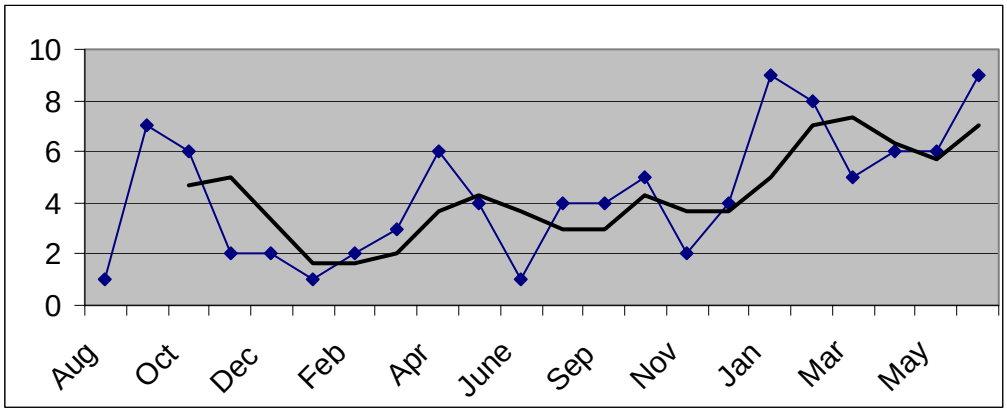


Figure 2-2. Enrollees for the months that MDH TB DOTS has been in operation

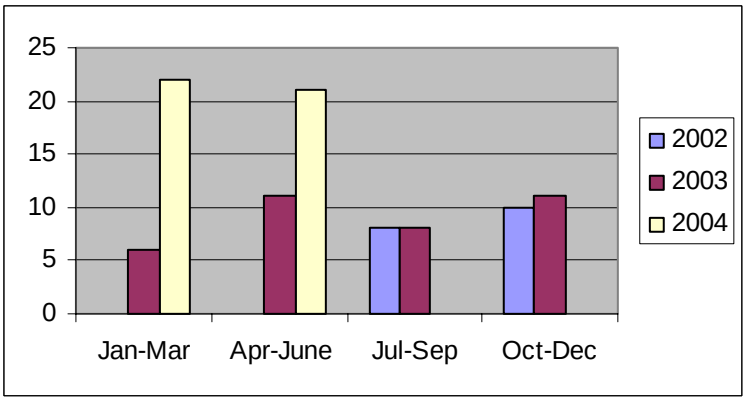


Figure 2-3. Enrollees in the MDH TB DOTS Clinic Per Quarter and Year

Since the MDH TB DOTS Clinic was first assessed (October 2003), enrollment has increased by around 54 patients, an addition of almost 126% of total enrollees in preceding months. Table 2-8 shows a comparison of enrollees for the first and second situation analysis (SA1 and SA2), respectively.

Table 2-8. Comparative Distribution of Enrollees by Age Group and Gender

Age Group	SA1						SA2					
	Male		Female		Total		Male		Female		Total	
	N	%	N	%	n	%	n	%	n	%	n	%
15-24	4	13.8	3	21.4	7	16.3	5	13.9	1	5.6	6	11.1
25-34	5	17.2	5	35.7	10	23.3	14	38.9	5	27.8	19	35.2
35-44	9	31.0	3	21.4	12	27.9	9	25.0	4	22.2	13	24.1
45-54	6	20.7	1	7.1	7	16.3	5	13.9	4	22.2	9	16.7
55-64	5	17.2	2	14.3	7	16.3	1	2.8	3	16.7	4	7.4
65 above	0	0.0	0	0.0	0	0.0	2	5.6	1	5.6	3	5.6
TOTAL	29	67.4	14	32.6	43	100.0	36	66.7	18	33.3	54	100

Note: Percentages for male and female are computed within gender, while total percentages are computed for both male and female combined.

Age Groups. The MDH TB DOTS facility has reached an additional age group since the first assessment – that is, TB patients who are 65 years old and above. Prior to SA1, the biggest number of enrollees were found in the 35-44 age group and then the 25-34 age group. After SA1, the biggest number enrollees can now be found in the 25-34 age group and then the 35-44 age group. It can be seen that the program has tapped more patients from the younger age group and the very old.

Gender. In general, there are more male patients (67.4% in SA1 and 66.7% in SA2) than female patients (32.6% in SA1 and 33.3% in SA2) that are enrolled with the MDH TB DOTS Clinic. There are always more males than females across all age groups. Interestingly, all the three extra-pulmonary cases that MDH TB DOTS has ever enrolled are male.

Type of TB. Most enrollees are classified as having pulmonary tuberculosis. Table 2-9 shows the distribution of cases according to type of TB for SA1 and SA2.

Table 2-9. Comparative Distribution of Cases According to Type of TB

TB Classification	SA1		SA2	
	n	%	n	%
Pulmonary	42	97.7	52	96.3
Extra-Pulmonary	1	2.3	2	3.7
TOTAL	43	100.0	54	100.0

Type of Patient. Most patients are new smear-negative cases (67% for SA1 and 64% for SA2). Some are cases of relapse, are undergoing treatment after loss, or have had treatment failure. Other cases include cases of interrupted treatment (for two months), cases of smear-negative turned smear-positive during treatment, and cases that register sputum positive even at the end of re-treatment. Table 2-10 shows the distribution of patients for SA1 and SA2 according to type and TB classification.

Table 2-10. Comparative Distribution of Cases According to Type and TB Classification

Type of Patient	SA1		SA2	
	n	%	n	%
Pulmonary (PTB)	42	97.7	52	96.3
New (+)	2	4.8	11	21.2
New (-)	28	66.7	35	67.3
Relapse	1	2.4	1	1.9
Treatment Failure	0	0.0	1	1.9
Treatment After Loss	3	7.1	0	0
Others	7	16.7	3	5.8
New (no sputum)	1	2.4	1	1.9
Extra-Pulmonary (EPTB)	1	2.3	2	3.7
New (+)	0	0.0	0	0.0
New (-)	1	100.0	0	0.0
Relapse	0	0.0	0	0.0
Treatment Failure	0	0.0	0	0.0
Treatment After Loss	0	0.0	0	0.0
Others	0	0.0	0	0.0
New (No sputum)	0	0.0	2	100.0
TOTAL	43	100.0	54	100.0

Category of Treatment. Most patients belong to Category III of treatment (42% for SA1 and 52% for SA2). However, there was an increase in Category I patients since SA1 (from 33% to 39%). There was also a sharp decline in Category II patients (from 26% to 9%). These are shown in the table below.

Table 2-11. Comparative Distribution According to Treatment Category

Treatment Category	SA1		SA2	
	n	%	n	%
Category I	14	32.6	21	38.9
Category II	11	25.6	5	9.3
Category III	18	41.9	28	51.9
TOTAL	43	100.0	54	100.0

Treatment Partner. Most patients undergo DOT with the MDH TB DOTS Staff (clinic treatment partners) than with family treatment partners. This is shown in Table 2-12.

Table 2-12. Comparative Distribution of Enrollees According to Type of Treatment Partner

Type of Treatment Partner	SA1		SA2	
	n	%	n	%
Clinic Treatment Partner	42	97.7	50	92.59
Family Treatment Partner	1	2.3	4	7.41
TOTAL	43	100	54	100

Treatment Outcome. Majority of the enrollees for SA2 are ongoing cases and do not have outcomes to their treatment yet. This is one limitation for making comparisons of general trends in treatment outcome for TB patients since SA1.

Nonetheless, the treatment outcomes for SA1 and SA2 reveal a similar broad pattern in treatment outcome. That is, most cases are patients that have completed treatment. However, for SA2 there was an increase in lost and default cases (from 9.3% in SA1 to 23.8% in SA2) as well as transfer out cases (from 11.6% in SA1 to 14.3% in SA2). Table 2-13 shows the distribution of enrollees according to treatment outcome.

Table 2-13. Distribution of Enrollees According to Treatment Outcome

Treatment Outcome	SA1		SA2	
	N	%	n	%
Cured	4	9.3	2	9.5
Treatment Completed	30	69.8	11	52.4
Lost and Default	4	9.3	5	23.8
Transfer Out	5	11.6	3	14.3
TOTAL	43	100.0	21	100.0

Note: Ongoing cases are excluded for SA2.

However, differentiating between PTB cases and EPTB cases, the figures slightly change. Although the smaller population for SA2 (due to ongoing cases) may limit comparisons, if we do compare it can bee seen from the next table that, in terms of results, the period of SA1 has had a more effective impact on patients compared to that during the duration of SA2. Generally, cases of treatment completed decreased from SA1 (69%) to SA2 (55%). There was an increase in cases that were lost or defaulted (from 10% in SA1 to 20% in SA2) and transferred out (from 10% in SA1 to 15% in SA2). One reason for this is that some patients are not exactly lost or default cases, but are put under this category for lack of appropriate categories made available in the register. Meanwhile, the cure rate increased slightly. Table 2-14 presents the figures.

Table 2-14. Comparative Distribution of Enrollees According to Type of PTB Patient and Treatment Outcome

SA1								
Type of Patient	Cured	Treatment Completed	Died	Treatment Failure	Lost and Default	Transfer Out	Restarted Treatment	Total
New (+)	2 100%	-	-	-	-	-	-	2
New (-)	-	22 78.6%	-	-	1 3.6%	5 17.9%	-	28
Relapse		1 100%	-	-	-	-	-	1
Treatment after loss or RAD	2 66.66%	-	-	-	1 33.3%	-	-	3
Others	-	5 71.4%	-	-	2 28.6%	-	-	7
New (no sputum)	-	1 100%	-	-	-	-	-	1
TOTAL	4 9.5%	29 69.0%	-	-	4 9.5%	5 11.9%	-	42

SA2								
Type of Patient	Cured	Treatment Completed	Died	Treatment Failure	Lost and Default	Transfer Out	Restarted Treatment	Total
New (+)	2 50.0%	-	-	-	1 25.0%	1 25.0%	-	4
New (-)	-	10 66.7%	-	-	3 20.0%	2 13.3%	-	15
Relapse	-	-	-	-	-	-	-	-
Treatment after loss or RAD	-	-	-	-	-	-	-	-
Others	-	1 100.0%	-	-	-	-	-	1
New (no sputum)	-	-	-	-	-	-	-	-
TOTAL	2 10.0%	11 55.0%	-	-	4 20.0%	3 15.0%	-	20

Due to the small number of EPTB cases, data on extra-pulmonary TB show no distinct pattern in treatment outcomes, except that the duration of SA1 seems again to be more effective than that of SA2. In SA1, the only EPTB patient had completed treatment. Meanwhile, in SA2 the only EPTB patient was lost or had defaulted.

Table 2-15. Comparative Distribution of Enrollees According to Type of EPTB Patient and Treatment Outcome

SA1								
Type of Patient	Cured	Treatment Completed	Died	Treatment Failure	Lost and Default	Transfer Out	Restarted Treatment	TOTAL
New (-)	-	1	-	-	-	-	-	1
New (no sputum)	-	-	-	-	-	-	-	-
TOTAL	-	1	-	-	-	-	-	1
SA2								
Type of Patient	Cured	Treatment Completed	Died	Treatment Failure	Lost and Default	Transfer Out	Restarted Treatment	TOTAL
New (-)	-	-	-	-	-	-	-	-
New (no sputum)	-	-	-	-	1	-	-	1
TOTAL	-	-	-	-	-	-	-	1

Program Indicators

Using the computations based on the NTP Manual, the following data are presented as the program indicators for the MDH TB DOTS Clinic:

Table 2-16. A Summary of Program Indicators for MDH TB DOTS, SA2

Program Indicators (October 2003-June 2004)	
Case Finding	
1. Proportion of Pulmonary Smear Positive Cases Out of All Pulmonary Cases	21.15% (11/52)
2. Three Sputum Collection Rate *	-
3. Positive Rate	19.51% (8/41)
4. Case Notification Rate of New Smear Positive Cases per 100,000 population *	
4a. Proportion of smear positive cases started on DOTS within 7 days from 1st sputum exam	81.82% (9/11)
4b. Proportion of smear positive cases started on DOTS within 14 days from 1st sputum exam	9.09% (1/11)
4c. Proportion of smear positive cases started on DOTS after more than 14 days from 1st sputum exam	9.09% (1/11)
4d. Proportion of smear negative cases started on DOTS within 7 days from 1st sputum exam	68.57% (24/35)
4e. Proportion of smear negative cases started on DOTS within 14 days from 1st sputum exam	25.71% (9/35)
4f. Proportion of smear negative cases started on DOTS after more than 14 days from 1st sputum exam	5.71% (2/35)
5. Average Number of Patients Enrolled Per Month	
SA 2 (Oct 2003-June 2004)	6 (54/9)
SA 1+SA 2	4.22 (97/23)
Case Holding	
6. Sputum Conversion Rate	100.0% (8/8)**
7. Treatment Outcomes (for PTB Cases Only)	
New Smear Positive Cases	
Cure Rate	50.0% (2/4)
Death Rate	-
Defaulter Rate	25.0% (1/4)
Transfer Out Rate	25.0% (1/4)

Program Indicators (October 2003-June 2004)	
New Smear Negative Cases	
Completion Rate	66.67% (10/15)
Death Rate	-
Treatment Failure Rate	-
Defaulter Rate	20.0% (3/15)
Transfer Out Rate	13.33% (2/15)
Relapse Cases	
Cure Rate	-
Death Rate	-
Failure Cases	
Completion Rate	-
Overall Success Rate	63.16% (12/19)

* data pertain to 3rd and 4th quarters, 2003 and 1st quarter 2004 only
** 11 cases have second and/or third sputum exams, but three of them have no input

Referring Physicians and the Implementation of TB DOTS

There are about 34 referring physicians to the MDH TB DOTS Clinic. Most of them (28) practice in MDH, while the others practice in nearby hospitals or institutions (e.g., Casino Filipino, UP PGH, and Quezon Institute). Eleven physicians are practicing pulmonologists, while four are family medicine doctors. The rest specialize in general surgery, rheumatology, gynecology, industrial medicine, orthopedic surgery, gastroenterology, internal medicine and infectious disease.

Three of these 34 referring physicians were interviewed regarding their knowledge, attitudes, and practices regarding the DOTS program. They represent the physicians who have made the highest number or middle range number of referrals to the MDH TB DOTS Clinic. Two of them are pulmonologists, while one is a family medicine doctor. Aside from being trained physicians, two of them accomplished their post-graduate degrees – one in internal medicine and one in business management. All of them conduct their private practice at MDH and other hospitals. One works with a government institution (UP).

The three referring physicians vary greatly in their household monthly income. One earns between P30,000 to P59,000, the other earns over P60,000, and the third earns P100,000 and above.

Stimulus for Referrals

These three physicians all learned about the TB DOTS for various reasons, which reflect the degree of the physicians' involvement in the MDH TB DOTS. One was part of the group that conceptualized the possible models for TB DOTS-PPM in the private sector along with the MDH TB DOTS project leader. Another was the physician whose clinic is now being used by the TB DOTS team for their operations. The third learned about TB DOTS by attending an introductory symposium conducted by the MDH TB DOTS project leader.

Free anti-TB medicines are a major consideration for all of them when referring their patients to the TB DOTS. Anti-TB drugs can be very costly for some. Another reason is the close supervision and monitoring provided by DOTS, which they think is crucial in the treatment of TB. Another reason that one physician refers TB patients is the proximity of a patient to the TB DOTS Clinic, if that patient falls within the specified catchment area.

Knowledge of TB DOTS

All three referring physicians believe that TB is a priority disease because it is one of the leading causes of death even when it has become curable. It is very contagious and yet is curable. One physician emphasized that the latter makes TB harder for people to understand.
When asked what the components of the TB DOTS strategy are, only the physician who was part of the TB DOTS-PPM conceptualization had answered the following:

1. Political will or the desire to have patients in the program
2. Diagnosis by microscopy
3. Uninterrupted flow of drugs (high quality and for free)
4. directly observed treatment (DOT)
5. recording and reporting

The two other physicians were not quite familiar with these. However, one answered that close monitoring through DOT is the most critical component, while the other said it is the free anti-TB drugs and free consultation which are most crucial. The first physician, however, thinks that although DOT is the most critical component, it is not absolute. Other patients get well even without DOT. Nonetheless, all of them agreed that the DOTS strategy is an effective means of controlling TB. Their reasons for this are that there is close monitoring and follow-up of treatment progress. Because of this, the precautions of treatment and importance of continuity of treatment are explained to the patients. Monitoring and recording are also made possible by the DOTS.

The concepts and processes that the respondents agree with are related to diagnosis and monitoring. In diagnosis, a panel of physicians assess the cases and on the basis of sputum smear. This minimizes over-treatment. Monitoring, on the other hand, facilitates

a close follow-up of patients, especially at times when they are tired of the daily medication or when they need clarifications or reminders.

Meanwhile, the concepts and processes that the respondents disagree with are intricately related to the DOT strategy. That is, they find it unreasonable to ask patients to go to the clinic daily. Two physicians feel that it is too costly, time-consuming, and inconvenient. Thus it can be a disadvantage to patients as well.

Attitudes and Perceptions

However, all the respondents feel that the TB DOTS is advantageous for patients. This is because it lowers the cost of treatment by providing free drugs and services, there is close monitoring of patients, and assessments or consultations with the diagnostic committee. It is also for everyone – rich and poor alike.

When asked about the advantages of the TB DOTS for physicians, two said that it is an advantage to physicians when they are sure that their patients are well-supervised in their treatment. It also reduces the time they have to spend with patients; the TB DOTS staff are able to answer questions and to update the doctors anyway. One physician notes that most pulmonologists find the TB DOTS disadvantageous because they feel that they will lose their patients. Another disadvantage pointed out is that not all TB patients are pulmonary cases. Thus, the TB DOTS cannot help physicians cure EPTB cases.

All the respondents agree that the TB DOTS is not adequately marketed. Although it has been around for a long time now, still not many people know about it. It should be advertised some more, either through door-to-door marketing or by adding incentives for physicians. Two respondents think that there is a lack of knowledge among potential referring physicians regarding the TB DOTS. Even if they knew about it, they do not have enough knowledge about it. Lectures and meetings are poorly attended.

The respondents all agree that the private physician has a social contribution to make to the control of TB - that is, through the TB DOTS program. One thinks that this means maximizing the eradication and control of TB through the DOTS program. This can be done by motivating patients to complete the course of treatment (to lessen the risk of resistance). Another thinks that physicians should raise people's awareness about TB through education and information. If a patient cannot afford treatment, this patient should be informed about the TB DOTS program. The third states that private physicians should support government initiatives such as DOTS. By following government policies, information on DOTS can be spread. All the respondents agree that there should be a sharing of social responsibility between public and private providers. By doing so, TB can be controlled and eradicated.

Referral Practices

One respondent refers most of her TB patients to the MDH TB DOTS Clinic, usually people who lack money or want to save money. Another respondent refers about 50

percent of the TB patients who see her in the Pre-Paid Clinic. The third respondent refers only about five percent because his clients come from many different places, and since DOTS is geographic not all his patients will qualify for enrolment in the MDH TB DOTS facility. Also, patients may choose whether or not they wish to be treated at that facility. However, one physician still recommends a kind of DOT by a responsible family member for his TB patients who decide to undergo treatment by themselves.

They are all aware that the MDH TB DOTS staff furnish them with monthly reports or updates on the patients they have referred. Sometimes, the patients are sent back to them with a letter of status at the end of each month. One respondent feels indifferently about the monthly updates, such that she does not read them. Her reason for this is that she is not compensated for it anyway. Another respondent notes the lack of incentives for referring physicians. Interestingly, two respondents think that physicians do not always need such incentives and only need to be reminded of a worthy goal, such as eradicating TB or saving lives in general. One physician, however, thinks that physicians need more information about the services provided by the MDH TB DOTS in order for them to be more motivated in referring their patients.

All the respondents have also referred to public DOTS Centers. Two make such referrals depending on the patient's place of residence, whichever is more convenient since they have patients from different places. One respondent makes more referrals to a Naic, Cavite health center because she encounters many patients from there. Being Caviteño herself also drives her to want to do something for her hometown, such as helping to improve the TB DOTS health center there.

Two respondents pointed out that there are differences between the services of private-run TB DOTS and government-run TB DOTS. Private clinics are more friendly to their clients in terms of services and facilities. Health centers are not very accommodating and follow a limited schedule (i.e., services may not be available everyday). Moreover, private clinics can purchase their own medicines, should the government fail to give them the free anti-TB medicines. Public health centers, on the other hand, cannot afford to do so.

Reasonable incentives for physicians to refer their patients to a TB DOTS facility are some kind of compensation (particularly through Phil Health). They should also be treated as a part of the MDH TB DOTS facility, not some obscure third party.

Views on Implementation of DOTS

To improve DOTS implementation, the respondents think that there should be more information dissemination and training regarding the TB DOTS. Health officers and all local governments officials should be aware of the DOTS. One physician thinks that the MDH TB DOTS should become part of a national network. This will facilitate more efficient referrals and help physicians help their patients.

The respondents also all agree that the TB DOTS facility should be accredited. In relation to Phil Health, it will minimize medical expenditures. Being accredited will also give the service facility the confidence to operate because they are trained according to standardized policies. One physician even thinks that there should be a law mandating the referral of TB patients to DOTS centers. Then people will have to follow it. The other respondents doubt it if legalizing will solve any problem. The politicization of TB DOTS may itself become a problem. What the government can do is control the supply of ant-TB drugs, such that only TB DOTS centers will have them. Thus, TB patients will have to go to TB DOTS centers for treatment.

Consultation Charges

The three physicians charge their TB patients different amounts during the first consultation. One physician charges between P300 and P400, another charges P600. The physician who works at the Pre-Paid Clinic does not really charge her clients because most of the Pre-Paid clients are health card holders. However, she notes that a first consultation is worth P250. This is covered by the client's company or by insurance. Follow-up visits cost P300 and P500. One physician claimed that follow-up visits are usually done with the TB DOTS facility. All the respondents practice socialized payment scheme. One noted that it depends. He waits for his patient to ask for a break. If the patients do not say anything, doctors usually gauge the ability of their patients to pay by the kind of room they occupy in the hospital.

Delivery of TB DOTS Services

The Perspective of TB Patients

This part of the report presents data obtained using two research instruments: the Observation Guide for Interaction Between TB Patient and Service Provider (Instrument 3), and the Exit Interview for TB DOTS Patients (Instrument 4). The first of these instruments was accomplished in two instances, but the exit interviews were administered to five patients. Thus, only two patients were common to both sets of interviews.

The low number of observation guides completed owes to the very quick visit of patients who go to the clinic, take their medicine, and then immediately leave the clinic to return to their workplace. There was not much to observe in those visits, which is telling of the routine to which clinic staff and patients have grown accustomed. On the other hand, the number of those who agreed to be interviewed on site determined the number of exit interviews.

Of the two observation data sets, one pertains to a walk-in patient who went to the MDH TB DOTS Clinic for her first consultation. Both the DOTS nurse and the research assistant attended to this patient. The other observation deals with a repeat visitor on his second visit to the clinic. He is a Category III patient and was served by both the nurse and the research assistant. Because of qualitative differences in the interactions between a

new and a continuing patient, the observation data will be presented separately for these two cases. Although the research team spent the equivalent of one week at the clinic, the observations presented here are probably typical of what goes on in the clinic on a daily basis.

A Walk-in Patient

This 26-year-old woman had seen the sign outside the facility and, because she was dissatisfied with her first doctor, decided to consult another specialist. She had undergone sputum smear examination, and was diagnosed as afflicted with TB some nine months earlier. Her attending physician had prescribed rimactazid (450 mg.), which she took for nine months but without any improvement in her health. The MDH TB DOTS clinic is convenient for her since it only takes her about five minutes to reach the clinic from the office of the recruitment agency where she works.

Assessing the patient. During the first consultation visit to the clinic, the patient was greeted in a friendly manner and attended to by both the DOTS nurse and the research assistant. The classification of the patient's TB was not discussed. As is customary practice in the clinic, the research assistant wore a mask while asking about the patient's history. Many areas were covered during the service providers' assessment of the patient. The following subjects were touched upon: (1) sputum expectoration, (2) significant weight loss, (3) hemoptysis, (4) chest and/or back pains, (5) fatigue and body malaise, and (6) the patient's concerns about her health. These other health concerns included hypertension, diabetes, allergies, asthma, and renal problem. The patient was also weighed. No further sputum smear examination was discussed and planned. But the patient was immediately registered in the TB symptomatics masterlist.

The DOTS nurse was baffled by her case, and thought the patient might have become resistant to some of the anti-TB drugs. She strongly felt this case had to be elevated to the TB diagnostic committee, so the information was forwarded immediately to the DOTS physician for him to discuss with the committee members.

Initiation of treatment. Despite the uncertainty about the proper classification of the TB patient and the appropriate regimen, treatment was immediately initiated following Regimen I. The patient was provided with some information about TB, but not told about her classification. A treatment card and two NTP ID cards were opened and the information indicated on the cards. The patient took the medicine directly observed by a service provider. The treatment card was not marked after the patient took the medicine.

A treatment partner was not yet designated, but it was likely to be the patient's roommate at the apartment were she lives.

The service provider reminded the patient of the next appointment.

Discussion of TB and other issues. During the consultation, the service providers did impart some information about tuberculosis. Three key messages were conveyed: TB is

infectious, the need for regular drug intake of a combination of drugs, and the need for vigilance for development of symptoms of household contacts. In addition, the patient was informed that, for the first two weeks of treatment, the patient's TB was contagious, but not after that period. This last piece of information was given despite the ambiguity of the patient's classification.

Apart from the other health concerns already mentioned, work-related stress was also discussed during the consultation.

No IEC materials were given to the patient. But the service provider did use clear, simple and appropriate language. The patient was allowed to ask questions, to which the provider responded.

The patient was not given any contact numbers in case of additional inquiries. The patient-provider interaction lasted 40 minutes.

A Repeat Visitor

This 38-year-old patient had been referred to the MDH TB DOTS Clinic by a friend. He was interviewed for this study during his second visit to the clinic. He had applied for overseas employment (mainly in the Middle East), and was required to undergo general physical examination. That was how he found out that he had TB. His recruitment was postponed for two months, and so he is hopeful he can be fit to go after two months of treatment.
The diagnostic committee had included the patient for enrollment in the TB DOTS program. He belongs to Category III. Both the DOTS nurse and the research assistant attended to his needs during this visit to the clinic.

He had gone to the clinic at around noon, not knowing that the clinic opened only at 3 P.M. He must not have been informed about clinic hours during his first visit.

Assessing the patient. The patient was greeted in a friendly manner, although the research assistant wore a mask while asking questions from the patient across the desk where she sat. The only item discussed was the patient's cough that had exceeded two weeks' duration. There was no discussion about sputum smear examination as he had already submitted his sputum specimens to the MDH laboratory. The specimens had been collected at the patient's home.

The patient was registered in the TB symptomatics masterlist.

Treatment. In the course of the consultation, the patient was given some information about TB. The nurse wrote up his NTP treatment card, gave him an ID, and asked him to sign a contract. The FDC pill was shown and identified, and the patient took the drug in DOT fashion. The patient was informed about possible adverse effects of the drug. He was warned his urine might turn red, and if it does he must inform the nurse the following day. The treatment card was not marked after the patient took the medicine.

The patient's wife was chosen to be the treatment partner, although she works everyday at a major department store until 9 P.M. Whether she can perform the role of treatment partner adequately remains to be seen.

Discussion of TB and other issues. During this second visit to the clinic, there was no extended discussion about TB. The only key message that was reinforced was the need for regular drug intake. Completion of treatment, especially for someone wishing to go overseas after two months of treatment, was not emphasized. Hence, the patient thinks "he can fix the problem" by then so he can pursue his employment plans.

Concerning IEC materials, a brochure was used during the consultation and it was given to the patient. The service provider spoke in clear, simple, and appropriate language.

The patient was allowed to ask questions, to which the provider responded to the satisfaction of the patient.

The patient was not given contact numbers. But he was asked if he had PhilHealth membership. He replied that his wife has, and was told to bring the information during his next visit. The patient-provider interaction lasted 25 minutes.

Exit Interviews: Clients' Background Information

Of the five exit interviews, two were conducted with patients who visited the clinic for their first consultation, while three were conducted with repeat visitors.

Of the two first-time visitors to the clinic, one was a walk-in client while the other was referred by a physician. One had no definite TB diagnosis yet, but was started on treatment along the lines of a Category I patient. The other patient was placed in Category II, after having started treatment in 2003 and stopped; now the patient wants to resume treatment. Both were PTB cases. One was attended to by the nurse, the other by the research assistant.

The three repeat visitors were continuing patients without problems. Two patients were in Category II, and one patient in Category III, but two patients were really unaware of the category to which they belong. They were all PTB cases. One was served by the nurse, the other by the research assistant, and the third by both the nurse and the research assistant.

In all, three males and two females granted permission for the exit interviews. Their ages ranged from 26 years to 40 years, with the mean computed at 32.8 years. The three males were married (mean age = 37 years), while the two females were both single (mean age = 26.5 years).

As an indication of their socioeconomic status, all five patients had completed their college education. Everyone reported gainful employment, one in the public sector. Two

are involved in clerical work, one is a technician, another a food and beverage artist, and another a preschool teacher at a Rural Improvement Center teaching toddlers aged 2.5 to 3.5 years old.

One informant refused to divulge information regarding income, but three patients gave figures of monthly income ranging from ₱7,000 to ₱9,000. The preschool teacher said she earned an irregular income that, perhaps on average, amounted to ₱1,200. Despite their college degrees and gainful employment, these patients were definitely not high-income earners.

The Initial Visit

Three respondents came to know about the services of the MDH DOTS Clinic by reading notices and signboards, two right outside the hospital and one in the clinic of a physician who subsequently referred the patient to the MDH DOTS clinic. A friend had referred one of the patients, and a doctor referred another.

Three of the respondents said they went to the MDH DOTS clinic because of the free medicine. A Category II patient underscored the continuity of treatment.

At the time of their first visit to the DOTS clinic, all have had chest x-rays done already. In fact, one patient said he had one x-ray taken during the annual company check-up, but the clinic told him to have another x-ray done.

Only two of the five respondents had experienced symptoms before going to the facility. One female patient had experienced occasional fever, chest and/or back pains, and fatigue. A 40-year-old patient had experienced hemoptysis, back pains, and weight loss.

Today's Visit

Interestingly, everyone went to the clinic without a companion. Regarding the purpose of the visit to the clinic on the day of the interview, all five respondents said they went there to take the drugs in a directly observed treatment. No one was there to get their supply of medication for the coming days. And all said they obtained the services for which they went to the clinic. Everyone also felt the time spent in the consultation with the service provider was "about right."

All said they obtained the services for which they went to the clinic. Two of the five respondents said they had health concerns that they wanted to discuss with the service provider, whom they felt listened to their concerns to their satisfaction.

Three respondents admitted they wanted to ask questions, only two of whom actually asked and were satisfied with the replies they got. One wanted to know about prohibited foods. Another respondent wanted to ask about the pathological report, but realized that only the DOTS physician could answer her question; since the latter was not around, she did not pursue her query.

One respondent (a Category II patient) who said he had no questions to ask remarked, “Perhaps after three months of treatment I can have another x-ray, then I will ask about the x-ray result and the subsequent treatment”—revealing the quality of information that he had apprehended so far.

One patient was weighed, but did not consider it a health procedure. Another patient said there was an examination done, but it was really the service provider’s question regarding how he felt, to which the patient happily replied, saying he now has better appetite, but his urine is reddish in color and he sometimes feel drowsy. Another patient discussed the results of his x-ray and sputum examination because he had already completed his second month of treatment. Apparently, he had also been told the results by the DOTS physician.

Four of the five respondents said the service provider explained the illness well. The fifth respondent, a repeat visitor, said he was yet to get his orientation about TB the following day. The four respondents who knew something about TB all focused on its infectious nature. Three stressed that it was a curable disease, with one explaining as follows: “The cause of TB is bacterial, so it is infectious. It is airborne (worse than AIDS). TB is curable if treated properly. If not, there’s a possibility that one’s TB will resist medication. This is a problem because the people who catch drug-resistant TB will need more complex medication. There are many forms of TB. TB drugs are expensive.” One respondent stressed “continuous treatment,” while another said patients must take their medications “regularly.” Only one respondent said, in relation to his disease, that it required rest and that he must no longer drink alcohol and desist from smoking (he quit smoking in February 2004, or about five months before the interview).

All five respondents said they had “enough privacy” during the consultation. One female respondent added, “Okay *lang*. I don’t really need much privacy.” Only two respondents felt their personal information would be kept confidential. One said he was not sure. But two respondents said confidentiality no longer mattered to them, so they do not even think about it.

Three respondents said the clinic ensured that they could talk privately with the service provider. But two said they were unsure about the privacy of their conversation.

Four respondents felt that they were involved in some aspect of decision-making about the treatment, particularly in regard to the daily schedule of going to the clinic to take the medicine. One respondent is grateful for being allowed to take home two day’s supply of streptomycin which is injected to him by an aunt who is a nurse. But one patient, a female, said it was all right not to be involved in decision-making as she realizes there are certain protocols which patients must follow.

As regarding the next visit, all respondents said that they were given reminders. Overall, everyone expressed satisfaction with the visit to the facility that day.

Convenience of and Access to Clinic

All respondents said the clinic days are convenient, but only four of the five respondents found the clinic hours to their convenience. Actually two respondents preferred that the clinic was open in the morning, one because of her work schedule, the other so he could take the medicine some half-hour after breakfast. No one had been turned away from the facility during official clinic times.

For four respondents there was hardly any waiting time between their arrival at the facility and the start of service. But one respondent said she waited for 15 to 30 minutes, a period she nonetheless found reasonable.

All respondents found the clinic's location very convenient from their place of work. As one respondent said, "*kapitbahay lamang ito ng kumpanyang pinapasukan ko*." Three respondents simply walk from their workplace to the clinic, taking two of them a mere 2 to 5 minutes to reach the clinic, and taking one about 10 minutes. But two respondents need to take public transportation, taking them 15 to 20 minutes to reach the clinic; one needs to take one ride, but the other two rides.

When asked about "what services other than what you received today are provided at this facility," one respondent said "DOT," which implied he was not aware of other services. But the other four respondents could mention at least one more service, but only one respondent mentioned the full range of services. The services and the total number of mentions, by descending order, are as follows: directly observed treatment (4), health education (3), consultation (2), sputum AFB smear examination (1), and chest x-ray (1).

Three of the five respondents knew of another facility that offered TB DOTS services. Two mentioned a health center in another part of Manila, while one respondent knew about the DOTS services offered by a health center, a number of private clinics, and a government hospital. One of these three patients said the main reason why he went to MDH rather than the other facility he knew about was that his physician referred him there; he is confident he can get the proper medication at the MDH clinic. The other two respondents preferred MDH because of the unpleasant and/or inconvenient conditions in the other facilities. One respondent emphasized the specialist care at MDH DOTS, while the other complained about the inconvenient schedule of the health center, its crowded area, and the many waiting patients, many of whom were pediatric cases. At MDH DOTS clinic, he need not compete with the children for the service provider's time.

IEC Issues and Messages

Only two of the five respondents reported that they had attended a group talk at the center: one on 1 May 2004, the other on 21 June 2004. According to them, the talk covered the following key messages: TB is infectious (2), TB can be cured (2), Regular drug intake of a combination of drugs (2), requires completion of treatment (2), cover mouth when coughing and sneezing (1), maintain good hygiene and proper nutrition (1), results of irregular drug taking (1), and importance of family/treatment partner support

(1). Based on the information retained by these two respondents, it appears that MDH DOTS clinic offers a rather effective group lecture.

Four of the five respondents were given IEC materials, one saying “a lot.” All four were given brochures/pamphlets, and one was given a comics-type handout. All four found the educational materials helpful. One valued the information on how transmission to others could be prevented, while another liked the guidelines on things to be avoided and how to “speed up” treatment. One respondent explained further: “I learned a lot about my illness (from the IEC materials), including its gravity, social impact, and the adverse effects of drugs. They encouraged me to surf the internet for more information. Also, things that were not mentioned during the orientation lecture were found in the IEC materials.” The lone respondent who did not receive IEC materials said the information was “only discussed.”

Knowledge About TB

The respondents were asked about their knowledge of tuberculosis and its treatment. To the question of how one contracts TB, the responses were:

Transmitted from a TB patient	4
Inhaling air with TB bacteria	2
Dirty surroundings	2
Smoking	0
Drinking alcoholic drink	0
Inherited	0
Others:	
Neglect of health/Poor nutrition	1

All five respondents knew TB is transmissible, but all also knew it is curable. When asked about what they thought was the best treatment for tuberculosis, all five mentioned the taking of anti-TB drugs in right doses at the right intervals. One respondent elaborated, “*Kailangan lang magpatuloy ang pag-inom ng gamut upang tuluyang gumaling sa sakit*.” One added, “Continuous consultation with the doctor,” while another also said, “Regular check-up.”

When asked if it was necessary for people with TB to complete their treatment, everyone said yes. Three cited their personal recovery from the illness, with one adding that it would prevent the TB from “progressing” and becoming “drug-resistant.” Two respondents cited the importance of preventing the spread of the disease to others.

Four respondents were aware that treatment could last from six to nine months. Interestingly, one respondent who had not attended a group talk but received IEC materials said “*mahaba*” (a long time), guessing it may take two years. But he said for him it would take six months!

Only three respondents were aware there could be adverse effects caused by the anti-TB drugs. The effects mentioned were: mild skin reactions (2), orange/red-colored urine (2), and pain at the injection site (1). One added it could produce deafness. Another added that the drugs could result in yellowish eyes, muscle spasms, vomiting, and deafness. When asked about how they felt, one said it was mild for him, but the other two said they consult with the TB DOTS clinic.

Four of the five respondents said yes when asked if it was necessary for a TB patient to undergo follow-up sputum examinations. One said he did not know; this patient was not given IEC materials and had not attended a group talk at the facility.

Expenses Entailed

Only two respondents said there are no charges for consultation at the MDH DOTS clinic. Two mentioned a consultation fee of ₱600, with the subsequent consultation reduced to ₱500. Another respondent said that consultation with the diagnostic committee cost ₱350.

But all said there were no charges for the medicine. Similarly, no charges were made for syringes and other items obtained at the MDH DOTS clinic.

But one respondent spent ₱76 to buy medicine during bronchoscopy, and ₱60 for the nebulizer. The bronchoscopy itself cost ₱500, which was heavily discounted from the original cost of ₱2,845 at the Philippine General Hospital.
Two respondents reported the cost of sputum examination as ₱600, while for the chest x-ray one reported an expense of ₱150, while another said it entailed ₱300. For two respondents, the company they worked for shouldered the expense of the sputum examination and/or the chest x-ray.

Apart from those who could walk to the clinic from their workplace, one respondent paid a one-way fare of ₱10.50, while another one paid ₱11.00. If coming directly from home, one respondent said he would need to spend ₱23 each way to the MDH DOTS clinic.

Four currently employed respondents do not need to go on leave to undergo DOTS treatment. The preschool teacher, however, had gone on a one-month “break,” losing her monthly income of about ₱1,200.

Everyone found the total cost of obtaining services from the facility acceptable.

Suggestions for Improvement

The respondents were generally satisfied with the services at the clinic, with one saying “*Tingin ko naman ay maayos na ang serbisyong naibibigay nila sa mga pasyenteng tulad ko*.”

But two respondents suggested that the clinic should be open in the morning.

Because of the transportation cost for the preschool teacher with no gainful work at the moment, she remarked, “Trust the patient to take drugs at home and drink it there because it’s inconvenient and costly to go to the clinic everyday.”

The other respondent added that evasive expression, “okay *lang ang kuwarto*,” implying perhaps that the clinic space was not entirely to his satisfaction.

Assigned Treatment Partners

Data for two continuing patients indicate that both have assigned treatment partners. One had both the DOTS nurse and research assistant at the clinic serving as treatment partners. The other had his wife and the research assistant at the clinic as treatment partners. They see their treatment partners daily at the clinic.

During weekends and holidays when the clinic staff could not observe the taking of drugs, a family member reminds the patient and observes the drug intake. All partners are reported as keeping a record of their drug intake.

The Perspective of Treatment Partners

From the available data, the MDH DOTS Clinic subscribes to a strict policy of requiring enrolled patients to take their medicines at the clinic. Logically following from this policy is the fact that the patients’ treatment partners are mostly staff members of the DOTS clinic. Family members serve as treatment partners for Sundays and holidays only.

As shown in Table 12 and as discussed in the service statistics, most patients a clinic treatment partner. This pattern is consistent in both SA1 and SA2. In the second period, there has been a very slight increase in the number of family members serving as treatment partners.

Because of the short data collection period and the other data that had to be obtained from the clinic staff, the interview schedule for treatment partners was administered to a member of the patient’s family. In all, two respondents were interviewed within the premises of the hall where the DOTS clinic is located, while another three respondents were interviewed over the phone.

Treatment Partner Interviews: Background Characteristics

The respondents consisted of three females and two males. Their ages ranged from 25 to 57 years. Two female partners were in their twenties, and another female partner in her fifties. One male partner was 44 years old, the other 46. The mean age was computed at 40 years.

Of the five respondents, two were spouses of the male patient, two were parents (one a mother, the other a father) of the patient, and one was a sibling (a brother) of the patient.

Three of the treatment partners have earned their college degrees, one barely finished the first year of college, while one completed high school education only.

One respondent is not gainfully employed as she is a housewife, although she once was an Overseas Filipino Worker (OFW). The other wife also has no formal employment. The three college degree holders are all employed in the private sector, one a security guard, the other is in sales, while another one actually works as a respiratory therapist at the Manila Doctors Hospital.

The security guard earns ₱7,000 per month, while the one in sales earns from ₱6,000 to ₱10,000 per month. The pulmonary therapist earns ₱14,000 per month. Although they are gainfully employed, there is some divergence in their earnings and the respondents do not belong to the upper-income brackets.

Training and Perceived Role of a Treatment Partner

All five treatment partners said they underwent training in order to perform their role as treatment partner. The trainings were taken quite recently, either in April or June 2004. All said they found the training useful and learned many facts about TB. Only two respondents mentioned the fact that the training underscored the patient's need for a treatment partner and what role they ought to play.

When asked about their relationship, as treatment partner, with the "attending physician" (*duktor na tumitingin sa pasyente*), three of the five respondents suggested that they have a joint responsibility for the patient. But one emphasized the family responsibility: "*Pero mas malaki ang responsibilidad ng* treatment partner *kasi para hindi mahawa ang pamilya niya*." Another respondent saw the relationship as repeating and implementing the doctor's instructions concerning treatment in the patient's home. One respondent answered the question by essentially describing the partner as an advocate for the patient, accompanying and speaking for the latter in visits to the clinic.

Two respondents said they do not go to the DOTS clinic at all, while two said they go to the clinic to get the medicine supply one a week. But one respondent (the father of the patient) said he used to go to the clinic two to three times per month, but at present he goes there twice weekly.

Four respondents look after one patient only, and find the number just right. The wife of a patient, however, said that she looks after not only her husband but also after her two children who have contracted tuberculosis from their father. She found the load all right, because it was only the husband she had to monitor closely in the DOTS program.

Strategies to Promote Adherence to Treatment

Three of the five respondents said they resort to the use of certain strategies to ensure their patients' adherence to the DOTS regimen. Two respondents who said there was no

need for strategies pointed to the determination of their patients to complete treatment. As one wife said, "*Hindi pa nangyayari na tinamad ang mister ko. Umiinom ng gamut kasi decididо talaga siyang gumaling*."

The three treatment partners' strategies focused mainly on verbal reinforcement, mainly "lecturing" (*pinapangaralan*) the patient. The brother, however, threatens his patient about ill consequences if the medicines are not taken. All three said their strategies seem to work as they see improvements in their patients' condition and actually see their wards taking the drugs of the DOTS regimen. None of the respondents gives monetary or material incentives, and all feel such is not necessary.

To ensure that the patient actually takes the drugs, four of the family treatment partners actually do DOT at home. But only two would watch the patient actually take the drugs. The others would look at the blister pack, another one would sign a treatment card after ingestion of the medicines. Only one respondent merely said that he would get the supply of medicine before a holiday period to ensure the availability of medicine for his brother to take.

All treatment partners said they keep the information about the disease and the treatment confidential. They do so in full awareness of the stigma that befalls a person known to be afflicted with TB. One worries about the patient's self-esteem, while another one would not want the patient to be the object of pity. They do not want their family members to be ostracized. How they keep the information from spreading is simply to not talk about it. Only a small select group of people (usually the immediate family members) is allowed to know the situation. One treatment partner dissimulates, referring to an illness other than TB.

Satisfaction with Role as Treatment Partner

Three respondents said that the costs they bear as treatment partners include transportation expenses, which can be burdensome as one respondent says it costs ₱40 per day to go to the clinic. Two partners mentioned the cost of the sputum microscopy examination and the chest x-ray.

The five respondents said they were happy with their role as treatment partner. However, one wife said she would sometimes feel sad over her husband's condition, while another wife felt the heavy responsibilities involved. Three said they are pleased with the free drugs, which is a great source of support.

When asked if being a treatment partner was just like doing any job (*para lang isang trabaho*), three respondents were emphatic that it was not so. One said it was a "light" task to fulfill, while a mother said it was a "labor of love." One wife and brother did say it was like a job requiring constant supervision and monitoring of the patient, and the need for constant reminders and lecturing. But, kin the end, four said being a treatment partner was not difficult (*madali lang*). Only the brother said it was tough if the patient was hardheaded.

Suggestions to Improve Role

As in other DOTS clinics, determined and obedient patients lighten the load of the treatment partner, but the opposite behavior makes it difficult for the treatment partner.

The respondents' suggestions to improve one's performance as a treatment partner focused mainly on the patient's needs, with only one treatment partner emphasizing the need for a training seminar: "*mag*-seminar *din dapat ang* treatment partner, *nakakapaliwanag kasi ang* seminar." Those who focused on the patient's needs would offer more support and "endless encouragement." One repeated the need for constant reminders, while another valued lecturing: "*pangaralan tungkol sa pagkain, pahinga; iwasan ang bisyo, alak at sigarilyo*."

Evaluation of Changes Since the Enhancement Plans

After a year of being in operation (August to September 2003), the MDH TB DOTS Clinic launched a set of enhancement plans that aimed to deliver cost-efficient, sustainable TB health care to its patient clientele. The first situation analysis revealed that MDH had a good cure rate for sputum positive cases (100%), but a low smear positive rate. Meanwhile, there were actually as many defaulters as cured smear positive patients and even more transfer out patients for that period of time (see Table 2-14). Thus, the enhancement plan focused on improving case detection strategies through quality-assured microscopy; testing alternative DOT schemes to increase enrollment; and enhancing case holding through intensive treatment partner orientations. These process and systems improvements were to be done by: 1) conducting interactive workshops and quality improvement sessions with the DOTS Clinic Staff, 2) renewing the institutional commitment of MDH administration to support and endorse the DOTS program in controlling TB, 3) gaining Phil Health accreditation. Numbers 2 and 3 are especially crucial to the immediate goals of the MDH TB DOTS because project funding will end in September or October 2004. By then, the facility should have been incorporated into the MDH Pre-Paid Clinic and maintained or improved its TB DOTS service capacity.

The table on the next page shows a summary of all the activities and indicators of change that have occurred according to the components of the DOTS.

In terms of **political commitment**, the MDH TB DOTS has been gaining considerable support from the MDH administration, which had undergone changes since the TB DOTS inception. From November 2003 to February 2004, it was able to gain audience with the administration. The present administrative director of MDH has plans to renovate and improve the Pre-Paid Clinic, in time for the TB DOTS facility's incorporation in it. Plans and coordination with the MDH administration seem to be looking up. However, meeting the target date (September or October 2004) is still a concern for the TB DOTS Clinic.

Quality-assured sputum microscopy is an area of concern. Since the MDH

(microbiology) laboratory exists separately from the TB DOTS clinic, although it coordinates with the TB DOTS and is located in the same institution, there is not much monitoring of laboratory activities by the project leader, clinic supervisor and research assistant. Moreover, even after capability-building was conducted for one MDH medical technologist on 31 March 2003, there were still some issues and concerns regarding sputum collection and AFB smear. The low yield in positive sputum AFB smears was attributed to this. Another medical technologist was supposed to be trained this year. Quality assurance measures have also been taken. A trained medical technologist from MCHO makes regular visits to the MDH laboratory to cross check case findings performance. Another consideration for the low yield in positive sputum AFB smears is that patients cannot afford sputum smear services at MDH. Thus, they avail this service where they can afford it. One possibility that is being considered by the project leader and other key actors is the reduction in the price of MDH sputum smear microscopy.

Table 2-17. Summary of Enhancement Activities and Indicators of Change in the MDH TB DOTS Facility According to DOTS Component

Enhancement Plans	Activities	Timeline	Actual Accomplishments
A. POLITICAL COMMITMENT			
Audience with MDH administration to reaffirm institutional commitment of new administration	Memorandum of Agreement (MOA) between MDH and PhilCAT & PhilTIPS	August 2002 with PhilCAT; August-September 2003 with PhilTIPS; 2004 with PhilCAT and DOH	MOA in 2002 and 2003 were signed; 2004 MOA awaiting full financial plan
	Incorporation into MDH: 1) must train new staff from Pre-Paid, 2) must draw a financially sustainable plan to maintain TB DOTS	By September or October 2004 1) beginning July 2004 2) by September or October 2004	1) no training has yet occurred, TB DOTS needs dedicated staff 2) still processing and discussing financial plan for a sustainable TB DOTS
Review PhilHealth checklist for accreditation and identify requirements not yet fulfilled by the MDH TB DOTS Clinic	PhilHealth Accreditation	By September or October 2004	Phil Health accreditation in May 14, 2004
B. QUALITY-ASSURED SPUTUM MICROSCOPY			
To improve smear positive rates of the MDH laboratory	Arrange with DOH or MCHO to make quality assurance checks on MDH laboratory	-	Already being done

Enhancement Plans	Activities	Timeline	Actual Accomplishments
	Training of more MDH Medical Technologists with RITM	-	Two were trained in March 31, 2003; Another one was trained in NTP in 2004
	Sputum collection of 3 quality samples for proper AFB smear	-	Obtained collapsible sputum collection booth in January 2004 for on-site sputum collection; Some equipment for sputum smear were also being purchased by MDH laboratory
	MDH laboratory guidelines on sputum processing for AFB incorporated in MDH DOTS manual	-	Included in the Manual of Operations
C. REGULAR SUPPLY OF ANTI-TB DRUGS			
Clarify the drug procurement system	Regular supply of buffer stock from DOH	Continuous	Regular drug inventory submitted to DOH to get supply
	Own procurement of drugs when DOH fails to give buffer supply	Continuous	Working on the MDH TB DOTS self-sustainability after project funding ends
D. STANDARDIZED TREATMENT REGIMEN, INCLUDING DOT			
Conduct workshop for all ongoing treatment partners	Continuous lectures for patients and treatment partners	Continuous	Given on a regular and frequent basis
	Increase enrolment of middle and upper income groups	Before September or October 2004 (in time for incorporation into MDH)	Enrolment has increased in general; the clinic has also begun to enroll Phil Health beneficiaries in the DOTS program
Greater involvement of MDH physicians	Information dissemination for MDH medical staff	Continuous	The number of referring physicians has increased; Needs to speak with doctors on an individual basis to promote TB DOTS further

Enhancement Plans	Activities	Timeline	Actual Accomplishments
	Workshop on the use of FDC	March 27, 2004	TB DOTS Team was trained in FDC
E. MONITORING SYSTEM			
Develop program performance evaluation tools, guidelines for performance evaluation	To develop a monitoring and evaluation standard for staff; aimed to make regular target lists	2004	Included a section on supervision, monitoring and evaluation for staff but is still on the way to implementing it and developing a target list for the staff

Standardized treatment regimen is in order at the MDH TB DOTS. The staff are dedicated in conducting DOT with the patients and in giving counseling and education information lectures to the patients and their treatment partners. However, considering the amount of work that is required of the TB DOTS staff, they should be conducting training of the new staff (from the Pre-Paid facility) for when the DOTS clinic becomes incorporated into MDH.

Drug supply is another area of concern for the MDH TB DOTS. There have been times that the DOH failed to give the appropriate amount of buffer stock to MDH TB DOTS despite the latter's fulfillment of drug inventory and despite the known fact that the DOH is supposed to have enough anti-TB drugs for the TB DOTS project. With funding from PhilCAT, the current MDH TB DOTS Clinic is able to purchase the necessary drugs when there is a lack of it. However, when project funding ends later this year, the clinic will then have to rely on another procurement system. At present, they also solicit free near expiry drugs from medical representatives and physicians.

A system of monitoring has yet to be developed in order to evaluate the MDH TB DOTS staff performance.

SWOT Analysis

Strengths

The MDH TB DOTS team can be said to be one of the strengths of this DOTS clinic. They are dedicated individuals with sufficient training and experience and who keep good working relationships. The project leader is deeply involved in the national program on tuberculosis control. The clinic supervisor, who happens to be his wife, has had a lot of experience in hospital administration which allows her to facilitate the DOTS clinic quite well. She and the project leader are also able to discuss the TB DOTS project at all times. Meanwhile, the research assistant, who happens to be a niece of the clinic supervisor, has also had considerable experience in clerical and research work.

There is also a team of specialists from varied fields that comprise a diagnostic committee for the detection of TB cases. They meet on a regular basis. Moreover, the MDH TB DOTS team is making efforts of linking up with potential referring physicians through information dissemination and by giving monthly updates to current referring physicians. Its location in the Pre-Paid clinic provides a venue for this. As for laboratory services, there is at least one medical technologist within MDH that was trained in sputum AFB microscopy. Radiology services are also available at MDH. Quality assurance of laboratory activities and case findings are also a plus.

Among the strengths of the MDH TB DOTS Clinic with regard to case holding are that there is a good standardized system of monitoring and recording, daily DOT with the clinic health service providers as treatment partner and family member as the alternate treatment partner at home during weekends throughout the intensive and continuation phase of treatment are implemented, there is a defaulter tracing mechanism in place, and the health service providers provide personalized health education, consultation and provision of IEC materials.

The MDH TB DOTS has also acquired its own collapsible sputum collection booth. It is also now accredited in Phil Health.

Weaknesses

One weakness of the MDH TB DOTS Clinic is that it does not provide free sputum smear microscopy for patients. This may partly explain the low smear-positive rate. Sputum smear services and chest x-ray are expensive in MDH.

DOTS is still not sufficiently marketed to potential clientele and physicians.

The various tasks in the TB DOTS operations will also be a weakness once training of new staff is held. Assimilation into the roles and responsibilities might prove difficult.

Opportunities for improvement

Areas for improvement include an upgrading of the clinic itself – being placed in a more well-ventilated space. A more intimate linkage with the MDH laboratories, especially their inclusion in the future Phil Health package, will be better for TB DOTS operations. Linkages with other institutions – MDH, DOH, and MCHO – can still be strengthened for future operations.

Threats

A major threat to what the MDH TB DOTS is achieving at present is the interim between now and its full integration into MDH. Without full support from the administration and without a dedicated staff, it will be extremely difficult to facilitate successful TB DOTS operations at MDH.

Chapter III. The HMO-based Model TB DOTS Clinic

As part of the second situation analysis of the TB DOTS strategy in the private sector, data gathering was done in the UN PhilamCare TB DOTS Clinic from 21 to 23 June and 1 to 3 July 2004 for the HMO model. Data were obtained using four research instruments. Three instruments, namely the observation guide for the interaction between the DOTS service provider and the TB patient, exit interview with the TB patient, and interview guide for treatment partners were not administered because no TB DOTS patients visited the clinic during the course of the data collection. Most of the enrolled TB patients are now in the maintenance phase hence they are not required to go to the clinic regularly. As a result, only a total of 13 informants were interviewed as follows:

Research Instrument	No. of Respondents
1. Inventory of the TB DOTS Clinic Facilities, Recording, Equipment and Service Provided	3
2. Interview Guide for TB DOTS Service Providers	5
3. Interview Guide for Referring Physicians	3
4. Interview Guide for Revisiting the TB DOTS Clinic's History and Background	2

Corporate bureaucracy also made the data collection hard to accomplish. Patients' records and other reports must first be cleared with the Clinic Operation Manager (COM) before accessing the information and interviewing the staff. The research team later learned that the first situation analysis report divulged the names of respondents, which the management did not particularly like. Thus, they were not very cooperative this time. To complement the lack of available respondents for the interview guides, the research team relied mostly on the use of extensive observations, and carried out unstructured interviews when necessary.

The second situation analysis aims to cull lessons and identify best practices in implementing the TB DOTS Program in the private sector, which will become the basis for the formulation of replication guidelines and for the expansion of the program in strategic sites nationwide.

This chapter is divided into six sections. Section 1 presents the background of the DOTS clinic and its inventory of facilities, equipments and services provided. Section 2 focuses on the organizational set-up of the clinic and staffing pattern of the facility, and presents the data from interviews with service providers. The third section discusses the result of the interview guide with the referring physicians. Section 4 analyzes the service statistics of the DOTS facility from the time it was established up to the present. It also compares the service statistics obtained from the first and second situation analyses. Sections one to four detail the aspects of readiness, capability and quality of care being rendered by the DOTS facility. Aside from these, section four also discusses the over-all impact of the facility in terms of treatment outcomes. The fifth section examines the changes that have

taken place since the first situation analysis particularly in relation to the enhancement plans for each of the five major components of the DOTS strategy. The strengths weaknesses, opportunities and threats (SWOT) will eventually be discussed in the concluding section.

THE DOTS FACILITY

> *Draped in a western style setting replete with modern lightning and centralized airconditioning system, the TB DOTS facility is located in a small corner near the Basic Area Services of the PhilamCare Clinic. This is where DOTS-enrolled TB clients get their drugs and follow-up consultations, and the place where various NTP files are kept. Despite the fact that there has been no permanent staff assigned to the facility and the clinic has yet to establish clear guidelines for recording and monitoring, the clinic has responded to the needs of their TB clients. To date, one patient has been cured and another five have completed their treatment out of the total 20 enrollees.*

Background

It was in March 2002 that the former president of the PhilamCare Clinic was informed about the TB Directly Observed Treatment Short Course (DOTS) initiative through a PhilCAT-sponsored lecture that he attended together with company executives. The PhilCAT team, who lectured about the success rate of the DOTS strategy in treating TB patients in health centers in Samar and Leyte, broached the idea of testing the strategy in a health maintenance organization (HMO) setting. The former president expressed interest in the project but was not implemented until April 2003 when some nurses and staff of the selected PhilamCare Clinics underwent DOTS training. On 1 August 2003 the two parties formalized their collaboration through a memorandum of agreement for the establishment of TB DOTS facility in PhilamCare clinics. The management agreed to test the strategy provided that this would not require additional personnel and outlay on their part.

The initiative to tap PhilamCare for the TB DOTS Program stemmed from a research study being conducted by PhilCAT funded by the Centers for Disease Control (CDC). The main objective of the study is to pilot test various Public-Private Mix (PPM)-TB DOTS models in the private sector and to determine whether family-based DOT is feasible and an effective case holding strategy. PhilamCare was selected for the HMO model because of its broad client base and numerous branches around the country. The PhilCAT research team will assist the clinic until the end of project in October 2004 after which the full responsibility of managing the DOTS clinic will be transferred to PhilamCare management.

At present there are six PhilamCare Clinics that offer the DOTS strategy. These include the HMO's clinics in: (1) UN Avenue, Manila, (2) Makati City, (3) Las Pinas, (4) Quezon City, (5) Ortigas, and (6) Calamba, Laguna. The subject of this situation analysis is the PhilamCare DOTS Clinic in UN Avenue and Maria Orosa St., Ermita, Manila, which is the first to launch the strategy.

The UN PhilamCare Clinic has been in operation for 18 years. It caters to policyholders under the HMO's various health insurance plans. Most of the individual clients belong to the middle classes who can afford to pay the insurance premiums. Companies can also avail of group insurance for their employees. The TB DOTS facility started its operation in August 2003. Since then it has enrolled 20 clients in the DOTS program and has made significant achievements in terms of treatment outcomes.

The DOTS Clinic's Location and Facilities

The UN PhilamCare Clinic is located at the ground floor of the Philamlife Building in Ermita, Manila. It is accessible via public transportation, such as the Light Railway Transit (LRT), jeepneys going to and from other parts of Manila and taxis, and close to the Robinson Mall, which can be reached, on foot in three to five minutes. The building has a designated parking area for its staff and clients but the latter have to compete for the limited parking space. During busy days, clients have to look for other parking areas outside the vicinity of the building for a fee.

A security guard mans the entrance to the clinic. He checks on the personal belonging of the clients and asks for the client's purpose of visit. He then directs the client to go to the reception area where a staff is ready to attend to his or her needs. Before getting into the TB DOTS Facility, one has to pass by the Information Section of the PhilamCare Clinic. Clients present their HMO card on a first-come-first-serve basis to avail of the medical and laboratory services of the clinic.

Signage. As indicated in the first situation analysis, the PhilamCare Clinic has a conspicuous signage (see photo). There is no sign, however, indicating that the facility is offering the DOTS Program for TB patients outside of the clinic. A signage could be observed inside the facility but this is not posted on the wall. According to the Assistant Vice President for Clinic Services, they deliberately did not put the signage because they want to avoid the stigma that this might create among TB patients, especially because the facility is accessible to anyone visiting the PhilamCare Clinic.

Clinic space. Out of the total clinic floor area of 600 square meters, the PhilamCare management allotted approximately 7.5 square meters for the TB DOTS facility (see right photo below). The area is near the Basic Services Section where designated nurses gather vital signs and medical history of the patients before referring them to the appropriate specialists for proper diagnosis. Patients wait for their turn for the screening, sitting on chairs in this section. Around half, five square meters, of the total area of the TB DOTS clinic can be considered as its waiting area where seven seats are available for TB patients and their companions, although they can also occupy some seats in the Basic Services Section (see left photo below). The clinic is generally clean and has a centralized air-conditioning system servicing the entire facility. While this has provided the staff and the client adequate comfort, this is the main reason why sputum collection cannot be done in the facility. Besides, the space is near the Pediatric Section where toddlers usually get their check-ups.

The facility is provided with a table, a small medicine cabinet, and a shelf. Some of the anti-TB drugs are neatly stored in the medicine cabinet and some are kept in the ECG Room. Treatment cards as well as the TB symptomatic master list and the TB registry are also secured inside the medicine cabinet to ensure confidentiality of records. Information, Education and Communication (IEC) materials about the TB DOTS Program are placed on the shelf for easy access during patient's consultations. A cooler for the storage of sputum specimens can be found underneath the table. Directly above the medicine cabinet are envelopes containing the patients' records and x-rays for the evaluation of diagnostic committee members (see photos on the next page).

Examination room. After the nurses have referred the patients to the appropriate physicians, they will be examined by the doctor in his or her assigned room. There are 11 rooms for this purpose: six at the ground floor and five at the mezzanine. The rooms offer reasonable auditory and visual privacy, adequate lighting, and a bed where the patient can lay during the examination As observed, the examination room has no linen.

Sputum collection area. As mentioned earlier, the clinic has not set up a sputum collection area because of the nature of ventilation in the entire facility. The PhilamCare

management is not keen on establishing a separate area for sputum collection, as this will require additional cost. To compensate for this, they require the patients to collect their sputum at home and bring the properly labeled sputum specimens to the clinic. The DOTS nurse instructs the patients about the proper way to expectorate and gives them a container where they will put the sputum. The clinic will then send the specimens to Quezon Institute in Quezon City, a thirty minutes to one-hour ride away from the clinic.

Water Facilities. The entire clinic has only one comfort room for both the staff and the clients, either male or female. Directly outside the comfort room is a sink for washing. Both the sink and the toilet bowl have a continuous supply of water, but soap bars are nowhere to be found. Likewise, the facility has no hand drying equipment. The clinic does not have water dispensers for their clients, hence enrolled patients have to bring their own bottled water for the drug intake.

Waste disposal. Two color-coded hazardous waste containers can be located underneath the sink near the restroom. A yellow plastic container is intended for toxic wastes while a black container is assigned for non-toxic refuse. As mentioned by the first situation analysis, toxic wastes are transferred after clinic hours to a designated covered container in one corner of the facility. Staff of Integrated Waste Management, Incorporated collects the toxic waste thrice a week. Non-toxic wastes, on the other hand, are transferred to a common garbage area outside of the clinic where these will be later collected by city waste management team.

24-hour service support. Unique to the PhilamCare network of clinics is the 24-hour service support mechanism they offer to their clients. Policyholders can access their telephone assistance anytime of the day to know more about the services of the clinics, crises intervention, and how to avail of the clinic's services. Liason officers are assigned to affiliated hospitals in Metro Manila to facilitate the services needed by the clients. For

TB DOTS patients, they can inquire or inform the DOTS staff of any adverse effect of the drugs they have taken for proper medication. The facility can be reached through the following telephone numbers: (02) 528-3732 for the nurse station, and (02) 526-3613 for the records section.

Clinic hours. The UN PhilamCare Clinic is open six days a week. From Mondays through Fridays, the clinic opens at 7:00 o'clock to facilitate the papers of early clients but the consultation of the patients officially begins at 8:00 o'clock in the morning until 5:00 o'clock in the afternoon. A staff on a rotational basis is usually assigned to arrive one hour early to open the Information Section. During Saturdays the clinic opens at 7:30 A.M. and closes at 3:30 P.M. There is a one-hour lunch break from 12:00 noon to 1:00 P.M. during which lights are switched off. Staff members take their meal at the lounge of the clinic while patients who did not finish their consultation on time can have their lunch at the nearby fast food outlets and restaurants.

Because the TB DOTS facility has no permanent staff to look after the area, the activities in the clinic would only start when the first TB patient arrives at the clinic for consultation or drug intake and ends after the last patient leaves the premises. For instance, during the first day of the fieldwork, a client entered the facility for consultation at 8:40 A.M. The DOTS nurse who was assigned in the Information Section went to the clinic to entertain the patient. After attending to the needs of the patient for ten minutes, the nurse went back to her post. This is always the case. If there were only one patient who visited the clinic for the day, the facility would close its operation on the exact time that the patient left the facility.

Table 3-1. Official and actually observed clinic hours of the TB DOTS facility

Time	**Official Hours**					
	M	**T**	**W**	**Th**	**F**	**Sat**
AM	8 – 12	8 – 12	8 – 12	8 – 12	8 – 12	7:30
PM	1 – 5	1 – 5	1 – 5	1 – 5	1 – 5	3:30
Time	**Actually Observed Hours**					
	M	**T**	**W**	**Th**	**F**	**Sat**
AM	8:40 – 8:45	9:40 – 9:45	NP	NP	3:40 - 3:45	NP
PM	NP	NP	NP	NP	NP	NP

*NP – no patient

Table 3-1 compares the official and actual observed clinic hours of the facility. Only one enrolled patient managed to visit the facility during the course of the fieldwork. A suspected TB patient in her mid-20s submitted three sputum specimens for smear testing on 22 June 2004 but hurriedly left the facility afterwards. The duration of the visit lasted for five minutes only. No other patient went to the facility that day.

On 2 July, a girl in her teens arrived at the clinic at 3:40 in the afternoon to get the drugs intended for her relative. Asked why she was the one getting the medicines she promptly

replied that the treatment partner requested her to pick it up in his place. Other than these, the research team had not recorded any visits.

Catchment area. The catchment area for the UN PhilamCare Clinic is not defined. Clients from as far as Montalban, Rizal to Bulacan can have their medical check-ups or consultation in the clinic so long as they are policyholders or beneficiaries of the policyholders. This is why they have a potentially large area to serve. In treating TB patients, however, it is the practice of the clinic to refer patients to the nearest PhilamCare Clinic that offers the DOTS Program to ensure the treatment outcome otherwise they will enroll the patient in their facility.

TB laboratory. The UN PhilamCare Clinic is equipped with a laboratory for blood testing, urinalysis and fecalysis. The clinic is also capable of handling ECG and ultrasound testing. It is not capable, however, of handling sputum microscopy services primarily because of the absence of biosafety cabinet in the laboratory. Instead, it has contracted the Quezon Institute (QI) to perform the testing for their patients. The Research Institute for Tropical Medicine (RITM) trained the clinic's medical technologist on AFB microscopy for one week but he has yet to apply his knowledge because of the absence of this facility.

Since sputum is not allowed in the facility, patients are instructed to collect their sputum at home and are asked to bring the specimens to the clinic. A messenger collects the sputum specimens of the patients everyday and brings these to QI. Cut-off time for specimen submission is 12 noon. The nurse obtains the results by phone within one day after submission to the laboratory. Sputum smear microscopy is usually cheaper at PhP 75.00 per smear in QI, a government-run hospital, than in any other laboratories.

Chest X-ray that is also necessary in detecting the disease in some cases is readily available in the clinic. Two full-time radiological technologists and one reliever perform X-ray procedures in the facility.

DOTS Services Provided

Only policyholders and their eligible dependents diagnosed with TB within at least four months of health insurance coverage are accepted to the PhilamCare DOTS Program. They have the option to avail of health services from any of its clinics based on proximity to their residence or place of work. Those with pre-existing TB illness within one year of the effectivity of membership are excluded from coverage.

New TB patients who cannot be covered by the health plan are referred to other health facilities outside the PhilamCare system. The facility keeps a list of health centers within Metro Manila where they can refer the TB patient for treatment.

In treating TB patients, the clinic follows the "PhilamCare DOTS Model Manual of Procedures 2000" jointly formulated by PhilamCare, PhilCAT and DOH. The Manual of

Procedures delineates the roles and responsibilities of actors in the detection and treatment of TB cases from case detection, enrollment and case holding.

Case detection. TB cases are often detected through the Annual Physical Examination (APE) given by the HMO to policyholders, especially to those clients who have availed themselves of the group insurance option. Clients who are probable TB carriers are usually screened through the results of their chest x-rays, one of the common services provided by the HMO during an APE.

Case detection procedures start with the initially assessment of TB patients in the Basic Services Section. The nurse obtains the medical history, vital signs (e.g., blood pressure) and complaints of the patient. Patients who complain of coughing for more than two weeks, chest pains and fever are referred to a DOTS-trained physician of the clinic. The physician will decide, based on his diagnosis, whether the patient is a potential TB case or not. He will then refer the patient to the DOTS Program if the patient shows the usual signs and symptoms of a person with TB for smear examinations. The DOTS nurse logs the names of both the symptomatic and asymptomatic patients in the "TB Symptomatic Master List." Contrary to the DOTS strategy, only the name of TB symptomatic patients should have been written in this list but for recording purposes the DOTS nurse has decided to enter the names of asymptomatic patients as well.

Once in the facility, the patient will accomplish a two-page "PhilamCare DOTS Center Pre-Enrollment Form" where basic information about him/herself will be filled up, such as name, address, contact numbers at home and at work, mobile phone number, policy contract number and contract expiry date (see Annex 2). A section in the first page is allotted for laboratory referral and results, and another section for the final diagnosis of the recommending physician. The second page contains the names of the two treatment partners preferred by the patient and his/her basis for selection, a text box where the key messages of the physician about the TB treatment procedures, and the form to be filled up by the DOTS nurse. Treatment partners are selected according to one or more of the following criteria:

- Patient's choice
- Willing to watch patient's drug intake
- Willing to accompany patient during clinic visits
- Willing to motivate/educate patient
- Wields authority over patient
- Willing to accomplish written reports
- Willing to collect, safeguard anti-TB medicines and return empty foils

As the facility is applying the Family DOT (FDOT) strategy, the treatment partner or otherwise called as family supervisor (FS) is usually an identified family or household member.
During the filling of forms, clients are informed of the importance of the sputum AFB exam, and the steps on how to properly collect sputum since patients are asked to perform

this at home. The nurse will also give the patient sputum specimen containers with the proper labels (e.g., name of patient, date of sputum collection, and name of clinic).

Before sending the sputum specimens to the Quezon Institute for laboratory testing, the DOTS nurse will issue a "PhilamCare-NTP Laboratory Request Form for Sputum Examination." The one-page form is divided into two sections, the first half is to be filled up by the DOTS nurse and contains the basic information about the patient, disease classification, TB case number and date of collection of the three specimens, while the other half is to filled up by the accredited microscopy center with the laboratory serial number and laboratory results. The messenger sends the form back to the clinic.

Case holding. If two of the three submitted sputum specimens are found to be smear-positive the patient will be directly referred to the TB DOTS Program. On the other hand, those patients with three smear-negative exams but X-ray positive will be referred to the diagnostic committee composed of three pulmonologists from the PhilCAT Project and the clinic's own radiologist for proper prognosis. The committee works on an on-call basis wherein they will individually assess the case of a suspected TB patient. Patient's records including the CXR are collected by the PhilCAT Research Assistant from the facility and are brought to committee members for evaluation.

If a patient is found to be TB positive, he/she is asked to enroll in the program. Not all clients, however, are interested in availing themselves of the DOTS Program. According to the DOTS nurse, some well-to-do TB clients prefer to buy their own medicine and select their own treatment strategy rather than set off for the tedious process of DOTS.

After the results of the smear AFB examinations are evaluated and ruled to be TB positive, the DOTS physician will explain the treatment procedure and the importance of the DOTS strategy to the patient. The DOTS nurse will then be asked by the physician to give a standard contract of agreement to the patient and to his or her chosen treatment partner who is willing to check on the patient's treatment regimen schedule until completion. The contract of agreement is written in both English and Tagalog to ensure proper understanding of its various stipulations and contains the diagnostic and treatment policies and procedures, which the patient has to adhere (see Appendices 3 and 4).

During enrollment, the patient, together with the treatment partner, is given a one-on-one lecture on tuberculosis, the importance of continuous medication and the succeeding sputum examinations to eradicate the disease, and the process on how the DOTS strategy works. The DOTS nurse then fills out the other forms in the TB Case Management Kit and opens an NTP treatment card, and ID.

Depending on the disease category, the DOTS physician will assign a treatment regimen for the patient (e.g., Category I patients are assigned for Treatment Regimen I, etc). The treatment regimen is composed of rifampicin-based short course chemotheraphy that will be given for six to eight consecutive months unless the patient exhibited adverse reaction to the drugs. In case of adverse reaction, the patient or the treatment partner has an option to call PhilamCare's 24-hour service hotline or the nurse's private mobile phone number.

Health providers in the clinic are able to manage minor side effects by using the "Guide for Managing Adverse Events." For major adverse events, patients are advised to go to the emergency room of the nearest affiliated hospital.

The DOTS Strategy. Under the DOTS strategy being implemented by the clinic, enrolled patients are required to visit at least three times a week on agreed dates and time for the intensive phase, and once a week for monitoring and procurement of medication during the maintenance phase. Treatment partners are also required to accompany the patient once a week during the intensive phase, and at least once a month for the maintenance phase. It is the usual practice of patients to send their treatment partners or their substitute to get their drugs during the maintenance phase.

While the research team was not able to observe the actual intake of medicines because no one went to the clinic during the six-day fieldwork, the team mostly relied on the account of the DOTS nurse on how the DOTS process is being followed by the clinic. She says that the clinic requires the patient to bring his/her own drinking water when taking medicines in the facility. The DOTS nurse watches the patient swallow his medication and records this in the treatment card by signing her initials. She likewise reminds TB patient and/or treatment partner of the schedule of follow-up and repeat examinations on each visit.

During the days when the patient has to take his/her medicine at home, the treatment partner is responsible for ensuring that the medicines have actually been taken by the patient. S/he then signs the treatment card. The patient or his/her treatment partner is asked to bring the spoiled blister pack in each visit as a proof that the medicines have been consumed. Nevertheless, the DOTS nurse recognizes that this is not an absolute indication of drug intake by the patient.

For the succeeding follow-up sputum exams, the DOTS facility follows the schedules imposed by the NTP guidelines depending on the bacteriology type and treatment category of the patient. Follow-up consultation with physician is scheduled on a monthly basis.

Defaulter Tracing Mechanism. The PhilamCare DOTS Clinic has set up a defaulter tracing mechanism for patients who have missed three consecutive clinic visits. Separate mechanisms for tracing patients classified as principal cardholders and for patients considered as dependents of cardholders are in place. They are similar in the first two ways but vary on the third one. The defaulter will be contacted by any of the following:

1. Call the patient through contact numbers given for a maximum of two attempts.
2. Call the designated partner for a maximum of two attempts.
3. If the patient is a principal cardholder and is currently working, contact personnel department or the health service of the company where s/he is employed, or the retainer clinic maintained by the PhilamCare whichever is applicable. For dependents, the DOTS nurse will contact the principal cardholder, or through its company if the latter is working.

To date, the clinic has recorded only one defaulter. The defaulter went to Mindanao last December to spend the Christmas break but has not returned since then. The DOTS nurse gave him drugs good for two weeks. A follow-up with the company where the patient was working indicated that he was not connected with them anymore.

Cost of services. Once enrolled as a policyholder, the patient and his/her beneficiary are entitled to the benefits and health services being offered by the clinic. These include consultation, laboratory and x-ray expenses, the cost of smear AFB examinations, and hospitalization expenses. Thus, the patient will only shoulder his/her transportation to and from the clinic, plus additional drugs prescribed by the DOTS physician not covered by the free anti-TB drugs provided by the DOH. Patients whose weight is more than 50 kilograms are required to take additional medicines that they have to source out of their pocket. As indicated by the first situation analysis, the cost of additional drugs is not more than PhP 100.00.

The cost of each sputum smear examination at the Quezon Institute, whether before or after treatment is pegged at PhP 75.00 which is cheaper to what the other laboratories in Metro Manila are charging. The HMO likewise shoulders this cost.

IEC Materials and Services

Information materials about tuberculosis, how to treat and prevent the disease, and facts regarding the TB DOTS program are disseminated through leaflets handed over to patients during consultations, through flipcharts provided by the facility, and through posters located in the reception area of the PhilamCare Clinic and the DOTS facility. Annex 1 presents the IEC materials of the facility.

Compared to the pictures taken during the first situation analysis, not much have changed or been added to the TB posters of the clinic. The bulletin board situated in the reception area of the Information Section that previously carried only the TB poster has now an additional SARS bulletin update. On the other hand, the sole poster visible in the DOTS corner is still the same.

Leaflets containing information about the services offered by the DOTS Clinic, how to become a certified DOTS-referring physician and how to participate in the DOTS referral system are provided by the DOTS Models Projects of the Philippine Tuberculosis Initiatives for the Private Sector (Philippines TIPS) in the DOTS facility. The leaflet is written in English and can be accessed by interested doctors. The research team observed no leaflets intended for patients. The facility also has a flipchart discussing the facts about tuberculosis written in both English and Filipino.

A laminated process flipchart of what a patient goes through in the management of TB is available but this is intended for the exclusive use of physicians and DOTS service providers. Each doctor trained in the DOTS strategy has his or her own copy of the flipchart. The following guides are included in the flipchart:

- Algorithm to Case Findings (Symptomatic TB Suspects)
- Algorithm to Case Findings (Asymptomatic TB Suspects with Positive CXR)
- Classification of TB Cases and Types of TB Cases
- Flowchart for TB Laboratory Examination and DOTS Enrollment Procedure
- Regimen I Treatment Modification
- Regimen II Treatment Modification
- Guide in Managing TB Drugs Side Effects
- Treatment Modification for New Smear-Positive Cases Who Interrupted Treatment
- Treatment Modifications for Relapse and Failure Cases Who Interrupted Treatment
- Treatment Regimens and Dose Adjustment of Anti-TB Drugs
- Defaulter Tracing Mechanism

Drug Supply

The Department of Health (DOH) regularly provides drugs for TB DOTS-enrolled patients. Standard treatment regimens are dispensed to TB patients or their treatment partners free of charge based on agreed schedules. At present, there are still stocks of Type I (isoniazid, rifampicin and pyrazinamide), Type II (isoniazid and rifampicin) blister packs and ethambutol 400 mg – parceled in zip-lock plastic packs and apportioned for the whole treatment duration of a 50-kg patient in the clinic. In cases where DOTS physicians prescribe antipyretics and antihistamines, patients can get their initial doses for free from the clinic.

The DOTS nurse facilitates the requisition of drugs and reports the status to the Clinic Operations Manager (COM) while the PhilCAT research assistant procures the drug from the DOH and sends these to the clinic. The research assistant likewise monitors and reports the status of the drug supply of the facility.

There has been no written drug inventory and storage policy since the inception of the DOTS facility. At her own initiative, the DOTS nurse keeps an informal inventory of drugs in a logbook. The PhilamCare management is planning to formulate a drug inventory policy in time for the October pullout of the PhilCAT Project. At present, the management is in the process of collecting data on which to base the policy guidelines.`

As of the present, it appears that the management has not experienced any problem in acquiring drugs from the DOH because of the assistance being provided by PhilCAT. The management, however, is bracing for drug procurement problems once PhilCAT hands over the full management of the facility in October 2004. According to the Assistant Vice President for Clinic Services, it seems that the potentially wide catchment area of the UN clinic will pose a serious problem for anti-TB drugs procurement, especially now that the DOH has devolved some of its functions to the local government units (LGUs). When

this occurs only clients residing in Manila are entitled for free supply of drugs from the LGU's own budget. What will happen to non-residents is still the subject of discussion between the DOH and PhilamCare.

Table 3-2 shows the types of anti-TB drugs that are available at the facility. Those that are available are given freely to enrolled patients. The facility has recently acquired fixed dose combination (FDC) tablets last 26 April 2004 from DOH but these have yet to be dispensed. They are planning to distribute FDC tablets once the old medicines run out. FDC tablets are available in 3-drug and 2-drug combinations. While anti-TB drugs were presented to the research team, they were not able to physically count the stocks because the DOTS nurse was always busy with her tasks in the Information Section of the clinic.

Table 3-2. List of drugs available at the UN PhilamCare DOTS Clinic

DRUGS	**Availability**		**Is it free?**	
	Yes	**No**	**Yes**	**No**
1. Type 1 (HRZ)	/		/	
2. Type II (HR)	/		/	
3. Ethambutol (400 mg)	/		/	
4. Streptomycin (1 g)	/		/	
5. INH tab (100 mg)	/		/	
6. PZA tab (500 mg)	/		/	
7. INH syrup (100 mg/tsp 120 ml)		/		
8. RFP syrup (100 mg/tsp 60 ml)		/		
9. 4-drug FDC tablets		/		
10. 3-drug FDC tablets	/		/	
11. 2-drug FDC tablets	/		/	
12. Antihistamines		/		
13. Pyridoxine		/		
14. Aspirin or NSAID		/		
15. Allopurinol		/		
16. Antipyretics		/		

Drugs are kept in clean areas protected from rain, sun and floodwater with no storage cost. Because the medicine cabinet in the DOTS facility cannot support the bulk of anti-TB drugs, some of these are stored in the ECG Room. The DOTS nurse makes sure that drugs are dispensed according to the expiry date as the first in first out (FIFO) rule is strictly implemented in the facility. As observed, most of the drugs have an expiry date of either July 2005 or July 2006.

According to PhilCAT's research assistant who handles the procurement of drugs in behalf of the clinic, it has adequate supplies to complete the treatment of currently enrolled patients. The clinic maintains a buffer stock good for five additional enrollees

for Category I patients, two for Category II, and five for Category III. As a matter of policy, drugs are replenished once the stock is down to two new patients except for Category II where it is immediately replenished once used.

Equipment

PhilamCare's medical equipment is generally shared by the entire clinic and not for the exclusive use of the DOTS facility. Routine examination tools, such as stethoscope, BP apparatus, examination table, thermometer and weighing scales, are available in the Basic Services Section. Table 3-3 presents the complete list of equipment and furniture found in the clinic.

The clinic has a portable x-ray machine for radiographic procedures for the chest and extremities. A written inventory of equipment and supplies is not available. As in the inventory of drugs, the research team was not allowed to physically count the number of equipment.

Table 3-3. Type of medical equipments available in the UN PhilamCare Clinic

Type of Equipments	Yes	No	Used exclusively for TB patients/clinic?	
			Yes	No
A. Examination Equipment				
1. Stethoscope	/			/
2. BP apparatus	/			/
3. Examination table	/			/
4. Thermometer	/			/
5. Weighing scale	/			/
B. Laboratory Equipment				
1. Microscope	/			/
2. Masks	/		/	
3. Sputum collecting containers	/		/	
4. Disposable needles and syringes		/		
5. Sharps container	/			/
6. AFB reagents		/		
7. Glass slides (box)	/			/
8. Cover slips (box)	/			/
9. Sterile cotton swabs	/			/
C. Clinic Furniture and other equipment				
1. Electric fan:				
a. Wall-mounted		/		

Type of Equipments	Yes	No	Used exclusively for TB patients/clinic?	
			Yes	No
b. Ceiling fan		/		
c. Exhaust fan		/		
2. Cabinet	/		/	
3. Table	/		/	
4. X-ray machine	/			/
5. Drinking water		/		
6. Drinking glass		/		
7. Cleaning supplies	/			/

Level of Institutional Commitment

It was clear from the beginning that, before PhilamCare agreed to venture in the DOTS Program, the management would not allot additional personnel and cash outlay as well as infrastructure repairs or reengineering for the facility. Asked whether they will continue embracing the program after the end of the PhilCAT-CDC project on October 2004, the Assistant Vice President for Clinic Services expressed her commitment for the program as long as they are trained and provided with free anti-TB drugs by the DOH. The management plans to implement a modified DOTS strategy this time with the patient shouldering the expenses for his/her medication in case the DOH decides not to provide them with drugs.

The Clinic Operation Manager (COM) attests that the management does not provide a regular annual budget for the implementation of TB DOTS. The budget for the entire clinic facilities relies upon HMO fees, which support office and medical supplies, materials, and salaries of clinic personnel. Other types of support from PhilamCare include space, furniture, personnel and use of equipment.

At present, there are only two nurses trained by the PhilCAT in the DOTS strategy. Both of them are assigned in the Information Section of the clinic. They only report to the facility when there are TB patients who ask for their medicine or for consultation. Because of the absence of incentives and additional salary for their role in the DOTS program, the management is planning to train all their nurses in DOTS and rotate their assignment in the facility to equalize workloads. The management has recently approved a proposal to give PhP 50.00 cell phone allowance every month to DOTS nurses, which they can use in monitoring the development of their patients. Before this policy, the DOTS nurses used to text their patients at their own expense.

In addition, the management has shown its commitment to the DOTS strategy by sending their physicians and nurses to various DOTS training that will enhance their knowledge in dealing with tuberculosis. Most of these training were co-sponsored by PhilCAT and a partner drug company. The latest training was held in Manila Pavilion Hotel on 2 July

2004 attended by four clinic personnel including the COM, the nurse supervisor and two staff nurses. This was the first time that the COM, a general medical practitioner, has received a DOTS training.

A whole day of training such as this would incur expenses to the management. The Assistant Vice President for Clinic Services said that they have to hire relievers in place of staff members who attend the training to compensate for their absence. They will spend PhP 150 per hour for the alternate doctors and PhP 270 to PhP 375 per day for alternate nurses. This cost is not included in the annual budget for operations of the clinic. They have worked out an arrangement with PhilCAT that the latter would shoulder this cost until the end of the project.

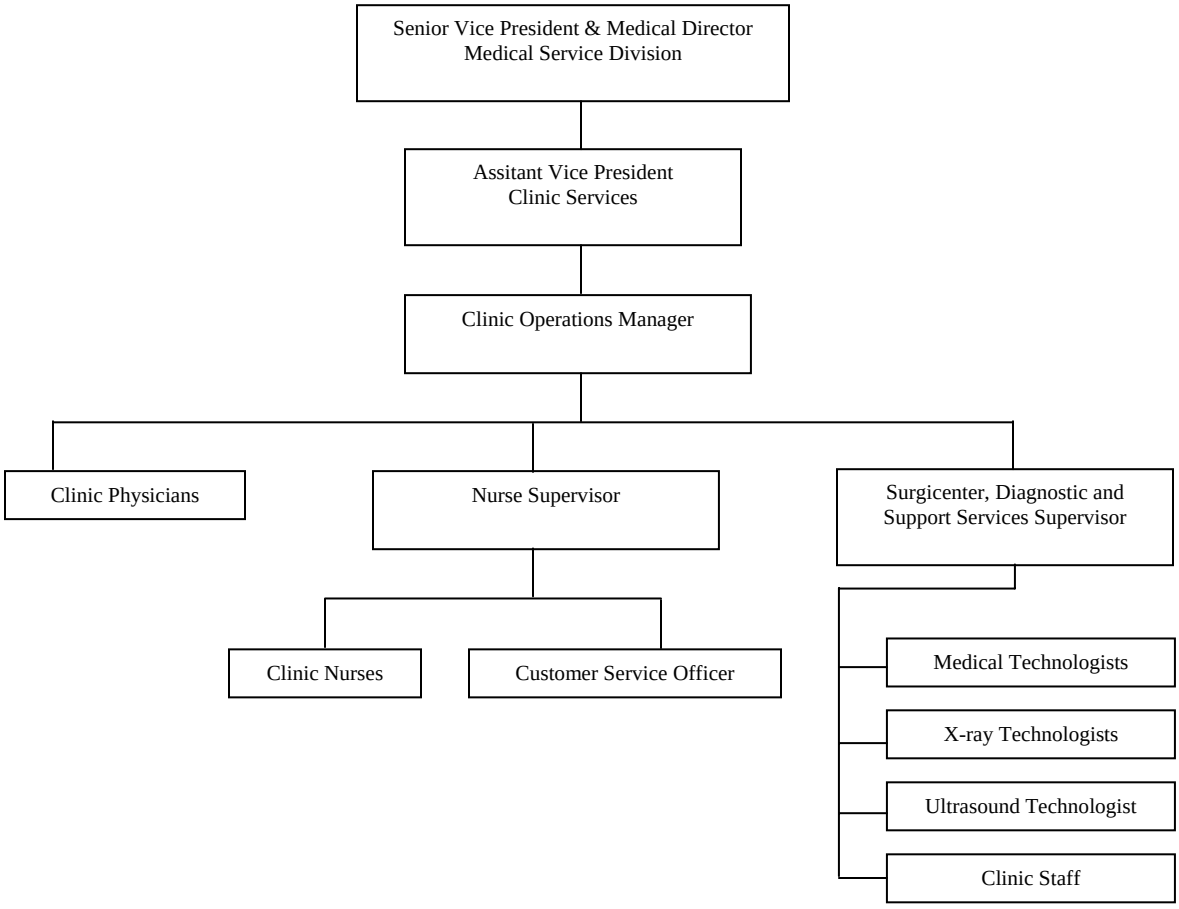
While most of the clinic's physicians are Philhealth-accredited, the facility has yet to receive its accreditation from Philhealth which is why until now they could not get a PhP 4,000 reimbursement for each treated TB patient. Despite this hindrance, DOTS personnel and physicians are dedicated to their work in the DOTS program. The clinic is still in the process of completing the requirements for accreditation.

ORGANIZATION OF THE DOTS FACILITY AND DATA ON SERVICE PROVIDERS

The organizational structure of the UN PhilamCare Clinic is more or less the same as what the first situation analysis had indicated (see Figure 3-1). The Vice President for Medical Services oversees the over-all management of the entire PhilamCare Clinic System while the Assistant Vice President for Clinical Services supervises the activities of all PhilamCare clinic facilities including the DOTS facility. A Clinic Operations Manager (COM) who is a medical doctor heads each clinic. Under the COM are the clinic physicians, the nurse supervisor who takes charge of ten nurses, and the support services supervisor who monitors three medical technologists, two x-ray technologists, one ultrasound technician and four clinic aides. All clinic staff members work full-time while the specialists are part-time employees.

It is worthy to note that this structure does not reflect the staffing pattern for the DOTS facility mainly because all the staff members of the program are working only when there are TB patients in the facility. Hence, there is no permanently assigned staff to the DOTS clinic. Figure 3-2 presents the UN Philam DOTS organizational set-up as observed by the research team.

Figure 3-1. Organizational Structure of PhilamCare Health Systems, Inc. PhilamCare Clinic, UN Avenue, Manila



Source: PhilamCare DOTS Clinic Situational Analysis (FACES, 2003)

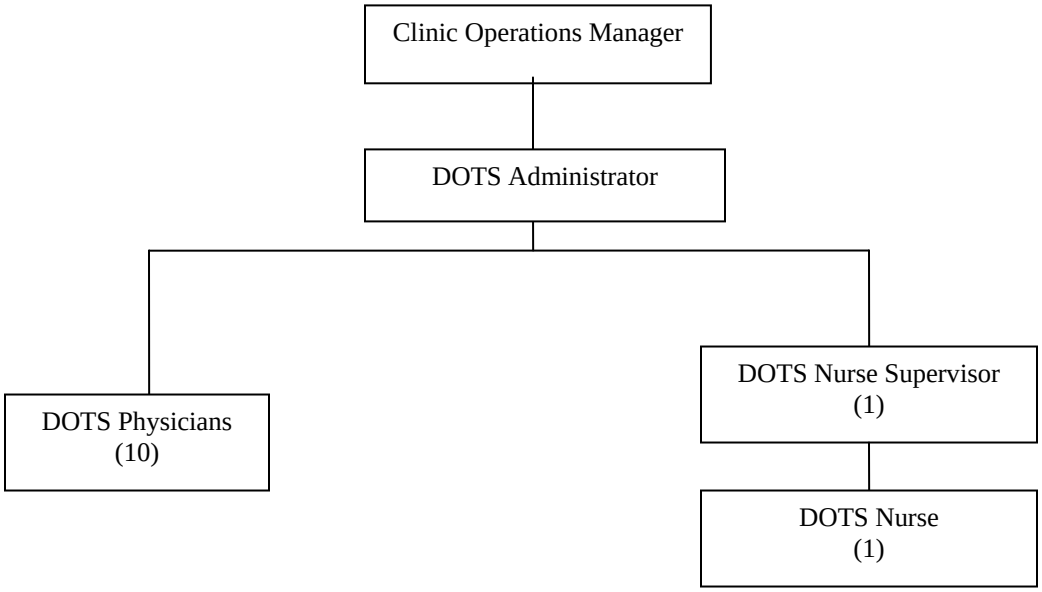
Technically, the COM by virtue of her being the head of the entire clinic is also the DOTS administrator. However, the DOTS nurse gave a different account. She says that a DOTS trained physician who is a former COM of the clinic is the one holding the position of the DOTS Administrator. This makes sense since the COM has only taken her DOTS training recently and she has yet to be fully familiarized with the DOTS strategy. It appears, however, that the DOTS physician is not aware that he is holding the position of the DOTS Administrator. This organizational set-up is not displayed in the facility and likewise not written in the Manual of Procedures of the Clinic.

Regardless of this confusion, the clinic has 10 DOTS physicians, a significant increase from the time the clinic was created, a DOTS nurse supervisor, and a DOTS nurse[1] under

[1] The number of DOTS nurses is expected to increase due to the plan of the management to train all the nurses and rotate their assignments from their regular task to DOTS activities.

the DOTS administrator. Together they are the ones applying the DOTS strategy in treating TB patients. At present the number of staff in the facility can still accommodate the number of enrolled TB patients.

Figure 3-2. Organizational Set-up of the UN PhilamCare DOTS Clinic.



The Clinic Operations Manager

The tasks of the COM are mainly administrative in nature and do not include any clinical work. She is mainly responsible for overseeing the daily operation of the entire clinic including the DOTS facility as well as in conducting routine performance evaluation of the clinic staff. She has been working as the COM of the clinic for almost nine months now but only received her DOTS training recently on 2 July 2004.

At the time of the interview, which was conducted a day after their DOTS training, she still has to internalize the concepts and processes of the DOTS strategy. She obtained her doctor of medicine degree in 1997 after which she has worked as a General Practitioner. Most of her knowledge on tuberculosis (e.g., TB prevention and control, TB signs and symptoms, TB diagnosis, TB treatment) was learned during her medical education. The course, however, did not include the NTP policies, procedures and management, AFB microscopy, and management of TB drugs and supplies. The TB DOTS concept was mentioned but not as extensive as it had to be.

As an administrator, she is not involved in the case finding and case holding of TB cases. She notes that the PhilCAT is the one responsible for drug procurement from the DOH

and aware that she will take over this function once the PhilCAT study ends. While the DOTS nurse indicated that she reports the status of the drug supply and enrolled patients to the COM, it is not clear what the COM's specific responsibilities in relation to the DOTS facility are.

For her work as the COM, she receives a monthly compensation of PhP25,000 plus benefits and bonuses.

Basic Information on Other Staff

DOTS Administrator/DOTS Physician.

The DOTS physician was a former COM of the UN PhilamCare Clinic. He obtained his degree in the same year that the present COM finished her course in 1997. He joined the company five years ago working as a general practitioner. Having been the first physician who was trained in the DOTS strategy since the facility was established, he is very much familiar with the program.

While acting as the DOTS physician, he also refers suspected TB patients to the program. His role in the program is limited to case finding and case holding. For case finding, he identified three tasks that he usually performs:

1. Screens and assesses patients suspected to have TB,
2. Evaluates TB patients, and
3. Requests for sputum AFB smear

Although he failed to mention that he is also the one responsible for assigning the proper treatment regimen for TB patients, he listed the following tasks that he has been doing for case holding: (1) manages adverse drug reactions, if any, (2) monitors the patient's response to drugs (e.g., adverse effects, weight gain, symptoms), and (3) checks compliance of patients in taking medication. During consultations he makes sure that he reminds the patient to religiously take his/her medication until the end of treatment schedule.

Similar to the COM, he gained his basic knowledge (e.g., TB prevention and control, TB signs and symptoms, TB diagnosis, TB treatment, TB DOTS) about the disease during his days as a medical student. He learned more about the TB DOTS program of the government, particularly the NTP policies and procedures, the AFB microscopy and laboratory quality assurance, and the management of TB drugs and supplies, during the three trainings he attended in 2002, one conducted in Makati Medical Center, another one was sponsored by the Philippine General Hospital and the last one was held in Los Palmas Hotel.

For his work as a physician of the HMO, he receives a monthly salary of PhP 12,000 aside from other benefits such as medical insurance, and 13th to 15th month bonuses at the end of the year.

DOTS Nurse

There are two nurses assigned in the DOTS facility. One acts as a DOTS nurse supervisor who knows all the information about the enrolled TB patients, manages various NTP records, and oversees the anti-TB drug supply. The other nurse is designated as an alternate nurse when the DOTS supervisor is not around. She is likewise a dedicated staff who follows up patients when they fail to appear at their scheduled consultation. Both are females. Only the alternate nurse was interviewed by the research team during the duration of the fieldwork because the DOTS supervisor was either attending the CBA meeting of the union or busy attending her tasks in the Information Section of the clinic.

The alternate nurse who performs multiple tasks aside from her function in the DOTS facility has been involved in the program for more than 10 months. She obtained her BS Nursing degree in 1991 and was trained in the DOTS strategy on 11 April 2003 (one-day training) and in July 2003 (three-day training).

She mentions several services she performs in relation to the DOTS program:

1. Provides initial assessment of patients
2. Dispenses TB drugs to enrolled TB patients
3. Provide health education to clients however limited
4. Follow up patients to monitor their drug intake and reminds them of their consultation schedules.

According to her she is involved in the following tasks:

1. Case finding
2. Case holding
3. Drug supply management, and
4. Training/education

For case finding, she cites the following as her specific tasks: (1) screening and assessment of patients suspected to have TB; (2) evaluation of TB patients; (3) collection of sputum specimens for microscopy; and (4) maintenance and updating of treatment cards and TB symptomatics masterlist.

She says that in case holding she is involved in implementing the DOT, maintaining and updating the TB registry, and preparing and submitting reports to the DOH/NTP in coordination with the research assistant assigned by PhilCAT to help out in the facility.

In the management of drug supply, she facilitates the requisition and distribution of drugs and other supplies, coordinates with the PhilCAT for drug supply, and ensures the availability of drugs at all times.

During consultations she conducts one-on-one counseling with patients although for a limited time of three to five minutes only. She also conducts training of treatment partners whenever necessary. Aside from these tasks, she also distributes IEC materials to

patients and treatment partners if there are available materials given by PhilCAT or the DOH or distributed by drug companies. On her own initiative and expense, she follows up her patients through cellular texting.

She directly reports to the DOTS nurse supervisor whom, she says, reviews, compares and verifies TB registry with treatment cards on a weekly basis, interviews patients at every meeting, and conducts monthly physical inventory of logistics and other supplies.

Her regular monthly salary amounts to PhP 9,100. In addition, she also receives benefits similar to all PhilamCare employees, including health insurance for the immediate members of her family.

PhilCAT Research Assistant/Drug Supply Manager. The PhilCAT is supporting the UN PhilamCare DOTS Clinic until October 2004 through its research assistant who acts as the drug supply manager of the facility and does the NTP quarterly reports for the clinic. She is likewise responsible for collecting suspected TB patient's records for the review and assessment of the TB diagnostic committee.

Relatively young at the age of 22, she obtained her BS Pharmacy degree in 2002. She gained her little knowledge of tuberculosis way back in her college days, such as TB prevention and control, TB signs and symptoms and AFB microscopy. She recently attended the DOTS training in Manila Pavilion Hotel on 2 July 2004 together with some of the staff of UN PhilamCare Clinic.

While working in the CDC-funded PhilCAT Project, she also takes her MS Pharmacy in the University of the Philippines-Manila. The PhilCAT pays her PhP 10,000 per month as her project salary. She has been with PhilCAT for 10 months.

Her involvement in the DOTS Clinic is limited only in providing initial assessment to the patients, giving health education, and acting as the drug supply manager in cooperation with the DOTS nurses. She is not engaged in case finding and case holding as well as in microscopy. She sometimes interviews TB patients, which can be considered as part of educating the patients.

As drug supply manager she performs the following tasks: (1) facilitates the requisition and distribution of drugs and other supplies; (2) prepares and submits quarterly reports on drug inventory; (3) coordinates with the Department of Health for drug supply; (4) ensures the availability of drugs at all times; and (6) delivers anti-TB drugs to the DOTS clinic from the DOH. It is worthy to note that the DOTS facility has not experienced any shortage in drugs since its inception.

She reports to the PhilCAT Project team leader who is responsible for checking the reports produced by the facility. Part of the output of the CDC project is to inform or advise other service providers about the assessment of their work in the DOTS facility to develop their skills and services.

Medical Technologist. A male staff occupies this position. A licensed medical technologist, he obtained his degree in 2002 and subsequently underwent intensive training in AFB microscopy at the Research Institute for Tropical Medicine for a week last September 2003 to familiarize himself with smear examinations. He has been working with the UN PhilamCare Clinic for one year and five months already. Aside from receiving a monthly salary of PhP 7,500, he also gets one sack of rice every two and a half months, family medical insurance, and bonuses.

While he has an intensive knowledge about sputum microscopy, he has yet to apply this knowledge because the clinic is not equipped to perform this service. His task is confined only to extracting and examining blood and other body fluids that will assist the physicians in their diagnosis.

He gained most of his knowledge of tuberculosis from his educational background, from his internship in San Lazaro Hospital where he worked in a TB ward, and from a family experience (his grandmother died of TB and his father contracted the disease from his mother). He can relate well on topics such as TB prevention and control, TB signs and symptoms, TB diagnosis, TB treatments, NTP policies, procedures and program management, and AFB smear microscopy. He became familiar with the TB DOTS strategy only after attending the RITM training. Given the chance and the right facilities, he says that he can perform sputum microscopy in the clinic.

TB DOTS Training, Knowledge and Practices

Training. All five service providers interviewed for this situation analysis had undergone Basic DOTS Training. Two of them received their training even before the DOTS facility was established and the remaining including the COM obtained their training just recently.

The DOTS physician was trained in 2002 in a series of DOTS seminars. One conducted in Makati Medical Center, another one was jointly initiated by DOH and PhilamCare in the Philippine General Hospital and the third one was held in Los Palmas Hotel. The DOTS nurse, on the other hand, went through her Basic DOTS training on 13 April 2003 and later sometime in July 2003. The medical technologist had his training on AFB microscopy in RITM in September 2003.

The COM and the PhilCAT's research assistant who acts as the drug supply manager of the facility received their Basic DOTS Training last 2 July 2004 in Manila Pavilion Hotel just across the PhilamCare Clinic. This was co-sponsored by PhilCAT and Unilab. Interestingly, this was the first DOTS seminar/training attended by the COM since the inception of the facility. They do not know the cost entailed by the training but are aware that PhilCAT through their CDC Project sponsored most of these training.

Regarding the content of the training, except for the medical technologist, all four respondents mentioned that their training covered NTP policies and procedures, case finding, case holding, and monitoring and supervision. Out of the four, only the COM

failed to list recording and reporting, and logistics management as part of their training although she took her training together with the drug supply manager. The medical technologist was only trained on how to handle AFB smear microscopy, which was not considered as a DOTS training. All respondents are familiar with the *Manual of Procedures for the National Tuberculosis Control Program* but only three (DOTS physian, DOTS nurse and Drug Supply Manager) have heard about the *Comprehensive and Unified Policy on Tuberculosis.*

Both the COM and the DOTS nurse think that there is still a need for more training especially on the process of NTP reporting and monitoring. Training, they say, should be done twice a year to refresh their memory and to know new information about the DOTS strategy. The remaining respondents seem to be confident about their DOTS knowledge.

TB DOTS Service Delivery Knowledge and Practice

Only the DOTS physician and the DOTS nurse said that the clinic adheres to a particular procedure in managing TB patients. The COM, the medical technologist and the drug supply manager declared that they are not directly involved in treating TB patients hence they did not answer questions pertaining to DOTS Service Delivery, Knowledge and Practice. While both the physician and the nurse are familiar with the PhilamCare DOTS Manual of Procedures, they specified the clinic's flowchart on how to detect/manage TB patients and the DOTS strategy respectively as the ones they follow in managing TB cases. Both topics are incorporated in the Manual of Procedures.

Case finding. The physician and the nurse were asked about signs and symptoms that will help them identify TB symptomatic patients. The physician mentioned that TB patients tend to have cough of two or more weeks, chest or back pains, and sweat and chills. The nurse, on the other hand, identified five signs and symptoms shown by a TB symptomatic patient: cough of two or more weeks, hemoptysis or recurrent blood-streaked sputum, chest and/or back pains, fatigue and/or body malaise, and poor appetite.

Following the case finding, the doctor would instruct the patient to collect three sputum specimens at home and send these to the clinic for smear testing. He said that the clinic would then send the sputum specimens to the Quezon Institute which is a public microscopy center. In addition, he would advise the patient to undergo a chest X-ray, and if available he would compare the past and present X-ray plates to arrive at a proper diagnosis.

The nurse enumerated the following steps that she usually does in case finding: (1) register the identified TB symptomatic in the TB Symptomatic Masterlist; (2) instruct patients to collect sputum specimen at home; (3) request for sputum AFB smear to be done by a trained microscopist, and (4) refer the patient to a physician. After collecting three sputum specimens of the patient, she said that these would be sent to Quezon Institute which she acknowledged to be a public microscopy center.

Diagnosis and initiation of treatment. Both respondents said that they have access to the classification of patients according to the laboratory examination results. These data are being managed and kept by the DOTS nurse in the facility according to the physician while the nurse said that these are written in the NTP Masterlist.

The research team put forward several questions during the interview to know the extent of knowledge of each respondent about the DOTS treatment procedures. The first question posed was: "Supposing all of the patient's smears were found negative, what do you tell him/her?" The DOTS physician mentioned that he would instruct the patient to have a chest x-ray, arguing that in some cases "TB bacilli do not appear in smears." The DOTS nurse, on the other hand, would instinctively refer the patient to the physician.

The two of them would classify a TB symptomatic patient with two sputum smear-positive results under the smear-positive classification. Those patients who are sputum-positive at the fifth month of the treatment course, they say, should to be placed under the category of treatment failure.

They also have similar responses when asked about what regimen should be given to a smear-positive case and a treatment failure case. Regimen I would be given to new pulmonary smear-positive case while Regimen II would be administered to patients classified under treatment failure.

Health education. To the question, "What health education messages must be emphasized to a TB patients?" the following are the same responses given by both the respondents: (1) TB is infectious; (2) regular drug intake of a combination of drugs; (3) requires completion of treatment; and (4) consequences of irregular drug taking.

Only the doctor indicated that he would also tell his patient about the importance of maintaining good hygiene and getting enough sleep to boost the immune system. He would also advise the patient not to take alcoholic drinks and to ask other members of the household to undergo smear testing to determine whether they are also infected or not because TB is contagious. The nurse, on the other hand, would inform the patient that TB can be cured and submitting for follow-up sputum smear examination is very important to ensure the treatment outcome.

Case holding. Regarding the steps that need to be taken to make sure that a TB patient follows the DOTS strategy, both the respondents mentioned that they would explain the importance of treatment compliance to the patient, such as the regular intake of drugs and regular visits to the clinic. Their succeeding responses varied.

For the DOTS physician, he said that there is a need to monitor the patient's response to treatment through follow-up sputum examination. He added that by way of submitting the empty blister packs and checking the drug intake in the NTP Treatment card, the service providers could track whether the patient is indeed taking his drugs as scheduled.

For the DOTS nurse, to see whether the patient is complying with the treatment procedure, she would administer the patient's drugs daily with the treatment partner making sure that the patient swallows the drug, and she would immediately exert effort to retrieve patient if he/she fails to report on the day he/she is expected in the clinic.

In case a defaulter comes back to the clinic, the first thing that the physician would do is to get the patient to have a sputum smear examination, then refer him/her to the physician who has been following his condition since the start of the treatment for re-evaluation and re-treatment. The nurse stressed that she would immediately ask the patient to have a sputum smear examination.

The DOTS physician usually instructs the patient to undergo follow-up sputum examination to monitor his/her response to treatment. Weight loss or gain, he added, is a good indicator of whether the patient has improved. He would also look at the usual signs and symptoms being exhibited by a TB patient such as coughing back pains and fever. Asked with the same question, the nurse said that she monitors the response of patients to medication by directing the patient to have follow-up sputum examinations on his/her scheduled dates, and by regularly getting the weight of the patient.

In case he encounters a patient with adverse reaction to anti-TB drugs, the DOTS physician stressed that he would ask the patient first about his/her negative reaction (e.g., itching), then he would either prescribe additional drugs (e.g., antihistamines) or he would immediately advise the patient to discontinue his/her medication. Similarly the nurse would direct the patient to discontinue taking the drugs, then she would refer the patient to a physician for assessment.

The two respondents gave identical answers when asked about the schedule of the first sputum smear follow-up examination for a category I patient. They said that the patient should submit his/her sputum towards the end of the 2nd month for smear testing to evaluate the patient's response to treatment regimen.

<u>Treatment outcome.</u> Except for the medical technologist, all respondents are aware that the facility keeps a record of treatment outcomes. Out of the four, only the physician indicated that he does not know how often these data are reported. He stressed that the DOT nurses are the ones responsible for reporting the status of the patients. Three respondents (COM, DOTS nurse, Drug Supply Manager) mentioned that treatment outcomes are reported quarterly to either the DOH or PhilCAT.

The DOTS physician and the Drug Supply Manager said that the reports are submitted to the DOH while the COM and the DOTS nurse declared that these are forwarded to PhilCAT. In practice, the PhilCAT research assistant is the one who prepares the quarterly report on the treatment outcomes with the help of the DOTS nurse supervisor. She then submits this document to the DOH. However, this activity may soon be transferred to PhilamCare Clinic once the PhilCAT project ends.

No one mentioned the treatment outcome was reported to the COM or to the PhilamCare Management.

Quality Improvement

The recommendations of the service providers to improve the operations of the TB DOTS clinic focus on two major aspects: personnel and facility. No one brought about issues or problems in the implementation of DOT process. Four respondents gave only one recommendation and the remaining respondent mentioned two improvements needed by the clinic.

The COM, the medical technologist and the DOTS physician recognized the need for a sputum microscopy laboratory in the clinic. While they have a medical personnel properly trained to handle AFB smear testing, the clinic is not equipped to perform this service because of the lack of a biosafety cabinet. Setting up one will require additional cost and the management is not keen on establishing this in the clinic. However, with a sputum microscopy laboratory they can diagnose the patient's condition without delay.

Interestingly, the DOTS nurse suggested the need for a regular staff in the clinic. At present, their role in the DOTS facility is only temporary and they only go to the clinic when there is a patient. With this arrangement, they could not properly fill up the various NTP forms. Hence some of the forms are incomplete and not updated. The Drug Supply Manager made a similar response.

Only the COM cited a need for a second improvement about the training of the staff. She said that it would be better if all the clinic nurses were trained in the DOTS strategy so that the management could rotate their assignments and distribute the workload fairly.

The Assistant Vice President's Views on the DOTS Clinic Operations

An interview with the PhilamCare's Assistant Vice President for Clinic Services yielded significant insights on the establishment and operations of the DOTS facility. She narrates that the incorporation of the DOTS strategy in the clinic stemmed from the CDC-funded PhilCAT Project. The management agreed to operationalize the DOTS program in an HMO setting provided that it would not incur additional cost.

She acknowledges that they can use the TB DOTS program as a marketing tool to attract potential clients mainly because they provide free anti-TB drugs for patients. Moreover, the company can also gain a lot of knowledge for their staff from the DOTS training, especially because the World Health Organization (WHO) mandates the strategy.

However, the implementation of the DOTS Program has not been a smooth process. One downside of the strategy is the tedious reporting system. They cannot comply with this requirement simply because there is no permanently assigned staff at the facility. The staff can still accommodate the present number of enrolled TB patients but once this number increases the number of staff should also increase.

In addition, an HMO setting poses two limitations: (1) it only caters to policyholders, and (2) it has no system in place to follow up patients after they terminate their accounts. They are also anticipating a problem in procuring drugs from the DOH once the PhilCAT stops assisting them. She cites that the management is not used to dealing with government agencies, yet she hopes that they can iron out an arrangement with the DOH for the continuous drug supply of the facility.

Another area of concern is the PhilHealth accreditation of the clinic. While PhilCAT has already certified their DOTS operation, they have yet to satisfy the requirements of the PhilHealth, such as the establishment of a sputum collection area in the clinic. Without the accreditation they cannot be reimbursed around PhP 4,000 per treated TB patient in the facility, which they are planning to spend for the training of their personnel. She admits that at present the company has yet to gain profit from the program.

Despite these challenges, she expressed the management's commitment in following the DOTS strategy. She declares, , "We are doing the right thing in treating TB patients and we are willing to continue implementing the strategy even after the PhilCAT project."

REFERRING PHYSICIANS AND THE IMPLEMENTATION OF TB DOTS

Since the UN PhilamCare DOTS Clinic caters to policyholders, most of the referring physicians of the facility also come from the HMO's network of clinic. At present, there are eleven DOTS-trained physicians working in the UN Clinic that refer TB patients to the program. For this situation analysis, three referring physicians were interviewed, two females and a male. Two of them have the same age at 37 years while the other one is only 31 years old. Two are married and one is still single. Interestingly, both females have the same specialization in internal medicine and the male physician is a general practitioner. Only one of them works full time in the clinic.

All of them are employees of the PhilamCare Health System, Incorporated. Two of them have a household income from PhP 60,000 to under PhP 100,000 range while the other one puts it between PhP 30,000 to under PhP 60,000.

Stimulus for Referrals

All the three referring physicians mentioned that they became familiar with the DOTS clinic from the PhilamCare Health System. All of them know that, the six branches of PhilamCare Clinics have been offering the DOTS strategy to their TB patients since last year. The three respondents were also asked by the management to attend a Basic TB DOTS seminar and they obliged to do so to augment their knowledge in combating the disease.

They posed varied reasons when asked why they refer patients to the facility. One said

that she automatically refers patient to the facility once she diagnoses him/her with the signs and symptoms of TB. Another pointed out that the company mandates him to refer probable TB cases to the facility. The last one stressed that, out of economic reason and practicality, she refers TB patient to the DOTS clinic because it is offering free anti-TB drugs for the whole duration of treatment. She added that medicines for the TB treatment are very costly that an ordinary employee can hardly afford these days.

All attested that they made referrals to other TB DOTS clinic aside from the UN PhilamCare DOTS Facility. The three of them cited the proximity of the house of the patient as the main reason why they refer him/her to other branches so that the patient can save money from transportation expenses. The facility has a list of health centers and clinics (either private or public) that offer the program in cases of patients requesting for transfer. In one instance, the research team found out that a patient was referred to the DLSU-HSC DOTS Facility in Cavite. Only one physician, however, mentioned that he would refer patients to another clinic if his/her policy with the HMO was expiring within four months, as part of the company policy.

Knowledge of TB DOTS

The three physicians acknowledged that TB is a priority disease in the country. One doctor said that, “The number of TB cases is soaring high. We breathe TB air. Through DOTS, that is the most that we can do to fight TB.” Another physician was very informative when he referred to TB as among the top five causes of mortality in the Philippines because of the socio-economic and living conditions of majority of Filipinos. He added that, in most cases, the patient is living with four or more persons in a room where there is the highest probability of transmission. The third physician stressed that the country has an increasing number of resistant cases compared to other countries.

Table 3-4 presents the doctors’ responses regarding the components of the TB DOTS strategy. They have different accounts of what the components are but two of them identified the actors as part of the DOTS components and the other one referred to the stages in detecting and treating TB patients.

Table 3-4. Components of the DOTS strategy according to the referring physicians

Physicians	DOTS components	Most critical component
Referring Physician 1	• Case finding • Case holding • Free medicines • Compliance with medication • Education	“All of these components are critical, we cannot have good DOTS with missing arm.”
Referring Physician 2	• DOTS clinic • DOTS-trained physician • Free medicines • Follow-up check-ups	Compliance to follow-up check-ups
Referring Physician 3	• Physician • Nurse • Diagnostic Committee	Diagnostic committee will decide what to do with the patient

Attitudes and Perceptions

The physicians are one in saying that the DOTS strategy is the most effective way of treating TB patients especially that the facility gives free medicine and ensures that these are taken by the patients. A doctor stressed that the "*tutok*-patient" strategy increased the compliance of patients to their medication. The DOTS strategy also answers the need for additional information about the disease and the need for free medicines, which is the most important incentive for the patient.

Asked what they like in the DOTS strategy, one physician replied that he likes everything in DOTS. While vague in her response, the other simply mentioned, "The diagnosis of the patient is still within my control." The third physician cited the free medicines and the directly observed intake of drugs as the important factors that make the DOTS strategy effective. With this, she can be sure that the patient is complying with his or her treatment regimen.

Regarding the advantages of the strategy to the physicians, two of them emphasized the increased rate of patients' compliance to their treatment regimens but only one referred to the importance of a treatment partner. Another two pointed out that with free medicines and continuous education they are assured that they can treat their patients.

For the advantages of the strategy to patients, they focused more on compliance and drug intake. They said that the provision of free medicines is the first and foremost benefit that a patient can get from the program. Moreover, the patients tend to develop a habit of taking their medicine regularly with the help of a treatment partner.

When asked if there was anything they disagreed with or disliked about TB DOTS, two physicians said there was none. One, however, referred to the "tediousness of the procedure which sometimes force the patient not to prioritize the treatment especially for those patients who are working." She said that there should be a new way to account for the problem (e.g., work interruption).

Only one physician said that he could not think of disadvantages of the program on the patient while the other two expressed some drawbacks. One stated that it would not pose any disadvantage if the patients were residing near the DOTS facility because their visits to the clinic would not entail transportation cost. The other one cited the patient's fear of interrupting his/her work. The three of them, however, did not indicate any disadvantage imposed by the program on them.

Referral Practices

In general, once they diagnose a policyholder or their beneficiary as having TB, they immediately refer him/her to the facility. Two physicians said that they refer around 70 percent to 80 percent of their patients to the facility. The remaining 20 percent are usually well off and can afford to buy their own medicine. However, these patients still need to be educated about the proper treatment procedures. One physician mentioned that she

refers all her patients suspected of having TB to the facility. She added that it is up to them if they choose to enroll or not in the program.

When probed about the type of patients they usually refer, the three gave varied responses. One emphasized that he refers suspected TB patient based on his/her home proximity to the DOTS center. Another said that he refers patients with financial difficulty who cannot afford to buy the continuous rounds of medicines, and those who are lacking in self-discipline. The other one preferred to refer patients who have already been diagnosed by other doctors and only came to her for second opinion.

To date, the UN PhilamCare Clinic has yet to formulate a referral mechanism. This is the reason why the doctors did not mention any arrangement that they follow in referring patients to other DOTS facility. Moreover, they do not get any incentive from referring patients. In terms of monitoring, once the patient has been transferred, they have no way of knowing his/her condition.

Views on Implementation of DOTS

All of the referring physicians that were interviewed think that the DOTS Centers are adequately and appropriately marketed. One of them said that she has seen a TV advertisement about the establishment of TB DOTS in the private sector. PhilHealth is supposedly funding this commercial. Another doctor mentioned that the strategy is being disseminated though orientations and seminars. The other doctor bluntly said, "*Ok lang, ok naman ang info dissemination.*"

No one among the three remarked that there is still a lack of knowledge about the DOTS program. For them, all the information regarding the strategy has been written in the NTP Manual of Procedures, which the potential referring physicians could access. Only two physicians gave their suggestions on how to improve the way the DOTS has been implemented. One respondent commented that the implementers of the program should find a way to address the problem of work interruption. She said that majority of TB patients are working and a half-day of absence matters a lot to them. Within the same line of thinking, the other doctor mentioned that the thrice a week visit required in the intensive phase could cost the patient a lot of money in transportation expenses.

Everyone concurred with the proposal that DOTS providers be accredited. Accreditation, according to them, will bring monetary incentives and additional credential to the service providers as well as to the facility where they are working. When asked what kind of reasonable incentive they prefer, two doctors said, "*kahit wala na*," arguing that it is the responsibility of doctor to help the society combat the disease while the other one stressed the need for monetary incentives in terms of doctor's fee, "at least 50 percent of the professional fees."

The three physicians have experienced referring patients to DOTS centers. Two of them have referred patients whose policy contracts were due to expire in four months. In HMO

terms, these patients are no longer qualified for the DOTS program in their facility. The other one has referred patients especially when she is practicing in the province.

Asked if there are differences between the services being provided in the private DOTS clinics and public run DOTS centers, two said, yes, and the other one did not see any differences at all. For the variations, one doctor mentioned that health centers tend to rely mostly on sputum smears in TB diagnosis while the private sector would also refer to the patient's X-ray. The other doctor just simply remarked that health centers have more TB patients than in an HMO like PhilamCare.

Two physicians stated that, although the bulk of TB patients go to the government run hospitals or health centers, some of them consult private physicians as well. Hence they are also contributing to the wider public in eradicating the disease especially because TB is contagious. The other one did not provide any social contribution.

To the question, "How can you contribute to the control of TB as a private provider?" one simply said that she is doing her part through her referrals to the DOTS center. Another stressed that during the APE of their policyholders, she included the PPT (tuberculin) in the series of tests offered by the HMO. Similarly, the other doctor usually looks for possible TB cases during APE, especially since clients are instructed to undergo chest X-rays.

The three agreed that to fully eradicate the disease both the private and public sectors should join hands and share the same responsibility. They said that by having unified goals, standardized treatment procedures, and proactive mindset on the part of the service providers the fight against TB could be won in the future. However, they did not give specific suggestions on how to attain these objectives.

Consultation Charges

As mentioned in the early part of this section, two of the three referring physicians interviewed for the second situation analysis work for PhilamCare on a part time basis. Hence, the two have other engagements in other clinics or hospitals. They are the ones being paid by patients for their consultation and referral services outside of the HMO. The other physician does not charge referral fees because he is working full-time in PhilamCare and all of his patients are policyholders.

For the first visit, the two respondents charge their possible active TB patient PhP 250 and PhP 300 respectively. The first one charges between PhP 150 to PhP 200 for the follow-up visits and the second physician charges a flat rate of PhP 300. They give some form of discount for long-term patients but only one mentioned that she sometimes offer free services especially to those who are not financially capable to pay.

RECORDING AND REPORTING SYSTEM AND SERVICE STATISTICS

Recording System

The recording of various NTP data started during the first month of operation of the DOTS facility. Except for the laboratory register, all recording forms are being filled up and maintained by DOTS nurses and are usually kept in a safe place to ensure the confidentiality of records in accordance with the company policy of privacy. Table 3-5 presents the list of various forms and the staff responsible for its maintenance.

Table 3-5. Recording forms and responsible staff at the UN PhilamCare DOTS Clinic

TYPE OF FORM	Whether Maintained		Staff Member Responsible for Form
RECORDING FORMS	**Yes**	**No**	
TB symptomatics masterlist	/		TB DOTS Nurse
Laboratory request form for sputum examination	/		TB DOTS Nurse
Laboratory register	/		QI With photocopy to TB DOTS Facility
Treatment card	/		TB DOTS Nurse
Identification card	/		TB DOTS Nurse
TB register	/		TB DOTS Nurse
Referral/Transfer form	/		TB DOTS Nurse
REPORTING FORMS AND COUNTING SHEETS	**Yes**	**No**	
Quarterly report on laboratory activities	/		PhilCAT Research Assistant in cooperation with QI
Counting sheet for laboratory activities	/		PhilCAT Research Assistant in cooperation with QI
Quarterly report on new cases and relapses	/		PhilCAT Research Assistant
Counting sheet for treatment outcome	/		PhilCAT Research Assistant
Quarterly report on drug inventory and requirements	/		PhilCAT Research Assistant
Do you submit summary reports? (to Provincial Health Unit)	/		PhilCAT Research Assistant
FINANCIAL ACCOUNTS/STATEMENTS	**Yes**	**No**	
Balance sheet	/		
Income statement	/		
Cash flow statement	/		

Although it is the responsibility of the Quezon Institute to keep track of the laboratory registry, the facility has a photocopy of the said form courtesy of PhilCAT. For the

reporting forms and counting sheets, the PhilCAT through its research assistant is in-charge of collating the data for the facility. PhilCAT is helping in the reporting the achievements of the facility until October 2004 when their CDC-funded project officially ends.

As shown in Table 3-6, the available NTP forms are up-to-date and legible but not complete. This may be explained by the fact that the two DOTS nurses are also doing other tasks besides DOTS. They make it a point to complete the form only during their free time but this seldom happens.

Table 3-6. Status of the records maintained at the UN PhilamCare DOTS Clinic

TYPE OF RECORD	UP-TO-DATE		LEGIBLE		COMPLETE	
	Yes	No	Yes	No	Yes	No
TB symptomatics masterlist	/		/			/
Laboratory register*	NA					
Treatment card	/		/			/
TB register	/		/			/
Quarterly report on laboratory activities*	NA					
Quarterly report on new cases and relapses*	NA					
Quarterly report on drug inventory and requirements*	NA					

*Clinic does not have these records.

Both the names of TB symptomatic and asymptomatic patients appear in the TB Symptomatic Masterlist that can result in confusion when examined. While the DOTS nurses have indicated the signs and symptoms exhibited by some patient, some of them do not have these data. Hence, it is difficult to separate the symptomatic from asymptomatic patients, which mattered a lot in computing the service statistics.

Treatment cards are kept in a filing box and arranged alphabetically for easy retrieval. Most of the cards, however, have incomplete information, such as the exact date of the next sputum examination and the name of the contact person. The card also does not indicate the relationship of the family supervisor to the patient because in some instances the surnames of the patient and his/her family supervisor do not match.

TB Case Management Kit

The clinic has its own TB Case Management Kit that they modified from the NTP forms. The kit is designed to monitor the patient's condition and to keep track of his/her schedule of drug intake, visit to clinic, and follow-up sputum examinations.

The kit includes the following forms: (1) Pre-Enrollment Form, to be filled up by the DOTS nurse, the medical technologist, and the attending/referring physician; (2) Contract of Agreement in Tagalog and English, to be signed by the patient, the treatment partner, the DOTS nurse, the attending physician, and the clinic manager; (3) PhilamCare-NTP

Laboratory Request Form for Sputum Examination, to be completed by the DOTS nurse and the one in-charge in the microscopy center; (4) PhilamCare-NTP ID, to be filled up by the DOTS nurse; (5) PhilamCare-NTP Treatment Card to be completed by the DOTS nurse; and the (6) Consultation Summary Form, to be filled up by the DOTS physician and nurse.

Enrolled Patients

The total number of enrollees from August 2003 to June 2004 is registered at 20 TB patients. The low rate of TB enrollees is expected especially in an HMO setting because it only caters to policyholders and their eligible dependents despite its potentially wide catchment area.

The clinic began with three enrolled patients during the first situation analysis (August to September 2003). Another patient was added to complete the start-up period, which summed up to four patients. During this period, the facility enrolled an average of two patients per month. The succeeding quarter (October to December 2003) saw an increasing number of enrolled patients of about eight or around 2.6 patients per month. The trend was not sustained and for the next two quarters (January to March 2004 and April to June 2004), the clinic accepted an average of four patients per quarter or 1.3 patients per month. Meanwhile, based on the total number of patients during the last 10 months, the clinic is said to be receiving an average of two enrollees per month.

Figure 3 presents the actual monthly fluctuations in number of enrolled patients of the clinic showing the moving averages based on three-month intervals. The clinic registered the highest enrollment in October 2003. But there is no indication that the number of patients would climb to the same level seen in October 2003 based on this graph.

Figure 3-3. Graph showing monthly enrollments and three-month moving averages at the UN PhilamCare TB DOTS Clinic

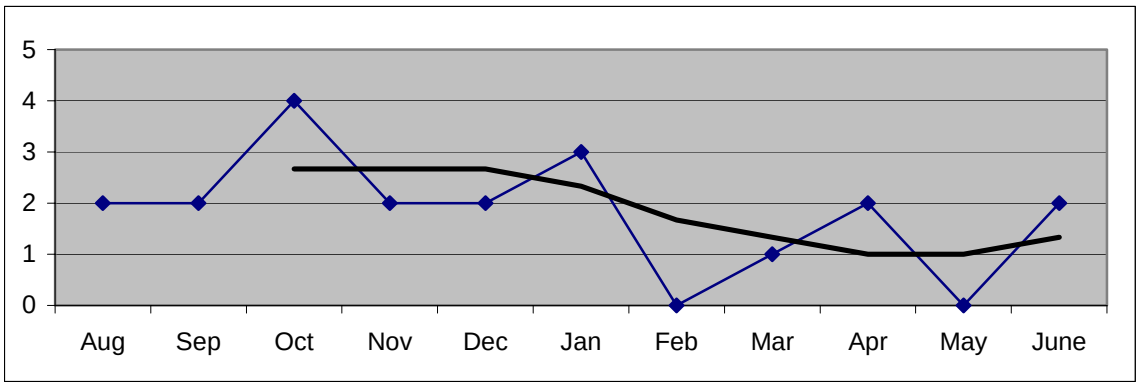


Table 3-7 presents the distribution of enrolled patients by age and sex from August 2003 to June 2004. Males comprised slightly more than half of the TB patients at 55 percent. The age distribution is almost the same except that there are no cases recorded in the 0-14 age range and in the 65 and above range. There are likewise no cases in the 25 to 34 age range for females. The highest proportion of cases for males was pegged in the 35 to 44

age bracket and in the 55 to 64 years of age group, while for females the highest proportion is in the 15 to 24 age bracket.

Table 3-7. Distribution of TB Patients at the UN PhilamCare DOTS Clinic, by age and sex

Age Group	SA1 and SA 2					
	Male (n=11)		Female (n=9)		Total (n=20)	
	n	%	n	%	n	%
0-14	0	0	0	0	0	0
15-24	1	9.09	3	33.33	4	20
25-34	2	18.18			2	10
35-44	3	27.27	2	22.22	5	25
45-54	2	18.18	2	22.22	4	20
55-64	3	27.27	2	22.22	5	25
65 and above	0	0	0	0	0	0

All enrolled patients are classified under pulmonary tuberculosis (PTB). Because the clinic has adopted the family-based DOTS, all selected treatment partners are all members of the patient's household. In terms of type of patients, there is a large number of patients under the new smear (-) at 80 percent compared to the 15 percent of new smear (+) cases (refer to Table 3-8).

Table 3-8. Distribution of TB patients at the UN PhilamCare DOTS Clinic, by type of patient

Type of Patient	**SA1 and SA 2**	
	n	%
PTB		
New Smear (+)	3	15.00%
New Smear (-)	16	80.00%
Others	1	5.00%
Total	**20**	100.00%

Most of the enrolled patients in the first situation analysis belonged to Category III. For the second situation analysis, there has been a noticeable increase in Category I patients, from nil to 55 percent, as compared to the 45 percent recorded under Category III (see Table 3-9).

Table 3-9. Treatment category of TB patients in the UN PhilamCare DOTS Clinic

Treatment Category	**SA1 and SA 2**	
	n	%
Category I	11	55
Category III	9	45
Total	20	100

Based on treatment outcomes, the clinic has attained an impressive record especially on patients who completed their treatments (75 percent; see table 3-10). All patients under this group showed negative result on their third follow-up sputum examination. One

patient was declared cured while another has defaulted. The DOTS nurse tried to retrieve the defaulter but failed since he transferred to Mindanao. The remaining 12 patients are still under their respective treatment regimens.

Table 3-10. Treatment outcomes of TB patients in the UN PhilamCare DOTS Clinic

Treatment Outcomes	**SA1 and SA 2**	
	n	%
Cure	1	12.50%
Treatment completed	6	75.00%
Defaulter	1	12.50%
Total	8	100.00

Table 3-11 illustrates the treatment outcome according to the type of TB patients of the facility. Following the table, most of the patients who were declared “treatment completed” belonged to new smear (-) type of PTB. The defaulter was also a new smear (-) case while the cured patient was a new smear (+) case.

Table 3-11. Treatment outcome of patients at the UN PhilamCare DOTS Clinic, by type of PTB patient

SA1 and SA 2				
Type of PTB patient	**Cured**	**Treatment Completed**	**Defaulter**	**Total**
New Smear (+)	1 100.00%			1
New Smear (-)		6 85.71%	1 14.29%	7
Others				
TOTAL	1 12.50%	6 75.00%	1 12.50%	8

Program Indicators

Table 3-12 lists the program indicators for the DOTS facility. The average number of patients admitted to the program is recorded at 1.81 per month. In case finding, it appears that the DOTS service providers have been quite successful in encouraging TB symptomatic patients to submit three sputum specimens (61 percent) for AFB microscopy. This may be partly attributed to the free sputum examination offered by the HMO to their clients.

Among the total number of TB symptomatic patients recorded by the clinic, only 2.35 percent of them were found to be smear positive cases. However, there was somewhat a high proportion of pulmonary smear positive cases out of all pulmonary cases, pegged at 15 percent. The case notification rate was not calculated because the DOTS facility has no defined catchment area.

In case holding, out of the three enrolled patients found to be smear (+), the one who completed his treatment was declared cured which makes a 100 percent cure rate for new smear positive cases. Meanwhile, out of those patients categorized under new smear negative cases, approximately 86 percent have already completed their treatment while the defaulter rate under this same category was around 14 percent.

Because the results of the smear examinations are released within one day after submitting the specimen to the laboratory, patients can already know their status and can commence their treatment right away. Hence, the proportion of smear positive cases started on DOTS within seven days from first sputum exam is calculated at 100 percent. On the other hand, there is a somewhat greater percentage of smear negative patients who started on DOTS within seven days from first sputum exam at 44 percent.

Over all, it can be said that the clinic has a success rate of roughly 87.5 percent covering the first and second situation analyses.

Table 3-12. Summary of Program Indicators for the UN PhilamCare DOTS Clinic

Program Indicators	
Case Finding	
1. Proportion of Pulmonary Smear Positive Cases Out of All Pulmonary Cases	15.00% (3\20)
2. Three Sputum Collection Rate	61.18%* (52\85)
3. Positive Rate	2.35%* (2\85)
4a. Proportion ofsmear positive cases started on DOTS within 7 days from 1st sputum exam	100.00% (3\3)
4b. Proportion of smear positive cases started on DOTS within 14 days from 1st sputum exam	0.00% (0\3)
4c. Proportion of smear positive cases started on DOTS after more than 14 days from 1st sputum exam	0.00% (0\3)
4d. Proportion of smear negative cases started on DOTS within 7 days from 1st sputum exam	43.75% (7\16)
4e. Proportion of smear negative cases started on DOTS within 14 days from 1st sputum exam	25.00% (4\16)
4f. Proportion of smear negative cases started on DOTS after more than 14 days from 1st sputum exam	31.25% (5\16)
5. Average Number of Patients Enrolled Per Month	
SA 2 (Oct 2003-June 2004)	1.81 (20\11)
SA 1+SA 2*	1.81 (20\11)
Case Holding	
6. Sputum Conversion rate	100.00% (2\2)**
7. Treatment Outcomes (for PTB Cases Only)	
New Smear Positive Cases	
Cure Rate	100.00% (1\1)

Program Indicators	
Completion Rate	-
Death Rate	-
Defaulter Rate	-
Transfer Out Rate	-
New Smear Negative Cases	
Completion Rate	85.71%*** (6\7)
Death Rate	-
Treatment Failure Rate	-
Defaulter Rate	14.29% (1\7)
Transfer Out Rate	-
Relapse Cases	
Cure Rate	-
Death Rate	-
Default Cases	
Cure Rate	-
Death Rate	-
Failure Cases	
Completion Rate	-
8. Overall Success Rate	87.50% (7\8)

* data is from 3rd and 4th quarters, 2003 and 1st quarter 2004 only
** Only 2 out of the 3 new smear (+) cases have follow up sputum
*** There was a total of 10 new smear (-) cases, but since the 3 had no inputs, it wasn't included in the calculation

EVALUATION OF CHANGES SINCE THE ENHANCEMENT PLANS

The enhancement plan formulated by FACE during the first situation analysis has been reproduced below and actual accomplishments have been added to illustrate whether the UN PhilamCare DOTS Clinic has adhered to the various points of the plan (Table 3-13).

In terms of **political commitment**, the most evident achievement of the facility was the training of a number of staff in Basic DOTS. As of the moment, there are twelve DOTS-trained physicians (including the COM) who refer TB patients to the program, and in addition to the two previously trained nurses, another set of nurses has recently been trained in the Program. This is in preparation for the plan of the management to rotate nurses in the facility and distribute their workloads fairly.

On 19 March 2004, PhilCAT certified the UN PhilamCare DOTS Clinic as a provider of TB DOTS services. According to the Assistant Vice President for Clinic Services, the PhilHealth accreditation, where the clinic expects to get reimbursements for their services in the facility, is still in the process of completion. Once accredited, the management is

planning to channel portion of the reimbursed amount to a fund, which they can use for the training of the staff.

To date, there is still no dedicated annual budget allotted by the PhilamCare Management to the DOTS facility. A token was given to DOTS nurses in the form of PhP 50.00 a month cell phone load to follow-up their patients by texting.

Regarding **sputum microscopy**, instead of upgrading the existing laboratory of the clinic to suit the requirements for setting up an AFB microscopy, the management chose to stick with subcontracting the AFB smear testing to Quezon Institute. This is line with the argument that the management would not spend additional amount for the facility because any cost should be cleared first with the central management of American Investment Group (AIG) to which the PhilamCare clinic belongs. In addition, the initiative to tie up with the Manila Doctors Hospital for their laboratory services is still on the negotiating table.

In terms of **uninterrupted drug supply**, the UN PhilamCare Clinic is still in the process of discussing the matter with PhilCAT and DOH. There are some policy changes in the DOH that can affect the distribution of free drugs (e.g., devolution) to the clinic especially because the HMO has no defined catchment area. At present, it is still the PhilCAT that coordinates the procurement of drugs from the DOH.

While the **standardized treatment of DOT** has been quite successful in terms of treatment outcomes, the clinic has yet to formulate referral guidelines. This is particularly useful for patients whose policy contracts are due to expire in four months. In relation to the out-of-pocket payment for additional drugs, the management is still in the process of looking for funding to help their patients shoulder the cost of these medicines.

The management and the DOTS staff, especially the nurses, found the **standardized recording and reporting system** too tedious. This is particularly true because nurses are doing their regular tasks aside from their additional function in the DOTS facility. Hence some records are not updated and are left incomplete. However, the management is in the process of collecting and collating data in preparation for the completion of the PhilCAT Project in October 2004.

Table 3-13. Enhancement Plan for the HMO-based DOTS facility and actual accomplishments as of June 2004

DOTS Components	Objective of Enhancement	Enhancement Activities	Person/Party Responsible	Timeline	Indicators of Change	Actual Accomplishments
Political will	• To find alternative funding sources for TB DOTS (e.g. PhilHealth accreditation)	• Make a financial plan	• Financial Analyst	• Oct to Jan 2004	• Estimate cost of PhilHealth DOTS package covering hazard pay for staff	• Management is still in the process of completing the revised certification requirements for PhilHealth accreditation.
	• To conduct continuous training and supervision of DOTS personnel	• Train DOTS nurses on recording and reporting • Train DOTS physician on supervision • Train other GP and specialists	• PhilCAT	• Dec 2003	• Number of trained personnel	• There are now 12 physicians and five nurses within the UN PhilamCare Clinic who underwent Basic DOTS Training. • The last training was conducted on 2 July 2004.
	• To find alternative ways of collecting spot sputum during initial visit as home collection may lead to losses to follow-up	• Gather insights from patients whether sputum collection at home is difficult to comply with	• PhilCAT Team & FACE SA Team	• Oct to Dec 2003	• Documentation of patients' perceptions on the difficulties of home sputum collection	• Management concludes that spot sputum collection is not feasible in the facility. Home collection is still preferred by the clinic.

DOTS Components	Objective of Enhancement	Enhancement Activities	Person/Party Responsible	Timeline	Indicators of Change	Actual Accomplishments
Sputum microscopy	• To upgrade laboratory for AFB microscopy • To find an accredited laboratory for microscopy	• Make a financial plan • Make a list of accredited lab for AFB microscopy in Metro Manila with cost of services	• Financial Analyst	• Oct to Jan 2004	• Cost of setting up own lab vs subcontract-ing other lab	• In line with the argument that the management would not spend money for the program, the management decided to continue contracting the Quezon Institute for sputum examinations. • Tie-up with the MDH laboratory is still in the process.
Drug supply	• To institute a drug procurement system	• Formalize MOU with DOH-NTP for uninterrupted drug supply	• PhilCAT Team	• Oct to Jan 2004	• Signed MOU	• FACE and PhilCAT drafted a MOA with the DOH that would include all six clinics of PhilamCare. However, the parties involved are still in the process of threshing out issues regarding drug supply (e.g., devolution of DOH functions to LGUs, new DOH policies)

DOTS Components	Objective of Enhancement	Enhancement Activities	Person/Party Responsible	Timeline	Indicators of Change	Actual Accomplishments
	• To institute a drug storage, inventory and distribution monitoring system	• Draft guidelines	• PhilCAT Team & FACE SA Team	• Nov 2003	• Policy on drug storage, inventory and distribution	• Management has yet to institute a policy on drug storage, inventory and distribution. PhilCAT is still assisting the facility in this area of concern.
DOT	• To find alternative funding sources for TB DOTS • To establish referral mechanism	• Make a financial plan • Draft guidelines	• Financial Analyst • PhilCAT Team & FACE SA Team	• Oct to Jan 2004 • Nov 2003	• Cost analysis • Referral guidelines	• PhilHealth is the most feasible funding source for the TB DOTS. • Management has yet to institute referral mechanism.
Monitoring and supervision	• To set-up a standard system of recording and reporting in line with NTP	• Develop summary forms and register • Do monitoring of process and outcome indicators • Draft guidelines	• FACE SA Team	• Oct 2003 • Oct to Jan 2004 • Nov 2003	• Summary forms and register • Weekly service statistics • Policy on reporting, monitoring and supervision	• PhilCAT is still assisting the facility in recording and reporting of data. • PhilCAT is still assisting the facility in recording and reporting of data. • Management is till collecting and collating data from PhilCAT. These will be use in drafting the guidelines for reporting, monitoring and supervision of the facility.

SWOT Analysis

The UN PhilamCare DOTS Clinic has been in operation for the last ten months only. During this period a total of 20 TB patients were enrolled in the program and a significant number of patients have completed their treatments. Still considered in its "infancy stage," the facility has shown its willingness to implement the DOTS strategy and contribute to the lowering of TB cases in the country. The following are the strengths and weaknesses of the clinic based on the findings of the second situation analysis.

Strengths

Case Detection

1. The potentially wide catchment area of the clinic provides an opportunity to screen a large number of patients for possible TB cases. Clients undergo an Annual Physical Exam (APE) where their medical conditions are evaluated, hence, some clients are found to be TB carriers through the APE.
2. There is a large network of clinics under the PhilamCare Health Systems, Incorporated offering the DOTS program. TB patients who are policyholders can choose where to enroll based on their preference.
3. A well-maintained health facility attracts a large number of clients.
4. AFB smear testing is done in an accredited microscopy center.
5. Chest X-ray, whenever necessary, is available at the facility.
6. Presence of DOTS-trained physicians who refer TB patients to the program.
7. The Diagnostic Committee composed of specialists is available on call.

Case Holding

1. The clinic is accessible through major land transportation (e.g., public utility jeepneys, public utility buses, taxis, and LRT).
2. DOTS nurses are well-trained in the DOTS strategy, and knowledgeable in filling up numerous forms required by NTP.
3. DOTS nurses have shown their dedication to their work despite the lack of incentives.
4. TB client and his/her selected treatment partner enter a contract of agreement prior to initiation of treatment. The contract is written in both English and Filipino for adequate understanding.
5. Modified DOT with family member as the alternate treatment partner during the intensive phase.
6. Patients have the prerogative to choose their treatment partner/family supervisor.
7. Patients can decide their follow-up time and days.
8. Free supply of anti-TB drugs is an important incentive for patients to comply and complete their treatment.
9. Patients are given personalized health education every time they visit the facility.

Weaknesses

Case Finding

1. The facility has no designated sputum collection area which may account for a low percentage of compliance with sputum examination.
2. Sputum microscopy is not available within the facility despite the presence of a medical technologist trained in handling AFB smear.
3. DOTS services have yet to be advertised/marketed to potential and existing clients.
4. Only policy holders and their eligible dependents are qualified for their DOTS program.
5. Referral mechanism for non-eligible clients has yet to be established.
6. Training of family members as treatment partners is limited only during consultation time of TB patients.
7. Drug procurement system has yet to be formulated and still reliant on PhilCAT assistance.
8. Drug management and inventory has yet to be established and still dependent on PhilCAT assistance.
9. TB Patients have to shoulder cost of additional drugs.
10. Monitoring, evaluation and supervision system is not yet in place.
11. Fast turnover rate of physicians.
12. Corporate set-up is not prepared to deal with the bureaucratic procedures of the DOH and other government agencies.
13. No dedicated annual budget for DOTS operations.
14. Low proportion of smear (+) cases requires constant referral to diagnostic committee. Possible delays in commencement of treatment.

Opportunities for improvement

1. Upgrading of the laboratory to accommodate sputum microscopy with potential return on investment.
2. Training of more physicians and nurses on the DOTS strategy.
3. Opportunity to institute infection control measures in the facility.
4. Formalizing the referral mechanism to other DOTS centers for ineligible patients.
5. Completing the PhilHealth accreditation to avail of the DOTS benefit package.
6. Establishing and strengthening the linkage with DOH, LGUs and other government agencies for drugs and other NTP supply.
7. Opportunity to institute quality assurance mechanisms.

Threats

1. The scheduled phase-out of the PhilCAT project can derail the DOTS program in terms of maintaining the records, quarterly reporting of indicators,

and procuring of drugs without adequate preparation and training on the part of the DOTS service providers.

2. Absence of definite catchment area can cause problems in procuring drugs because the DOH has devolved some of its functions to the LGU (e.g., distribution of anti-TB drugs intended for the DOTS program).
3. Well-to-do TB patients can select their own treatment strategy not in accordance with DOTS.
4. No definite management plan after PhilCAT withdrawal, especially if costs will be entailed.

Chapter IV. Multi-specialty Clinic-based Model TB DOTS Clinic

Regular, uninterrupted supply of quality-assured essential anti-TB drugs. *That is one of the five key components of the DOTS strategy. That is also the component that FriendlyCare Clinic Cubao's TB DOTS facility lacks. For almost four months, this TB DOTS center was not able to accept any TB patient because anti-TB drugs were not available. More than ten TB patients were turned down by the clinic during the four-month lull, five of them just this June. What is interesting to know is that this is not the first time this has happened. Last year, the clinic ran out of anti-TB drugs from February to July. Now the question is why does the situation keep recurring? And will this happen again in the future?*

The first situation analysis of FriendlyCare (FC) Clinic Cubao was done a year after operations of the facility started. This analysis endeavored to observe the best practices and operations of the clinic and afterwards an enhancement plan was designed to answer the limitations observed in the clinic. The limitations specified were based on the five key components of the DOTS strategy.

The second situation analysis intends to identify the improvements and best practices of the Directly Observed Treatment Short Course for Tuberculosis (TB DOTS) facility that can be used and replicated by other TB DOTS clinics in the country for successful implementation of TB DOTS. Or, in case the facility had no significant improvements during the period between the first and second situation analyses, the study aims to determine the factors that compromised the implementation of DOTS.

An important part of the second situation analysis for FriendlyCare Clinic Cubao was the six-day fieldwork carried out from June 21 to July 3 by two research assistants. There were also some short visits in between. Another visit to the facility on July 15 was necessary to obtain additional data and interviews. There were seven instruments utilized for this study which were administered to 21 respondents. The table below shows the number of persons interviewed for each instrument. Another part of the situation analysis was for the researchers to make observations and unstructured interviews whenever time permitted.

	Research Instrument	No. of Respondents
1.	Inventory of TB DOTS Clinic Facilities, Recording, Equipment, & Services Provided	5
2.	Interview Guide for TB DOTS Service Providers	6
3.	Observation Guide for Interaction Between TB Patient and Service Provider	4
4.	Exit Interview for TB DOTS Patients	3
5.	Interview Guide for Referring Physicians	1
6.	Interview Guide for Treatment Partners	1
7.	Interview Guide for Revisiting the TB DOTS Clinic's History and Background	1

The first part of this chapter presents the background of the TB DOTS facility and an inventory of its facilities, equipment, and services provided. The second part focuses on the organizational set-up and staffing pattern of the facility and the FriendlyCare clinic. This part will utilize the data gathered from interviews with the service providers. The third part will discuss data on referring physicians which will come from the interview with one of the two referring physicians of the clinic. The next part presents the recording and reporting system that the clinic follows. It will also compare the service statistics obtained from the first and second situation analyses. Research instruments concerning TB patients, namely observations of patient-service provider interactions and interviews with TB patients will be used for the fifth part to show the effectiveness of FriendlyCare's DOTS service delivery. A portion of the sixth part will be the interview conducted on the treatment partner of patients in the TB DOTS facility. Additional data obtained from the facility's documents will also be utilized here. The seventh part compares the changes in the clinic between the first and second situation analyses, specifically the changes concerning the enhancement plans drawn up corresponding to the five major components of the DOTS strategy. It concludes with an analysis of the clinic's strengths, weaknesses, opportunities, and threats (SWOT).

THE FRIENDLYCARE TB DOTS CLINIC

FriendlyCare Foundation, Inc. (FCF, Inc.) was founded under the premise of being the private sector's vehicle for participating in the country's programs concerning family planning and reproductive health. According to the website of FriendlyCare, it seeks to address the need of the low income group for affordable, efficient, and superior quality health service through the different FriendlyCare clinics. The clinics provide family/internal medicine, pediatric, gynecological, dental, dermatological, and surgical services. There are about 10 FriendlyCare Clinics to date and eight of these provide TB DOTS. These eight clinics are located in Masinag, Shaw, Lagro, San Juan, Pasig, Sangadaan, Pasay, and Cubao. There are plans to include TB DOTS in the services being provided by FC clinics in Cebu and Davao. Financial support for the operation of FriendlyCare comes from the United States Agency for International Development or USAID. Anti-TB drugs are supplied by the Department of Health (DOH).

History and Background of TB DOTS

As the first situation analysis mentioned, FC responded positively to the World Health Organization's call for the private sector to get involved in providing TB DOTS. This was during the term of former FC President Dr. Alberto Romualdez. At that time, Dr. Juan Antonio Perez was the Health Service Quality Division Manager and Dr. Raffy Liwanag was the FC Area Manager for Metro Manila. Dr. Romualdez and Dr. Perez, who both worked in DOH, thought of simulating in FC ten programs that DOH health centers were providing like immunization and TB DOTS. At the same time this decision showed FC's support for the DOT strategy as an effective way to increase cure rate of TB and decrease drug-resistant and treatment failure cases. Preparations for the DOTS facility in FC began as early as the second quarter of 2002. The first course of action was to choose

a physician working in FC, the current DOTS coordinator, to be in charge of the TB DOTS program. In March 2002, they provided her with the NTP Manual and instructed her to devise a manual of procedures to specify the protocol for FC TB DOTS in two weeks time. The FC President, HSQD Manager and Area Manager contacted DOH through Dr. Lagahid regarding the supply of anti-TB drugs for FC clinics. The pricing committee of FCF, Inc. then came up with a TB DOTS package which costs ₱ 1000 for all consultations and sputum exams after being enrolled. Anti-TB drugs are free.

FC also asked the assistance of DOH in training their personnel on DOTS since this is a requirement for opening a TB DOTS facility. Medical technologists of FC underwent training on the proper way of handling sputum specimen and processing for acid fast bacilli (AFB) smear. The training took place at the Research Institute for Tropical Medicine in June 2002. On the other hand, the FC doctors and nurses, one of each per clinic, underwent the National Tuberculosis Program (NTP) training in August 2002.

The manual of procedures that all FC clinics follow was put together by the DOTS coordinator. This was patterned after the NTP Manual of Procedures and consequently the protocol is almost the same as the NTP Manual of Procedures. Before starting to provide TB DOTS in the eight clinics, the DOTS Coordinator and Area Manager went to all the clinics to educate the staff regarding TB DOTS. FC officially opened their TB DOTS facility in Cubao inn September 2002, a month after opening the clinic. They have enrolled 50 patients since then. Accreditation from Philippine Health Insurance Corporation (PhilHealth) was given to FC Clinic Cubao on 27 June 2003 after PhilHealth representatives inspected the clinic. FC Cubao has the claim of being the first private clinic to be have passed inspection and been awarded accreditation. Philippine Coalition for Tuberculosis (PhilCAT) representatives also inspected the TB DOTS facility on March 2003 and certified FC Cubao's TB DOTS as a DOTS center on 15 August 2003.

Every FriendlyCare clinic appoints one fulltime nurse to be the DOTS supervisor of that clinic. The DOTS supervisor acts as the DOTS nurse and drug supply manager. A DOTS supervisor is in-charge of enrolling the patient in DOTS, registering the patient in the TB Register, educating the patient about TB and DOTS, dispensing drugs, calling patients or reminding patients about missed meetings, ordering drugs from FriendlyCare's Logistics Department, and preparing monthly and quarterly reports to be given to the DOTS coordinator. As mentioned before, FC medical technologists were trained to carry out processing of AFB smear. Each clinic also has a part-time DOTS physician and a part-time radiologist who is a member of the diagnostic committee.

Location and Facilities

FriendlyCare Clinic Cubao is located at the second floor of the shopping compound called Metrolane Complex. The complex is situated along P. Tuazon and 20th Avenue in Cubao. It is also walking distance from the Araneta Complex and the Alimall Shopping Mall. The clinic is very accessible since passenger utility vehicles coming from Marikina, Antipolo, Cainta, Project 4 in Quezon City, and around Cubao pass by the complex. There is also a spacious parking area which is available for all patrons of the Metrolane

Complex. Clients have to climb two flights of stairs to get to the clinic. There are two staircases which clients can use going to the clinic.

The clinic is a 432 square meter space which houses a registration and waiting area, four doctor's cubicles, and 12 rooms. The registration and waiting area can be observed upon entrance to the clinic. To the left of the registration area are the cubicles devoted to the different specialized services offered by the clinic and on the right are the treatment room, laboratory, X-ray room, and kitchen/dining area. The TB DOTS room is situated at the rear right side of the registration area and is hidden by the cubicles. To get to the DOTS room, one has to pass by the waiting and registration area.

Waiting Area. All patients of FC are made to fill up a form given by the security guard immediately upon entering the facility. These forms are given to the nurses at the registration desk and each patient is called by the nurse to get the patient's information. TB patients do not have a separate waiting area and have to wait in the same area as the other clients, which frequently include babies and toddlers.

The waiting area is approximately 40 square meters. It is air-conditioned as is the whole clinic. Colorful plastic chairs are available in the waiting area and can seat 35 clients at any one time. There is also an area layered by rubber mats which is used as a play area for children. Toys, plastic slides and seesaws are available for children's use. There is a television set facing the chairs in the waiting area. A radio can be heard in the whole area when the TV is not turned on. The waiting area and registration desk can be seen even from outside (see photo above).

TB patients who are in the clinic for consultation stay in the waiting area until they are called by the physician. Patients who are there to get their supply of drugs from the DOTS supervisor also have to wait in the waiting area if the supervisor is still with other clients. There was one incident wherein the DOTS supervisor forgot that a TB patient was waiting for her for drug dispensing and the patient had to approach her again to remind her. But the DOTS supervisor related that she usually entertains TB patients as soon as a patient comes in the clinic since there are usually three nurses manning the registration desk.

TB DOTS Room. The space for TB DOTS is a 10 square meter room which can be found in between the Family Planning Counseling and Vasectomy rooms. The hallway leading to the DOTS room is five meters wide. There is a small waiting area with four chairs placed right outside the DOTS room but this is mostly used by clients of the dental facility which is two doors away (see photo below). The room has its own air-condition unit, sink, faucet, an exhaust fan, and a cupboard-type structure wherein some files are kept (see photo above). There are four chairs provided for the DOTS nurse/supervisor, patient, and maybe a companion or treatment partner. The door can be closed anytime if there is a need for audio and visual privacy (see photo below).

The patients' files are compiled in folders grouped according to the treatment outcome. These folders are placed in magazine boxes placed on top of the table provided for the DOTS nurse/supervisor. The NTP TB Register is kept with the treatment cards and files of the patients. There are other files on the table including some IEC materials and blank

forms of NTP treatment cards, Lab request form, and forms for referral. There is also a desk calendar on the table which the DOTS supervisor can use for setting appointments and dates of the next sputum exam of the TB patient. Posters explaining treatment categories as well as a bond paper-size copy of the process flowchart of TB DOTS (see Figure 4-1) is posted on the wall near the supervisor's/nurse's table. But it is at the back of the chair which is usually occupied by the patient during visits. Of the three patients observed during fieldwork two were seen in the DOTS room and the flowchart was not used during the DOTS service provider and patient's interaction.

The cabinet where drugs are stored can also serve as a table (see photo). Some of the other files and IEC materials of the TB DOTS facility are placed on top of the cabinet. Each drawer of the cabinet has a label for what drug is put there. There is also one part of the cabinet where expired drugs are kept.

Examination Room. The TB DOTS room has an examination bed which is being used as a table. Patients are sometimes seen by the DOTS physician in the cubicle allocated for Family Medicine. Auditory privacy is not guaranteed when the patient and doctor consult inside the cubicle. But it is hard to determine where the voices are coming from since the TV or the radio is always turned on. There is clean linen on the bed but it was not observed when the linens are replaced.

Sputum Collection Area. All FC physicians are instructed to request for three sputum AFB exams for every patient that they think is TB symptomatic. Chest X-ray is requested only after a negative sputum AFB result according to the DOTS physician. But in most cases, the DOTS physician requests for both chest X-ray and sputum AFB exam. However some patients wait for the X-ray results before taking the sputum AFB exam. If the X-ray result shows that the patient may have TB, they do the sputum exams. As observed during the first analysis the facility uses urine specimen plastic cups with cover for sputum collection but the DOTS physician explained that the FC laboratory has two kinds of specimen cups, a bigger cup is used for urinalysis while the smaller of the two is used for sputum specimens. Three cups are given to each patient per sputum AFB request. Since the whole clinic is air-conditioned, there is no area devoted for sputum collection. Patients are instructed to perform sputum collection in a well ventilated area, preferably outside the house. Patients are also told to collect sputum early in the morning after waking up and to give the specimen to the medical technologist that same morning. When asked is the medical technologist (med tech) instructs the patient to seal the plastic cup tightly with tape or other material, the med tech answered that she instructs the patient to make sure that the cover is in place but there is no need to seal the cup.

Signage. A huge signage facing P. Tuazon Avenue is visible but not legible from across the street (see photo). There is also a signage facing the 20th Avenue road. Posters hang on the glass walls of the clinic promoting the different services that FC offers. One of these posters advertises that FC offers TB DOTS (see photo below). Another poster displays the clinics' opening and closing time which is 9:00 a.m. and 5:30 p.m. respectively. The clinic's telephone numbers are also indicated.

Clinic Hours. The official clinic hours of FC are from 9:00 a.m. to 6:00 p.m. with no lunch breaks. This can be considered the TB DOTS clinic's hours as well. The clinic is open Mondays to Saturdays. The clinic usually opens before 9:00 because the laboratory facility starts accepting specimens at 8:00. But doctors usually start seeing patients at 9:00 a.m. There are instances when the clinic closes early but these are very few. During the fieldwork, there were two occasions when the clinic closed earlier than usual. The first time was when there were no doctors present in the clinic because they all attended a colleague's wedding. The other time the clinic closed early was due to a typhoon. FC Shaw instructed FC Cubao to close early. The usual closing time is before 6:00 p.m. The observed clinic hours are specified in the table below. The first patient of TB DOTS who was observed by the research team was seen on Saturday which was the second day of fieldwork. The patient arrived at 1:30 p.m. and was seen by the DOTS physician at 1:58 p.m. The second and last patient of the day was seen at 2:52 p.m.

Table 4-1. Official and actual clinic hours of the FC Cubao TB DOTS Facility

Official clinic hours

Time	Day					
	M	T	W	Th	F	Sat
AM	9:00	9:00	9:00	9:00	9:00	9:00
PM	6:00	6:00	6:00	6:00	6:00	6:00

Observed clinic hours

Time	Day					
	M	T	W	Th	F	Sat
AM	8:45	8:40	8:30	8:50	8:30	8:50
PM	5:40	5:00	4:40	5:40	5:30	5:30

Catchment Area. A location like Cubao is very accessible to a lot of patients and the FC clinic in Cubao considers the whole of Quezon City as their catchment area. The TB DOTS facility however does not have a catchment area map displayed in the DOTS room and even the manual does not have a copy of the map. When asked about the catchment area, the DOTS physician said that it is not their practice to turn down patients just because they live far from the clinic (yet they have actually turned down some patients). She argued that the FC clinic offers other services aside from the TB DOTS program and turning down patients may cause the patients to not avail of other services and the FC management would not be happy if this happens. And it shows from records that patients do come from Quezon City, Marikina City, Rizal, and even Valenzuela.

Water facilities. The TB DOTS room is equipped with a sink and faucet with running water (see photo). Liquid soap is also available. But this is mostly for the service provider's use. There are separate comfort rooms for clients and the staff of the clinic. Liquid soap and running water are also available in the comfort rooms. Drinking water is not provided for TB DOTS patients since taking of drugs is not done in the facility. During fieldwork, it was observed that the patient was advised to drink the drugs as soon as she gets home. However, should a patient need to drink drugs in the clinic, there is a hot and cold dispenser located in the dining area of the clinic.

Waste Disposal. There is only one trash bin observed in the TB DOTS room and it is not covered. The other rooms have the same trash bin. No color-coded trash cans were observed although there is a large covered garbage can located near the clinic's kitchen/dining area. As mentioned in the first analysis, collectors from the FC Shaw office collect the hazardous waste for proper disposal. The DOTS nurse/supervisor mentioned that collection is done twice a week.

Laboratory. As mentioned in the first analysis, the original FC laboratory is now able to process sputum specimens for detection of acid-fast bacilli. This is an auxiliary part of the DOTS set-up. Prior to having TB DOTS, the FC laboratory already had the capability to perform routine diagnostic tests such as complete blood count, pregnancy test, urinalysis, fecalysis, and pap smear.

The laboratory is located in the rear part of the clinic near the staff's kitchen/dining area. A waiting area near the laboratory is furnished with six chairs. There is a glass window where clients can transact business with the medical technologist. The interior of the room is very clean and is disinfected daily. There are cupboards where laboratory equipment like sputum collecting containers, AFB reagents, glass slides, cover slips and laboratory files are kept. The cupboard doors are marked "DOTS Laboratory Materials," "DOTS Laboratory Corner," and "DOTS Finished Slides."

The medical technologist wears a laboratory gown, mask and gloves when processing specimen. During AFB smear processing the laboratory is off-limits to staff and clients and a sign which reads "AFB staining in progress" hangs on the window as a precaution. The med tech disinfects the whole laboratory immediately after AFB smear processing.

Services Provided

The FriendlyCare clinic is a multi-practice clinic. And almost all patients of the FC TB DOTS clinic are considered walk-in. There are a couple out of 50 cases wherein the patients have been referred by other physicians. The FC clinic provides X-ray and diagnostic services. The clinic's laboratory is capable of handling and processing AFB smear microscopy. The TB DOTS facility of the clinic supplies patients with anti-TB drugs for adults. And patients are also provided IEC materials regarding TB and the TB DOTS program. But pediatric anti-TB syrups are not available in the clinic.

Case Finding. The nurses in the registration area take the patient's information before the physician sees the patient for consultation. When the patient complains of cough of more than two weeks, chills, back pains, and fever during the night, they are usually instructed by the physician to have an X-ray. If the result of the X-ray shows a clear sign of TB, the patient is then referred to the laboratory for a sputum examination. The nurse provides the Lab request form for sputum exam.

The process that the FC TB DOTS clinic follows deviates from the process flowchart provided in the TB DOTS manual in a number of steps. For TB symptomatic and asymptomatic patients, the TB DOTS clinic does not maintain a TB Symptomatics Masterlist and a TB Asymptomatics Masterlist even though their process flowchart indicates that a TB patient should be registered in the TB Symptomatics or Asymptomatics Masterlist. A TB patient is not asked to obtain sputum AFB right away as the flowchart prescribes. The first means of finding out if the patient has TB is through X-ray. Only after a positive X-ray result will the patient be told to have a sputum exam.

Since the clinic does not have a sputum collection area, the patient is given three sets of sputum specimen plastic cups with cover for the three sputum specimen required. The importance of collecting in an open space, preferably outside the house, is imparted to the patient. The patient is instructed on the proper way of collecting sputum by the DOTS nurse/supervisor or the med tech. Instructions include: rinse or gurgle mouth right after waking up in the morning, hold breath for a few seconds to expectorate/produce the

specimen, cover the plastic cup with the cover provided, and bring the specimen to the laboratory as soon as possible.

The next step is for the medical technologist to input the patient's information to the Laboratory Register. This is followed by smearing, fixing, staining, and reading the sputum specimen of the patient. The result of these activities for the three specimens is usually available after a week. The patient is referred to the TB DOTS facility if the result of the sputum exam is smear-positive. Household members of the TB patients are encouraged to undergo sputum examination. If the result of the sputum exam is negative, the patient is advised to see the doctor one more time. Usually, the doctor tells the patient about the possibility of TB. The patient is told to wait a month before getting another chest X-ray to compare the two X-ray results to see if there is any radiologic progression. Only after this second X-ray will the decision to start the patient on TB DOTS be determined.

The process flowchart concludes after the patient sees the physician for a follow-up consultation wherein the patient maybe enrolled in the DOTS program, referred to another DOTS center, or asked to return for a follow-up after one month. It does not provide information and instructions on classifying patients. The clinic's process also does not demand for a second collection of three sputum specimens.

The clinic charges clients ₱ 150 for initial and follow-up consultations. X-ray services costs ₱ 240 while the sputum smear examination package costs ₱ 450. If there is a need for a specific chest X-ray like Apico-lordotic, the fee for this is ₱ 265.

Case Holding. A patient who is classified as smear-positive TB is started on the TB DOTS program. The patient consults with the DOTS physician or a Family Medicine practitioner if the DOTS physician is not in attendance for determining the regimen which will be followed and the prescription of anti-TB drugs. Health education regarding TB and TB DOTS is explained to the patient. The importance of completing the treatment and drinking drugs religiously is encouraged. The DOTS nurse opens the treatment card for the patient and registers the patient in the NTP TB Register. The patient is also asked to sign a contract regarding the treatment. As mentioned in the first assessment, a treatment partner is assigned to ensure that the patient will be consistent in drinking the medication. A treatment partner can be a family member or relative, a barangay health worker, a member of the FC TB DOTS facility, or any willing and responsible individual.

Patients are asked to go to the clinic everyday for the intensive phase of the treatment duration which is for two months. There are instances when the drugs are given on a weekly basis if the patient is not able or cannot afford to report everyday. During the maintenance phase two weeks worth of drugs can be given every visit. Dispensing of drugs is done by the DOTS supervisor/nurse. Sputum exam before the end of the second, fourth, and sixth months of treatment is also observed in the clinic.

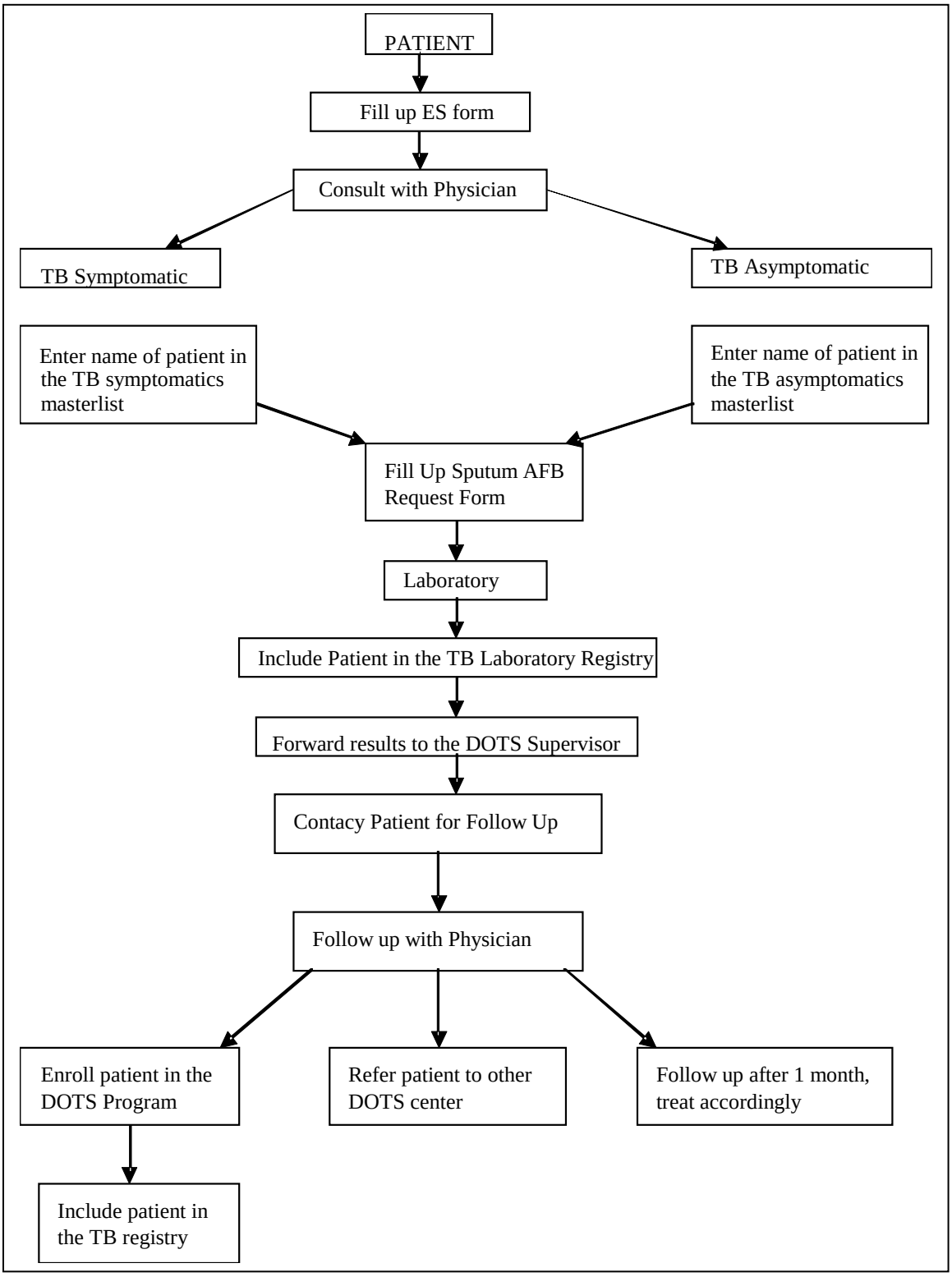


Figure 4-1. Process Flowchart of Procedures Upon Patient Entry

Treatment Costs. The TB DOTS program offered by FC Cubao costs ₱ 1000.This amount covers follow-up consultations with the DOTS physician whenever a patient demonstrates adverse reactions to the anti-TB drugs weekly. The DOTS fee also covers sputum exam for the second, fourth, and sixth month of treatment. There is an extra charge of ₱ 20 for the syringe if the patient is being injected with Streptomycin. But the anti-TB drugs are free.

During the last fieldwork conducted in the TB DOTS clinic, a memorandum from the FC President was hanging in the clinic. This memo is instructing all Metro Manila clinics to increase the price of the Sputum examination from ₱ 150 per specimen testing to ₱ 245 starting 1 August 2004. The memo also instructs the clinics to "cease accepting new enrollees to the TB DOTS program because the mechanics of the TB DOTS program is currently under review by the management." The TB DOTS program is being reviewed because, according to the DOTS coordinator, "FC feels that TB DOTS is a burden to them. The program is not sustainable at the moment. To make it sustainable, FC has to increase the fee for the TB DOTS package."

All patients are charged for the services provided by the clinic. The facility does not have a system for determining which patients should be charged or not for services. The DOTS coordinator, however, has formulated a new paying scheme for the TB DOTS program. She proposes to increase the treatment cost for DOTS to ₱ 4000. A patient enrolled will have to pay ₱ 2500 at the start of the intensive phase and ₱ 1500 after the intensive phase. To see how much the patients are charged for each type of service and the percentage of TB patients using PhilHealth or HMO, refer to the table below. Follow-up and sputum exams during treatment are included in the current ₱ 1000 TB DOTS fee.

Table 4-2. Cost of services at the FC Cubao TB DOTS Facility

Service Provided	Amount(₱)	Out-of-pocket	PhilHealth	HMO
1. DOTS Package	1000	90 %	< 10 %	
2. Consultation				
Initial	150	90 %		10 %
Follow-up (weekly)	Included in DOTS package			
2. Sputum smear examination				
Before treatment (3 specimens)	450	90 %		10 %
Succeeding smear exams	Included in DOTS package			
3. Drugs	Included in DOTS package			
4. X-ray	240	90 %		10 %
5. Others: UPICO X-ray	265	90 %		10 %

Drug Supply

As mentioned in the first analysis, all the drugs for TB which are dispensed to the enrolled patients come from DOH. The Logistics Department of FC was the one in charge of coordinating and reporting to DOH regarding the supply of anti-TB drugs of all the FC clinics. After acquiring drugs from DOH, this department distributes the drugs to all the FC clinics.

For FC Cubao, the DOTS supervisor/nurse is the person assigned to receive the drugs and ensure that the drugs are stored in a clean facility with protection from natural elements such as rain, sun and floodwater. The DOTS supervisor also keeps an inventory of the drugs available. She observes the system of "first expiry, first out." Before stocks are exhausted, the DOTS supervisor requests the Logistics Department for new drugs. However there have been two instances when a certain anti-TB drug became unavailable in the clinic for long periods of time. The first was in 2003 which was also mentioned in the first analysis. The second time this occurred was in February to June of this year. FC Cubao ran out of Ethambutol in February and the Logistics Department had to purchase this to provide for the current TB patients enrolled. However, DOH stopped supplying the single dose drug because they wanted to implement the use of FDC drugs. But DOH could not issue the FDC type of drugs because, according to the DOTS coordinator/physician, DOH explained to them that "the year-long pilot study for the FDC drugs was not yet finished and therefore FDC could not be distributed yet." In the end, DOH had to give out the FDC drugs because even the health centers and public hospitals could not accept patients anymore.

For the FC TB DOTS facility, anti-TB drugs are kept in a cabinet type structure located in the DOTS room. The cabinet can also be used as a bed or table. Right now, the top of the cabinet is used as a table where files, IEC materials, and boxes are placed. Plastic boxes with dividers are used for storing drugs allocated for each patient enrolled. The boxes are marked with the names of the patients.

The drugs available are the Blister pack type 1, Blister pack type 2, Ethambutol 400 mg tablets, 1 gram of Streptomycin in vials, and Pyrazinamide 500 mg tablets. The clinic also has 10ml packets of water for injection which is used for Streptomycin. FC has received the Fixed-Dose Combination (FDC) tablets last June 21. The TB DOTS facility now has the 4-drug and 2-drug FDC tablets. The table below shows an inventory of the anti-TB drugs in the clinic. Pediatric anti-TB syrups and branded anti-TB medications are not available in the facility. Other medications such as antipyretics and allopurinol can be purchased at the registration desk of the clinic. All drugs are stored and used with the "first expiry, first out" system. Expired drugs are kept in one drawer of the cabinet where the drugs are stored. As related in the first analysis, the expired drugs were already beyond or close to the expiry date when they were delivered. The DOTS supervisor/nurse explained that the Logistics Department of FC will take back the expired drugs.

Table 4-3. FC Cubao TB DOTS Facility's Inventory of Anti-TB Drugs, 2 July 2004

Drugs	Quantity
1. Type 1 (HRZ)	175 blister packs
2. Type II (HR)	16 boxes, 100tabs/box
3. Ethambutol (400 mg)	728 tablets
4. Streptomycin (1 g)	393 vials
5. PZA tab (500 mg)	1693 tablets
6. 4-drug FDC tablets	1008 lets
7. 2-drug FDC tablets	1104 tablets

The drugs are included in the whole TB DOTS package and are free. But when a patient needs Streptomycin, an additional ₱ 20 is charged for every injection for the use of syringe. According to the drug supply manager, the current buffer stock of the facility is for full courses of 3 more patients. There are two patients enrolled at the moment. A checklist of the available drugs observed is provided in the table below.

Table 4-4. List of drugs available at the TB DOTS Facility of FC Cubao

DRUGS	Availability		Is it free?	
	Yes	No	Yes	No
1. Type 1 (HRZ)	/		/	
2. Type II (HR)	/		/	
3. Ethambutol (400 mg)	/		/	
4. Streptomycin (1 g)	/		/	
5. INH tab (100 mg)		/		
6. PZA tab (500 mg)	/		/	
7. INH syrup (100 mg/tsp 120 ml)		/		
8. RFP syrup (100 mg/tsp 60 ml)		/		
9. 4-drug FDC tablets	/		/	
10. 3-drug FDC tablets		/		
11. 2-drug FDC tablets	/		/	
12. Antihistamines		/		
13. Pyridoxine		/		
14. Aspirin or NSAID		/		
15. Allopurinol	/			/
16. Antipyretics	/			/
17. Dilutant for Streptomycin	/		/	

IEC Materials and Services

IEC Materials. There are numerous IEC materials in the clinic. There are several posters on the wall discussing TB and TB DOTS situation in Vietnam which were taken from the International Journal on Epidemiology. An FC poster entitled "IWAS TB" was also displayed on the wall. Other posters which can be viewed inside the DOTS Room were provided by Phil TIPS and WHO. A poster discussing DOTS and the five elements of DOTS were also seen on the DOTS door and near the supervisor's table. The process flowchart (see Figure 4-1) prepared for FC is displayed on the wall of the clinic in front of the supervisor's chair. This was not used during the interactions of the service provider with the TB patients which were observed by the researchers.

Flip charts about TB signs and symptoms and misconceptions intended for the treatment partner are also available in the TB DOTS room. A cassette tape entitled "Tuberculosis TIBOR Radio 30's" was also spotted on the supervisor's/nurse's table. Brochures, pamphlets, and comics were also seen in the clinic. The comic strip type IEC materials were in Tagalog and could easily be understood. This was made by ReachOut Foundation International. A brochure discussing TB signs and symptoms and TB treatment put together by FC. The brochure also included information that FC offers TB DOTS and a list of FC clinics with addresses, contact numbers, and contact persons are printed at the back.

During orientation of a newly enrolled patient, only one type IEC material was given to the TB patient and her companion. This was the English version of the DOTS Guide for Treatment Partners which came from Phil TIPS.

IEC Services. The TB DOTS clinic does not hold one on one discussions or group lectures for patients or treatment partners. Health education regarding TB is conducted by the DOTS physician and DOTS nurse/supervisor upon enrollment of the patient in the TB DOTS program. Further encouragement and education is given by the DOTS supervisor whenever the patient comes to get drugs. The DOTS physician also discusses with the TB patients any health concerns about the TB during follow-up consultations. The issues usually discussed during these meetings are the following:

1. Information about TB
2. Who are the people most prone to TB?
3. How is TB contracted?
4. How can TB be cured?
5. What is DOTS?
6. What are the adverse effects of anti-TB drugs?
7. What are the effects of irregular drug intake?

It was mentioned in the first analysis that a focus group discussion was organized for the treatment partners of the TB patients. It was an event dubbed "Tribute to the Treatment Partners" which FC planned. The event was held on September 18, 2003 during the first year anniversary of the FC TB DOTS Program. "Paired mugs" were presented to patients

and their treatment partners who attended the celebration. But other than this one time affair, FC has not held any other discussion or lecture.

ORGANIZATIONAL SET-UP OF THE FRIENDLYCARE DOTS FACILITY AND INFORMATION ON SERVICE PROVIDERS

The research team was unable to obtain any organizational chart from FC during fieldwork. After asking the clinic manager for a copy of FriendlyCare's organizational chart, the clinic manager jokingly replied that they do not have one. The management of FC is deemed unstable at the moment. This is because positions are sometimes merged and personalities at the management level are always changing. However, the clinic manager was able to explain that FC's President/CEO reports to the Board of Directors. According to the FriendlyCare website, the Board consists of the Chairman of the Board, President, Vice-President, Secretary, Treasurer, and eight other members. FriendlyCare Foundation, Inc. on the other hand reports to USAID. The researchers were unable to obtain any kind of organizational chart from the clinic manager and DOTS physician but were able to construct an organizational chart out of the conversations with the DOTS coordinator/physician. The chart can be viewed below.

Any changes or plans regarding the operation of FriendlyCare clinics require the attention of the Board. Decisions are made only after the CEO has presented the proposals to the Board.

All FriendlyCare clinics have a clinic manager who oversees the operation of the whole clinic. The clinic manager is usually one of the physicians reporting in the clinic. All the other physicians of the clinic are not considered employees of FriendlyCare. The physicians are paid retainers fees for the hours that they spend in the clinic. The whole clinic staff including the part-time physicians report to the clinic manager. The clinic in Cubao has two fulltime nurses and one reliever nurse, a medical technologist, a radiology technologist, a cashier, one fulltime and sixteen part-time physicians, two cleaning people, and one security guard.

TB DOTS Service Providers/Roles of Service Providers

FC Cubao personnel who have served and continue to attend to TB patients from the case finding stage to the end of the treatment are considered DOTS service providers. These are the DOTS physician, DOTS supervisor/nurse, medical technologist, radiologist/diagnostic committee member, and radiology technologist. The clinic manager and cashier are in some ways involved with the TB DOTS facility. The clinic manager is the one who shall supervise the proper implementation of DOTS and monitor the reports of the TB DOTS facility. Any physician who happens to see a TB patient when the DOTS physician is not present can also be considered involved in TB DOTS. The TB DOTS facility does not really have any fulltime staff. The DOTS coordinator is also FC Cubao's DOTS physician and is a member of the diagnostic committee. She was

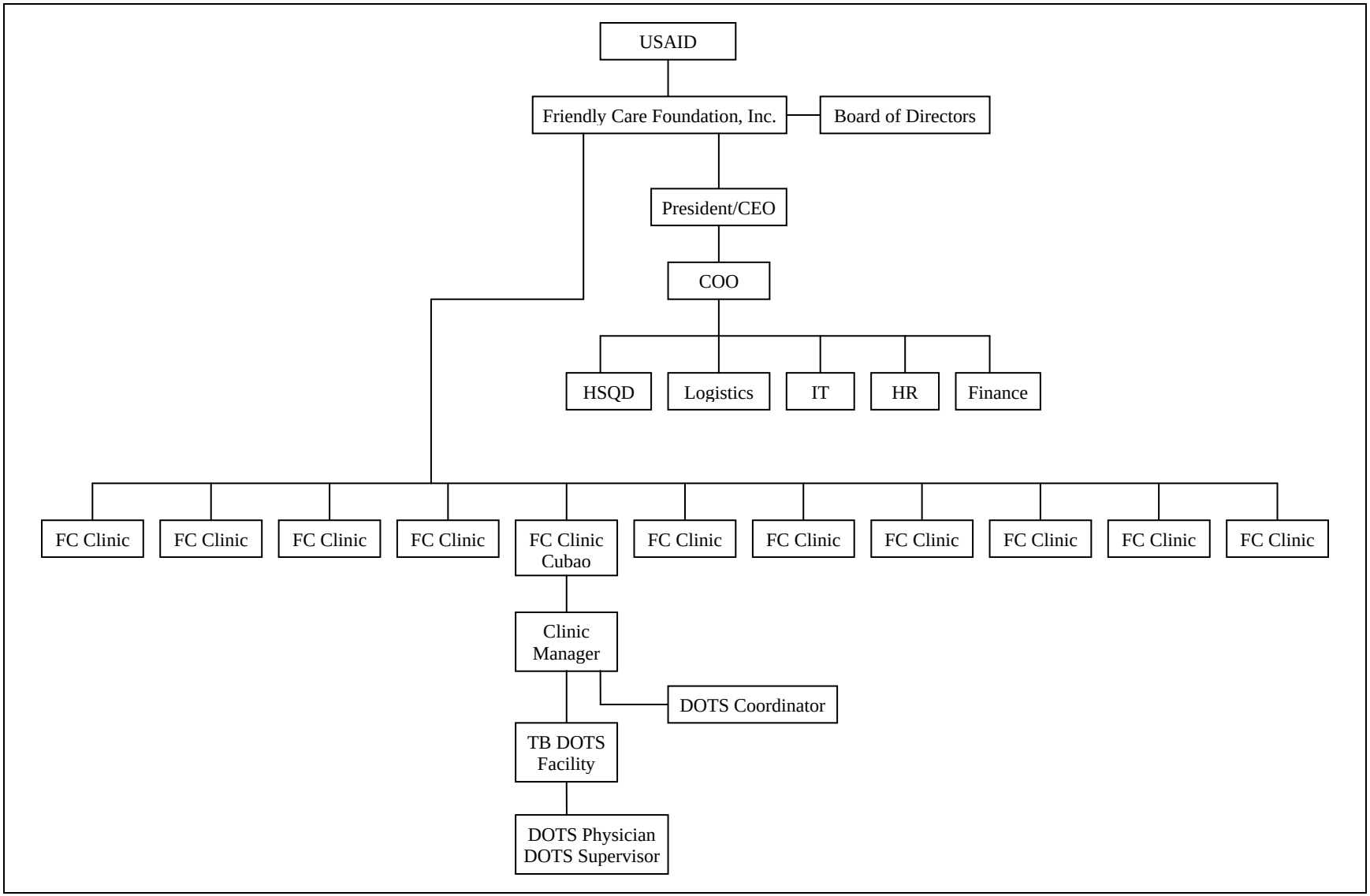


Figure 4-2. Organizational Chart of FriendlyCare Clinic Cubao and its TB DOTS Facility

able to visit the clinic on Saturday afternoons only during the two weeks of fieldwork because of other engagements. She was also in the clinic during the last visit of the researcher on July 15. The service providers' schedule can be found in Table 4-5.

DOTS Physician. FC Cubao's DOTS physician happens to be the DOTS coordinator for the whole FCF, Inc. As mentioned before, the DOTS coordinator is the one who drafted the FC TB DOTS Manual of Procedures. She organized the implementation of the TB DOTS program in all the clinics and oriented the clinics' staff regarding TB and TB DOTS. According to the FC TB DOTS Manual, the coordinator is in charge of overall monitoring of TB DOTS facilities in all the eight clinics. The coordinator is also responsible for monitoring and analyzing the reports required of the TB DOTS clinics. As coordinator, she also has to evaluate activities of the TB DOTS facilities and looks after any DOTS concern of FC. In cases when problems arise in a particular DOTS clinic, the coordinator will have to attend to these problems with the assistance of the other DOTS service providers in the clinic. One significant point to note is that this physician is not getting paid for being the DOTS coordinator.

A newly assigned task to the DOTS coordinator is the management of drug supply for the TB DOTS program of FC. Before, the Logistics Department was the one in charge of coordinating and reporting to DOH regarding the supply of anti-TB drugs of all the FC clinics. The drugs were distributed to the clinics by the Logistics department. Now, the DOTS coordinator will be undertaking these responsibilities from the Logistics Department, although drugs will still go to the Logistics Department before distribution.

As DOTS physician for FC Cubao, she is involved in almost all the services given to TB patients. She provides initial assessment and case finding, case holding, dispensing of drugs, training and educating patients, and supervising the DOTS supervisor/nurse. The only task in TB DOTS that she is not directly involved in is in providing diagnostic services. The DOTS physician also reviews the TB register, Lab register, and treatment cards.

A patient is referred to the DOTS physician when the person's condition satisfies the symptoms of TB. According to the DOTS physician, she screens and assesses patients suspected of having TB, evaluates TB patients, and instructs TB symptomatic patients to have diagnostic exams. An X-ray and a sputum exam would have to be performed on the patient afterwards. The DOTS physician assigns the treatment category based on the patient's history and sputum results. The regimen is determined afterward. A clinic procedure is to enroll smear negative patients when the chest x-ray is suspicious. The physician informs the patient of his/her condition and discusses the importance of TB DOTS. As soon as the patient is enrolled, the physician gives the patient and treatment partner an educational session about the sources and possible causes of TB, how the diagnosis was done, why sputum exam is necessary and why X-ray is not sufficient, curing TB by TB DOTS, the different anti-TB drugs to be taken, why there are four drugs, why the treatment is for six months, adverse reactions to drugs which the patient may experience, and what to be done in cases of adverse reaction. She wants as much as possible to perform the first drug dispensation to be able to fully orient the patient about

TB DOTS. Another detail she imparts to the patient is the need for other household members to undergo check-up or sputum exam because of the possibility that a household member may also have TB. One of the tasks she performs during the case holding stage is to manage adverse drug reactions. She also relates that when the adverse reaction is serious, the patient's family and a specialist doctor may have to be consulted. She also monitors patient's response to drugs and assesses treatment outcome of the patient during follow-up consultations.

The DOTS physician oversees record keeping of TB DOTS files. Reports about treatment outcome and new cases and relapses are submitted every three months to the FC management. As mentioned in the first analysis, in cases where there are problematic patients such as treatment failure, the DOTS physician immediately evaluates the case to facilitate referral to a DOTS Plus facility such as the Tropical Foundation at the Makati Medical Center. When a defaulter returns, the DOTS physician must conduct intensive counseling on the patient before treatment can be resumed or started again. The intensive counseling includes finding out the reason why the patient defaulted, identifying the problem, and solving the problem, if possible. In cases when the patient does not want to continue going to FC for TB DOTS, the physician refers the patient to a health center.

The DOTS physician is the one who prepares the NTP quarterly reports like the Quarterly Report on New Cases and Relapses of TB and on Drug Inventory and Requirement which is required by DOH in requesting for new drug supply. These reports are also a requirement of PhilHealth when renewing PhilHealth accreditation.

DOTS Supervisor/Nurse. The DOTS supervisor/nurse does not work fulltime for TB DOTS. Her official designation in the clinic is Nurse I. As such, her duties include taking patients' vitals or what they call "serving in the frontline," providing assistance to doctors during minor surgeries, serving as cashier between 8-9 a.m. during days when she reports to the clinic at 8, and preparing monthly reports and inventories. She is also the Assistant Family Planning Counselor of the clinic.

As a rule, the main personnel of the TB DOTS clinic in FC is the DOTS supervisor/nurse. The DOTS supervisor/nurse reports to the DOTS physician regarding the TB DOTS facility's concerns. She is required to prepare monthly and quarterly reports on new cases, relapse cases, treatment outcome of patients who have finished DOTS, and drug inventories. She is also responsible for inputting information and updating the NTP TB Register and patients' treatment cards with treatment outcomes or sputum exam results. These records are inspected by the DOTS physician on a monthly basis.

This DOTS supervisor/nurse is not the original nurse in charge of TB DOTS when the program started. She took over from the first DOTS supervisor/nurse only in December 2003 when the original DOTS nurse went to work abroad. But she was the reliever nurse for TB DOTS before becoming the DOTS supervisor.

The DOTS supervisor/nurse is in charge of the supply of anti-TB drugs in the FC Cubao clinic. She manages the distribution of drugs to all TB patients or treatment partners. This

task can also be delegated to one of the FC nurses if the DOTS supervisor/nurse cannot report to work. The task of requesting for anti-TB drugs and other supplies also falls in her hand. She makes sure that the stock of drugs is enough for currently enrolled patients. Injecting of Streptomycin, if a patient is under Regimen II, is also performed by the DOTS supervisor. If a patient or the treatment partner fails to show up for drug dispensing, the DOTS supervisor contacts the patient through the telephone or, if there is no contact number, through volunteer barangay health workers.

The DOTS supervisor also has a role in case detection because she is able to screen patients who may have TB. When a TB suspect comes to the clinic for consultation, the DOTS supervisor/nurse would interview the patient about why the patient came to the clinic. According to the DOTS supervisor, she would recommend a sputum exam if the patient matches a TB symptomatic. The duties she performs during case finding are assessing patient suspected of having TB, referring diagnosed TB patient to physician for start of treatment, and maintaining the treatment cards. During enrollment, she is the one who educates and orients the patient and treatment partner about TB, TB DOTS, anti-TB drugs, and side effects adverse reactions to drugs whenever the DOTS physician is not available. She also helps identify a treatment partner for an enrolled patient. She sometimes volunteers to be the treatment partner when there is no one available. She also educates the treatment partner about the need to remind patient about time of drug intake, to observe the patient taking the drugs, and how to fill up forms.

During case holding, the DOTS supervisor/nurse is the most involved service provider of TB DOTS. She sees the patient for drug dispensation everyday during the intensive phase, unless the patient requests for a weekly dispensation, and every two weeks during maintenance phase. She marks every the treatment card for each time the patient gets drugs. Every visit is an opportunity for the supervisor to educate the patient and/or treatment partner about TB. She also tries to counsel patients regarding regular drug intake and finishing the treatment. She stresses the issue of developing resistance to drugs due to irregular drug intake. The DOTS supervisor is the one who reminds the patient about the sputum examination at the end of the second, fourth, and sixth month of treatment. She monitors the response of a patient to the anti-TB drugs by checking the weight of the patient and other symptoms.

Medical Technologist. The medical technologist's task in TB DOTS is purely on diagnostic services. She handles the laboratory of the FC clinic in Cubao which offers complete blood count, urinalysis, fecalysis, pregnancy test, Pap smear, and sputum AFB test.

As the only microscopist in the facility, she is the one who processes all sputum requests during diagnosis, treatment, and at the end of treatment. The med tech is the one who issues the three cups to be used for sputum collection. She is also the one who instructs patients on how to properly and best collect sputum. She maintains the Laboratory register for all patients who have sputum. This is followed by smearing, fixing, staining, and reading the sputum specimen of the patient. She makes sure that the whole laboratory is disinfected after working on a sputum specimen. Results of sputum exams are usually

available after a week. Results of sputum exams are forwarded to the DOTS physician. If a patient does not return to get the results of the exam, the med tech usually alerts the DOTS supervisor/nurse of positive TB patients so that the supervisor can contact the patient or ask a volunteer barangay health worker to contact the patient.

She updates the DOTS physician with the laboratory activities by preparing monthly and quarterly reports. She also keeps an inventory of laboratory equipment which she submits to the clinic manager. Requisition of laboratory equipment is another task of the medical technologist.

Radiology Technologist. The radiology technologist performs chest X-rays and other radiology services for patients when physicians request for these. He is not involved in any other clinic tasks but is able to make an assessment of a patient's condition according to the results of chest X-ray. As mentioned in the first analysis, the Rad. Tech. believes that referring a person symptomatic of TB to a physician is common knowledge. When a patient's X-ray is suspicious, he informs the DOTS supervisor and Med Tech about it.

Radiologist. Being the radiologist of the clinic, she is automatically a member of the diagnostic committee. Her tasks are to examine the patient for tuberculosis through the chest X-ray and to help the diagnostic committee to assess a patients case and determine if the patient should be enrolled to TB DOTS or not.

FC Physician. Whenever The DOTS physician is not available to meet patients for consultation, the physician on hand at the time will have to conduct the consultation with the patient. Especially if the patient needs to be started in the TB DOTS program, the physician will have to meet with the patient and prescribe the dosage of FDC that the patient will have to take.

Table 4-5. Schedule of TB DOTS Service Providers in FC Clinic Cubao

TB DOTS Service Providers	M	T	W	Th	F	S
1. TB DOTS Coordinator / DOTS Physician				10:00 – 4:00		2:00 – 5:30
2. Supervisor/Nurse/Drug Supply Manager	8-5 or 9-6	8-5 or 9-6	8-5 or 9-6	8-5 or 9-6	8-5 or 9-6	8-5 or 9-6
3. Radiologist/Diagnostic Committee Member	9:00 – 10:30	11:30 – 1:00	9:00 – 1:00			11:00 – 1:00
4. Medical Technologist	8:00 – 5:00	8:00 – 5:00	8:00 – 5:00	8:00 – 5:00	8:00 – 5:00	8:00 – 5:00
5. Radiology Technologist	9:00 – 6:00	9:00 – 6:00	9:00 – 6:00	9:00 – 6:00	9:00 – 6:00	9:00 – 6:00

Experience and Training in TB DOTS

At the inception of the TB DOTS facility, the people who decided to include TB DOTS in FC clinics linked with DOH for the anti-TB drug supply and also for the training of the FC staff who will be involved in the facility. Some of the staff of FC Cubao have attended training concerning Basic TB DOTS and the NTP Manual of Procedures.

Training. The first training the DOTS physician/coordinator attended was given by the Mandaluyong Health Office for barangay health workers of Mandaluyong City in August 16, 2002. The former DOTS nurse/supervisor of FC Cubao also attended this training. This was an orientation on the NTP New Manual of Procedures. But the DOTS physician related that the training applied more to public health providers. Some issues which she considers important for private practitioners were not addressed by the orientation. After a month, the DOTS physician attended another training regarding DOTS which is addressed to the private sector. It was provided by United Laboratory.

FC's DOTS coordinator obtained her medical education from the University of Sto. Tomas (UST) and graduated in 1996 while her Family Residency training was completed at the University of the Philippines-Philippine General Hospital. She had a lot of experience with issues on control and prevention of TB during this time. TB DOTS was already discussed during her stay at the PGH but it was not implemented for patients yet. She feels that training is necessary for her to know about changes and improvements on DOTS and also for networking purposes. Training could also serve as a refresher course for her.

Because FC was a pilot clinic of Philippine Tuberculosis Initiatives for the Private Sector (Phil TIPS), FC's DOTS physician was able to join a study tour. This tour which was granted by Phil TIPS was about studying the condition of TB and the implementation of TB DOTS in Kenya, India, The Netherlands, and some other European countries.

The present DOTS supervisor/nurse has attended the Basic TB DOTS training according to the progress report of FACE. When she took over the position from the other supervisor, she was instructed by the supervisor to read the manual to familiarize herself with TB DOTS protocol. She was already knowledgeable about TB prevention and control, TB symptoms, diagnosis, and treatment even before she became the DOTS supervisor because she was able to study about TB in college while taking up Nursing.

She has also attended several trainings this year regarding the FDC drugs which was organized by Phil TIPS. She said that her training, although it covered topics of basic TB DOTS, was not very intensive. It was more for the implementation of FDC to TB patients. She feels that more training is necessary. Logistics management was also discussed at the training but the DOTS supervisor feels that it applied to barangay health workers more than it applied to health providers like her who work for private clinics. She mentioned that the training was not compatible with the FriendlyCare's practice on drug requisition.

All the medical technologists working for FC were sent off for training on the proper way of handling sputum specimen and processing for acid fast bacilli (AFB) smear. It was conducted by Miss Rustrata, a Research Institute for Tropical Medicine's TB staff. Prior to this training, her Medical Technology education in college already trained her regarding AFB smear microscopy and laboratory quality assurance. Like the rest of the FC staff involved in TB DOTS, she is willing to attend training for her to be informed on new policies and changes in the system of reporting. The medical technologist of FC who is assigned to visit all FC Clinic Laboratories and perform validation of sputum smears underwent a three-day Quality Assurance Training for Sputum Microscopy in November 2003. This training has given her the capacity to validate sputum slides.

The other two FC staff involved in providing TB DOTS services, the Radiologist and Radiology Technologist, have not attended Basic TB DOTS training. They would like to undergo training to acquire basic information on TB DOTS. The Rad Tech also feels that this will provide him with some precautions when handling TB patients.

An orientation and educational lecture was given or provided to the staff of all FC clinics about TB and providing TB DOTS services. The Area Manager and DOTS coordinator went around all the clinics which will have TB DOTS facility to talk to the whole staff of the clinics. Unfortunately, the DOTS coordinator related that most of the staff had other tasks to do at the clinic and were unable to stay for the whole duration of the lecture.

Some of the physicians of FC have also attended basic TB DOTS training. The DOTS physician reliever attended his training in Veterans Memorial on October 2003. Almost everything regarding TB DOTS from NTP policies and procedures to monitoring and supervision were covered by the training except for logistics management. He believes that he needs more training especially about logistics.

Experience and Knowledge. Almost all the service providers of FC involved in the TB DOTS program have been with FC since the start of the program. All of them have been in service for nearly two years now. The only person relatively new to her position is the DOTS supervisor/nurse. This is because she was a replacement for the primary DOTS supervisor/nurse who left FC to work abroad. But even though she has only started being TB DOTS supervisor eight months ago, she has already had numerous experiences assisting or attending to TB patients. When asked about TB symptoms, most of the service providers mentioned cough of two or more weeks. Only the radiology technologist mentioned suspicious X-ray results. The radiologist also mentioned fever, weight loss, sweat and chills, and humped back. The physician reliever mentioned poor appetite, weight loss, and fever but did not mention cough. Some of the signs the DOTS physician mentioned were cough, fever, weight loss, poor appetite, and instances when cough is not relieved by taking antibiotics. The symptoms enumerated by the DOTS supervisor are the following: cough, fever, sputum expectoration, weight loss, blood-streaked sputum, back pains, chills, poor appetite, and humped back.

For the case holding part of the treatment, only the DOTS physician and supervisor are really involved. When asked education messages they would impart to TB patients, the

physician specified covering mouth when coughing, regular drug intake, and the importance of completion of treatment. Some of the messages that the supervisor gives the patients are that TB can be cured but that treatment should be completed and the importance of treatment partner's support. She stresses that there could be terrible consequences when drugs are not taken regularly.

The following are the things that the DOTS physician does to guarantee the compliance of the TB patient with DOTS: 1) explain the importance of treatment compliance; 2) identify and educate a treatment partner; 3) motivate the patient to continue the treatment; 4) enumerate to the patient the benefits of being cured; and 5) frequent follow-up. The DOTS supervisor on the other hand performs the following: 1) administer the patient's drugs daily during the intensive phase or have the treatment partner make sure that the patient swallowed the drugs; 2) make sure that a relative or family member oversees drug intake during weekends or holidays when FC is closed; 3) motivate patient to continue with the DOTS; 4) perform follow-up consultations; and 5) monitor the patient's response to treatment. The DOTS supervisor also recounted a patient who went to visit her at home during a holiday because the patient needed to be injected with Streptomycin.

Equipment

Although there is an available inventory of the examination equipment of the FC clinic, there is no separate inventory for the TB DOTS facility. The following pieces of examination equipment are used at the registration area where the nurses examine patients: stethoscope, BP apparatus, thermometer, and weighing scale. These equipment are used for all clients of the clinic. As mentioned before, the examination beds are located in the doctors' cubicles and the bed inside the DOTS room is being used as a table. Exhaust fans are provided in the TB DOTS room and the laboratory. There are also several fire extinguisher visible in the clinic.

The laboratory in FC has its own sink, faucet with running water, and an exhaust fan. It is air-conditioned like the rest of the clinic. The medical technologist also has her own computer in the laboratory. The researcher was unable to obtain a written inventory of the laboratory equipment but the following were observed to be available in the lab: microscopes, refrigerator (for storing specimen), vortex mixer, and a refrigerated centrifuge. The laboratory supplies on hand are surgical mask, sharps container, boxes of cover slips, an adequate supply of disposable needles, syringes, glass slides and cotton balls. AFB reagents and sputum collecting containers were not observed but the med tech guaranteed that these are available in the lab. The med tech was seen wearing a lab gown, gloves, and mask during fieldwork.

The DOTS coordinator related a situation about the supply of masks for the service providers in 2003 during the time of the SARS scare. The Logistics Department of FC failed to provide surgical masks that they usually provide. The reason given by the head of the Logistics department was that some clinic staff used masks even when they do not really need to wear masks and that is why they have stopped providing the masks. On the

other hand, the HSQD director was undecided if the N95 masks were really needed by the DOTS staff.

Performance Evaluation

Although monitoring of TB DOTS activities is performed by the DOTS physician/coordinator in the case of FC Cubao, the immediate supervisor of all FC Cubao staff including physicians is the clinic manager. The evaluation of staff performance is carried out by the clinic manager once a year. All the service providers interviewed for the second situation analysis pointed to the clinic manager as their immediate supervisor. This is in contrast to the first analysis where the med tech referred to the pathologist as her immediate supervisor while the rad tech named the radiologist as his immediate supervisor. There is an existing evaluation form which is provided by the FC management. A copy was not obtained by the researchers due to its unavailability. However, when asked about their ideas on the criteria for performance evaluation, the service providers had these answers:

Table 4-6. Service Provider's Opinion of the Criteria for Performance Evaluation

Service Provider	Criteria
DOTS Physician	Performance of key result areas (KRA)
DOTS Supervisor	Performance of duties and responsibilities Performance of tasks Ability for multitasking Involvement family planning counseling
Radiology Technologist	Performance of tasks Ability to move and work fast

The DOTS coordinator/physician does not have the capacity to evaluate the performance of the service providers of the clinic but thinks that there is a need for it. She feels that this is one reason why the TB DOTS program is sometimes neglected. The interest of the TB DOTS program is not really given consideration in the evaluation. Any incident or mistake by the staff regarding TB DOTS can be reported by the DOTS physician to the clinic manager for proper supervision.

In the first analysis, it was mentioned that the immediate supervisor of DOTS coordinator is Dr. Liwanag, the FC Area Manager. This is not the situation anymore since the position has already been abandoned. Upon looking at the organizational chart, it can be observed that the immediate supervisor of the DOTS coordinator is the clinic manager.

Quality Improvement

The service providers had a lot of ideas regarding improvements which can be implemented in the FC clinic and the TB DOTS facility. The DOTS physician feels that there is a need for a staff specifically assigned to handle the DOTS facility. She also wants an evaluation conducted on service providers concerning their duties and responsibilities for the TB DOTS facility. Also mentioned was the necessity to have FC

management's full support for the DOTS facility. The DOTS supervisor, on the other hand, mentioned the need to have doctors available at the clinic from 9:00 a.m. to 6:00 p.m.. The medical technologist and radiology technologist both mentioned that they would like to receive hazard pay due to the delicate nature of their work. The radiology technologist thinks that the FC clinic should utilize all the spaces available. He also feels that the TB DOTS facility should be located in a separate part of the clinic because of the hazard it creates. The medical technologist would like the laboratory to be equipped with a biohazard cabinet where she can examine sputum specimens with reduced risk. Finally, the radiologist feels that the FC clinic should be promoted a lot more. She also feels that the location of the clinic, which is at the second floor of the complex, makes it inaccessible to some clients and this is a disadvantage.

REFERRING PHYSICIANS

A very unusual characteristic of FC's TB DOTS is that they actually have two referring physicians only. Out of the two, only one was interviewed. The TB DOTS coordinator has mentioned that they are concerned about promoting the TB DOTS clinic to referring physicians because they might have to deal with an overload of patients that their clinic cannot accommodate. At the moment they would like to target clients who have the ability to pay the TB DOTS package which may go up to ₱ 4000.

The referring physician who was not interviewed is an accidental referring physician. She was not interviewed due to a conflict of schedule. This physician is the dermatologist of FC clinic. A patient came to consult with her because of a worsening skin condition. At first, the patient thought that she had a pimple on her face. She tried to put medicine on it but the inflammation did not subside after a few days. The pimple-like bump did not decrease in size even after several treatments. The dermatologist then advised the patient to have a biopsy and the result showed that the patient has Extra-Pulmonary TB. She was started on the DOTS before they found out that she also has Pulmonary TB.

The referring physician who was interviewed is based in World Citi Medical Center and Colleges (WCMCC) which used to be Quezon City Medical Center Colleges. The medical center is along Aurora Boulevard in Cubao. The physician is between 40-50 years old. Her household's monthly income is more than 100,000. She did not want to elaborate or give the average. Her usual consultation fee is ₱ 500 but she modifies this when a patient cannot afford. She charges TB patients ₱ 300 for first and follow-up consultations. She also prescribes generic drugs because these are cheaper.

Stimulus for Referral

The referring physician claimed to have known about the FC TB DOTS facility for a while already. This could be due to some ads she had come across. But she mentioned that during the last Philippine College of Chest Physician's (PCCP's) convention in March of this year, referring TB symptomatic or diagnosed patients to TB DOTS facilities became a requirement to physicians like herself.

Two reasons were mentioned as to why she referred a patient to FC. One is because it was required of PCCP. The second reason is that FC is very close to where she works. She answered in the negative when asked if she has made any other referrals to TB DOTS facilities.

Knowledge on TB DOTS

The referring physician of FC who was interviewed believed that TB is a priority disease in the country because it is infectious. She also thinks that TB is threatening to the economy and that is why the country has a target cure rate for this disease. As a referring physician, her main responsibility is to diagnose patients who come for consultation and to report any new TB cases when her patients contract TB. But she acknowledges that the treatment part is the most important component of the TB DOTS strategy. She stresses the need to ensure compliance of the patient. Patients must be directly-observe or, as she puts it, "*tutukan ang patient*." When asked to compare the DOTS strategy and the self-administered way of treatment, she recognizes the effectiveness of the DOTS strategy. She reasons that this method gives the patient more incentive to finish the treatment. An additional benefit to patients is that they are entitled to countless free follow-up consultations. She acknowledges that the medicine can be expensive when treatment is self-administered.

Attitude and Perception

The referring physician approves the overall concept of TB cure and prevention for all. In view of this, she is in favor of providing free anti-TB drugs to all TB patients. She believes that the best advantage that TB DOTS presents is the free drugs provided to TB patients who are PhilHealth members. The only disadvantage this physician referred to is in cases when the TB DOTS facility is located far from where the patient lives. Or when she does not know of a TB DOTS facility in or near the area where the patient lives. She however feels that although TB DOTS also offers an advantage to physicians by means of the incentives given by PhilHealth, the incentive given to them is not enough. The disadvantages that she perceives apply to her are the loss of income from patients who transfer to the TB DOTS facility and the tedious work of reporting about the TB cases. Her criticism of the reporting process concerns the many forms which have to be filled up every time.

Referral Practice

The referring physician does not really generate a lot of referees for TB DOTS facilities. She has only referred at the most four patients but she does know that she should refer all of her patients to TB DOTS centers. She has decided to forget about this directive of referring patients. This is because she referred a patient once to a TB DOTS clinic but the patient kept coming back to her and then back to the clinic. It turned out that the TB case of the patient is not covered by PhilHealth. The patient had Plura or TB on the outer layer of the lungs. This referring physician thinks that since only new TB cases are covered by

PhilHealth, then she should only refer all new TB cases to TB DOTS centers. She has never referred to a public DOTS center because the closest to her clinic in WCMCC is the TB DOTS clinic of FC. She mentioned that Lung Center already has its own catchment site.

In terms of particular arrangements for performing monitoring and incentives, she does not have any. She did mention that PHIC gives a referral fee to referring physicians like her. When asked about what she can recommend to motivate physicians to refer TB patients to TB DOTS facilities, she said that one tactic would be for the government to require it of all physicians. She explained that this could work if physicians will refer old and new TB patients if there is a threat that their licenses will not be renewed. She also recommended an improvement of the incentive commensurate to the lost income should be awarded to referring physicians. Lesser forms to fill up for reporting was also recommended.

When asked about TB DOTS centers, she said that these centers are not adequately marketed because they are not advertised properly. She mentioned that lack of advertising is also why potential referring physicians are not aware of the TB DOTS strategy. She suggests that there should be more marketing done for TB DOTS. She related that even though TB DOTS has been around for a while, it is only now that it is being introduced and discussed in school and convention lectures. She again mentioned that lesser forms would help improve the implementation of TB DOTS. She agrees to the proposed move to accredit DOTS providers. She said that “providers should be commended.”

To expand the percentage of physicians referring to TB DOTS, she believes that the incentive for physicians should be commensurate to the income that physicians will lose when patients transfer to the TB DOTS center. And an effective way to encourage referrals is for the government to make a law mandating referrals to TB DOTS centers. She reasons that with the current incentives, the only way physicians will notice or adhere to referrals to DOTS centers is if it is mandated by law.

With regards to the difference of Private-Public Mix DOTS center from a pure public DOTS center, she believes that there are really no differences. But private physicians do have contributions to the fight against TB. She said that physicians will think of the overall interest of controlling TB if they are conscientious. A private provider like her can also contribute to the prevention of TB by treating TB patients and their household members. She also mentioned giving health lectures to TB patients. She added that she is able to contribute by ingraining in the patients the effects of defaulting and the possibility of dying when waiting a year for drugs from RITM. She believes that public and private providers should always share the social responsibility of dealing with any disease.

RECORDING AND REPORTING SYSTEM

Recording and Reporting Forms

According to the first analysis, the following NTP recording forms were available during the data collection period last year: TB Symptomatics Masterlist, Laboratory Request Form for Sputum Examination, Laboratory Register, Treatment Card, Identification Card, TB Registry, and Referral/Transfer Forms. All of the said forms were filled-up and updated by the DOTS supervisor. For this fieldwork, the following were observed:

- TB Syptomatics Materlist was missing. When asked, the DOTS supervisor said that they do not utilize this form;
- Treatment cards were not updated. Some information about completion of treatment in May were only recorded during the two week period of fieldwork. There were some confusing data in the treatment cards. Treatment completed was ticked but cured was also recorded in the remarks box. One patient's card did not have the category indicated. The things missed in filling out the cards are: 1) region and province, 2) occupation, 3) drug not specified when previously treated, 4) weight after treatment, 5) incomplete information on contact person, 6) sputum date and results, 7) type of patient, 8) number of household contacts;
- Treatment card was not filled up properly. Drug intake for the intensive and maintenance phases were marked in the intensive phase box of the treatment cards. It was also indicated in the treatment cards that a substantial amount drugs (two months worth) can sometimes be given ahead of time;
- One patient was declared as default only after eight days of not visiting the clinic for drug dispensation;
- Identification cards were available in the facility but it was not used during enrollment of a new TB patient;
- TB Registry was not updated upon checking during the first day of fieldwork. However, it was updated at some point in the two week fieldwork period;
- Referral/Transfer forms were also available but there was no opportunity at the time to observe if the form was being used;
- Most patients have signed contracts. Indicated in the contracts is the payment scheme for that TB patient. The contracts are attached to the treatment cards of each patient;
- The treatment cards and other documents of patients who are PhilHealth members are filed in a separate folder;
- Some information in the treatment cards do not coincide with information from the TB Registry. The result of sputum exam or Unable to Produce Sputum (UPS) was not reflected in the Treatment Cards although recorded in the TB Register. Another case was different registration dates for the treatment card and the TB Registry.

The first analysis also mentioned that the following NTP reporting forms were not available at the time of data collection although these have been previously prepared:

Quarterly Report on New TB Cases and Relapses and Quarterly Report of Laboratory Activities. During fieldwork for the second analysis, the said forms were observed. However, the reports were not up to date since the patients' treatment outcomes for the first quarter of 2004 were already available. The last report done on new TB cases and relapses was for the fourth quarter of 2003.

Refer to the tables below for a complete account of the condition of the forms. FC's TB DOTS facility has almost all the recording and reporting forms required by NTP except for the Symptomatic Masterlist and Counting Sheet for Lab Activities. All the forms are legible. But only the Lab Register and Quarterly Report on drug inventories are up to date. The only complete forms of the TB DOTS facility are the Lab Register and Quarterly Report on Lab Activities. Checking for completeness of the forms was based on the sample forms in the NTP Manual of Procedures. Note also that the DOTS service providers responsible for recording and reporting have to prepare reports on a monthly basis for the DOTS coordinator.

The counting sheet of Laboratory Activities was not available during the second analysis' fieldwork but the counting sheet for Treatment Outcomes was. This is the reverse of the first analysis. As the first analysis mentioned, summary reports have to be submitted to the Shaw Office of FC. The DOTS coordinator related that recording and reporting is one aspect of TB DOTS that is very difficult to observe in FC. This is due to the fact that the TB DOTS program does not have a specific service provider in charge for each clinic. She recounted some instances when she has asked for monthly or quarterly reports from DOTS supervisors in different FC clinics and the reports were not furnished immediately. She sometimes has to wait for a month for the forms. There are also instances when she asks for photocopies of the TB Registry and accomplishes the reporting forms herself.

The task of recording and reporting regarding laboratory activities and other concerns fall on the medical technologist. The quality of the records being up to date is probably due to the fact that she has to submit or give results of the exams to the physician or patient. Also, the med tech does not have other duties or tasks to perform other than the ones regarding the laboratory. The responsibility of recording and reporting TB DOTS activities and concerns is entrusted to the DOTS supervisor. It can be observed that most of the forms are not up to date and complete. The huge bulk of work of the supervisor could account for the deficient quality of the forms. From what was observed during the six-day fieldwork, the supervisor spends most of her time in the registration area since clients need to be served as soon as they arrive. This is one of the rules in FC. She also assists doctors when shots are given to patients. When the supervisor stayed in the TB DOTS room to conduct the inventory of the anti-TB drugs, she was called several times to serve in the registration area or to do other tasks.

Table 4-7. Recording forms and responsible staff at the FC Clinic Cubao TB DOTS Facility

Type of Form	Maintained		Service Provider Responsible for Filling Up
Recording Forms	Yes	No	
TB symptomatics masterlist		/	
Laboratory request form for sputum examination	/		TB DOTS Supervisor
Laboratory register	/		Medical Technologist
Treatment card	/		TB DOTS Supervisor
Identification card	/		TB DOTS Supervisor
TB register	/		TB DOTS Supervisor
Referral/Transfer form	/		TB DOTS Physician
Reporting Forms And Counting Sheets	Yes	No	
Quarterly report on laboratory activities	/		Medical Technologist
Counting sheet for laboratory activities		/	
Quarterly report on new cases and relapses	/		TB DOTS Supervisor
Counting sheet for treatment outcome	/		TB DOTS Supervisor
Quarterly report on drug inventory and requirements	/		TB DOTS Supervisor / Drug Supply Manager
Do you submit summary reports? (to DOH)	/		TB DOTS Physician
Financial Accounts/Statements	Yes	No	
Balance sheet*	/		Cashier
Income statement*	/		Cashier
Cash flow statement*	/		Cashier

* Forms were not observed

New supply of anti-TB drugs was delivered on June 21, just as the second situation analysis was about to commence. However, due to various other tasks the inventory was not immediately done by the drug supply manager. She decided to update her inventory after the researchers asked for a copy of it.

The last report submitted to NTP was in May 2004. These reports have also been submitted to PhilHealth as a part of the requirements for the clinic's TB DOTS accreditation renewal.

Table 4-8. Status of the records maintained at the FC Clinic Cubao TB DOTS Facility

Type of Form	Up-to-Date		Legible		Complete	
	Yes	No	Yes	No	Yes	No
TB symptomatics masterlist						
Laboratory register	/		/		/	
Treatment card		/	/			/
TB register		/	/			/
Quarterly report on laboratory activities		/	/		/	
Quarterly report on new cases and relapses		/	/			/
Quarterly report on drug inventory and requirements	/		/			/

Enrolled Patients

The first analysis declared that the TB DOTS facility of FC had a total of 38 enrollees since the start of the program. This was for a whole year, from September 2002 to September 2003. For the period October 2003 to June 2004, the time between the first and second analysis, there were only 12 enrollees.

Since the start of the TB DOTS facility in FC Cubao, the month of October in 2003 demonstrated the highest number of enrollees. There have been seven months in the course of TB DOTS history in FC when no patient was enrolled for the whole month. This happened in May, June, and November of 2003 and March to June of 2004. The other months' enrollment figures ranged from 1-6 enrollees. To show the actual monthly fluctuations of the number of patients FC was able to enroll, please see Figure 4-3. Moving averages based on three-month intervals were also calculated and plotted on to the graph. This is to smoothen out the graph.

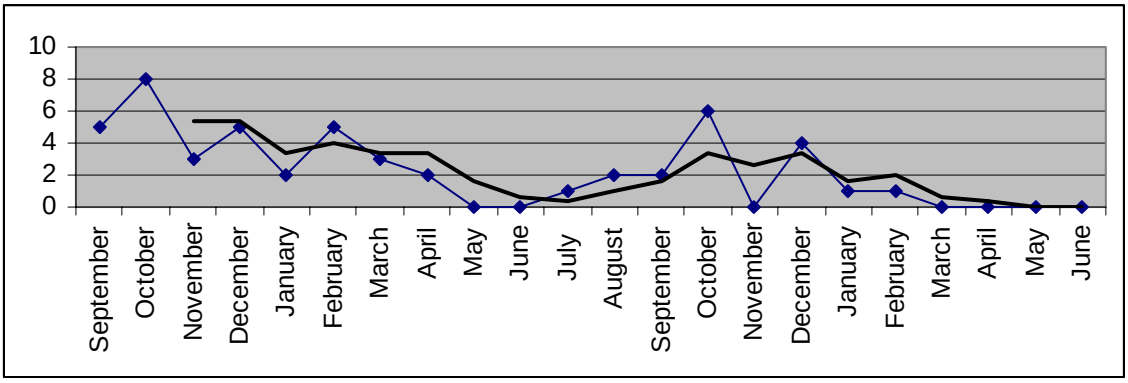


Figure 4-3. Graph showing monthly enrollments at the FC Cubao TB DOTS Facility, 2002-2004

Another chart (see Figure 4-4) was produced to show enrollment figures by quarter. This clearly shows that the months of November to December are when most patients are enrolled. The graphs clearly illustrate the periods when drugs were not available in the clinic.

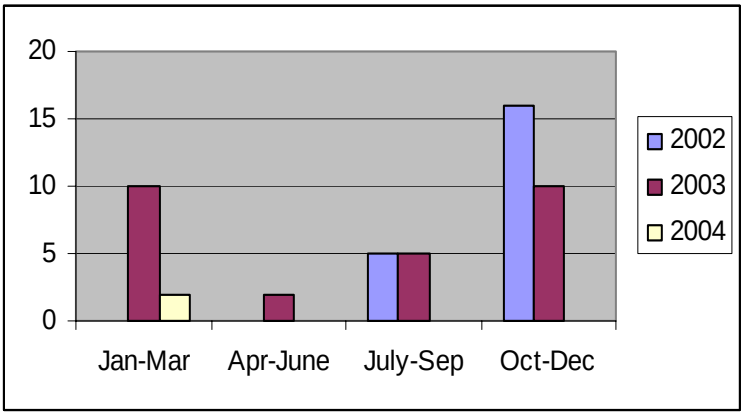


Figure 4-4. Bar chart showing TB enrollments by quarter at the FC Cubao TB DOTS Facility

The distribution of enrolled patients by age and sex for the periods considered for the first and second situation analyses is shown in Table 4-9. In the first period from September 2002 to September 2003, males comprised of 60 percent of all TB patients enrolled. The fraction of male enrollees has declined since then to 58 percent. This decline covered the period October 2003 to June 2004 which the second situation analysis studied. The age distribution has also changed. The highest proportions of cases are now in the 25 to 34, 35 to 44, and 65 plus years age bracket with the same percentage of cases. The 55 to 64 age bracket which used to factor 15.8 percent of enrollees now has no enrollee. The pediatric case in the 0-14 age group still does not have any enrollees.

The first analysis did not have any EPTB and Pulmo/Extrapulmonary patients. In the second analysis, 11 out of 12 patients suffered from pulmonary TB which is approximately 91.7 percent. There was only one EPTB and no Pulmo/Extrapulmonary case (see Table 4-10).

Table 4-9. Distribution of TB Patients at the FC Cubao TB DOTS Facility, by age and sex, first and second situation analyses

	SA 1						SA 2					
Age Group	Male (n=23)		Female (n=15)		Total (n=38)		Male (n=7)		Female (n=5)		Total (n=12)	
	n	%	n	%	n	%	N	%	n	%	n	%
0-14	0	0	0	0	0	0	0	0	0	0	0	0
15-24	7	30.4	2	13.3	9	23.7	2	28.6	0	0	2	16.7
25-34	8	34.8	3	20	11	28.9	1	14.3	2	40	3	25
35-44	1	4.3	4	26.7	5	13.2	2	28.6	1	20	3	25
45-54	1	4.3	1	6.7	2	5.3	1	14.3	0	0	1	8.3
55-64	2	8.7	4	26.7	6	15.8	0	0	0	0	0	0
65 +	4	17.4	1	6.7	5	13.2	1	14.3	2	40	3	25

Table 4-10. Disease classification of TB patients at the FC Cubao TB DOTS Facility, first and second situation analyses

Disease Classification	SA 1		SA2	
	n	%	n	%
Pulmonary TB	38	100	11	91.7
Extra-pulmonary TB	0	0	1	8.3
Pulmo/Extra pulmonary TB	0	0	0	
Total	38	100	12	100.0

Table 4-11 shows the number of enrollees for each type of patient. The percentages for the first and second analyses of smear positive and negative are almost the same. New smear positive cases constitute less than half of enrolled patients, while new smear negative cases read 36 percent. The percentage of RAD seems to have increased but this is probably because of the absence of relapse patients during the time of the second analysis. The second analysis also has data on Extra-Pulmonary TB cases.

The table on treatment categories, Table 4-12, shows that the distribution of patients is mostly in Category I (75 percent). However, there were no patients enrolled under Category III and this is the reason for the rise of the percentage of Category II.

Table 4-11. Distribution of TB patients at the FC Cubao TB DOTS Facility, by type of patient, first and second situation analyses

Type of Patient	SA 1		SA 2	
	n	%	n	%
PTB	38	≈100	11	≈100
New Smear (+)	19	50	5	45.5
New Smear (-)	14	36.8	4	36.4
Relapse	4	10.5	0	0
Transfer In	0	0	0	0
Return After Default	1	2.6	2	18.2
Failure	0	0	0	0
Others				
EPTB			1	100
New Smear (+)				
Others			1	100
PTB/EPTB				
New Smear (+)				
New Smear (-)				
Total	38		12	

The treatment outcome of the patients enrolled during the period considered for the first and second analyses is shown on Table 4-13. While looking at the data, one must take into account the fact that only 28 out of 38 patients were included in the first situation analysis report. This is because ten of the patients were still undergoing treatment. The percentage of patients that were cured has gone down from 35.7 percent in the first situation analysis to 33.3 percent in the second situation analysis. Treatment completed is now higher than the cured rate. Transfer out and failure cases is zero and the default rate has gone down.

Table 4-12. Treatment category of TB patients in the FC Cubao TB DOTS Facility, first and second situation analyses

Treatment Category	SA 1		SA 2	
	N	%	N	%
Category I	29	76.3	9	75
Category II	8	21.1	3	25
Category III	1	2.6	0	0
Total	38	100	12	100

Data regarding the distribution of treatment outcome of PTB patients at the TB DOTS facility by type of PTB patient was not available for the first analysis and no comparison can be performed. Table 4-14 will show the distribution from information obtained during the second situation analysis which covers the period October 2003 to June 2004. Out of eleven PTB patients, only two have defaulted but one died. The other patients have been either cured or have completed treatment. 60 percent of new smear positive patients have been cured but the other 40 percent have defaulted. All of the smear negative patients have completed treatment.

The TB DOTS facility had only one EPTB patient for the period October 2003 to June 2004. Table 4-15 shows the outcome of the treatment of this patient. Again, no data regarding EPTB patients' treatment outcome were obtained from the first analysis.

Table 4-13. Treatment outcomes of TB patients in the FC Cubao TB DOTS Facility, first and second situation analyses

Treatment Outcomes	SA 1		SA 2	
	N	%	N	%
Cured	10	35.7	4	33.3
Treatment Completed	8	28.6	5	41.7
Defaulted	7	25	2	16.7
Transfer Out	1	3.6	0	0
Failure	1	3.6	0	0
Died	1	3.6	1	8.3
Restarted Treatment	0	0	0	0
Total	28	≈100	12	100

Table 4-14. Distribution of PTB patients at the FC Cubao TB DOTS Facility, by type of PTB patient, second situation analysis

SA 2							
Type of PTB patient	Cured	Treatment Completed	Died	Treatment Failure	Defaulter	Transfer Out	Total
New Smear (+)	3 60.00%				2 40.00%		5
New Smear (-)		4 100.00%					4
Relapses							
Transferred in							
RAD	1 50.00%		1 50.00%				2
Failure Cases							
Total	4 36.36%	4 36.36%	1 9.09%		2 18.18%		11

Table 4-15. Treatment Outcome of EPTB patient at the FC Cubao TB DOTS Facility, second situation analysis

SA 2							
Type of ETB Patient	Cured	Treatment Completed	Died	Treatment Failure	Defaulter	Transfer Out	Total
New Smear (-)		1					1 100.00%
Total		1 100.00%					

Summary Program Indicators

Table 4-16 offers a summary of the program indicators case finding in the TB DOTS facility of FC Cubao. Almost 42 percent of all pulmonary cases is composed of pulmonary smear positive cases. Collection of three sputum specimen is 89.8 percent, 24.5 percent of which had smear positive results. Out of the five smear positive cases, three have been started on TB DOTS within two weeks of the first sputum exam. The rest were started more than two weeks after the first sputum exam. This is the same for the smear negative cases. No patients were started within one week after the first sputum exam because the sputum AFB exam takes a week to process. The table also shows that the average number of patients enrolled per month is 1.33 percent.

Table 4-16. Case Finding Program Indicators of FC Cubao TB DOTS Facility, second situation analysis

Program Indicators	
Case Finding	
1. Proportion of Pulmonary Smear Positive Cases Out of All Pulmonary Cases	41.67% (5\12)
2. Three Sputum Collection Rate	89.80% (44\49)
3. Positive Rate	24.49% (12\49)
4a. Proportion of smear positive cases started on DOTS within 7 days from 1st sputum exam	0.00% (0\5)
4b. Proportion of smear positive cases started on DOTS within 14 days from 1st sputum exam	60.00% (3\5)
4c. Proportion of smear positive cases started on DOTS after more than 14 days from 1st sputum exam	40.00% (2\5)
4d. Proportion of smear negative cases started on DOTS within 7 days from 1st sputum exam	0.00% (0\5)
4e. Proportion of smear negative cases started on DOTS within 14 days from 1st sputum exam	60.00% (3\5)
4f. Proportion of smear negative cases started on DOTS after more than 14 days from 1st sputum exam	40.00% (2\5)
5. Average Number of Patients Enrolled Per Month	
SA 2 (Oct 2003-June 2004)	1.33 (12\9)
SA 1+SA 2	2.38 (50\21)

(Data is from 3rd and 4th quarters, 2003 and 1st and 2nd quarters, 2004

Table 4-17. Case Holding Program Indicators of FC Cubao TB DOTS Facility, second situation analysis

Program Indicators	
Case Holding	
6. Sputum Conversion rate	100.00% (2\2)*
7. Treatment Outcomes (for PTB Cases Only)	
New Smear Positive Cases	
Cure Rate	60.00% (3\5)
Completion Rate	20.00% (1\5)
Death Rate	-

Program Indicators	
Defaulter Rate	20.00% (1\5)
Transfer Out Rate	-
New Smear Negative Cases	
Completion Rate	100.00% (4\4)
Death Rate	-
Treatment Failure Rate	-
Defaulter Rate	-
Transfer Out Rate	-
Relapse Cases	
Cure Rate	-
Death Rate	-
Default Cases	
Cure Rate	50.00% (1\2)
Death Rate	50.00% (1\2)
Failure Cases	
Completion Rate	-
8. Overall Success Rate	88.89% (8\9)

* 5 cases have 2nd and/or 3rd sputum exams, but 3 of them were unable to produce sputum

The sputum conversion rate from a smear positive to a smear negative at the second month of treatment is 100 percent (Table 4-17). Most patients are unable to produce sputum (UPS) which is considered a covert case already.

For the treatment outcome, new smear negative cases in the TB DOTS facility has a hundred percent completion rate. The cure rate for new smear positive cases is only 60 percent with 20 percent default rate and 20 percent completion rate. For RAD cases, one of the two patients in the TB DOTS facility has been cured while the other patient has died. With these data, the overall success rate of new cases is calculated to be at 88.89 percent.

DELIVERY OF TB DOTS SERVICES FROM THE PERSPECTIVE OF TB PATIENTS

This part of the situation analysis will study the impact of the facility by presenting and discussing data obtained from the third and fourth research instruments which are the observations of patient-service provider interactions and interviews with TB patients respectively.

During the course of the fieldwork, three TB symptomatic patients were seen in the FriendlyCare Clinic. The staff of FC identified the patients once they are identified as TB symptomatics. The research team asked the three patients for permission to observe the interaction between TB patient and service provider. All three gave their consent for the observation and exit interview. One patient consulted with the Family Medicine practitioner in attendance at that time because the TB DOTS physician was not due until Saturday of that week. It was necessary for the physician to see the patient for the prescription of anti-TB drugs because without the prescription, treatment cannot be started and the DOTS supervisor cannot dispense drugs yet. After the physician saw the patient, it was the DOTS supervisor's turn to educate the patient about TB, TB DOTS, the possible effects and adverse reactions to anti-TB drugs, and things which should be observed by the TB patient. Both interactions were observed. The research team was able to conduct four interactions and three exit interviews.

The other two patients are not yet and have not yet been enrolled in the TB DOTS program at the time of the interview. One patient was still under observation and has to wait a month before having another X-ray. The decision to enroll or not to enroll the patient will only be done after the second chest X-ray. The other patient cannot start her TB DOTS because she is allergic to some of the anti-TB drugs and also because the drug supply of the facility was lacking one anti-TB drug. The facility is in the process of desensitizing the patient so that treatment can commence now that FC Cubao has acquired FDC drugs.

Walk-in patients of FC Cubao who come for consultation, even if they are TB symptomatics, were not interviewed during their first visits because they were not pointed out to the research team by the staff of FC. The DOTS supervisor or medical technologist identified the patients only after the results of the sputum exam and X-ray have given evidence that the patient has TB. For that reason, no sputum microscopy patient was interviewed or observed. In any case, sputum collection is done at home because the facility does not have a sputum collection area. Since the facility has not been able to enroll any new patients since March due to a shortage of anti-TB drugs, there were no patients undergoing treatment to be interviewed. One patient related that she started taking drugs for her skin TB when she was diagnosed with EPTB but they found out that she also has PTB. She was referred to the TB DOTS clinic but could not start with TB DOTS because there were no drugs available. The DOTS supervisor called her when the new supply of drugs arrived.

Initial Visit

The three patients of FC Cubao who were seen in the TB DOTS facility came to know about the DOTS service being offered at the clinic in different ways. The PTB/EPTB patient was told by her dermatologist about the TB DOTS in FC clinic. The other patient was seeking for a second opinion regarding the results of his chest X-ray. It just so happened that FC is in the Medicard's list of accredited clinics. He chose this clinic because of its proximity to his residence. The last and only patient enrolled in the TB DOTS program during the visit when the interview took place was told about the clinic by a friend. She was referred by the Med tech to the DOTS supervisor once the result of her sputum exam came out. The result showed that she has grade 5 TB. When asked why they chose to go to FC, each patient answered differently. One said it was due to accessibility, the other because she trusts the clinic, and the other one because she needed to have a check-up.

All three patients have already had chest X-rays done before visiting FC's TB DOTS for the initial consultation. Two of the patients already experienced some symptoms before going to the facility. But one of the patients actually went to FC only after getting a suspicious chest X-ray. He had a chest X-ray not because he was feeling any symptom of illness but because he was applying for work abroad.

Since one of the patients is diagnosed with EPTB, the symptom that she experienced was an itchiness on the part of the skin which has TB. The other TB patient experienced symptoms only after coming from a holiday in the province. She complained about cough which prevented her from sleeping at night, back pains, and fever at times.

Today's Visit

The reasons for the patient's visits on the day they were interviewed vary. One went for follow-up because of her allergies to the anti-TB drugs. Another one went to get the results of her sputum exam and the third one was there for consultation. Only one patient went to the clinic with a companion. Her sister was with her and was also briefed by the DOTS supervisor about TB DOTS. However, the sister does not live with the patient or near the patient's house and is not the treatment partner.

All of the three patients felt that they obtained the service they required for the visit. They all feel that the amount of time spent in consultation with the service provider is just right.

Two of the patients had concerns and questions they wanted to ask the service provider and they both feel that their queries were answered by the service providers satisfactorily. When asked if any health examination or procedure was performed on them, two patients answered in the affirmative. One said that no health exam was done on her, however, it was observed during the interaction between patient and service provider that her weight was assessed and the physician listened to her lungs using a stethoscope. One of the patients thinks that the health examination has been explained to her although it was not

observed by the research team. It could be supposed that since this is not her first consultation with the DOTS physician, the procedure has been explained to her before. The other patient was not given any explanation about the procedure. Whatever was found out from the health examinations performed were not explained. But the EPTB patient updated the physician about the effects of the drugs on her.

They believe that their illness was explained to them. After consulting with the service provider, two of the patients have shown awareness and understanding about their illness. One patient said that she now “knows that it is TB.” The other patient understands that PTB is different from EPTB. One patient still did not know if he has TB or not because the DOTS physician is still requiring him to get one more chest X-ray before making a diagnosis.

All three patients felt that there was enough privacy during their consultations with the service providers. They are all convinced that their personal information will not be divulged. And they all feel confident about the TB DOTS facility providing privacy during their conversations with the service providers.

All patients felt that the service provider involved them in the decision making about their treatment. The PTB/EPTB patient was able to choose between buying anti-TB drugs outside and enrolling in the TB DOTS. The patient who was enrolled on the day of the interview was able to choose her treatment partner. The patient who was still awaiting diagnosis was consulted by the DOTS physician about not starting the treatment yet.

Two patients were reminded of their next visit to the clinic. The other patient will be contacted by the DOTS supervisor when to go back to FC because the paper tablets which she will use for desensitization are still being prepared by FC Shaw.

Convenience of and Access to Clinic

Two of the patients interviewed consider the clinic hours and days convenient. The other patient, the only one employed on a 9-5 job, feels clinic days should also include Sundays and holidays. No one has ever experienced being turned away by the clinic, although one patient experienced not being attended to because the clinic dermatologist’s schedule had changed. The longest waiting time was 15 minutes but almost all patients are attended to by the nurses once inside the clinic. One patient did not even have to wait.

The facility’s location is very convenient to the patients. Their travel time ranges from 5 to 20 minutes. They only need to take one ride to get to the clinic and one patient even walks sometime when going to the clinic.

The information that patients have of the services being offered by FC clinic are varied and incomplete. Mostly, they know the services which they need or have needed before. The patient who went there for consultation about her cough specified consultation and anti-TB drug dispensation. The patient who went to FC for a second opinion of his chest X-ray enumerated chest X–ray, sputum AFB microscopy, and other laboratory exams.

The PTB/EPTB patient mentioned sputum AFB microscopy, chest X-ray, Pedia, OB, and family planning. Chest X-ray and sputum AFB were mentioned by two patients. Only one patient mentioned that the clinic dispenses anti-TB drugs.

Only one patient said that there is a hospital which offers TB DOTS near his residence. He reasons that he chose to go to FC because it is more expensive in the hospital. He considers the consultation fee at FC as cheaper than the hospital because he is a Medicard member and does not have to pay anything for the consultation. He also said that the waiting time in the hospital is longer.

IEC Issues and Messages

Two of the three patients interviewed said that they have received IEC materials from the TB DOTS facility. The reason why one patient did not receive any IEC materials is probably because he has not started with the TB DOTS program yet. The patients who have obtained the materials said that they received a pamphlet about TB DOTS. Both could not say whether the materials were educational or not because they obtained the materials that same day and have not yet studied the contents.

These patients have not attended any group talk in the TB DOTS facility. One reason for this is that FC does not hold any group or one-on-one discussions or lectures.

Knowledge About TB

When the patients were asked regarding their knowledge of how TB is transmitted, the following were their answers:

Transmitted from a TB patient	3
Inhaling air with TB bacteria	2
Smoking	1
Others: Weak body resistance	1

One patient even mentioned that she used to think someone can get TB from using a TB patient's utensils. All the patients knew that TB is transmissible. All of them knew that TB is curable but one patient did not know if skin TB is also curable.

When asked about how they think TB can be treated, the patients' responses differ. One patient said that rest and nutrition is needed. The other said that patient must cooperate with the doctor. What is remarkable is that only one mentioned the need to take medication.

All three patients believe that it is necessary to complete the treatment. And two of them answered that this will cure TB. The other answers are that completing treatment is the only way to find out if the drugs are effective, it will prevent TB patients from infecting other people, and also that not completing treatment may result in the illness worsening.

One of the patients did not know how long the treatment should last but she indicated that the treatment should be completed to know if the drugs are effective. One patient answered that treatment is to last from four to six months while another responded that it is from six to nine months.

Two patients did not know if anti-TB drugs have adverse effects. Only one said yes and mentioned itchiness and orange/red-colored urine as effects.

Two out three patients believed that undergoing a follow-up sputum is necessary for TB patients. The one who answered no said that she never did it so she does not think that it is necessary.

Expenses Entailed

Two of the patients said that they did not pay any fee for that day's consultation. Only one has spent money for consultation and medicine. But these fees were not for the day when the interview was conducted. All the patients only spent ₱ 11 for transportation.

Only one patient had to take a leave from work for the day when he went to the FC clinic. One of the two other patients was unemployed at the moment while the other was self-employed/own business. The one who had to take a leave from work lost ₱ 500 pesos because he was absent for the whole day.

These three patients had different views of the cost of services at FC. One patient was not concerned about it because he is a Medicard member. The other one thought the cost was acceptable, while the third one thought that it was inexpensive.

Suggestions for Improvement

Two of the patients were satisfied with what happened during their visit to the clinic that day. But one patient was disappointed because she could not start with the treatment yet. Two of the patients did not have any suggestions for improvement and felt that their visits were satisfactory. One patient suggested additional staff, drug availability improvement, and for the staff to work when it is time for work.

Assigned Treatment Partners

One of the patients has not been diagnosed yet and, therefore, is not under TB DOTS and so he does not have a treatment partner. The other patient who has not started TB DOTS has been assigned a treatment partner. The DOTS supervisor will be her treatment partner. The patient who was enrolled on the day of the interview has two treatment partners. The DOTS supervisor has offered to be her treatment partner and she said that this was okay. But when the DOTS supervisor asked her to visit the clinic everyday for drug dispensation she decided to have her husband as her treatment partner.

THE TREATMENT PARTNERS OF TB PATIENTS

The TB DOTS facility in FC Cubao has an existing procedure on how to choose and select treatment partners for TB patients who are enrolled in the TB DOTS program. The DOTS coordinator related to the research team that the manual of procedures that she constructed has a section entirely on the selection of treatment partners. The research team was able to obtain a copy of the manual.

The coordinator explained that the procedure for choosing and selecting a treatment partner states that any responsible individual can become a treatment partner. Relatives, family members, DOTS supervisor, barangay health worker, and even office nurses or doctors can be a patient's treatment partner. The manual states that treatment partners can be any of the following: staff of the FC (the DOTS supervisor), barangay health volunteers, relatives, household members or co-workers of patients.

Data obtained during the fieldwork for the second situation analysis regarding the treatment partners of patients enrolled in the TB DOTS program showed that most patients have family members as their treatment partners. The DOTS supervisor has also been chosen by one patient as a treatment partner. The data in Table 4-18 is taken from the TB Register. It shows that 91.7 percent of treatment partners are family members. However, the DOTS supervisor related that one patient considers her his treatment partner because she is the one giving him anti-TB drugs everyday. But this is a special case since the patient works in FC.

Table 4-18. Treatment partners of enrolled patients at the FC Cubao TB DOTS Facility, October 2003-February 2004

Treatment Partners		
	n	%
Family Member	11	91.7%
Clinic Treatment Partner	1	8.3%
Total	12	100.00%

Treatment Partner Interview: Background Characteristics

Only one treatment partner was interviewed because there was only one patient enrolled at the time of the study. The treatment partner is the DOTS supervisor. She is 31 years old. She finished her degree in B.S. Nursing and is now working in FC as a nurse. She earns between ₱ 10000 to ₱ 15000 per month from her work.

Training and Perceived Role of a Treatment Partner

When asked about the responsibilities of a treatment partner, the respondent said that these include monitoring the patient in the taking of drugs, monitoring the patient for any side effects, supervising follow-up check ups of the patient and reminding the patient of sputum exams. Except for injecting streptomycin, the DOTS supervisor does not really

observe the patient swallowing the drugs because this is done at home. She has not attended or undergone any training as treatment partner, possibly because FC does not give any training, lecture, or discussion for patients and/or treatment partners of the TB DOTS program. But as the DOTS supervisor, she has been oriented by the previous supervisor about TB DOTS. And, of course, she has already received her Basic TB DOTS training.

Since this respondent is not only a treatment partner but the DOTS supervisor, she already has an existing connection with the DOTS physician. And she said that as a treatment partner, her contact with the physician includes raising concerns to the physician about matters regarding the TB patients. She feels that it is convenient to report the condition of the TB patient to the physician during scheduled follow-up consultation and sputum exam. She also said that reporting when a patient experiences allergic reaction is necessary. The DOTS nurse said that she been a treatment partner of three patients already. This does not match with the data taken from the TB Register. The DOTS supervisor also related that she may become a treatment partner for two patients now. One of which has already started treatment while the other will start as soon as desensitization has finished. She feels that the number of patients she assists as treatment partner is just right.

Strategies to Promote Adherence to Treatment

The DOTS supervisor said that she usually befriends the TB patients to be able to encourage them to regularly drink anti-TB drugs and complete treatment. She explained that her strategy is informal. She tries to emphasize the consequences of not completing treatment. She also gives commendation when a patient is obedient of the DOTS program.

Since there is only one defaulter out of the fifteen patients who have been enrolled from the time when she became DOTS supervisor, she feels that this is quite an accomplishment. But this information does not match the data taken from the TB Register.

She feels that incentives are not needed to encourage patients to finish or complete treatment. She is not in favor of material incentives because the patients will get used to these. The DOTS supervisor mentioned that the patient should also feel a sense of responsibility in completing the treatment.

To make sure that the patients take and swallow the anti-TB drugs especially during weekends and holidays when the clinic is closed, the patients bring in their empty blister packs to the clinic. But the respondent also mentioned that it is more on trust. She feels when to trust a patient to drink the drugs regularly is warranted. Some patients also go to her house for the daily injection of Streptomycin during holidays or vacation. Some patients also text the treatment partner about their condition. She also mentioned that a good way to know if the patient is really taking the drugs is to ask them what type of

drugs they drank. The patients who regularly drink usually know or are very familiar with the drugs.

In the case where the patient is still young, for example a teenager, she feels that there should really be a treatment partner who can directly observe the patient or, as she puts it, "*nakatutok talaga sa DOTS*." This she thinks is the best way because it is critical especially in terms of the drugs that the patient has to take.

The treatment partner/DOTS supervisor makes sure that information on the TB patient and also the treatment is confidential. She knows that patients feel demoralized because of the social stigma of having TB. She only discusses about the treatment with the patient and the DOTS physician. But she does not talk about it to the other staff of the clinic.

Satisfaction with Role as Treatment Partner

She does not incur any expenses in being a treatment partner. If ever, the only cost to her is the one peso charge when she texts her patients. But she says that this is very minimal. She receives little incentives as a treatment partner. One patient went to her house to fix her appliances without charge. Another gave her a Christmas gift. One patient who is a vendor gave her banana que. Also, she once bumped into a patient in the market and the patient insisted on bringing her home.

The treatment partner feels proud that the patients trust her to be their treatment partner. She feels challenged and touched that she is chosen. When asked if being a treatment partner is easy or difficult, she said that it is not difficult because she only has a few patients to look after. When asked if being a treatment partner was just like doing any job (*para lang isang trabaho*), the treatment partner said that it is a part of her work.

Suggestions to Improve Role

She feels that her interaction with the TB patients, whether as a treatment partner or as DOTS supervisor, is not enough. The suggestion she gave is based on her role as DOTS supervisor and treatment partner. She mentioned the need for a permanent DOTS supervisor or at least assign a reliever DOTS supervisor.

EVALUATION OF CHANGES SINCE THE ENHANCEMENT PLANS

To be able to show the changes in the TB DOTS facility since the formulation of the enhancement plans, a replication of the plan from the report of FACE is shown in Table 4-20. The actual accomplishments shown on the table can be compared with the plans.

On the subject of **political commitment**, meetings have been held to discuss the TB DOTS program pricing that will make it sustainable. There is a belief that to make TB DOTS a viable financial undertaking, FC must increase the price of treatment. The DOTS

coordinator has already drawn a payment scheme for TB patients. This will entail a down payment of ₱ 2500 before the intensive phase starts and another payment of ₱ 1500 after the intensive phase. But no decision has been made by the pricing committee of FC even now. Actually, a memo has been issued by FC President Leni Cuesta instructing all FC clinics to cease accepting patients into the TB DOTS program until a new treatment fee has been set.

There is still no definite time allotted for the TB DOTS supervisor. During the six-day fieldwork, the DOTS supervisor was observed in the registration area/desk getting the vitals of newly arrived patients or assisting physicians of the clinic. She was able to go to the DOTS room to work on TB DOTS facility files and drugs only during very short intervals. She was frequently called to the registration desk.

The DOTS coordinator related that she has come up with some plans to incorporate TB DOTS health education in FC's Family Planning lectures/campaigns given in schools and private offices. But FC is apprehensive because this may cause some patients to think that FC is full of TB patients and eventually this undertaking may turn off potential and existing clients of the clinic. Another plan regarding TB DOTS is to be more vigorous in tracing defaulters. Since FC Cubao does not have a fulltime DOTS nurse/supervisor, there is no one who can go out and visit TB patients who have failed to report to the clinic. The coordinator plans to ask more assistance from BHW in tracing defaulters.

The DOTS coordinator has also mentioned that, since the management of FriendlyCare Foundation Inc. has had a lot of changes, matters regarding the TB DOTS program are being reviewed. Many positions have been filled by new people including the CEO and Health Service Quality Division Manager. The Area Manager who used to be in charge of TB DOTS is now gone and the position has been abandoned. The TB DOTS facility in FC Cubao has also had some changes. Two fulltime staff members who provide services for TB patients have left. These are the DOTS supervisor/nurse and medical technologist.

The TB DOTS Facility's **standardized treatment including DOT** has improved in terms of planning for scheduled appointments of follow-up visits of patients. The TB DOTS room is equipped with a calendar which can be used by the DOTS supervisor in taking note of follow-up check ups and sputum exams. She was not observed giving any kind of appointment slip but was heard reminding the patient numerous times of appointment with the DOTS physician. The DOTS supervisor also makes a list of the patients currently enrolled to make it easier for her to remember the patients' names and treatment categories. Name plates are also attached to each drawer designated for TB patients who are under DOTS. But a treatment card replica was not given to a newly enrolled patient during enrollment.

Regarding **quality-assured sputum microscopy**, the TB DOTS facility still has not constructed a sputum collection area in the clinic. Unlike in the first analysis where it was mentioned that sputum collection can be done outside the FC clinic, the new practice is to ask the TB symptomatic to collect sputum at home. In reviewing the service statistics, it was observed that most patients were UPS or unable to produce sputum. The researchers

wonder if not having a sputum collection area has any effect on the sputum collection turn out. The first analysis' enhancement plans stated the need for the sputum collection area.

Regular drug supply is still a problem in the TB DOTS facility of FC Cubao. The FriendlyCare Clinic Cubao's TB DOTS facility has ran out of one TB drug, Ethambutol. Because of this, the clinic was unable to accept any new patients from March to June of this year. The supply of new drugs was given to FC as the second situation analysis was about to commence. The clinic will now be using Fixed-Dose Combination (FDC) drugs. The DOTS supervisor/nurse and DOTS physician have both attended training for the FDC conducted by the Department of Health.

The DOTS coordinator related that she has prepared a draft of a Memorandum of Agreement for FC and DOH collaboration. But FC has not acted on it yet because they are still reviewing the state of TB DOTS in FC.

The DOTS coordinator explained that most of the enhancement plans recommended after the first situation analysis were not followed by the TB DOTS facility in Cubao because of the precarious status of TB DOTS in FriendlyCare. She explained that, although FC understands the TB DOTS facility's ability to help TB patients, the FC management is also concerned about the expenses that the facility incurs for the clinic. Add to this the fact that it is not generating much income. This is because some patients who have been enrolled in TB DOTS do not pay the whole cost of the treatment. The DOTS coordinator said that this is a losing program of FC. The TB DOTS program could be perceived as incurring more expenses than income. That is why FC management sees the TB DOTS program as a "burden."

To make the TB DOTS program sustainable in FC, the DOTS coordinator believes that it should be marketed to clients who can afford their TB DOTS package. FC will certainly have to increase treatment cost. Patients who cannot afford the fee will be referred to health centers.

Table 4-20. Enhancement Plan for the FriendlyCare Cubao TB DOTS facility and actual accomplishments as of June 2004

Enhancement Activities	**Persons/Party Responsible**	**Time Line**	**Accomplishments of the Enhancement Plans**
Political Commitment: Workshop to report findings of Situational Analysis	FC and FACE	November 2003 Wk 1	FACE and FC had a meeting informing FC of the findings and enhancement plans. There were also trainings regarding using a Microsoft Excel program which can be helpful in FC's recording system. However, the DOTS physician related that FC has discontinued using the program because they cannot utilize it in making their reports (NTP Quarterly Reports).
Academic detailing to DOTS staff on value of IEC materials	FACE	November 003 Wk 2	2 out 3 patients observed were given IEC materials during fieldwork for second situational analysis
Regular FC meetings to discuss updates on DOTS	FC	November 2003 Wk 5	FC management meets with DOTS coordinator regarding TB DOTS program at least once a month but there is not regular set date for this. The COO is planning for the meeting to take place every Wednesday.
Social Advertising of Clinic	FC	December 2003 Wk 6	Only two referrals from a physician within the FC clinic and one from Dr. Quinsay of World Citi Medical Centre. TB DOTS physician said they do not encourage too many referrals because the number of patients may exceed FC's capacity.
Allotting definite DOTS time for DOTS supervisor	FC	November 2003 Wk 3	Time spent in the clinic depends on instances when there are TB patients and when there are tasks that need to be done by the DOTS supervisor as per DOTS physician's orders.
Standardized treatment including DOT Sending a treatment card replica to patient for TP signing	FC	November 2003 Wk 3	There was only one patient enrolled in TB DOTS during the second situation analysis. During enrollment, the service provider did not give a treatment card replica to the patient, although the patient was given a week's worth of anti-TB drugs.
Planning for scheduled appointments of follow-up visits of patients	FACE and FC	November 2003 Wk 3	No reminder cards for follow-up visits were given to the patients but patients were reminded before they left of the scheduled appointments. Only one follow-up visit was observable during the fieldwork days and the patient was seen in the clinic during the time of the scheduled follow-up.

Enhancement Activities	Persons/Party Responsible	Time Line	Accomplishments of the Enhancement Plans
Quality-assured sputum microscopy: Application for NTP validation of sputum smears	FC	November 2003 Wk 4	The medical technologist of FC who goes around and validates the sputum slides of the laboratories of all FC clinics underwent a three-day Quality Assurance training for Sputum Microscopy last November 2003. The training gives her the capacity to validate sputum slides. Another plan is for FC to coordinate with Lung Center and have Lung Center validate FC's sputum smears and vice versa. But this is still in the planning stage.
Designing of Low-cost Divider for Sputum collection area	FC	December 2003 Wk 6	FC management is uncertain about the existence of the TB DOTS program in the FC clinics and has therefore not acted on this enhancement activity.
Regular drug supply: Formalizing DOH collaboration thru a MOA	FC and DOH	January 2004 Wk 10	The TB DOTS coordinator of FC has prepared a MOA but FC management has also not acted on this due to the reason stated above.

SWOT Analysis

Based on the findings of the second situation analysis, the following are the strengths and weaknesses, opportunities for development, and threats to the operation of the Friendly Care TB DOTS Clinic:

Strengths

- The FC Clinic has provided a friendly and comfortable atmosphere to TB patients. PhilHealth has already accredited the clinic, making it the first private clinic in the country to offer the DOTS Program
- The FC management acknowledges the TB DOTS program's capability to help TB patients.
- The DOTS service providers are committed to treating TB patients enrolled under TB DOTS.
- The clinic is strategically located within the catchment area of Cubao and Marikina where there is a community with a potentially high rate of TB cases. It is also an area where many potential referring physicians set-up their clinics.
- In terms of political commitment, the management has allotted space and equipment (microscope) for the exclusive use of the DOTS facility.
- Health education is regularly done during patients' visits, clearly delivered by the health providers and well-appreciated by patients.

Weaknesses

- The political commitment of the mother organization is uncertain as financial returns are the primary concern.
- The DOTS staff could not implement improvements in the facility because any changes in the clinic must first be cleared and approved by the Board of Directors, and this process usually takes time to accomplish (e.g., the proposed increase of treatment cost).
- The DOTS strategy has not been properly followed by the staff, and the staff dispenses drugs to patients without even seeing the patient taking his/her medication.
- The clinic has been experiencing a lack of drug supply for their enrolled patients.
- FriendlyCare's Logistics Department has not been very supportive of the DOTS staff. In one instance, the department did not immediately provide the request of the DOTS staff for N95 masks.
- There were cases when the clinic filed for PhilHealth reimbursements twice for the same patient, which can constitute a fraud. The clinic has only received one check from PhilHealth.
- The DOTS nurse and medical technologist have other tasks besides their functions in the DOTS facility
- Clinic has no area for sputum collection.

- Adherence to schedule of drug distribution is very loose.
- Early follow-up of defaulters is not strictly enforced.
- The use of IEC materials has yet to be maximized
- There is an absence of mechanism for educating the treatment partners.

Opportunities

- The facility is oriented to middle class patients who may be prepared to pay for services.
- Increasing the number of referring physicians within the catchment area by distributing IEC materials.
- Increasing the rate of case detection by showing health videos during regular times in broadcast media (e.g., TV, radio)
- Optimizing the use of IEC materials.
- Improving the infection control measures in the facility to reduce the likelihood of contracting the disease by the staff
- Ensuring the systematic and timely follow up of defaulters
- Orientating and closer monitoring of treatment partners.
- Strictly implementing the DOT policy, especially during the first two months of treatment.

Threats

- Continuous lack of drug supply may affect the treatment outcomes of enrolled patients, and prevent enrollment of new patients.
- The biggest threat is the management's perception of the TB DOTS Program as an additional burden to their operation; this may result in program cessation altogether.

Chapter 5. The Local Coalition-based Model TB DOTS Clinic

As an integral part of the second situation analysis of DOTS clinics, fieldwork at the DLSU-HSC DOTS facility in Dasmariñas, Cavite was conducted for six days, from 21 to 23 June and 1 to 3 July. Additional data were obtained during another visit to the facility on 16 July. Seven research instruments were administered to a total of 32 respondents and informants, distributed as follows:

	Research Instrument	No. of Respondents/Informants
1.	Inventory of TB DOTS Clinic Facilities, Recording, Equipment, & Services Provided	4
2.	Interview Guide for TB DOTS Service Providers	8
3.	Observation Guide for Interaction Between TB Patient and Service Provider	4
4.	Exit Interview for TB DOTS Patients	6
5.	Interview Guide for Referring Physicians	5
6.	Interview Guide for Treatment Partners	4
7.	Interview Guide for Revisiting the TB DOTS Clinic's History and Background	1

The research team also made extensive observations, and carried out unstructured interviews. A meeting with the staff of the DLSU-HSC DOTS facility on 3 August 2004 validated the findings and resulted in changes that are now incorporated in this report. The goal of this situation analysis and operations review remains the same: to crystallize a list of lessons learned and identify best practices that can be used to revise, modify, and finalize the guidelines for the replication and expansion of DOTS programs in strategic sites nationwide.

The first part of this chapter presents the background of the DOTS facility and its inventory of facilities, equipment, and services provided. The second part focuses on the facility's organizational set-up and staffing pattern, and presents data from interviews with service providers. Data on referring physicians, who may be seen as crucial adjuncts of the facility, are discussed in the third part. The fourth part concentrates on the facility's recording and reporting system, on the basis of which the available service statistics are presented and analyzed. Parts one to four discuss various aspects of program readiness and quality of care, but part four also presents overall data on the facility's impact. Part four also compares the service statistics obtained from the first and second situation analyses. The fifth part of the report pursues the impact of the facility by presenting and discussing data based on observations of patient-service provider interactions and interviews with TB patients. The sixth part presents data on treatment partners based on clinic records and interviews. The seventh part compares changes between the first and second situation analyses, particularly in relation to the enhancement plans for each of the five major components of the DOTS strategy. This discussion then leads to an analysis of strengths, weaknesses, opportunities, and threats (SWOT).

THE TB DOTS FACILITY

A province adjacent to Metro Manila, Cavite is the second fastest growing province in Southern Tagalog, next to Rizal. It is rapidly urbanizing and industrializing, and TB is a major scourge. According to local health statistics for 1998, TB was the fourth leading cause of mortality and the sixth leading cause of morbidity in Cavite. The disease is responsible for the deaths of 23 persons per 100,000 population and for the morbidity of 121 persons per 100,000 population. This epidemiological situation has created concern among a number of key individuals and organizations, who have become deeply committed to control, and even eliminate, TB as a public health problem. These committed individuals have served as the lynchpin to the acknowledged success of the DOTS facility that is the subject of this situation analysis.

Dasmariñas is the most populated of the province's three cities and thirty municipalities. The 2000 census showed it to have a population of 379,520 persons, or 18.4 percent of the total provincial population. In this municipality is found the DOTS Center located at the De La Salle University-Health Sciences Campus (DLSU-HSC) along Congressional Road. The campus houses the DLSU Medical Center, a private hospital with 210 beds and 47 clinics. The hospital is an entity that is separate from the University, but in reality there are many points of overlap and intersection. Also located on the campus is the Angelo King Medical Research Center that occupies a building on the ground floor of which, to the extreme left when viewed from the main road fronting it, is found the DOTS Center. This center is an offshoot of the DLSU-HSC Tuberculosis Research Unit (TRU), and is Cavite's first private TB clinic that adopted the DOTS strategy.

Background

In the early 1990s, Dr. Charles Y. Yu, then the DLSU-HSC Vice President for Research Services, became very concerned about the prevalence of TB in this province. In 1994 he began to undertake studies on TB. In the same year, Dr. Victoria B. Dalay, who was Chair of the Department of Microbiology and Parasitology, began to see the need of establishing a TB research laboratory, and set about acquiring basic equipment and training key staff. Succeeding Dr. Dalay as Department Chair, Dr. Rosario Sosa was appointed as TB Laboratory Coordinator from 1997 to 1999, and in that capacity proceeded to undertake expansion activities. After three years of TB-related activities, the TB Research Unit was formed as one of five Research Services units. In 2001 Dr. Dalay became the TB Laboratory Coordinator. Since that time, a train of events ensued that eventuated in the inauguration of the DOTS center on 18 March 2002.

In February 2001, various stakeholders in the fight against TB in Cavite province met to formulate a plan of action. This meeting was facilitated by the crucial intervention of the World Vision Development Foundation, Inc. (WVDFI) through its "Kusog Baga" Project. Public and private physicians in Cavite joined forces with local government units (LGUs), nongovernment organizations (NGOs), and international donor agencies such as the World Vision. This initiative received support from the Department of Health (DOH) and the Cavite Provincial Health Office (PHO).

In March 2001, to commemorate World TB Day, public and private sector partners signed a Memorandum of Understanding (MOU), witnessed by then Provincial Governor and movie actor Bong Revilla, to start an anti-TB project in coordination with the World Vision's Kusog Baga. Microscopes were distributed to different rural health units (RHUs) as a way of jumpstarting the setting up of sputum microscopy centers throughout the province. In the same month a seminar to synchronize TB management in the public and private sectors was held. In the month that followed a TB diagnostic committee, headed by Dr. Yu, was formed, and began to meet monthly. In tandem with this committee a Provincial TB Core Team was formed that involved public and private sector practitioners. The core team also met once a month, and became deeply involved in advocacy activities meant to create greater awareness about TB and about DOTS.

The group began to plan the publication of a pioneering handbook called *Tutok Gamutan*. Plans for the formation of a coalition to be launched along with the handbook were also drawn. But a labor strike that affected the DLSU-HSC in November 2001 delayed the convening of a coalition. Finally, on 5 March 2002 Dr. Yu, as Chairman of the Philippine Coalition Against Tuberculosis (PhilCAT), convened stakeholders and formed a coalition of organizations and entities committed to the TB campaign in the province. This coalition included the DLSU-HSC, PhilCAT, Centers for Disease Control and Prevention (CDC), the DOH Center for Health Development 4, World Vision, the Cavite PHO, the Local Government Units of Cavite, the Dasmariñas Network of Christian Churches, and WHO-Western Pacific Regional Office. These bodies are now program partners of the DLSU-HSC PPM DOTS Center.

On 18 March 2002, to coincide once more with World TB Day, the *Tutok Gamutan* Handbook was launched at the Provincial Capitol, and the coalition members signed a Memorandum of Agreement (MOA) to join the Coalition of Concerned Caviteños Against TB (CCCAT). On the same day the DLSU-HSC DOTS clinic was inaugurated on the eight floor of the DLSU Medical Center. It did not, however, enroll its first patient until May 2002. The clinic was envisioned as the private-sector counterpart of the RHUs in implementing the DOTS strategy, and the lead private clinic in a network of private TB clinics that will facilitate the functioning of a public-private referral system. This background and the self-perception of its role have led to the clinic's designation as a "Private-Public Mix DOTS Center." Although the Philippine TIPS refers to this facility as a coalition model, within the DLSU-HSC it is commonly referred to as the PPM DOTS Center. This clinic has been the nerve center of much of the coalition's activities.

Pushing on with the Anti-TB Program

After the launch of the handbook and DOTS Center, a seminar was held in March 2002 to discuss the pitfalls in the diagnosis of TB, using the experiences of the TB diagnostic committee. Two studies conducted by the DLSU-HSC Research Services revealed not only that chest radiography was the favored method of diagnosing PTB but also that the treatment regimes prescribed by physicians showed tremendous variations and were often inappropriate. In July 2002 a roundtable discussion with physicians was held, and it

attracted private sector physicians to attend. Suspicions that the DOTS TB program posed a threat to the private practice of doctors were addressed, but these continued to linger.

Undeterred, the core team members pressed on with their advocacy and other activities. Also in July 2002 they began to educate barangay captains and NGOs, and to identify and train treatment partners in eight municipalities around the province. The “TB in the Workplace” program was launched as a way of bringing the campaign to the industrial zone, an endeavor that has since been headed by Dr. Dalay after the first coordinator left the post. A year later, in July 2003, a MOU was signed with an industrial clinic. The next month fifteen TB patients from the company were identified and their treatment commenced. During March and April 2004, TB in the Workplace was subjected to a Program Implementation Review. At present, the plan is to tap 100 companies to implement the program.

The CCCAT began to develop leaders who will serve as advocates for the public-private mix in the anti-TB campaign. In October 2002 five advocacy task forces were formed: the PPM, TB in the Workplace, paramedical groups, a school-based task force, the DOP, and the SEP (a nurses’ association). The advocacy continued with monthly activities.

The coalition also sought to consolidate the participation and role of churches, referred to as faith-based organizations (FBOs). This initiative started in October 2002 and continued on in January of the following year as talks ensued to make FBOs active treatment partners. Finally, in March 2003 on World TB Day a candle-lighting ceremony was held to launch the participation of FBOs. Prayers were said for the fight against TB. Participants from FBOs, particularly the Christian Organization Against Tuberculosis (COAT), have become vital in the fight against TB, playing the important role of treatment partners and aiding the success of the DLSU-HSC DOTS Center.

The center applied for PhilCAT certification in January 2003. The next month representatives of PhilCAT, DOH, and PhilHealth visited the clinic. This immediately resulted in the certification of the TB Laboratory and PPM DOTS Center as an accredited private DOTS center. PhilHealth accreditation was received on 24 July 2003, and that of PhilCAT on 18 August 2003.

By March 2004 the coalition was engaged in several new fronts, including a prison-based TB medical mission, advocacy among tricycle drivers, and the launch of the third PPM unit in Cavite. At the meeting of the Cavite Medical Society held at the DLSU-HSC on 22 March, the DLSU-HSC Tuberculosis Research Unit, along with several of its donor partners, awarded plaques of recognition to “active” referring physicians for their service in “significantly contributing to the increased tuberculosis case detection in the Province of Cavite” (see photo). Dr. Dalay borrowed the idea of awarding these plaques from DOTS in India. The coalition reaped further accolades. During the National World TB Day held at the GSIS Theater in Manila on 24 March, it received a plaque of recognition from the DOH and PhilCAT for its “promotion and delivery of quality DOTS services” (see photo). In May 2004 the CDC began the evaluation of the clinic, and by early June the center had passed with flying colors. It received a Center for Excellence Award,

which has been a great source of encouragement for the DLSU-HSC management. Their commitment has been recognized and rewarded. Indeed, much has been gained in so short a time.

The Center's Location and Facilities

As indicated in the first situation analysis, the PPM DOTS Center was originally located on the eighth floor of the DLSU Medical Center. Grave concerns about possible transmission of the TB bacteria to other patients in the hospital caused the center to be relocated to the TB Laboratory Unit on the second floor of the Angelo King Medical Research Center in May 2002. It was during the same month that the first TB patient was enrolled in the DOTS program. The growing number of enrollees in the subsequent months compelled the clinic to be relocated anew in August 2002, this time to its present site at the ground floor of the same building as that of the TB laboratory.

Initially, only two rooms were allocated for the clinic, and patients entered through the building's main door and waited along the hallway. The increasing number of clients and moves toward PhilHealth accreditation resulted in the clinic's expansion and renovation. Despite management concerns about the costs entailed, but cognizant of the risks of transmission of the disease, it went ahead with the expansion work in mid-2003, with the current set-up completed by August 2003. Since then, clients no longer enter through the building's main entrance because of the direct access to the clinic from the parking lot on the front part of the building which, however, is mostly reserved for DLSU-HSC staff (see photo). The facility is easily accessible by public transportation, and close to a nearby shopping mall, Waltermart, which can be reached in 5 to 10 minutes on foot.

Signage. A comparatively small sign outside the Angelo King Medical Research Center is visible from the main street, but one needs to approach the building to be able to read the information contained in the sign (see photos above and below). The information includes the name and address of the PPM DOTS Center as well as that of the TB Laboratory Referral Center, and the fact that it is certified by the Philippine Coalition Against Tuberculosis (PhilCAT) and accredited by PhilHealth (the last item was not contained in the sign extant at the first situation analysis). Even more conspicuous than that of the DOTS center, perhaps because of its attractive color and few bold-letter words, is the sign that says “Philhealth ACCREDITED” (see photo above).

There is no telephone number indicated on any sign, whether outside or inside the clinic, that a patient can contact. However, the facility does have a telephone number that patients can call for inquiries. This number is (046) 416 0226, local 238. The contact person is the PPM DOTS nurse.

Clinic hours. The PPDM Center officially opens at 8:00 o'clock in the morning and closes at 5:00 o'clock in the afternoon. There is a one-hour break for lunch when the clinic closes at 12:00 o'clock noon and reopens at 1:00 o'clock in the afternoon. The clinic is open six days in a week, with half-day services on Saturdays. These pieces of information are not indicated on any signboard.

The actual observed clinic hours are indicated in Table 5-1 below. It was observed that, in general, the clinic operated according to the advertised times. On one occasion it even opened ten minutes before the designated time, and on another occasion (a Saturday) it closed thirty minutes after official closing time. During the first day of observation, the first patient arrived at 8:00 A.M., and the last patient was seen at 5:00 P.M., thus the clinic closed at 5:20 P.M. On other days, the clinic closes fifteen to twenty minutes before the official time.

Table 5-1. Official and actual clinic hours of the DLSU-HSC PPM DOTS Center

Official clinic hours

Time	Day of the Week					
	M	T	W	Th	F	Sat
AM	8-12	8-12	8-12	8-12	8-12	8-12
PM	1-5	1-5	1-5	1-5	1-5	

Actual observed clinic hours

Time	Day of the Week					
	M	T	W	Th	F	Sat
AM	8-12	8-12	8-12	8-12	7:50-12	8-12:30
PM	1-5:20	1-5	1-4:40	1-4:47	1-4:40	

Clinic space. The PPM DOTS Center occupies a total floor area of 127 square meters. The TB DOTS clinic itself measures 82 square meters, or about two-thirds of the allocated space. As one enters the clinic, one encounters the reception area (see photo to the right), and further in is the desk of the clinic nurse (see photo next page). Beyond the nurse's area is the examination room. Behind the reception area is a comfort room. A conference room is partitioned off from the main clinic area. There is a separate office for the director and a room for the clinic coordinator—spaces that were initially used for the center before the expansion and renovation work in 2003. The director's office is still accessible from the main building.

As noted in the first situation analysis, a medical technologist, who doubles up as a receptionist, attends to the reception area. This set-up is justified by the fact that walk-in clients and referrals arrive at the clinic for TB diagnostic examinations or PPD testing (which is, strictly speaking, a laboratory rather than a DOTS clinic function). Laboratory results are also obtained from the reception area.

The desk of the PPM DOTS nurse is the area for continuing enrolled patients. Drugs are released and ingested in that area, the records updated, and the scheduling of follow-up consultations made. Allocated drugs for each enrolled patient are stored in a steel cabinet that is within easy reach of the nurse. The drugs are placed in sturdy boxes and properly labeled with the patient's name, case number, category, date of start of treatment, and attending physician.

The conference room is used for group lectures and staff meetings, but it is also the place where some staff members take their lunch and snacks.

The facility and its immediate surroundings are generally clean. Courtesy of the DLSU-HSC, the clinic is air-conditioned (it was not at the time of the first situation analysis), and outside is a well-ventilated open space. Exhaust fans and UV lamps, as well as adequate lighting, have been installed in the clinic.

Flowcharts and wall displays. Close to the nurse's desk, and visible to clients as they enter the clinic, are located two process flowcharts of what a patient undergoes during the management of TB. One is titled "Enrollment to the PPM DOTS Center" and beside it is the chart labeled "Cavite Private Public Mix Referral System" (see photo). It is displayed on the wall and to the right of the swing door that leads to the examination room. To the left of that door is another flow chart labeled "Guide to Registration and Initiation of Treatment."

Some clients actually looked at these charts, but it was observed that they were not reading seriously. These clients might well have been familiar with the process already and did not need to read the charts. Another possible explanation for the seeming lack of usefulness of the charts may be found in the fact that, because the clinic's clients are from lower-income households, the charts, which are written in English, may not be easy to understand. The concept itself of a flowchart may not be easy to grasp unless actually explained verbally to clients. None of the flowcharts, moreover, is part of the IEC materials available at the clinic.

The other information displayed on the walls of the clinic include two maps of the catchment area, which contain color-coded pins to denote the status of patients enrolled at the center. The maps are located inside the administrator's office, and are not visible to the public. Also located inside the administrator's office is the center's organizational chart (see photo on p. 24) and a bulletin board that shows the center's accomplishments.

Examination room. The examination room is enclosed as a separate room, accessible through a swinging door. The partition and swing door make for reasonable auditory and

visual privacy. However, rather loud conversations inside the room can be heard outside of it. When children are being examined, such as for PPD testing, their cries can easily be heard. There is adequate lighting in this room, and it is equipped with an exhaust fan.

The examination room did not have clean linen when it was observed, and the sheets were not changed even on a daily basis. Some of the staff, particularly the fieldworkers, would occasionally use the examination bed to rest during the lunch break.

During a return visit to the clinic on 16 July 2004, the examination room had the appearance of a storeroom (*bodega*). The clinic staff members were in the midst of preparing for a training seminar and, due to lack of space, they placed the seminar materials temporarily inside the examination room.

Waiting areas. There is a waiting area inside the clinic, with one cushioned bench that occupies an area of about 2.5 by 1.5 square meters and can accommodate twelve persons seated very closely to each other. When there are more clients than seats available, two monoblock chairs from the conference room are added for clients to use. Still, some clients need to wait for their turn standing up (see photo on p. 7). Outside the clinic door is another waiting area, with a cushioned bench that occupies about 2.5 by 1.5 square meters. It is protected by a concrete awning, and is well ventilated. But clients prefer to wait inside because the clinic is air-conditioned.

The waiting area is not adequate to accommodate the usual number of patients, treatment partners, and other clients of the clinic. The infected and non-infected, as well as patients in the intensive and maintenance phases, sit close to each other as they wait for their turn.

Despite adequate space for offices and equipment, and an examination and conference rooms, the waiting area and the space where clients are served appear increasingly cramped as the clinic acquires more and more patients. With the Center for Excellence Award from the CDC, the DLSU-HSC management has promised that the adjacent CT scan room will be vacated to augment the PPM DOTS Center's floor area.

Sputum collection area. To the left of the clinic's public access door, outside of the building itself, a section has been set apart with a wooden partition. It is not enclosed with walls (see photo). There is a sink with soap and a faucet with running water that patients can use. Above the sink is a UV lamp attached to the ceiling, and the lamp is turned on at nighttime. This place serves as a sputum

collection area. A notice above the sink instructs patients not to spit into the sink, and to use it only for washing hands after collecting the specimen in the sputum cup (see photo).

As noted in the first situation analysis, this induction area was built in August 2003 after an incident during which a patient, who was trying to collect sputum in the collection cup, coughed out lots of blood-streaked phlegm in the toilet near the TB Laboratory Unit.

Water facilities. There is a comfort room inside the clinic with sink and toilet bowl, but this facility is for the clinic staff's exclusive use. Enrolled patients bring their own bottled water to take the medication. Staff members wash up their dishes after lunch in the sink in the sputum collection area.

Waste disposal. The garbage containers in the clinic are covered and color-coded. In the clinic itself, there are three rubbish bins are available for: (1) biodegradable materials (*nabubulok*); (2) non-biodegradable materials ('*di nabubulok*); and (3) chemical, hazardous, and infectious waste. Inside the offices are two trashcans for the usual office waste.

The building's maintenance crew collects hazardous wastes, which are subjected to autoclaving before disposal. The temperature is set at 121º C steam under pressure.

TB laboratory. As discussed in the background of the facility's establishment, the TB laboratory preceded the setting up of the PPM DOTS Center. Today, the center and the laboratory remain as separate entities, although both are under the TB Research Unit (TRU) and under the same head, Dr. Dalay. The two entities also share other personnel.

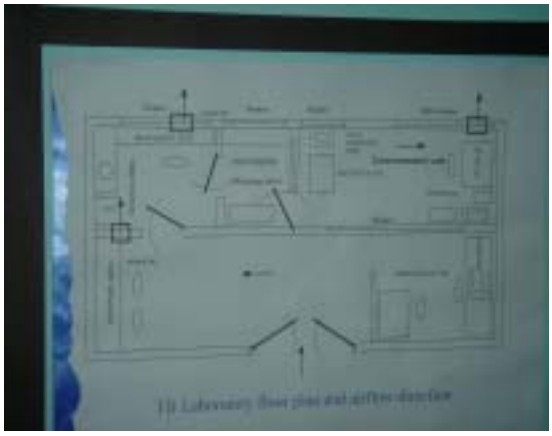
The laboratory unit is located on the second floor of the Angelo King Medical Research Center, and occupies a floor area measuring 44 square meters. It is divided into four rooms: a reception area, a microscopy room, an anteroom, and an isolation room. Smearing, fixation, and culture are done in the isolation room, which one can enter only with the appropriate gear that includes an N-95 mask, gloves, and a laboratory gown. It is

reportedly the only “Class 2” laboratory in the whole of Cavite province.

On one of the walls is located a “TB Laboratory Board” that has three labels: “Culture,” “Sensitivity,” and “On-Going Tests.” On one side of the board is a flowchart that begins with the entry, “AP refers TB suspect to TB Laboratory Referral Center for sputum smear microscopy” (right photo).

The laboratory is air-conditioned and exhaust fans ensure a unidirectional airflow. It is clean and well maintained, and disinfected on a daily basis. As in the clinic, the wastes are segregated based on their nature as biodegradable, non-biodegradable, and hazardous and infectious waste materials (which are autoclaved prior to disposal). The garbage containers are covered and properly labeled.

The TB laboratory is fully funded by the DLSU-HSC, and also generates revenue. It renders services to both the hospital and the DOTS center. It also performs sputum AFB microscopy and culture and sensitivity tests from health centers. On average, the laboratory receives about 15 to 30 smear specimen everyday, and results can be obtained after one to two days.



Ideally, every three months a representative of the PHO visits the laboratory to read slides randomly as a measure of quality assurance. However, only two such visits were made last year, and during each visit no errors were detected. The laboratory maintains its high standards.

DOTS Services Provided

Most clients of the PPM DOTS Center have been referred to the facility by physicians from other clinics. Occasionally, a walk-in client goes directly to the center, and is given initial assessment by the center’s administrator, Dr. Dalay.

The clinic is able to provide the basic diagnostic service of sputum AFB microscopy because of its close linkage with the DLSU-HSC TB laboratory. It is also able to offer other services as PPD testing and culture and sensitivity tests. Strictly speaking, sputum microscopy, PPD testing, and culture and sensitivity testing are services rendered by the TB laboratory rather than the DOTS clinic. The clinic does not provide chest x-ray services, which can be obtained at another section of the DLSU hospital.

The center provides anti-TB drugs, but only for adults. As part of the enrollment process, TB patients and their treatment partners are provided with health education. They offer counseling services and distribute IEC materials.

In general, the clinic adheres to the DOTS process, and has a written manual of operating procedures. But variations from the official flowcharts do exist.

Case detection. Upon entering the PPM DOTS Center, each prospective patient is screened by the receptionist using the center's "Pre-Enrollment Form" (see Appendix A). The data in this form will be the basis for all subsequent interactions between the service provider and the patient before the latter is enrolled. Basic personal data of the patient and the referring physician's name are indicated on the form. One also ticks off the following symptoms: chronic cough for more than two weeks, general body malaise, fever, chest or back pain, and others, which must be specified. Also on this form are recorded histories of previous TB treatment, other associated illnesses, TB in the family, and smoking.

Clients are informed about the importance of a sputum AFB exam, and the process of collecting specimens is explained. The standard DOTS procedures for collecting specimen are followed, with the possibility of an on-the-spot collection of the first specimen because of the available induction facility.

The flowchart depicting the enrollment to the PPM DOTS Center is shown on the next page (Figure 5-1). A number of points can be said about it.

1. The completion of the Pre-Enrollment Form is not indicated on the chart.
2. The TB patient does not actually go to the laboratory, but to the PPM DOTS Center where specimens are received and results are obtained.
3. The chart states that "TB patient gets results an hour after third specimen is read." The results are actually obtained after one to two days. The delay is caused by the volume of work handled by the laboratory staff, some of whom also perform tasks in the clinic.
4. The chart does not show at which point data on the patient is entered in the TB symptomatic masterlist, which the PPM DOTS Center started to compile only in January 2004.

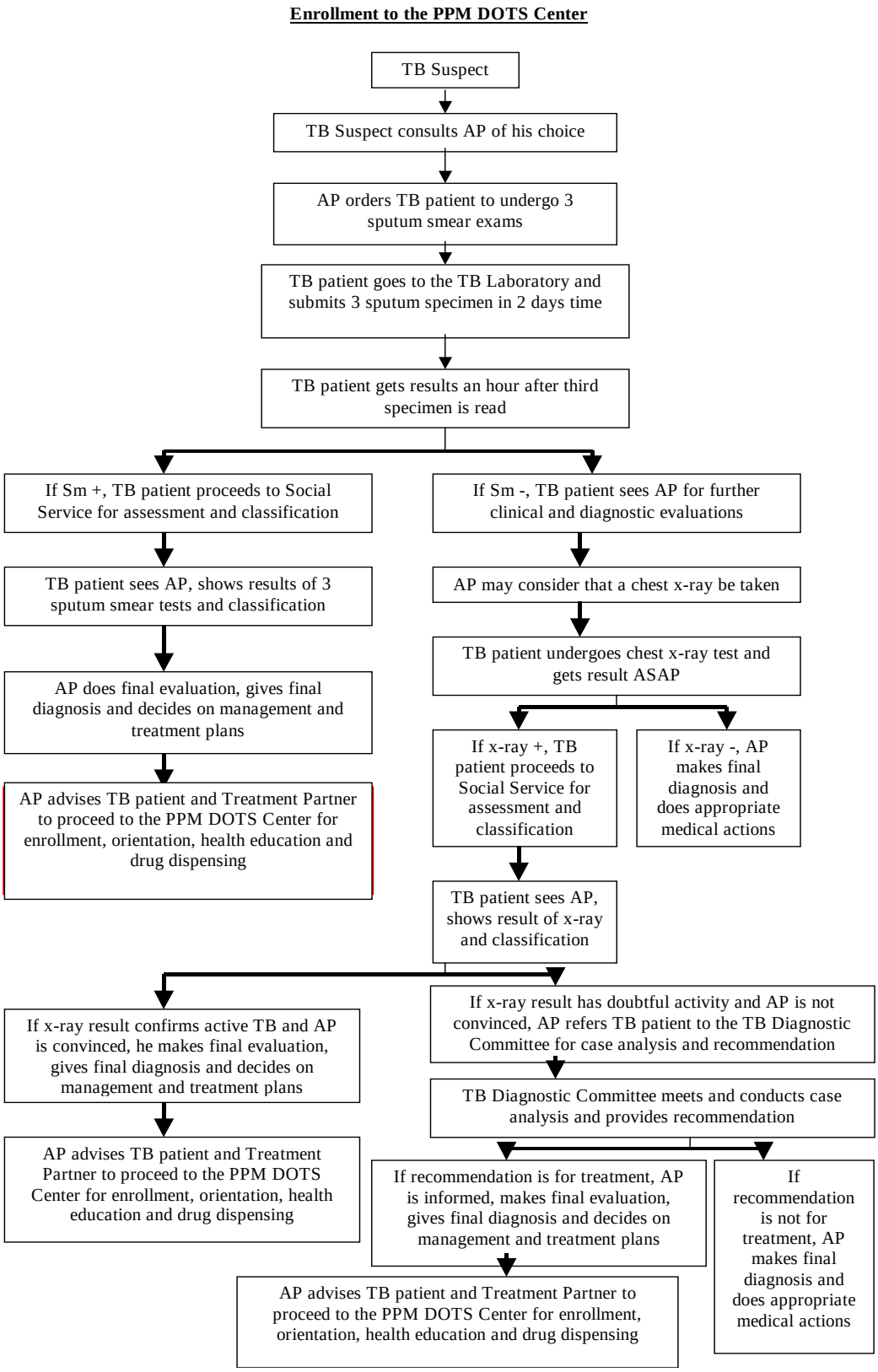


Figure 5-1. Flowchart of Process for Enrollment to the PPM DOTS Center

5. The visit to the Social Service appears redundant since all drugs are free. If the Social Service will certify indigency for the sputum test, this step may need to be taken before sputum microscopy examination commences. For the future, however, this step may become necessary as the clinic is planning to identify patients it will charge for clinic services to make its operations sustainable.

Based on standard practice, if all three sputum specimens are negative (based on first examination or repeat examination for doubtful cases) and the symptoms of the TB suspect persists, the patient is referred back to the attending physician for chest x-ray if the attending physician strongly suspects TB. However, some patients who visit the clinic for the first time already carry with them their x-ray results.

Cases of patients with negative sputum smear results but with x-ray findings suggestive of TB are referred to the Diagnostic Committee. The committee is said to meet two to three times a month. In the meantime, the patient must wait for the committee to meet and arrive at a conclusion regarding whether the patient has tuberculosis.

Case holding. Clients diagnosed to have TB are encouraged to undergo treatment, but referred patients are first told to go back to their attending physician for pre-treatment evaluation and initiation of treatment. However, if the attending physician has established a relationship with the clinic and if the patient is positive for TB, the attending physician is informed of the situation and treatment is initiated upon agreement with the patient. The appropriate treatment regimen is then prescribed depending on the patient's category.

If the patient agrees to the treatment, he/she will be told to return to the clinic with a prospective treatment partner. (Note that family members are considered the least preferred treatment partners. However, the clinic has no written procedures for assigning such partners.) During enrollment, the patient, together with the treatment partner, is given a group lecture on TB using cue cards. After the lecture, the health provider then fills up the forms in the TB Case Management Kit (Appendix B). As discussed in Part IV of this report, this kit includes a consent form and the contract of agreement with the treatment partner. Pertinent data from the kit will then be transferred to the TB registry (which diverges from the flowchart that, however, is not reproduced in this report).

The patient is then sent to the DLSU-MC Social Services, which is responsible for the assessment of TB patients' paying capacity and classifies them according to their appropriate level of need. (However, please see item 5 at the top of this page.)

Since January 2004, all patients in the intensive phase are required to take their drugs at the clinic, with the DOTS nurse directly supervising them. This rule is a reversal of what was reported in the first situation analysis, when patients other than Category II were given the option of choosing to be given DOT at home or in the clinic. Nonetheless, some allowances are made. Some patients are allowed to go to the clinic every other day if they live very far; in such cases, treatment partners at home must see to it that patients do take the drugs.

Diagnosed TB patients are asked if other household members have any of the symptoms suggestive of TB. If there are, the patient is advised to have these household members undergo sputum examination.

On each visit, the DOTS nurse must remind the TB patient and/or treatment partner of the schedule of follow-up and repeat examinations. To minimize failure to report to the clinic, two highly committed fieldworkers make weekly home visits.

The center has established a system for tracing defaulters. When a patient defaults, the DOTS nurse calls the patient, if the latter has a contact number. If there is no contact number, the nurse waits until 12 noon of the following day. If the patient does not appear by the designated time, the nurse sends the assigned fieldworker to the patient's home.

Cost of services. The cost of each sputum smear examination is ₱130, whether before or after treatment. Chest X-ray, which may be obtained in another part of the hospital, costs ₱285. A PPD test costs ₱250, sputum culture costs ₱500, and sputum culture and sensitivity tests cost ₱1,000.

In effect, the total cost for three sputum smear tests is ₱390, which is more expensive than a chest x-ray. This cost is also comparatively costly in relation to the cost of a sputum culture.

Patients shoulder all of these costs as out-of-pocket expenses (see Table 5-2). To ensure financial viability, the DLSU-HSC DOTS Clinic is planning to formulate a co-payment scheme. Novartis provides the reagant material for the PPD tests of children of TB symptomatics. A few indigent patients have been offered free sputum smear examination.

Table 5-2. Cost of services at the DLSU-HSC PPM DOTS Center

SERVICE	₱ Amount	Out-of-pocket	PhilHealth
1. Consultation Initial Follow-up (monthly)	Depends on attending physician		
2. Sputum smear examination Before treatment Succeeding smear Examinations	 130.00 130.00	 130.00 130.00	
3. Drugs	Provided by DOH free-of-charge		
4. Chest X-ray	285.00	285.00	
5. Purified Protein Derivative (PPD) test	250.00	250.00	
6. Sputum culture	500.00	500.00	
7. Sputum culture and sensitivity	1,000.00	1,000.00	

IEC Materials and Services

Materials. The PPM DOTS Center is equipped with several types of IEC materials. There is a flip chart produced by the World Vision and the DOH regarding eleven topics:

1. What is TB?
2. How do you know if you have TB?
3. Who can easily acquire/Who is most prone to TB?
4. How can you contract TB?
5. How is TB treated/cured?
6. The different effects of medicines
7. What will happen if you stop taking medicines?
8. Steps to take to prevent contracting TB from other people
9. Reminders regarding the recovery from TB
10. Reminders
11. TB can be cured!

There is another flip poster on the wall titled "Kusog Baga." There is a booklet produced by Wyeth, as well as a pamphlet by Novartis. There is also a pamphlet from PhilTIPS for treatment partners. It was observed to be the only IEC material available in the clinic that could be brought home.

Within the clinic, there is no much of an opportunity for clients to freely go over the flipcharts. They can read the booklet and pamphlet while waiting for their turn, but due to limited copies none of these could be brought home, except for the PhilTIPS pamphlet. A few materials are in Tagalog, but many are in English. The question of the utility of these IEC materials remains.

Lectures/discussions. The center conducts individual discussions with TB patients, their family members, and treatment partners, but the frequency cannot be determined because these discussions occur on an ad-hoc basis and depends on the client's visit to the clinic. Fieldworkers also conduct health education discussions with patients and/or their treatment partners when they visit their homes.

The research team was informed that the PPM DOTS Center does not hold any group lectures or discussions.

The last time a discussion with a TB patient was held was on the Friday before the Monday interview for Research Instrument No. 1. Since there was no discussion on the intervening Saturday, the last formally structured discussion was held two clinic days before the interview. In the course of the research team's visits to the clinic, it did not witness a structured discussion with a patient, but there were several unstructured discussions with patients, as discussed in Part V of this report.

It is part of the clinic's standard operating procedure that, before a TB patient is enrolled in the program, the DOTS nurse conducts discussions with a qualified patient and his\her treatment partner.

In theory, the clinic's two fieldworkers who visit patients at home must be conducting discussions with patients and their family members and treatment partners, as they follow up on issues of treatment and general health issues.

Based on Research Instrument No. 1, a leading service provider of the clinic was asked about what key messages are conveyed during discussions with TB patients. The answers were:

1. TB is infectious
2. TB can be cured
3. Cover mouth when coughing
4. Regular drug intake of a combination of drugs
5. Requires completion of treatment
6. Consequences of irregular drug taking
7. Side-effects of anti-TB drugs
8. Importance of family/treatment partner support

Not mentioned were:

9. Maintain good hygiene and proper nutrition
10. Importance of follow-up sputum smear examination

That these two topics were not mentioned may indicate their relative unimportance, as far as the informant was concerned. A similar question regarding key messages was posed to service providers in a separate interview. The individual responses to that question are discussed in the next section of this report, and summarized in Table 5-7 on p. 203.

In regard to "consultation meetings" during which TB management-related issues are raised and discussed, the research team was told that these are held but could not be planned on a regular basis. Actual consultations are held on a case-to-case basis depending on the stage of the patient's treatment.

Drug Supply

The PPM DOTS Center used to procure its free supply of anti-TB drugs from the central office of the DOH in Manila. According to clinic staff, SFC drugs are now being phased out, and FDCs are being promoted. In June 2004, a DOH memorandum required all PHO staff and staff of DOTS clinics to undergo training in FDC drugs. Included in this memorandum is the rule that DOTS clinics will now get their drug supply from the PHO, rather than from the DOH head office. However, before the PHO can dispense FDC drugs, its own staff should have undergone the needed FDC training. The staff of the requesting clinic should similarly have been trained. Since reportedly the PHO staff had not finished training, they themselves have a problem in dispensing the drugs to the clinics. For the DLSU-HSC center, there appears to be problems with acquiring the stock because it does not have its own vehicle to collect the drugs at the provincial office.

Table 5-3 shows the types of anti-TB drugs that are available at the center. Those that are

available are given out for free. The center first obtained FDC tablets in February 2004, and their initial dispensing started on 15 March 2004. Since then, enrolled patients are placed on FDC drugs, with SDF given mainly to patients with adverse reactions to FDC tablets. The DOTS nurse said there were no 3-drug FDC tablets (this item was in the research instrument, but it is not generally available). The clinic also does not have medicine to deal with the adverse effects of the DOTS treatment regimen. These drugs are not provided by the DOH, but ideally the clinic should have them in stock. The clinic does not stock up on drugs for adverse effects because patients with such symptoms are sent to their referring physicians (who are then assured they will not lose their patients), or sometimes to the hospital's ER.

Table 5-3. List of drugs available at the DLSU-HSC PPM DOTS Center

DRUGS	Availability		Is it free?	
	Yes	No	Yes	No
1. Type 1 (HRZ)	/		/	
2. Type II (HR)	/		/	
3. Ethambutol (400 mg)	/		/	
4. Streptomycin (1 g)	/		/	
5. INH tab (100 mg)		/		
6. PZA tab (500 mg)		/		
7. INH syrup (100 mg/tsp 120 ml)		/		
8. RFP syrup (100 mg/tsp 60 ml)		/		
9. 4-drug FDC tablets	/		/	
10. 3-drug FDC tablets		/		
11. 2-drug FDC tablets	/		/	
12. Antihistamines		/		
13. Pyridoxine		/		
14. Aspirin or NSAID		/		
15. Allopurinol		/		
16. Antipyretics		/		

The clinic has adequate supplies to complete treatment for currently enrolled patients. As a matter of policy, the clinic does not enroll any patient in the DOTS program unless the complete drug supply for that person is on hand. In the last six months, there was no patient who was not enrolled due to the non-availability of drugs.

But patients do have to wait before treatment starts. One reason is the protracted process of sputum microscopy examination. The clinic says that the waiting time is "really not that long," and this brief waiting period serves to test the commitment and decisiveness

of the potential enrollee. The start of treatment may also be delayed because of the patient's own tardy return to the clinic, with one patient returning to the clinic to commence treatment four months later! Based on available service statistics, 53 out of 68 (or 78 percent) of new smear positive cases began treatment within one week after the first sputum examination.

The clinic has an inventory policy to ensure enough supply of drugs to commence and complete treatment for every patient who is enrolled in the program. The written inventory of drugs, however, has not been updated, a fact admitted by clinic staff.

The drugs are stored neatly in clean cabinets, and are protected from rain, sun, and floodwater. According to the DOTS nurse, the drugs are stored according to expiry date and she has a system to ensure that drugs are dispensed on a "first expiry first out" basis. There is no immediate cost to storage of medicine as these are kept within clinic space.

In the quarterly report for the period ending June 2004, the clinic made the following report on its drug inventory and requirements (see Table 5-4). It appears to be based on an estimate of 55 patients treated for a period of three months. The ideal drug supply should cover these 55 patients plus a buffer stock for another 55 patients.

Table 5-4. Drug inventory and requirement report submitted to the PHO by the DLSU-HSC PPM DOTS Center in its quarterly report ending June 2004

Category	**No. of Cases**	**FDC-A RHZE** (BP)	**FDC-B RH** (BP)	**PZA** (BP)	**Ethambutol** (BP)	**Streptomycin** (vial)
Category I	26	156	312			
Category II	8	72	120		80	448
Progressive PTB in Children						
Primary PTB in Children						
Total for Cat. I & II		228	432		80	448
Total + Buffer		456	864		160	896
Available on hand						
Re-order for Cat. I & II		456	864		160	896
Category III	21		378	126		
Total + Buffer			756	252		
Available on hand						
Reorder for Cat. III			756	252		

As of May 2004, the clinic is reported to have a 20 percent buffer stock—which is considerably less than the 30 percent buffer stock reported in the first situation analysis. The actual quantities of buffer-stock medicine, in SDF and FDC preparations, shown to and recorded by the research team on 3 July 2004 may be seen in Table 5-5. The DOTS nurse went to the PHO the day before, and came back empty-handed. This may explain the very inadequate drug supply of the clinic at the start of the third quarter.

Table 5-5. Buffer stock of medicine at the DLSU-HSC PPM DOTS Center, 3 July 2004

ANTI-TB DRUGS	QUANTITY
Ethambutol BP (400 mg) [10 per box]	520 tablets
Ethambutol BP (400 mg) [different packaging]	140 tablets
Streptomycin Sulfate (1 gram) [50 vials/box]	217 vials
4-drug FDC tablets Blister Pack A [28 tabs/pack]	172 packs
2-drug FDC tablets Blister Pack B [28 tabs/pack]	335 packs

Equipment

In contrast to the information contained in the first situation analysis, the clinic informant told the research team that there is no written inventory of the equipment and supplies in the PPM DOTS Center. But the center itself (apart from the TB laboratory which is a separate entity) appears equipped to serve the needs of its clients and deliver a certain level of quality of care.

The center possesses the following pieces of examination equipment: stethoscope, BP apparatus, examination table, thermometer, and weighing scale. The clinic has one of each of these items, which are all used exclusively in the clinic.

The clinic is furnished with one negatoscope, one stand-fan, four exhaust fans, six visible UV lamps, two cabinets, three tables, and two whiteboards. There is one fire extinguisher. The clinic also has cleaning materials, and bottles of alcohol. The drinking water and glasses are for staff only. It has its own air-conditioning unit. The two cellphones supplied by PhilTIPS are used by the two fieldworkers, and the laptop also supplied by PhilTIPS is used by the Center Administrator and the Clinical Coordinator.

The TB laboratory on the second floor of the Angelo King Medical Research Center is well equipped. The laboratory equipment include microscopes (one borrowed from the DOH), a refrigerator (for storing specimen), a refrigerated centrifuge, vortex mixer, biological safety cabinet, Bunsen burner (for fixation of smear), a LPG tank for the Bunsen Burner, carbon dioxide incubator, weight scale (triple beam balance), and a sink with a foot-operated faucet (as in an operating room). It is air-conditioned.

Its laboratory supplies include N95 masks, sputum collecting containers, disposable needles and syringes, sharps container, AFB reagents, glass slides (72 pieces per box), cover slips, sterile cotton swabs, lab gown, gloves, and hair cap.

Level of Institutional Commitment

The mother organization, DLSU-HSC, provides an annual budget for the TRU, particularly for the TB laboratory. According to the Administrator of the PPM DOTS Center, the mother organization shoulders the salaries of some of the staff, but she would not elaborate. The DLSU-HSC also provides support in terms of clinic space, furniture,

supplies and materials, the maintenance and operating expenses of the clinic, and use of transportation facilities.

The center also relies upon the financial support extended by World Vision and the CDC. However, World Vision is ending its support in July 2004, and the CDC will do likewise in October 2004. The Administrator is looking forward to possible support from Philippine TIPS which, she says, "gave us hope that we will be used as the training center for PPM DOTS." Evidently, the mother organization has not made clear its commitment to the center after the World Vision and CDC end their financial engagement with the center. Questions on the center's sustainability inevitably arise.

The center continues to rely on its program partners. It benefits from research grants from such partners as CDC-PhilCAT, USAID, and PhilTIPS. From Global Fund, the center has received office supplies, equipment, and budget for meals/snacks during meetings of the diagnostic committee.

ORGANIZATION OF THE TB DOTS FACILITY AND DATA ON SERVICE PROVIDERS

During the first situation analysis, the PPM DOTS Center had six full-time members of the staff, as well as a part-time DOTS physician. The number of the center's personnel has since increased to eight full-time individuals, plus one part-time DOTS physician.

The eight full-time staff is composed of the following positions:

1. Center Administrator
2. DOTS Nurse/Drug Supply Manager/Staff Coordinator
3. Laboratory Coordinator/Senior Medical Technologist
4. Research Coordinator/Research Assistant
5. Medical Technologist
6. Medical Technologist (or Laboratory Technician?)
7. Field Worker/Field Treatment Supervisor
8. Field Worker

Some of the staff members present during the first situation analysis have since left the clinic. In the organizational chart displayed in the director's office, two names are those of individuals who are no longer connected with the center. Meanwhile, in January 2004, the center employed two fieldworkers; no such positions existed during the first situation analysis and the enhancement plan did not mention the need, but the center decided to employ them to improve its delivery of quality medical care. In late June a medical technologist joined the staff, and another one did so in early July. Although not part of any formal organizational chart, the center has a clerk/typist (who acts as a receptionist in the afternoon) who is "on loan" from the Center for Indigenous Medicine.

Of the staff acknowledged to be full-time with the center, only two have been working continuously for more than one year. Most of the rest have been connected with the center for about half a year or less.

The first situation analysis noted that the Director and DOTS Nurse Coordinator performed multiple roles. The position of DOTS Nurse Coordinator (and the person who occupied it) is no longer present in the clinic. Nevertheless, the same multi-tasking pattern persists, or may even be said to have become more complicated, as the succeeding discussions make apparent.

At the outset, it should be mentioned that the PPM DOTS Center and the TB Laboratory are two separate entities, with the DOTS center sometimes being referred to as "Model 2 PPM Stand Alone Clinic." This separateness is difficult to maintain in practice, especially because both units have the same person heading it. The medical technologists, strictly speaking, are not part of the clinic. They are staff of the laboratory, but at the same time are treated as staff of the DOTS center. All of them also serve as part-time receptionist at the clinic. The point is that the count of "full-time" personnel can be quite misleading. If one follows a strict definition, only the DOTS nurse and two fieldworkers are full-time staff members of the DOTS center.

Organizational Set-up

Figure 5-2 shows the organizational chart in the administrator's office, which is said to need revision but depicts the situation close enough to what goes on in the center, according to the Clinical Coordinator. Figure 5-3 on the next page shows the chart contained in the center's manual of operating procedures, which is said to be the ideal.

Within the DLSU-HSC set-up, the Tuberculosis Research Unit (TRU) subsumes the PPM DOTS Center and the TB Laboratory Referral Center. But also under the TRU are the TB Research Center and the TB National Database Center. These four centers—with some being one-person "centers"—are headed by the TRU Director, who also holds the position of PPM DOTS Center Administrator. Given her many areas of responsibility, including membership in the ICC-TB Control Committee, teaching roles at the DLSU Medical Center, and various advocacy activities, the TRU Director may have difficulty in closely supervising all of the centers of the TRU. Reliance upon another trustworthy staff member becomes imperative.

Although not evident in Figure 5-3, but apparent in Figure 5-2, directly under the part-time Clinical Coordinator are (1) the Staff Coordinator, who is also the DOTS Nurse; (2) the Laboratory Coordinator (or Senior Medical Technologist), who also works on the Database Center; and (3) the Research Coordinator, who is actually a Research Assistant. In practice, it appears that all these coordinators are under the PPM DOTS Clinical

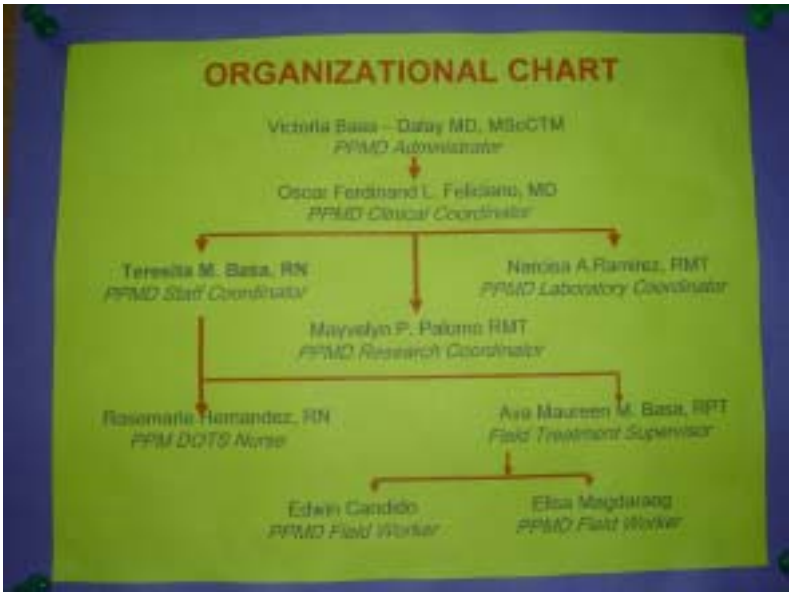


Figure 5-2. The organizational chart of the DLSU-HSC PPM DOTS Center displayed in the Administrator's Office

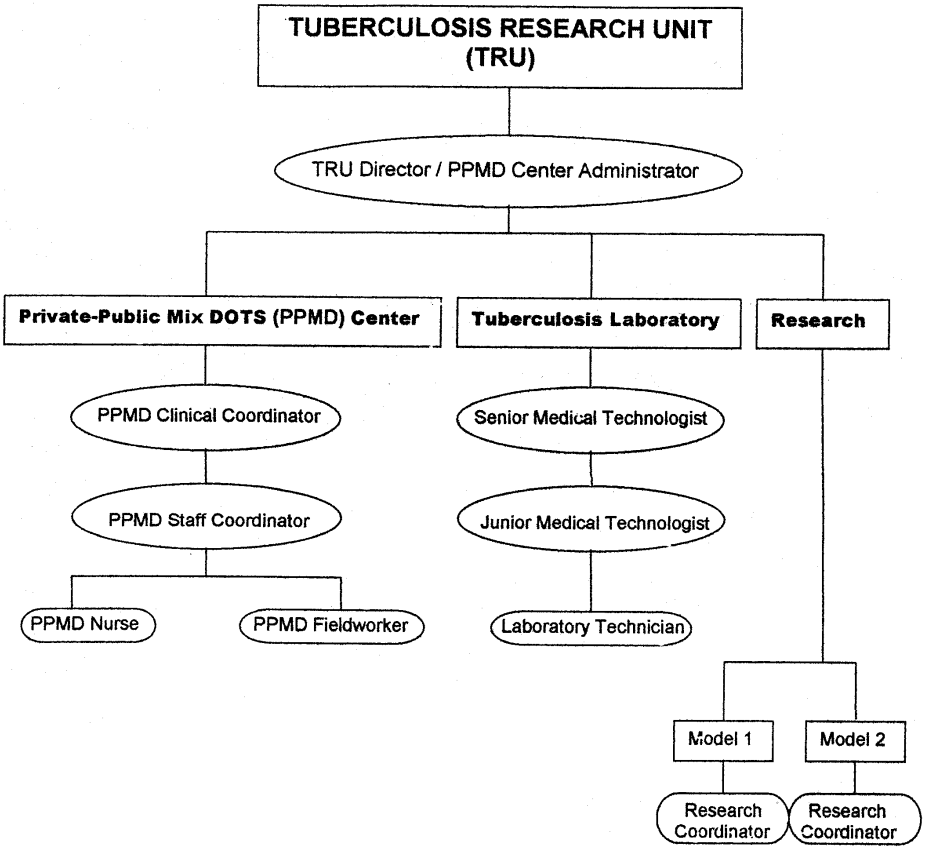


Figure 5-3. DLSU-HSC PPM DOTS Center Organizational Chart found in the Center's Guidelines and Procedures

Coordinator, except for the Laboratory Coordinator. The interview with the Research Coordinator, however, reveals that she identifies the TRU Director as her immediate supervisor, rather than the Clinical Coordinator. In any event, it is admitted that the organizational chart is “for revision.”

Under the DOTS Nurse/Staff Coordinator are two Fieldworkers, one of whom has been designated Field Treatment Supervisor, after the person who occupied the supervisor’s position left. Under the Laboratory Coordinator are two medical technologists.

Given the part-time nature of the involvement of the Center Administrator and Clinical Coordinator in the PPM DOTS Center, their staff must necessarily be so motivated and committed as to be able to carry on the work virtually by themselves. It speaks well of the clinic that it is able to recruit such committed individuals. Eventually, however, the operations of the center’s organizational structure may reach a point beyond which further improvements and expansions may no longer be feasible unless more personnel are hired or other changes are first undertaken.

The PPM DOTS Center Administrator

As stated in the clinic’s background, the PPM DOTS Center Administrator, who is also a DOTS physician of the clinic, has been with the DOTS Center from the very outset when the center was inaugurated on 18 March 2002. Thus, by end-June 2004, she has been with the center for two years and three months.

In her combined capacity as TRU Director and PPM DOTS Center administrator, she is responsible for the overall management of the DOTS center and the other centers of the TRU. She supervises the staff of all these centers.

She also supervises the activities of another model DOTS clinic: TB in the Workplace. She coordinates TB-related activities with the provincial TB Coordinator, evaluates TB activities, ensures and monitors the implementation of the DOTS strategy, and monitors and consolidates all records and reports.

In the clinic, she oversees the DOTS Nurse’s upkeep of the TB Masterlist and the TB Symptomatic Registry. She checks the quarterly reports and signs them. She also acts as the training officer of the unit.

She obtained her MD degree in 1985, and did her residency in family medicine. In 1989 she took postgraduate studies in tropical medicine and hygiene, and in 1991 she studied clinical tropical medicine. She has a solid training on TB and the DOTS strategy. Her medical education covered TB prevention and control, signs and symptoms, diagnosis, and treatment; the NTP policies and procedures and program management; TB DOTS; the management and distribution of anti-TB drugs and supplies; AFB smear microscopy; and laboratory quality assurance.

She adheres to the NTP MOP and the guidelines for TB in the workplace. She has thorough knowledge of the signs and symptoms of TB, the algorithm for diagnosing TB symptomatics, the proper classification of TB patients, the appropriate treatment regimen, the management of different TB patients, the proper management of patients experiencing adverse reactions, and the recommended schedule for follow-up sputum examination.

When queried, she replied, "I have all the training required for DOTS. I am a regional certifier for TB. I did study tours in India, Kenya, and the Netherlands." Her extensive participation in several training sessions on TB and her wealth of experiences is evidence that she needs no further training. She lectures on the pathogenesis and transmission of TB and on TB in the workplace. She also conducts TB DOTS training.

Basic Information on Other Staff

Clinical Coordinator/DOTS Physician. A male medical doctor, who obtained his MD degree in 1994, occupies this position. He joined the center in November 2003, making for eight months of involvement by end-June 2004.

According to him, the services he provides to clients at the facility include:

1. Initial assessment
2. Health education
3. Free consultation
4. Management tasks: planning activities of DOTS clinic; implementation of enhancement plans; revision of manual of procedures and forms; making quarterly reports to NTP, monthly reporting of activities, financial reporting to CDC; scheduling of diagnostic committee meetings; and internal monitoring of fieldworkers and DOTS nurse.

Among the specific tasks he performs at the center, he mentions involvement in case holding only. In particular, he examines TB patients; prescribes the appropriate treatment regimen; manages adverse drug reactions, should these occur; and maintains and updates the TB registry. But given his responses to the earlier question, it is apparent he prepares and submits reports, and monitors and supervises providers to ensure the proper implementation of DOTS. He also did not elaborate on the tasks he performs in the area of health education.

In another part of the interview, he says that every two weeks, at the least, he checks the home visit forms. Occasionally he checks the TB registry, and countersigns it.

He reports to the Center Administrator as his immediate supervisor, but he also includes in that category the Chairman of PhilCAT. These supervisors review the records for which he is responsible: the TB registry, the lab registry, and the treatment cards—all of which are said to be compared and verified. However, when it comes to the physical inventory of logistics and other supplies, he does it personally, without any monitoring by his immediate supervisors.

He receives no salary as Clinical Coordinator and DOTS physician. However, he receives a monthly honorarium of ₱15,000—courtesy of CDC for being research coordinator of Model 2. He did not disclose his remuneration from DLSU-HSC and other sources.

Staff Coordinator/DOTS Nurse/Drug Supply Manager. The female nurse who performs these multiple tasks has been with the PPM DOTS Center for seven months. She obtained her BS Nursing degree in 1991.

According to her, the services she provides clients at the facility include:

1. Initial assessment
2. TB drugs: dispensing, procurement, dispensing
3. Injection of streptomycin
4. Health education
5. Management tasks: report generation, data gathering, and accomplishment of pertinent records; and directing fieldworkers.

Among the specific tasks she performs at the center, she mentions involvement in:

1. Case finding
2. Case holding
3. Drug supply management, and
4. Training/education.

For case finding, she mentions the maintenance and updating of the treatment cards and the TB symptomatics masterlist. For case holding, she cites: (a) implementation of DOT; (b) monitoring of patients' responses to drugs, together with the fieldworkers; (c) maintenance and updating of the TB registry; (d) monitoring and supervision of service providers (fieldworkers) to ensure the proper implementation of DOTS; (e) assessment and classification of treatment outcome; and (f) preparation and submission of reports to the DOH/NTP.

She says that she keeps a record of treatment outcomes and reports these on a quarterly basis. She specifies, however, that she reports on cohorts 13 to 15 months back. She sends her reports, in her view directly, to the DOH, NTP, and public health office.

In the area of drug supply management, she (a) facilitates the requisition and distribution of drugs and other supplies; (b) coordinates with the DOH (and lately PHO) for drug supply; (c) ensures the availability of drugs at all times; and (d) prepares receipts for the drugs.

Her involvement in training/education requires her to: (a) conduct one-on-one counseling of patients; (b) conduct training of treatment partners; (c) educate medical students/clerks on TB diagnosis and treatment; (d) conduct TB DOTS training of health providers; and (e) distribute IEC materials to patients and treatment partners. As will be mentioned shortly, this person obtained her basic DOTS training in December 2003.

The Clinical Coordinator/DOTS Physician is her immediate supervisor whom, she says, reviews, compares and verifies the TB registry, lab registry and treatment cards on a monthly basis. Her supervisor conducts physical inventory of logistics and other supplies "as needed," and has also interviewed a job applicant to the center. According to her, he also treats patients, although this role is not part of his supervisory function over this staff member.

Her regular salary at the PPM DOTS Center amounts to ₱10,000. Her salary is drawn from funds provided by CDC to PhilCAT, although "before" and "soon" her salary will be charged to PhilTIPS. She does not receive benefits apart from her salary.

Laboratory Coordinator/Senior Medical Technologist. This post is occupied by a female staff member who, in 1995, obtained a degree in midwifery she has not taken the board exams) and, in 2000, earned her medical technologist degree and is licensed in that field. She is one of the longer-serving staff members, having been connected with the PPM DOTS Center for one year and three months.

According to her, the services she provides clients at the facility include:

1. Initial assessment
2. Diagnostic services
3. Health education
4. Other services: cleaning the laboratory and some equipment.

The specific tasks she performs at the center include:

1. Case finding
2. Microscopy
3. Training/education, and
4. Other tasks.

According to her, her involvement in case finding means she: (a) screens and assessed patients suspected to have TB; (b) evaluates TB patients; (c) collects sputum specimen for microscopy; and (d) refers diagnosed TB cases to the physician or nurse for clinical evaluation and initiation of treatment. The task of billing she treats as part of case finding.

In microscopy, she: (a) does sputum smear examination (from smearing and staining to reading) for diagnosis and follow-up; (b) submits results of sputum examination to the physician or nurse; (c) maintains and updates the laboratory registry; and (d) prepares quarterly report on laboratory activities and submits these to the PHO, together with slide validation data. She also does culture and sensitivity tests. Additionally, she is responsible for ensuring the adequate supply of reagents in the laboratory. She is also responsible for housekeeping and for delivery of test results for hospital in-patients.

In the area of training/education, she conducts one-on-one counseling of patients, and also provides health education to medical clerks when they do their rounds.

She also performs a variety of other tasks. She is a part-time receptionist at the clinic. She takes care of billing hospital-ward in-patients, as part of her laboratory work. She inputs data in the computer as part of her work in the National Database Center.

The TRU Director is her most immediate supervisor who undertakes weekly review of treatment cards and the lab registry. Periodically, the supervisor compares and verifies the TB registry with the lab registry and with treatment cards. The supervisor also conducts physical inventory of logistics and other supplies once or sometimes twice weekly. The supervisor also informs the staff of the assessment of their work. This medical technologist is aware of the other DOTS activities of her supervisor, such as conducting seminars and basic DOTS training, and talking to patients.

She receives a regular monthly salary, but would not reveal the amount. This salary is paid for by DLSU-HSC. She claims to receive other benefits such as a medical plan and education benefits.

Research Coordinator/Research Assistant. A female staff member who finished her BS Medical Technology degree in 1984 occupies this position. Apart from the Center Administrator, this person has been with the PPM DOTS Center the longest, having worked there for one year and four months.

Strictly speaking, she is not a staff member of the PPM DOTS Center but of the TRU's TB Research Center. She is also reported to be the research assistant of the TB in the Workplace Program. Evidently, her research role makes her very flexible.

According to her, the services she provides clients at the facility include:

1. Initial assessment
2. Diagnostic services
3. Dispensing TB drugs
4. Health education
5. Other services:
    a. All research work, even those not related to TB in the Workplace
    b. Serological tests funded by UCSD (a recent development)
    c. Administration and logistics, including organizing training seminars
    d. Monitoring the industrial DOTS center housed at the Xavier Hospital

The specific tasks she performs at the center include:

1. Case finding
2. Case holding
3. Drug supply management, and
4. Training/education.

In case finding, she screens and assesses patients suspected to have TB. This function becomes most pertinent during the annual physical exam of industrial workers, when she is in the position to detect possible patients. She says she helps in monitoring the implementation of DOTS guidelines. For case holding, she monitors service providers to

ensure the proper implementation of DOTS in the workplace. Her involvement in drug supply management, particularly the requesting and monitoring of medicine supply, is also in relation to TB in the Workplace. For training/education, she modifies and revises IEC materials to make them relevant to the industrial workplace. She also engages in health education during advocacy activities in company sites. Her quarterly reports are sent to Dr. Javier of the PHO.

According to the Research Assistant, her immediate supervisor is the TRU Director, who is also Center Administrator. Although there does not seem to be a regular schedule, the RA reports that the supervisor compares and verifies the TB registry with the lab registry and treatment cards, reviews treatment cards, reviews the lab registry, interviews health workers and patients, and conducts physical inventory of logistics and other supplies. The supervisor looks into the work of the Research Assistant quite closely, informing or advising her of the assessment of her work every week, or even everyday.

Medical Technologist. A male staff member, with a degree in Medical Technology obtained in 1996, occupies this position. At the time of the interview on 1 July 2004, he had been with the center for seven days only. However, he was a member of the center at its inception in 2002, but had to quit his job for personal and family reasons.

His rehiring brings back to the center a highly trained medical technologist, who back in 2001 was already training in sputum smear examination. He has now been tasked to check the work of the senior medical technologist/laboratory coordinator. This situation is tricky, because he recognizes that the TB Laboratory Coordinator is his most immediate supervisor. As a way of obviating tension, the TRU Director refers to him as "the validating medical technologist."

According to him, the services he provides clients at the facility include:

1. Initial assessment
2. Diagnostic services (PPD)
3. Health education
4. Other services: AFB smearing and reading; culture and sensitivity tests.

So far, the specific tasks he performs at the center include:

1. Case finding, and
2. Microscopy

His involvement in microscopy is evident in his earlier response shown above. For case finding, he talks to patients and screens and assesses those suspected to have TB. He also collects sputum specimens for microscopy.

On a weekly basis, his immediate supervisor compares and verifies the TB registry with the lab registry, reviews the lab registry, and all conducts physical inventory of logistics and other supplies. He sees his immediate supervisor as involved in case finding, and in reporting of case finding records. He is also informed about the assessment of his work.

At the moment, he is hired on a contractual basis, earning about ₱280 per day. He says that the DLSU-HSC pays his salary.

Field Treatment Supervisor/Field Worker. A female high-school graduate serves in this capacity. She has been with the PPM DOTS Center for six months. The World Christian Fellowship, a faith-based organization with a TB ministry, recommended her to the center. She is also a patient at the clinic, having enrolled last 27 April 2004 for the DOTS regimen.

According to her, the services she provides clients at the facility include:

1. Dispensing TB drugs
2. Health education
3. Other services: part-time receptionist, enrolls TB patients

The specific tasks she performs at the center include:

1. Case holding
2. Training/education, and
3. Other tasks.

As a fieldworker, she plays a crucial role in case holding by implementing DOT. During home visits she makes sure that the patient takes the requisite drugs. She also does some record-keeping, especially the home visit form. Whenever a patient has a problem, she tries to analyze it and seeks possible remedial measures. Also in the field, she conducts one-on-one counseling of patients. She distributes IEC materials to patients and treatment partners. She reports to the DOTS nurse what transpires in the field on a monthly basis.

As already suggested above, her other tasks include serving as a receptionist in the clinic and making referrals. She also assists in dispensing medicine to patients in the center.

Her immediate supervisor is the Staff Coordinator/DOTS Nurse. There is no regular schedule, but this fieldworker says her supervisor compares and verifies the TB registry with the lab registry and treatment cards, reviews treatment cards, reviews the lab registry, and conducts physical inventory of logistics and other supplies. She also refers patients to the nearest RHU. The supervisor gives feedback on the assessment of their work twice a month.

She receives a salary of about ₱5,000 per month, and guesses that it must come from Philippine TIPS. She also receives transportation allowance when she goes on fieldwork.

Field Worker. A male elementary-school graduate serves as one of the center's fieldworkers. The Clinical Coordinator says he is also a Field Treatment Supervisor, like the other fieldworker, but this person did not report himself as occupying such position. He has been with the PPM DOTS Center for seven months. His dedication to this role owes to his being a former TB patient who suffered a relapse, and with difficulty returned to treatment. He also comes from a faith-based organization.

According to him, the services he provides clients at the facility include:

1. Initial diagnosis
2. Dispensing TB drugs on occasion
4. Health education
5. Other services:
    a. home visits, to bring medicine and seek out possible defaulters
    b. counseling patients, especially those who are depressed, but this depends on whether the patient is willing to listen

The specific tasks he performs at the center include:

1. Case finding
2. Case holding
3. Microscopy
4. Drug supply management, and
5. Training/education.

For case finding, he assists in collecting sputum specimen for microscopy. In the area of case holding, he implements DOT during home visits, during which he also monitors patient responses to drugs, fills up home visit forms, and updates the logbook. In microscopy, he sometimes assists in smearing and staining during sputum examination. For drug management, he assists in putting drugs in the respective boxes of patients. In training/education, he conducts one-on-one counseling with patients, conducts training of treatment partners (often as part of the activities of a faith-based anti-TB organization), and distributes as well as lectures on IEC materials to patients and treatment partners.

Although he makes regular reports on treatment outcome to the Clinical Coordinator, this fieldworker considers the Dots nurse as his immediate supervisor. He also does not consider the Field Treatment Supervisor as a supervisor, even if the position's label would seem that he would be under this person.

He says that his immediate supervisor compares and verifies the TB registry with the lab registry (weekly) and the treatment cards (daily); reviews treatment cards (daily); reviews the lab registry (at least three times a week, using the computer); interviews health workers and patients (everyday); and conducts physical inventory of logistics and other supplies (almost everyday). He is given feedback on the quality of his work, but the commendation comes from the Center Administrator, not from the immediate supervisor. The immediate supervisor also informs him of the schedule of fieldwork.

He receives a salary of about ₱5,000 per month, and thinks that the funds are provided by Philippine TIPS. He also receives transportation allowance during fieldwork.

<u>Clerk/Typist</u>. A female clerk/typist, who is "on loan" from the Center for Indigenous Medicine assists in the operations of the PPM DOTS Center. She has a degree in Computer Management, which she obtained in 1989. She has been with the DLSU-HSC since 1997, but started helping out in the center only recently. She has been with the center for two months on a part-time basis.

She assists in the reception area, but also interviews patients, fills out the pre-enrolment form, and categorizes patients according to whether they are symptomatic or not. She considers her specific tasks as related to case finding: screening and assessing patients suspected to have TB; requesting for sputum AFB smear; and collecting sputum specimens for microscopy.

She performs these tasks without having had a basic training in DOTS. She considers the Center Administrator as her immediate supervisor, and she is unable to say what her supervisor does in regard to TB DOTS activities.

She earns a monthly salary of ₱11,000 which is paid to her by the DLSU-HSC. Given her many years of service, she is entitled to employees' benefits such as Pagibig, SSS and PhilHealth.

Summary of Staff Roles

Because of the crisscrossing responsibilities of the various service providers, the matrix below is an attempt to summarize the positions and the units to which they properly belong. Each row refers to a specific member of the staff. The positions in italics suggest actual duties performed beyond the "original" designation. The matrix does not fully capture the actual complexity, however.

Box 5-1. Summary of staff roles in the DLSU-HSC TB DOTS Clinic and other units

DLSU-HSC	DOTS Clinic	TB Laboratory Referral Center	CDC PPM DOTS Model Research
Director, TRU	DOTS Administrator DOTS Physician	*Head?*	
	DOTS Physician		*Research Coordinator (Model 2)*
	DOTS Nurse Drug Supply Manager Staff Coordinator		
	Clinic Assistant		Research Assistant (with TB in the Workplace Program)
	Part-time Receptionist	Sr Medical Technologist Laboratory Coordinator	
	Part-time Receptionist	Medical Technologist-Validator	
	Field Treatment Supervisor/Field Worker *Nurse Assistant*		
	Field Worker *Nurse Assistant*		
Clerk/Typist (on loan from Center	*Part-time Receptionist* *Clinic Assistant*		

for Indigenous Medicine)			

TB DOTS Training, Knowledge and Practices

Training. Of the eight service providers interviewed for this situation analysis, all but the clerk/typist on loan from the Center had undergone a basic DOTS training. Except for the "validating medical technologist" who obtained his training in 2001 in basic microscopy, NTP and quality assurance, the remaining six staff members were first trained in 2003.

The Research Assistant was trained in April 2003, one fieldworker in March 2003 and another fieldworker in May 2003. Later in December 2003, the Clinical Coordinator/ DOTS Physician, the Staff Coordinator/DOTS nurse, and the Laboratory Coordinator/ Medical Technologist also went through their basic DOTS training. They obtained training from an "internal" seminar organized and presented by the DLSU-HSC TRU, although in partnership with some sponsors such as the World Vision. They do not know the costs entailed by their training, but are aware that either the CDC or World Vision, or both of these organizations, shouldered the costs of training.

Regarding the content of the training, all seven respondents mentioned NTP policies and procedures. Hence, they are all familiar with the *Manual of Procedures for the National Tuberculosis Control Program*. All seven also mentioned case finding, case holding, recording and reporting, and monitoring and supervision as topics discussed during their training. Six of the respondents mentioned logistics management, but one (the Clinical Coordinator/DOTS Physician) did not mention it as a training topic.

Interestingly, the Clinical Coordinator said there was no need for further training, but the other six all said that they need more training. One medical technologist and fieldworker said they need a yearly training; the nurse, another medical technologist and the research assistant said they need training twice a year; and one fieldworker says he needs training three times a year. They desire training on various aspects of delivering quality DOTS services based on the work they do.

TB DOTS Service Delivery Knowledge and Practice

Except for the clerk/typist, all the service providers interviewed said that the DOTS center "adheres to a particular procedure" for managing TB patients. They refer to the center's manual of procedures and the flowcharts in the clinic as guides to management. They were then asked about their knowledge and practices, and their responses are reported in the sections that follow.

Case finding. Respondents were asked about signs and symptoms that will help identify an individual as TB symptomatic. As shown in Table 5-6, all respondents mentioned cough of more than two weeks' duration and fever; seven mentioned chest and/or back pains; and six mentioned weight loss. These were the symptoms uppermost in their minds.

Table 5-6. Signs and symptoms to help identify TB symptomatics as mentioned by service providers at the DLSU-HSC PPM DOTS Center

Signs and Symptoms	Service Provider						
	Physician	Nurse	Med-Tech	Field-worker	Research Assistant	Clerk/ typist	Total
Cough of two or more weeks	1	1	2	2	1	1	8
Fever	1	1	2	2	1	1	8
Sputum expectoration	0	0	0	0	0	0	0
Significant weight loss	1	1	1	2	1	0	6
Hemoptysis	1	0	0	0	1	0	2
Chest and/or back pains	1	1	2	1	1	1	7
Sweat and chills	0	1	0	0	0	0	1
Fatigue and/or body malaise	1	1	1	0	0	0	3
Shortness of breath	0	1	0	0	0	0	1
Poor appetite	0	1	1	0	1	0	3

Very few respondents mentioned other symptoms. Three of them (the physician, nurse, and medical technologist) mentioned fatigue, while another three (the nurse, the medical technologist, and the research assistant) mentioned poor appetite. Two respondents (the physician and research assistant) mentioned hemoptysis. Only the nurse cited sweat and chills, as well as shortness of breath, as symptoms.

To the question of what steps are to be taken once a patient is determined to be TB symptomatic, one fieldworker and the clerk/typist could not give an answer, although the latter said that the patient must be made to feel accepted and not to be aloof. The physician said that he would request for a sputum AFB smear to be done by a trained microscopist, the results of which will determine the subsequent steps.

Meanwhile, four of six respondents with an answer on what steps to take said that the patient must be instructed to collect sputum specimen, and another three mentioned the request for a sputum AFB smear. Four respondents (the nurse, medical technologist, fieldworker, and research assistant) cited the need to educate the patient on TB DOTS (such as the duration of treatment, adverse effects, and contact tracing). Only three respondents said they would advise patients on the prevention of transmission of TB, and another three said they would refer the patient to a physician.

Diagnosis and initiation of treatment. Except for one fieldworker and the clerk/typist, the other respondents said they have access to the classification of patients according to laboratory examination results.

This subsequent question was posed, “Supposing all of the patient’s smears were found negative, what do you tell him/her?” Five respondents said they would refer the patient to a physician, three said they would refer the matter to the TB diagnostic committee, and two said they would wait and see if after 2-3 weeks the symptoms persist, then another

three sputum specimens will be collected from the patient. One fieldworker said an x-ray must be taken. The physician explained that it would be ideal if another three sputum specimens can be collected, but since x-ray is cheaper he would tell the patient to have an x-ray.

Classification of TB symptomatic patient with two sputum smear-positive results. Of the eight service providers interviewed, all but the clerk/typist and a fieldworker gave the correct reply of smear positive. The fieldworker said the case was "doubtful," while the clerk/typist simply admitted not knowing the answer.

Type of TB case in case a patient is sputum-positive at the fifth month of the treatment course. To this question, five of the eight respondents gave "treatment failure" as the answer. A medical technologist replied "Category II," while the clerk/typist and a fieldworker had no answer to give.

Treatment regimen given to a new pulmonary smear-positive case. To this question, five respondents gave "Regimen I" as the answer, while two said "Category I," probably meaning the same thing. Again, the clerk/typist had no answer.

Treatment regimen given to a treatment failure case. In this instance, six service providers gave "Regimen II" as their answer, with one saying "Category II," but meaning the same thing as Regimen II. Again, the clerk/typist had no answer.

Health education. In response to the question, "What health education messages must be emphasized to a TB patient?," the unanimous response was to stress that TB is infectious. Only four out of seven would emphasize the regular intake of a combination of drugs, which, surprisingly, the nurse did not mention (Table 5-7).

With lower frequencies the following messages would be stressed: TB can be cured (3); the side effects of anti-TB drugs (3); the need to cover one's mouth when coughing or sneezing (2); the completion of treatment (2); the need to maintain good hygiene and proper nutrition (2); the importance of follow-up sputum smear examination, mentioned by the physician and nurse (2); and the importance of family/treatment partner support (2). Mentioned only by one fieldworker is the health education message about the consequences of the irregular intake of the prescribed medication.

Case holding. Concerning the steps to ensure that a TB patient complies with treatment through DOTS, the responses indicated little preemptive thought. The most frequently mentioned action, cited by four respondents, would be to immediately exert effort to retrieve a patient if he/she fails to report on the day he/she is expected (Table 5-8).

Three respondents said they would explain to the patient the importance of treatment compliance, and another three would focus on identifying, assigning and educating the treatment partner. Two mentioned the need to regularly motivate the TB patient to continue treatment by emphasizing key messages. One respondent each mentioned the need to administer the patient's drugs daily with the treatment partner, making sure that

Table 5-7. Health education messages that must be emphasized to a TB patient according to service providers at the DLSU-HSC PPM DOTS Center

Health Education Messages	Service Provider						
	Physician	Nurse	Med Tech	Field-worker	Research Assistant	Clerk/ Typist	Total
TB is infectious	1	1	2	1	1	1	7
TB can be cured	0	0	2	0	0	1	3
Cover mouth when coughing or sneezing	0	1	0	0	1	0	2
Regular drug intake of a combination of drugs	1	0	1	1	1	0	4
Requires completion of treatment	1	0	0	0	1	0	2
Consequences of irregular drug taking	0	0	0	1	0	0	1
Side-effects of anti-TB drugs	0	1	0	1	1	0	3
Maintain good hygiene and proper nutrition	0	1	0	0	1	0	2
Importance of follow-up sputum smear examination	1	1	0	0	0	0	2
Importance of family/treatment partner support	0	1	0	0	1	0	2

Table 5-8. Steps to ensure that a TB patient complies with treatment according to service providers at the DLSU-HSC PPM DOTS Center

Steps to Ensure Compliance	Service Provider						
	Physician	Nurse	Med Tech	Field-worker	Research Assistant	Clerk/ Typist	Total
Explain importance of treatment compliance	0	0	1	1	1	0	3
Identify, assign and educate treatment partner	1	0	0	1	1	0	3
Administer DOT daily with treatment partner	0	0	1	0	0	0	1
Ensure family member supervises DOT on weekends	0	0	0	1	0	0	1
Motivate to continue treatment using key messages	0	0	0	2	0	0	2
Nurse\midwife regularly conducts treatment evaluation	0	0	0	0	1	0	1
Immediately retrieve patient who fails to report	1	0	1	2	0	0	4
Monitor response to treatment through sputum examination	0	0	0	0	0	0	0
Don’t know	0	0	0	0	0	1	1

the patient swallows the drugs; ensure that a family member supervises the patient's intake of drugs on Saturdays, Sundays, and holidays when the clinic is closed; and make sure the nurse or midwife regularly conducts consultation meetings with the patient and treatment partner for treatment evaluation. Two respondents (a medical technologist and the clerk/typist) admitted not knowing what steps to take to ensure compliance with DOTS.

Should a defaulter return for treatment, four respondents would get him/her to have a sputum smear examination. The nurse added that "the treatment will be modified based on the new sputum examination." One fieldworker stressed that the new sputum exam was needed only if the patient had defaulted for two months. Three respondents said the patient must be re-educated on the importance of compliance to treatment. No one said the patient must be referred to the physician for re-evaluation and re-treatment. The research assistant and the clerk/typist said they did not know what to do in such a case, but a fieldworker stressed the need to encourage the patient to take the prescribed drugs.

Regarding the measures to monitor a patient's response to treatment, four respondents mentioned the need for follow-up sputum examination. But two respondents also mentioned chest x-ray, and another two said the patients must be weighed regularly.

Four respondents mentioned other devices for monitoring a patient's response to treatment. One medical technologist would try to discern the attitude and disposition of the patient, while the other medical technologist would get feedback from fieldworkers. The research assistant said that one should find out about the patient's appetite, look at the patient's physical appearance, and get treatment partners to tell stories and give updates. A fieldworker cited monitoring through field visits and filling out forms, as well as finding out any "unusual" symptoms and reactions.

In case a patient has adverse reactions to anti-TB drugs, the physician would give symptomatic treatment, the research assistant would discontinue medication, while three respondents (two medical technologists and the research assistant) would refer the patient to a physician for assessment. No one mentioned he or she would encourage the patient to continue taking the medicines anyway.

Treatment outcome. All the respondents are aware that a record of treatment outcomes is kept in the clinic. The clinic and laboratory staff members say that they (except for the clerk/typist) report treatment outcome on a regular basis. Generally, the reporting is done on a quarterly basis. However, the fieldworkers did not really know about the frequency of reporting, but one guessed it was done monthly.

The physician said that quarterly reports are submitted to the CDC and the PHO/DOH. The nurse and research assistant both said that reports are sent to the PHO and the DOH. A medical technologist also said reports are sent to the Provincial Health Office.

No one said the treatment outcome was reported to the Center Administrator or to the DLSU hospital administrator.

Staff Evaluation

Except for the clerk/typist on loan, all the service provided who were interviewed for this study said there was a system of evaluating staff performance. But agreement ended on that point. Three respondents said DLSU-HSC has an annual evaluation of project-based staff, and the areas evaluated were the usual ones in terms of punctuality, politeness, grooming, and the like. One of these three providers said, however, that there was a weekly evaluation conducted "verbally."

One fieldworker said the evaluation happened every two months, but had no clear idea about the evaluation criteria. Another fieldworker flatly admitted no knowledge of the frequency and content of the staff evaluation.

Another service provider said there was an evaluation system but it was on a "one-on-one" basis and took place "if necessary." Another service provider said there was an evaluation system but it was "not yet implemented," and the system was "more or less direct supervision."

These responses indicate great confusion about staff evaluation.

Quality Improvement

The recommendations of the staff to improve the operations of the DLSU-HSC PPM DOTS Center focus on three main areas: personnel, space, and equipment. Other less frequently cited areas of concern include the assignment of treatment partners, recording and reporting, and issues related to IEC.

For the first improvement, three respondents mention the need to increase the number of persons in the center's staff. One specifically said that there ought to be at least three full-time workers for greater efficiency. Another three respondents focused on the space constraints of the clinic, citing the need for more space to accommodate the large number of clients. One of them mentioned the need to segregate "case finding" from "case holding" patients, while another mentioned the need for better ventilation. A seventh respondent pointed out that the need to modify the system of assigning treatment partners, with faith-based organizations being given the priority.

For the second improvement, three respondents cited the need for better equipment. One said it would be better if the laboratory exam could be automated. Another mentioned a preference for a patients' database accessible through the DLSU-HSU network to facilitate the generation of data. Other suggested areas of improvement include: hazard pay for the staff; revision of the TB management kit to reduce the number of forms to be filled out, and to revise the treatment scheme, especially in regard to the categorization of extrapulmonary TB patients; and the setting-up of a television in the clinic for information dissemination.

Only two respondents cited a third area of improvement. Both cited “manpower” issues. One said that, “The system is good but the problem in implementation is due to a lack of manpower.” The other respondent also cited the need to improve the center’s personnel, but also added that there is need to improve the marketing of the DOTS strategy.

The Administrator’s Views on Clinic Operations

A separate interview with the TRU Director/DOTS Center Administrator disclosed that she is aware of the problems confronted by the clinic. In particular, she cites the sustainability of manpower, as the respondents have mentioned. But she also considers the center’s workforce as its strength. They are all very committed, and do not mind the fact that they all showed positive during the PPD testing for all staff in March 2004. In looking after the health of her staff, the Center Administrator has also given them free flu vaccine shots. And every new staff member is given a free PPD test.

The Center Administrator is aware that there are no incentives for the staff. “The staff morale was lowered when the [CDC] project was ending, but PhilTIPS gave us hope that we will be used as the training center for PPM DOTS.” Using project funds, she allowed the staff to go with her on a study tour of Capiz and Boracay.

She also mentions the sustainability of drug supply as a problem area, especially now that there have been issues in the access to the supply of FDC drugs.

The Director/Administrator admits her staff lacks training in monitoring and supervision. She also calls for help in the production of IEC materials.

To monitor and evaluate the operations of the clinic, the Administrator says that they now have a mechanism. She checks the work of the DOTS nurse, especially the TB masterlist and the TB registry. She also mentions the quarterly monitoring of the DOTS clinic and the TB laboratory. She is pleased to have a “validating medical technologist” in the laboratory.

Another area of concern is the PhilHealth package, which the head admits is good. But, she says, “We have already passed the requisite forms (twenty-one applications, five processed), but up to now we have not received any reimbursements yet.” She suggests that all employers of TB suspects be mandated to refer their employees to DOTS clinics. The formal sector must be tapped because they have the employees who are PhilHealth members. She sees PhilHealth as making possible the sustainability of the clinic. A scheme will be developed to screen patients based on their ability to pay.

Despite these challenges, she is keen to augment the clinic space, with support from the DLSU-HSC. She also wants to venture into pediatric DOTS, with an in-house pharmacy for children’s drugs, a plan they hope will materialize with the help of pharmaceutical companies. They also hope to increase diagnostic services, and to increase the number of referrals.

REFERRING PHYSICIANS AND THE IMPLEMENTATION OF TB DOTS

According to the PPM DOTS Center Administrator, they have a total of 68 referring physicians, 43 (or 63 percent) of whom have had basic DOTS training. The clinic follows a “strict” definition of a referring physician as one who has referred to the clinic at least one patient who has been enrolled in the DOTS program. In terms of the PhilHealth TB Out-patient Benefit Package, certified DOTS referring physicians are those who have attended the Basic DOTS Course; from this perspective, some of the DLSU_HSC DOTS clinic’s referring physicians will not be considered as such. In any event, for this situation analysis five referring physicians were interviewed: two males and three females. Their ages ranged from 30 to 43 years old, with the mean at 36 years of age. Interestingly, all the female physicians are single, but the two male physicians are married. All have postgraduate degrees.

Three of the respondents combine private practice with teaching at the DLSU-HSC. Two of the younger physicians are still in fellowship training. Their household monthly incomes vary greatly. One says it is in the ₱30,000 to under ₱60,000 range, another puts it at the ₱60,000 to under ₱100,000 range, while still another says it is in the over ₱100,000 range.

Stimulus for Referrals

The referring physicians all said that they came to know about the DLSU-HSC PPM DOTS Center through personal knowledge of the Administrator or the PhilCAT Chairman. For these respondents, personal and functional contacts, more than broad public announcements or professional communications, have been the key to their engagement with the center. One of the physicians has been a member of the CCCAT, and was part of the group that established the center. That three of the respondents have been connected with the DLSU-HSC made awareness about the center rather easy. Two respondents have since become members of the diagnostic committee.

In response to the question of why they refer patients to the DOTS facility, four of the five physicians highlighted the free medicine made available at the center. One further mentioned the “assurance of adequate drug supply for patients.” Three physicians also said they referred patients to the center due to concerns with “follow up” and compliance with the treatment regimen. By sending patients to the center they feel assured that patients will be monitored in their drug intake, with one of them citing the recording of this compliance as also important. “The doctor has a responsibility to the patient, but if you’re alone you cannot follow-up the patient by yourself,” said one physician. However, only one of the respondents mentioned health education as a reason for referring patients.

Knowledge of TB DOTS

Four of the five physicians said that TB is a priority disease in the country, because, as two of them said, it is a leading cause of mortality and, as three of them said, because of

its prevalence due to its highly communicable nature. It is evident that the physician who did not say "yes" to TB being a priority disease shared the sentiments of his colleagues. He referred to TB as "globally alarming," but thinks the Philippine government does not consider it a priority disease. He asks why, despite the many TB projects, most TB patients he has encountered are not aware of the facilities and services that are available. He believes government must make TB a priority disease.

Regarding the five components of the TB DOTS strategy, only one physician was able to name them all, but the others said, "*yung* five" or "*basta* five *iyon*." Three physicians emphasized "adequate" and "continuous" drug supply as the most critical component of the DOTS strategy. Two physicians said that political commitment was the most important, because with it all the rest would follow. One physician who stressed drug supply also noted that sputum microscopy was a critical component of the strategy.

Attitudes and Perceptions

All five physicians did say that the DOTS strategy is more effective than the self-administered way of treatment. One of them said, "You're sure that the patient takes the medicine" because the treatment is directly observed. "*Kasi nababantayan ang* patients," said another. Another physician liked the idea of a treatment partner, saying "there's always someone who looks after the patient."

The physicians were asked, "Knowing what you do about T DOTS, what concepts or processes do you agree with or like?" Two simply replied, "Everything!" The other three physicians mentioned something about the medication being either free or in continuous supply. One also said, "I agree with the treatment regimen." One physician pointed out the monitoring of drug intake and even adverse reactions. Another liked the "more or less assured" follow up of patients and the use of microscopy. They see these aspects of the DOTS strategy as the advantages it offers to patients.

In terms of advantages to physicians, only one alluded to monetary returns through the PhilHealth package. The advantage they derive is mainly in knowing that their patients are being given proper treatment and are getting well. One physician expressed the psychic reward in these terms: "You gain more knowledge about the disease. You feel good in the knowledge that you are doing your social responsibility."

When asked if there was anything they disagreed with or disliked about TB DOTS, three physicians said there was none. However, one pointed out that case finding in TB DOTS is "passive," and that an "active case finding" would be better. Another physician expressed disagreement with the treatment of extrapulmonary TB, which is automatically given Category I treatment. He finds the treatment period of six months inadequate and would prefer one full year of treatment.

In terms of disadvantages to patients posed by TB DOTS, three physicians referred to the possibility of social stigma because anyone who goes to a DOTS facility would immediately be said to be suffering from tuberculosis. But one qualified this possibility

as applicable "maybe for the upper classes," but because the medicine is free "essentially there is no disadvantage." Another respondent said that health education would banish any such stigma, so the conclusion was that there was no disadvantage to patients. Another physician said that the transportation expense could be a disadvantage, but if one were to weigh the free medicine and other benefits, then the TB DOTS strategy could really be seen as advantageous to patients.

The "genuine" disadvantage pointed out by one physician concerns the rather long waiting time to know the results of the AFP sputum microscopy. But then when one thinks about the free drugs, the liability of the long wait is somehow cancelled out.

In terms of disadvantages to physicians, four said they do not see any being imposed by TB DOTS on them. "*Bumabalik pa rin naman ang mga* patients *ko sa amin*," said one physician. Another said that DOTS patients visit his clinic every two months. One volunteered the information that there is a system of requiring patients to have a check-up with their referring physician, who must sign a form that presumably is submitted to the DOTS facility where that patient is enrolled.

But one physician (who is quite new in private practice) was rather emphatic about the disadvantage of losing patients: "I'm not assured that my patients are coming back to me for follow up. They [the DOTS clinic] do not reinforce patients to follow up with their referring physicians. *Marami akong* patients *na nawawala*."

Referral Practices

Four of the five physicians have made referrals to other TB DOTS facilities. Because their patients come from various parts of Cavite province, they refer them to RHUs that are geographically more accessible from these patients' homes than the facility at DLSU-HSC. The point is that they generally refer patients to public, rather than private, DOTS facilities. They point out that sputum microscopy is free in these public health centers.

In general, two physicians said that they refer all their patients to a TB DOTS center, whereas two said they refer from 70 to 80 percent of patients they diagnose as having TB to such a facility. One made the distinction that for case finding he refers all patients to a DOTS facility, but for case holding he refers 80 percent only. Clearly, not all of these referring physicians, though very active, refer all their patients to a TB DOTS facility.

Three physicians said that the patients they refer to a DOTS center are those coming from the poorer classes, what they call C and D economic brackets. Another set of three physicians refers patients based on proximity to the DOTS facility. Two said they refer both symptomatic and asymptomatic patients. Only one doctor said that she refers all patients to a DOTS center, and refers even extrapulmonary cases and those from A and B classes. Obviously, there is a predominant perception that TB DOTS centers are for poor patients, but it is also to the credit of these physicians that they think about the physical accessibility of DOTS centers for their patients.

Three of the four physicians who refer patients to a public DOTS center said that the services rendered by a government-run DOTS center differ from those run by private groups. Based on patients' feedback, they said that there is a friendly atmosphere in private DOTS centers, whereas in public DOTS centers the staff members have many responsibilities and will not have much time to talk to patients. Clinic hours in public DOTS centers are shorter than in private facilities, and the doctors and nurses there are not always available. One physician, however, refused to compare the two types of facilities as it would be unfair to the public DOTS centers.

Views on Implementation of TB DOTS

Asked if DOTS centers are adequately and appropriately marketed, only one of the five physicians said yes, and mentioned the CCCAT as the marketing venue. Four physicians, however, said that it is not adequately marketed. In fact, one bluntly said, "There is no marketing strategy." One conceded that the DLSU clinic may be adequately marketed, but the other DOTS centers in Cavite are not.

As a result of inadequate marketing, all said that there are many physicians who have remained uninformed about DOTS, especially in the private sector. These physicians could well be active in making referrals. As one of them said, "*Marami pang hindi nakakaalam, kahit dito sa* La Salle," suggesting also that some were "stubborn doctors."

The respondents said these doctors must be targeted by a marketing campaign, using seminars, posters, flyers, and other paraphernalia. Most important is that they must be assured that they will not lose their patients if they refer them to a DOTS center. The PhilHealth package must also be operational to provide adequate monetary incentives.

Everyone agreed with the proposal that DOTS providers be accredited. It will be a form of regulation, and clients will be assured of the quality of the services they can expect. But on the suggestion of a law that would mandate referral to DOTS centers, one of the four physicians said no such law must be passed, and referrals must be the choice of the individual physician. Of the four who agreed with the suggestion, one said it might not be easy to implement, while another said that a condition for such a law to be effective would be an adequate number of DOTS referral centers throughout the country.

Overall, the respondents are one in saying that private physicians can make a huge social contribution to the control of TB. They should refer TB patients to DOTS centers to ensure that these are treated properly and the cases are recorded and reported. One said that private sector physicians should be educated on the NTP and help in achieving its goals. As one physician saw it, "private doctors get the bulk of TB patients," so these doctors really need to be linked to the public sector. Two others said that private doctors could not give free medicine, so linking up with the public sector is imperative.

Consultation Charges

Two young physicians who are still in fellowship training said they do not charge any of their patients. The three other respondents said their charges for first consultation for possible active TB range from: ₱250 to ₱300; ₱300; and ₱300 to ₱ 400. For a follow up visit, respectively, the charges are: ₱250 to ₱300; ₱250; and ₱250 to ₱ 350. They practice some form of "socialized pricing" but on a case-to-case basis. The truly indigent will not be made to pay. One always has a lower rate for senior citizens.

RECORDING AND REPORTING SYSTEM AND SERVICE STATISTICS

Recording System

In January 2004 the DLSU-HSC DOTS Center started to compile a TB symptomatics masterlist. As seen in Table 5-9, there are no counting sheets for laboratory activities and for treatment outcome. However, the other requisite forms are compiled and maintained by the center. The staff member officially designated to complete these forms are also shown in Table 5-9.

Evidently, the DOTS nurse carries many responsibilities for the keeping of these records. In practice, whenever the nurse is busy maintaining the records, a fieldworker may be assigned to sit at the nurse's desk and dispense medicine to patients. Thus, the assigned fieldworker may actually be the one to fill out the treatment card.

The Laboratory Coordinator is in charge of the forms pertaining to the unit, as well as the request form for sputum examination whenever this staff member is serving time at the front desk reception area. At other times, a fieldworker or the clerk/typist who has had no basic DOTS training will be functioning as receptionist, and in that capacity also fill out the request form for sputum examination.

Although the most important records at the center are legible, and the laboratory records seem up-to-date and complete, the records of the clinic are in a less favorable state (Table 5-10). The TB symptomatics masterlist is neither up-to-date nor complete. It contains data only up till May 2004, so it is at least one month delayed. The treatment cards do not have complete entries for June 2004, and information on treatment outcomes and treatment partners are lacking. Given the workload at the center, delays in completing these records are understandable.

The clinic staff offered their explanation for the state of the TB symptomatics masterlist. The CDC reportedly told the clinic to merge symptomatics and asymptomatics in a single TB masterlist. But apparently the discussions were not concluded. No agreement was reached on such matters as the making of the database and even the format to follow. The DOTS nurse has hesitated to update the TB symptomatics masterlist because her efforts could be wasted pending the final agreement with CDC.

Table 5-9. Recording forms and responsible staff at the DLSU-HSC DOTS Center

TYPE OF FORM	If Maintained		Staff Member Responsible
RECORDING FORMS	**Yes**	**No**	
TB symptomatics masterlist	/		TB DOTS Nurse
Laboratory request form for sputum examination	/		Receptionist
Laboratory register	/		Medical Technologist
Treatment card	/		TB DOTS Nurse
Identification card	/		TB DOTS Nurse
TB register	/		TB DOTS Nurse
Referral/Transfer form	/		TB DOTS Nurse
REPORTING FORMS AND COUNTING SHEETS	**Yes**	**No**	
Quarterly report on laboratory activities	/		Medical Technologist
Counting sheet for laboratory activities		/	
Quarterly report on new cases and relapses	/		TB DOTS Nurse
Counting sheet for treatment outcome		/	
Quarterly report on drug inventory and requirements	/		TB DOTS Nurse
Do you submit summary reports? (to Provincial Health Unit)	/		Clinic: DOTS Physician Lab: Med Technologist
FINANCIAL ACCOUNTS/STATEMENTS	**Yes**	**No**	
Balance sheet	/		
Income statement	/		
Cash flow statement	/		

Table 5-10. Status of the records maintained at the DLSU-HSC DOTS Center

TYPE OF RECORD	UP-TO-DATE		LEGIBLE		COMPLETE	
	Yes	**No**	**Yes**	**No**	**Yes**	**No**
TB symptomatics masterlist		/	/			/
Laboratory register*	/		/		/	
Treatment card	/		/		/	
TB register		/	/			/
Quarterly report on laboratory activities*	/		/		/	
Quarterly report on new cases and relapses	NA					
Quarterly report on drug inventory and requirements*		/	/		/	

*Data provided by center staff. Time constraint did not allow these to be verified.

TB Case Management Kit

As noted in the first situation analysis, the DLSU-HSC DOTS Center developed its own forms after an initial dissatisfaction with the NTO forms that could not capture some of the needed information. The center devised its own TB Case Management Kit, which is composed of several forms. The kit was completed in January 2003, and used in February 2003. It was revised in August 2003 since some of the forms that were developed were not that essential. The Clinical Coordinator says the kit needs another round of revisions.

The kit includes the following forms: Informed Consent, to be signed by the patient and the DOTS nurse; Contract of Agreement, to be signed by the treatment partner and the DOTS nurse; Social Services Form, to be completed by a social worker and signed by the DOTS nurse; Treatment Sheet; Drug Allocation and Release Form, to be signed by the DOTS nurse, the DOTS [Clinical] Coordinator, and the TRU Director; and Adverse Reactions Form. The kit includes a Home Visit Form, but it was not included in the blank kit given to the research team.

Computerized Records

As a result of the enhancement plans, a Management Information System (MIS) was provided to the DLSU-HSC PPM DOTS Center. The MIS contains:

1. Data of the TB register, with added information on such matters as whether the patient is a PhilHealth member; if the patient has a BCG scar; and the number of household contacts of the patient.
2. A template for quarterly reports on new cases and relapses, and on drug inventory and requirements.
3. A template for the NTP quarterly report on the treatment outcome of pulmonary TB cases registered 13-15 months earlier.
4. A template for computation of program indicators.

According to the clinic staff, they just input the data and the computations are made by the computer's software. According to the staff, the problem is that the MIS does not recognize ETB cases; it does not include them when counting the data, and such cases therefore are counted manually.

Enrolled Patients

Total number of enrollees from May 2002 to September 2003, as reported in the first situation analysis, is 244, while the corresponding figure for the period October 2003 to June 2004 is 163. Since its inception, therefore, the DLSU-HSC PPM DOTS Center has enrolled an aggregate number of 407 TB patients.

The first four months of its operations (from May to August 2002) may be considered its start-up period. During this first phase, the center enrolled 16 patients or an average of 4 patients per month. The succeeding thirteen months (from September 2002 until September 2003) recorded a total 228 enrollees. This second phase registered an average

17.54 enrollees per month. Meanwhile, the last nine months (from October 2003 to June 2004) had an average 18.11 enrollees per month, which is not significantly higher than that of the previous period. Based on these mean figures, the center may be said to have enrolled between 17 to 18 patients per month after its start-up phase.

Figure 5-4 depicts the monthly fluctuations in the number of enrolled patients. To smoothen out the graph, moving averages based on three-month intervals were calculated and plotted on to the graph. It appears that the clinic reached its highest enrollment in September 2003, and monthly enrollments have since tapered off.

On the possibility that monthly enrollments were affected by specific months or seasons, the enrollment figures were plotted separately by year (Figure 5-5). The data indicate the probability of episodic swings, tending to rise from about June and peaking in September, followed by a deceleration until December. February appears to be a low month.

Figure 5-4. Graph showing monthly enrollments and three-month moving averages at the DLSU-HSC PPM DOTS Center, May 2002 to June 2004

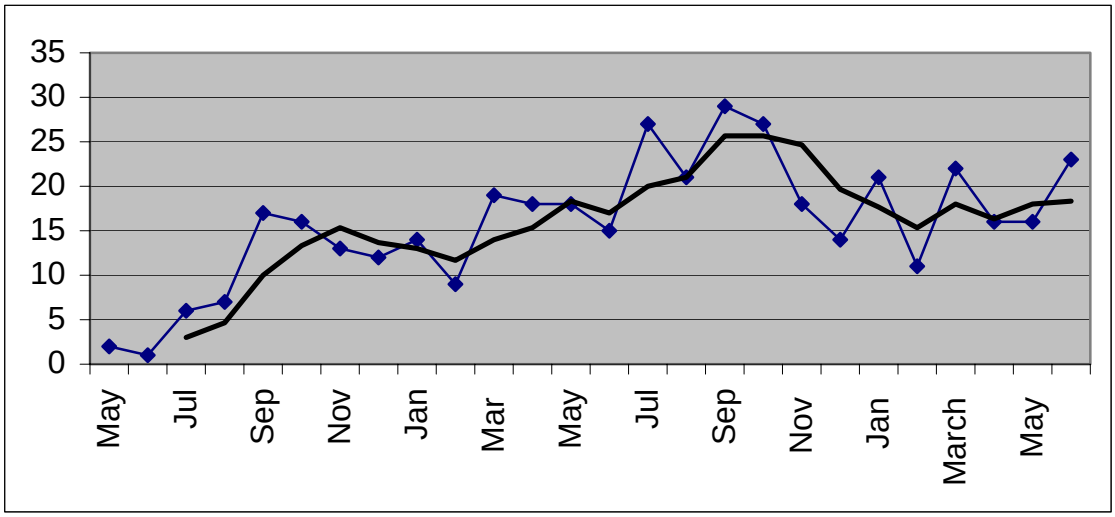


Figure 5-5. Graph showing monthly TB enrollments at the DLSU-HSC PPM DOTS Center, 2002, 2003, 2004

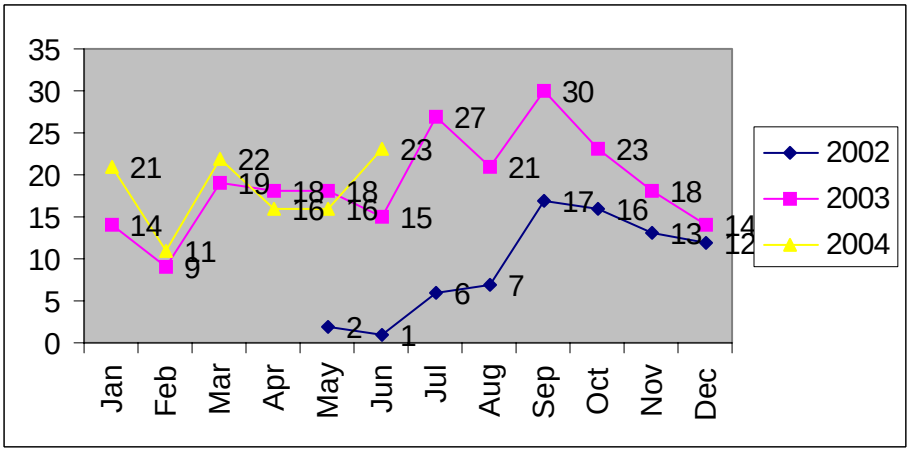


Table 5-11 shows the distribution of enrolled patients by age and sex for the relevant periods covered by the first and second situation analyses. In the first period, males comprised 60 percent of the TB patients, but this proportion declined to 51.8 percent in the period covered by the second situation analysis. The age distribution is about the same, except for the absence of a pediatric case in the 0-14 age group as occurred during the first period. The highest proportion of cases was still in the 25 to 34 years age bracket, followed by those in the 15-24 age group.

Table 5-11. Distribution of TB Patients at the DLSU-HSC PPM DOTS Center, by age and sex, first and second situation analyses

Age Group	**SA 1**						**SA 2**					
	Male (n=100)		Female (n=67)		Total (n=167)		Male (n=87)		Female (n=81)		Total (n=168)	
	n	%	n	%	n	%	n	%	n	%	n	%
0-14	0	-	1	1.5	1	0.6	0		0	0	0	
15-24	24	24	19	28.4	43	25.7	17	19.54	19	23.45	36	21.43
25-34	26	26	20	29.9	46	27.5	26	29.89	21	25.93	47	27.98
35-44	16	16	10	14.9	26	15.6	16	18.39	11	13.58	27	16.07
45-54	17	17	8	11.9	25	15	14	16.09	15	18.52	29	17.26
55-64	9	9	6	9	15	9	9	10.34	10	12.35	19	11.31
65 +	8	8	3	4.5	11	6.6	5	5.75	5	6.17	10	5.95

Table 5-12. Disease classification of TB patients at the DLSU-HSC PPM DOTS Center, first and second situation analyses

Disease Classification	**SA 1**		**SA2**	
	n	%	n	%
Pulmonary TB	157	93.9	159	94.64
Extra-pulmonary TB	10	6.1	5	2.98
Pulmo/Extrapulmonay TB			4	2.38
Total	167	100	168	100

Patients suffering from pulmonary tuberculosis constituted by far the most numerous cases in both periods of analysis. In the second period, however, there were relatively few extrapulmonary cases, but there were some cases that were both pulmonary and extrapulmnary (Table 5-12).

In terms of the type of patient, compared to the first situation analysis, there was a large jump in the number of smear negative PTB cases (42.14 percent), which nearly equaled the number of smear positive PTB cases (42.77 percent). Among the PTB cases, the proportions of relapse and failure cases were lower than comparable figures in the first situation analysis (Table 5-13). The large jump in smear negative cases needs further investigation.

As in the first situation analysis, most of the enrolled patients were in Treatment Category I, but this proportion has declined during the second situation analysis (Table 5-14). Rather, there has been a perceptible rise in the proportion of Category III patients.

Table 5-13. Distribution of TB patients at the DLSU-HSC PPM DOTS Center, by type of patient, first and second situation analyses

Type of Patient	SA 1		SA 2	
	n	%	N	%
PTB	**156**	100	**159**	100
New Smear (+)	79	50.6	68	42.77
New Smear (-)	44	28.2	67	42.14
Relapse	13	9.1	6	3.77
Transfer In	4	2.6	1	0.63
Return After Default	12	7.1	10	6.29
Failure	4	2.6	2	1.26
Others			5	3.14
ETB			**5**	100
New Smear (+)			1	20
Others			4	80
PTB/ETB			**4**	100
New Smear (+)			2	50
New Smear (-)			2	50
Total	**156**		**168**	

* for SA 1, only PTB patients included

Table 5-14. Treatment category of TB patients in the DLSU-HSC PPM DOTS Center, first and second situation analyses

Treatment Category	SA 1		SA 2	
	N	%	n	%
Category I	108	64.7	95	56.55
Category II	25	15.0	25	14.88
Category III	34	20.4	48	28.57
Total	167	100	168	100

Table 5-15. Treatment outcomes of TB patients in the DLSU-HSC PPM DOTS Center, first and second situation analyses

Treatment Outcomes	SA 1		SA 2	
	n	%	n	%
Cure	36	34.6	26	43.33
Treatment completed	35	33.7	21	35
Died	6	5.8	4	6.67
Failure	7	6.7	1	1.67
Defaulter	11	10.6	4	6.67
Transfer out	9	8.7	3	5
Restarted Treatment			1	1.67
Total	104	100	60	100.00

Note: As of June 2004, 108 of the 168 enrolled patients have no treatment outcomes

In terms of the general treatment outcome, the proportion of patients that were cured has risen from 34.6 percent in the first situation analysis to 43.3 percent in the second situation analysis (Table 5-15). The defaulter cases declined from 10.6 percent to 6.67 percent, while the failure cases went down from 6.7 percent to only 1.67 percent in the second period.

Among the new smear positive cases of PTB patients, the proportion cured rose substantially from 62.5 percent in the first situation analysis to 80.65 percent in the second analysis (Table 5-16). This situation in part owes to the fact that all those who completed treatment had another round of smear sputum examination that showed a cure result, unlike the 6.2 percent of similar cases who merely completed treatment in the first situation analysis (Table 5-16). The proportions that died and transferred out were also much lower in the second period. Among the smear negative PTB cases, 85 percent completed treatment in the second period, whereas the figure was only 81.8 percent in the first situation analysis. However, in the second situation analysis, all the relapse cases died, and the failure case finally completed treatment. Overall, there appears to be a remarkable improvement in treatment outcomes.

The outcome for the lone ETB patient in the second situation analysis was completion of treatment (Table 5-17). For the PTB/ETB new smear positive cases, one was cured while the other one transferred out. The single PTB/ETB new smear negative case completed treatment.

Table 5-16. Distribution of PTB patients at the DLSU-HSC PPM DOTS Center, by type of PTB patient, first and second situation analyses

	SA 1							
Type of PTB patient	**Cured**	**Treatment Completed**	**Died**	**Treatment Failure**	**Defaulter**	**Transfer Out**	**Restarted Treatment**	**Total**
New Smear (+)	30 62.50%	3 6.20%	4 8.30%	2 4.20%	5 10.40%	4 8.30%		48
New Smear (-)	-	18 81.80%	-	1 4.50%	2 9.10%	1 4.50%		22
Relapses	2 18.20%	1 9.10%	2 18.20%	2 18.20%	1 9.10%	3 27.30%		11
Transferred in	1 25.00%	2 50.00%	-	1 25.00%	-	-		4
RAD	1 16.70%	4 66.70%	-	-	1 16.70%	-		6
Failure Cases	2 66.60%	1 33.30%	-	-	-	-		3
TOTAL	36 38.30%	29 30.90%	6 6.40%	6 6.40%	9 9.60%	8 8.50%		94

SA 2								
Type of PTB patient	**Cured**	**Treatment Completed**	**Died**	**Treatment Failure**	**Defaulter**	**Transfer Out**	**Restarted Treatment**	**Total**
New Smear (+)	25 80.65%		1 3.23%		3 9.68%	1 3.23%	1 3.23%	31 55.36%
New Smear (-)		17 85.00%	1 5.00%	1 5.00%	1 5.00%			20 35.71%
Relapses			2 100.00%					2 3.57%
Transferred in								0
RAD							1 100.00%	1 1.79%
Failure Cases		1 100.00%						1 1.79%
Others		1						1 1.79%
TOTAL	25 44.64%	19 33.93%	4 7.14%	1 1.79%	4 7.14%	1 1.79%	2 3.57%	56 100.00 %

Table 5-17. Distribution of ETB and PTB/ETB patients at the DLSU-HSC PPM DOTS Center, first and second situation analyses

SA 1								
Type of ETB patient	Cured	Treatment Completed	Died	Treatment Failure	Defaulter	Transfer Out	RT*	Total
	-	6 60%	-	1 10%	2 20%	1 10%		10 100%
SA 2								
Type of ETB Patient	Cured	Treatment Completed	Died	Treatment Failure	Defaulter	Transfer Out	RT*	Total
New Smear (+)		1 100.00%						1
Type of PTB/ETB Patient								
New Smear (+)	1 50.00%					1 50.00%		2
New Smear (-)		1 100.00%						1
Transferred in								
TOTAL	1 25.00%	2 50.00%				1 25.00%		4

*Restarted Treatment

Summary Program Indicators

The program indicators for the DLSU-HSC PPM DOTS Center for the period October 2003 to June 2004 are shown in Table 5-18.

Table 5-18. Summary data of program indicators, DLSU-HSC PPM DOTS Center, October 2003 to June 2004

Program Indicators	
Case Finding	
1. Proportion of Pulmonary Smear Positive Cases Out of All Pulmonary Cases	42.77%
2. Three Sputum Collection Rate	85.35%
3. Positive Rate	18.03%
4. Proportion of smear + patients started on DOTS w/in 7 days of first sputum test	74.65%
Proportion of smear + patients started on DOTS w/in 14 days of first sputum test	14.08%
Proportion of smear + patients started on DOTS after 14 days of first sputum test	11.27%
5. Proportion of smear - patients started on DOTS w/in 7 days of first sputum test	21.74%
Proportion of smear - patients started on DOTS w/in 14 days of first sputum test	24.64%
Proportion of smear - patients started on DOTS after 14 days of first sputum test	47.83%
Case Holding	
5. Sputum Conversion Rate	98.21%
6. Treatment Outcomes (for PTB Cases Only)	
New Smear Positive Cases	
Cure Rate	80.65%
Death Rate	3.23%
Defaulter Rate	9.68%
Transfer Out Rate	3.23%
Restarted Treatment	3.23%
New Smear Negative Cases	
Completion Rate	85.00%
Death Rate	5.00%
Treatment Failure Rate	5.00%
Defaulter Rate	5.00%
Relapse Cases	
Cure Rate	33.33%
Death Rate	66.67%
Failure Cases	
Completion Rate	100.00%

For case finding, the proportion of pulmonary smear positive cases out of all pulmonary cases is 42.8 percent, which is below the acceptable ratio of 60 to 65 percent. The sputum conversion rate of 85 percent comes close to the ideal rate of 90 to 95 percent. The positive rate of 18 percent is within the acceptable 15 to 20 percent range.

A large proportion of new smear positive patients enrolled at the clinic (about 75 percent) was started on DOTS within 7 days of the first sputum test. Some 14 percent of patients started DOTS within 14 days of the first sputum test, and another 11 percent started after 14 days.

Only about 22 percent of the new smear negative cases enrolled at the clinic started DOTS within 7 days of the first sputum examination. Close to 25 percent of such patients started on DOTS within 14 days of the first sputum test. But the sizeable plurality of about 48 percent of new smear negative cases started on DOTS after 14 days of the first sputum examination. This figure is indicative of the speed with which the Diagnostic Committee arrives at its decisions.

Indicators for case holding show solid achievements, starting with a sputum conversion rate of 98 percent. However, the cure rate for new smear positive cases of nearly 79 percent is somewhat below the ideal rate of 85 percent. The death rate of 3 percent is less than the 5 percent standard, which is a good achievement The defaulter rate of about 9.7 percent is higher than the ideal of 5 percent or less.

DELIVERY OF TB DOTS SERVICES FROM THE PERSPECTIVE OF TB PATIENTS

This portion of the chapter discusses data obtained using two research instruments: the Observation Guide for Interaction Between TB Patient and Service Provider (Instrument 3), and the Exit Interview for TB DOTS Patients (Instrument 4). In the original design of data collection for the situation analysis, these two instruments are tied.

Initially, the center staff instructed the research team on the patients to be interviewed; subsequently, the research team was allowed to identify the patients they would like to interview, but it was the service provider that asked the patient for consent on the exit interview. This process yielded five sets of completed instruments. The research team also managed to interview two more patients, but these interviews did not have the corresponding data from the observation guide. In all, there were seven exit interviews with TB patients.

Of the five observation data, one pertained to a referred patient who had gone to the DLSU-HSC DOTS Center for a sputum smear microscopy; it was his second visit. The other four were for follow-up visits without problems. In three cases, a fieldworker was the service provider, in one case a medical technologist, and in another case the DOTS nurse. The data for the patient on at the sputum examination stage will be presented first, followed by data for the four patients on repeat visit.

A Sputum Microscopy Client

Interaction. The 60-year-old male patient went to the clinic on 1 July 2004, a Thursday, for the collection of his second sputum specimen. Because no diagnosis had been made, he could not be classified under any TB category, and treatment could not commence. A medical technologist assisted the patient; he smiled and gave the patient a friendly greeting on the latter's arrival at the clinic.

They talked about sputum expectoration, and the service provider demonstrated how to produce a good sputum specimen. The service provider gave sputum cups to the patient and instructed him to collect the specimen at the induction room. The medical technologist also filled out a laboratory referral form.

After collection, the service provider sealed the sputum specimen container, and labeled it with the patient's name. No written reminder of the next schedule of sputum examination was given, but the patient was told to return two days later. This case highlights the rather extended period for the sputum microscopy examination and the attendant delay in the start of treatment, in case of active TB.

The rest of the interaction between the two revolved around the need for a treatment partner, although the patient had not been diagnosed definitively as a TB case. The service provider emphasized the importance of the support and help of the patient's children. The service provider spoke in a clear, simple and appropriate manner. He allowed the patient to ask questions, to which the former responded. No contact numbers were given to the client.

Including sputum collection, the consultation lasted 17 minutes. The actual interaction between patient and service provider lasted 6 minutes.

Exit interview. The exit interview revealed that the elderly patient is married, and had moved from Iloilo to Dasmariñas, Cavite to be with his children. He finished Grade 6, and worked as a farmer with a household income of less than ₱5,000 per month. A doctor had referred him to the DOTS facility, and he already had a chest x-ray by the time of his first visit. His symptoms included coughing for over two weeks, as well as chest and back pains.

The patient felt that he obtained the services for which he went to the center, and that the interaction time was about right. He felt the service provider attended to him well, listened to his concerns, allowed him to ask questions, and responded to his questions to his satisfaction. He felt the service provider was easy to understand.

But the service provider assumed that the patient had TB and counseled him to stop working because of his illness. No IEC materials were given to him, and the research team observed that TB was not really explained. He had no idea how one contracts and transmits TB, but he knew it was curable.

DOTS was not explained. The patient said he was not aware of other services offered at the center other than sputum microscopy. Demonstrating the patient's willingness to cooperate, he said the best treatment for TB was "follow what the doctor says" and to rest and have proper nutrition. He also said it was important to complete TB treatment, although he did not know exactly what and how long it entailed. When asked if it was important to undergo follow-up sputum examination, he said no.

The patient felt there was enough privacy and that his personal information will be kept confidential. However, the patient felt the clinic did not ensure that he could talk privately with the service provider.

The patient found the clinic's location and hours convenient. He went to the facility with a companion. It took them ten to fifteen minutes to commute by public transportation (one ride) to the clinic, costing ₱15 each. He also paid ₱130 for the sputum test. The patient felt the cost was acceptable.

Interactions Involving Repeat Visitors

A fieldworker served three of the patients, two of whom were in Category I and one in Category III. The nurse attended to a fourth patient, who was in Category I. The patients were met with a smile and friendly greeting. In two of the four cases the provider asked the patient if the latter had any concerns about his/her health and/or treatment. In the other two cases, the patient was not asked about his/her health, but one patient expressed concern about the effect of anti-TB drugs because he was "feeling high blood." During the visit, none of the patients had his/her weight and blood pressure taken, and no physical examination was done.

Only the nurse indicated on the treatment card the schedule of the patient's next sputum examination. In all four cases, no written reminder of the schedule was given to any of the patients.

All four patients went to the clinic for the daily intake of drugs, which were available and which patients received. In dispensing the drugs, generally the service provider would place the pills in a small cup, and then look at the treatment card. The patient, who would have his/her own bottled water, would take the medicine without actually being directly observed. The service provider would normally look at the cup, assuming that the absence of the medicine meant it had been ingested by the patient. Meanwhile, the service provider would be busy with filling out whatever forms need to be completed. Some patients, however, go to the clinic just to get their supply of medicine, with hardly any meaningful interaction.

In three of the four cases, the patient was reminded of the next appointment. Only in one of the four cases did the service provider impart to the patient information on TB, replying to the patient that side effects can be expected. In one instance, however, the service provider (the nurse) offered encouragement to the patient on her reaching the

milestone of two months of treatment, and was told the next four months would go very quickly also. Many patients, however, would somehow be told about the importance of the regular intake of the requisite medicine.

No IEC materials were used during the consultation. Still, the service providers used clear, simple and appropriate language in dealing with patients. They would allow patients to ask questions, to which they would respond. In no instance was it observed that the service provider gave contact numbers to the patient in case of queries.

Three patient-provider interactions lasted a mere 5 minutes, but one interaction lasted 15 minutes. The short interactions were with a fieldworker acting as service provider. The longer interaction was with the nurse.

Exit Interviews: Repeat Visitors' Background Information

Of the six repeat visitors to the clinic, four were in Category I, one in category II, and another one in Category III. They were all cases of PTB. Two of them were seen by the nurse and the rest by a fieldworker. Three were four males and two females. Four were in the 20 to 29 years old bracket, one was 53 years old, and the oldest 64 years old. The average age was 34.8 years.

As an indication of their socioeconomic status, four completed high school education only, and two had some years of college education. Two were students, one was a retired female security guard, and two were out of work. The only employed respondent was a government employee who reported a monthly income of ₱8,000 and a total household monthly income of over ₱60,000. One unemployed young person was dependent upon the remittances of an aunt who worked overseas. It appears that patients come from across a rather wide spectrum of socioeconomic conditions.

The Initial Visit

All respondents came to know about the services of the DLSU-HSC PPM DOTS Center by word of mouth. They were referred either by a neighbor or medical practitioner. One was referred to the center by the staff of an HMO (PhilamCare) because his insurance policy did not have the required validity period. Since his residence was in the same area, he was told to go to the DLSU-HSC.

At the time of their first visit to the DOTS center, all have had chest x-rays done already.

All had experienced symptoms before going to the facility. The most alarming was experienced by the 64-year-old woman who had hemoptysis and sweat with chills. Three respondents reported four symptoms. Common to them were cough of more than two weeks' duration as well as chest and/back pains. One also reported fatigue and shortness of breath; another also reported sputum expectoration and shortness of breath; and still another also reported fever and body malaise. Only two respondents reported one symptom each only: loss of weight in one case, and chest and/or back pains in the other.

Today's Visit

Four of the six respondents visited the clinic on the day of the interview to take the drugs in a directly observed treatment, while the other two went there simply to get their drug supply without any DOT. In total, five respondents went to the clinic to get their supply of medication for the days when they could not go to the clinic.

Two respondents went to the clinic with a companion, but four had none. One came with his spouse (who was also a treatment partner), and the other with his young daughter.

Everyone said they obtained the services for which they went to the clinic. Only one respondent said that the consultation with the service provider (a fieldworker) was "too long," but the rest said it was "about right."

Only one respondent said he had health concerns that he wanted to discuss with the service provider, who happened to be the DOTS nurse. He was satisfied with the interaction with the nurse. Only one respondent said he had a question to ask, specifically about the adverse effect of the medication. He, too, was satisfied that he could ask the question and obtain a good reply. No one was given a health examination during the visit to the clinic.

All said the service provider explained the illness well. When asked what they knew about TB, they all focused on its contagious nature.

Four respondents said they had "enough privacy" during the consultation. But two were straightforward in saying "no" to the question of privacy, with one adding anyone could listen in to the conversation and that it was true for everyone. Four respondents felt their personal information would be kept confidential, but two said otherwise, saying there was no room for a private conversation with the service provider. One of the two has come to terms with the lack of confidentiality by saying, "It's your fault you got sick." The statement evoked a feeling of shame, but also a sense of personal fault. This thinking prevents the disease from being perceived as a public health issue, but merely an individual failing.

Four respondents felt that they were involved in some aspect of decision-making about the treatment, particularly in regard to the schedule of drug intake and obtaining supply. Two felt, however, an absence of involvement in any decision about their health care or treatment.

As regard the next visit, all respondents said that they were given reminders. But, as several respondents said, the schedule is really fixed and they have taken it to heart. Interestingly, one respondent was told by a fieldworker to have a "repeat x-ray" after four months.

Overall, everyone expressed satisfaction with the visit to the facility that day.

Convenience of and Access to Clinic

All respondents found the hours and days of the clinic convenient. The waiting time between the person's arrival at the facility and the start of service to that person ranged from 5 to 10 minutes. There was no complaint about the waiting time, but rather a feeling that, whenever possible, they would be served immediately. One said, "First Come, First Served."

All respondents also found the clinic's location convenient. The travel time from their residence to the clinic ranged from "less than 10 minutes" to at most 45 minutes. Two said it took them 10 to 15 minutes to commute, one said 20 minutes, and another said 30 minutes. Five respondents took public transportation entailing one ride for three of them and two rides for two respondents. The elderly woman added that, when "her knees" are feeling sore, she takes three rides.

When asked about "what services other than what you received today are provided at this facility," one respondent said "none." But the other five respondents could mention two to as much as six services. The services and the number of mentions, by descending order, are as follows: directly observed treatment (4), sputum AFB smear examination (4), consultation (3), health education (1), and chest x-ray (1). One respondent mentioned other services such as PPD and home visits.

Only two of the respondents knew of another facility that offered TB DOTS services. A 20-year-old male Category II respondent knew of a private clinic but did not like its poor quality service. He also preferred the service providers at the DLSU-HSC, saying "I think it's the best here." The elderly woman also knew of a health center, but preferred the provider at the DLSU-HSC clinic. She complained that in the other center her sputum results were all negative, and she did not receive proper treatment even if she was already suffering from hemoptysis. It was the Center Administrator who told her to go to the DLSU-HSC clinic.

IEC Issues and Messages

Two of the six respondents said they obtained educational materials about TB from the DLSU-HSC PPM DOTS Center. One mentioned a "booklet" produced by PhilTIPS which, he said, covered TB DOTS and treatment partners. He said he got it two weeks after the start of treatment. Another respondent said he got a brochure on tuberculosis from the clinic. But he revealed that, "Actually, I didn't receive it. It was me who just picked up the brochure from the clinic." Both these respondents found the educational materials helpful.

Only one respondent reported that he had attended a group talk at the center, and it was held in May 2004. But he says, "It wasn't really a group talk. We were just called together, then they conducted a private talk with us to discuss our concerns." The talk touched on the services offered at the clinic, and they were asked about changes in their

lives since they started the medication. Neither TB nor DOTS was presented on this occasion.

Knowledge About TB

The respondents were asked about their knowledge of tuberculosis and its treatment. To the question of how one contracts TB, the responses were:

Transmitted from a TB patient	4
Inhaling air (other people coughing)	3
Smoking	3
Drinking alcoholic drink	1
Inherited	0
Dirty surroundings	0
Others:	
Sweat drying on back	2
Tiredness/sleeping late	2
Poor nutrition	1

Only four of the six respondents said TB can be contracted from a TB patient. Yet, when asked if TB is transmissible, they all said yes.

One respondent explained, “Everyone has TB but mild. If you don’t take care of yourself, you allow yourself to develop TB.” TB is viewed as lurking in everyone, and some form of abuse will trigger the disease to become full-blown. This person answered the question with the top two responses seen above, but also added “allowing sweat on back to dry” as another reason. For sure, they knew it was not inherited, or a product of sexual contact.

But when asked if TB is curable, they all said yes. One qualified the answer by stressing, “*basta* maintain *ang gamutan*.” Indeed, when asked about what they thought was the best treatment for tuberculosis, all six mentioned the taking of anti-TB drugs in right doses at the right intervals. Three stressed rest and nutrition, especially not sleeping late or being overworked. But, as in the responses on the cause of TB, two said quitting smoking as a treatment, and another two stressed that sweat on one’s back should not be allowed to dry.

When asked if it was necessary for people with TB to complete their treatment, everyone said yes. Four explain that completing treatment would cure TB. Two said it would “prevent the development and spread of multiple drug-resistant TB.” Another two said completion of treatment would prevent its recurrence. One said it would prevent the further spread of the disease. All respondents were aware that treatment could last for six to nine months.

Everyone was also aware there could be adverse effects caused by the anti-TB drugs. The effects mentioned were: mild skin reactions (5), orange/red-colored urine (3), yellowish eyes (2), and gastrointestinal intolerance (1). One patient described some body malaise

and an occasional feeling of dizziness: "*naninikip ang dibdib at parang nahihilo kung minsan*." Everyone said the adverse effects were manageable. One explained the effects did not really interfere with their usual activities. Another was determined to accept the consequences "because I really want to get well." The person with dizziness and malaise said those sensations do no persist and so are bearable.

Everyone said yes when asked if it was necessary for a TB patient to undergo follow-up sputum examinations.

Expenses Entailed

All respondents said there are no charges for consultation and medicines at the DLSU-HSC PPM DOTS Center. One did not know the cost of other services, but the rest reported paying ₱390 for the sputum smear examination. One reported also paying for chest x-ray costing ₱285.

Transportation expenses ranged from ₱11 to ₱22, with the average cost computed at ₱17.60. Two reported the extra cost of bottled water, one paying ₱7.15 for each visit, the other paying ₱14. One respondent reported buying a mask costing ₱10.

Given the fact that only one was currently employed, no one, not even this employed person, said they had to take a leave from work to go to the clinic for consultation. One respondent said he was already on leave from his work as a taxi driver for six months to undergo the DOTS treatment.

Everyone found the total cost of obtaining services from the facility acceptable.

Suggestions for Improvement

Although generally satisfied with the services at the clinic, four respondents said that the clinic space could be expanded. They could see the large number of patients at the clinic and feel the need for a larger area. One mentioned the waiting area as too tight, especially when there are many people waiting for their turn. Two mentioned the air-conditioning, expressing concern about ventilation. One respondent said the clinic must hire more staff.

Assigned Treatment Partners

All the respondents had an assigned treatment partner. Three reported a family member to be the sole treatment partner, but two reported that they had two partners: a family member and a clinic staff. One only had a clinic staff, a fieldworker, as treatment partner.

The one respondent who had the DOTS nurse as a treatment partner and a family member as well said that the latter (an older brother) would observe his taking of the medicine on weekends. The treatment partners who are family members were said to observe their drug intake on a daily basis. All partners are reported as keeping a record of their drug intake.

THE TREATMENT PARTNERS OF TB PATIENTS

Admittedly, the DLSU-HSC PPM DOTS Center has no clear policy on the choice and selection of treatment partners for its enrolled TB patients. The Clinical Coordinator has told the research team that family members are the least preferred to play that role. Nonetheless, family members remain the predominant type of treatment partner.

Available data from October 2003 until May 2004 reveal a diversity of treatment partners (Table 5-19). Of the 120 patients with recorded treatment partners, a family member was the sole partner in slightly over half (53.3 percent) of the cases. A nurse (DOTS trained or otherwise) was the sole treatment partner in close to a fourth (23.3 percent) of the cases. Other types of partners, such as a member of an NGO or a faith-based organization, served as the sole treatment partner in a small 4.2 percent of the cases.

However, in about one-fifth (19.2 percent) of the cases a combination of treatment partners was recorded. The most numerous case involved a family member and a type of nurse, constituting 14 or 11.7 percent of all the recorded cases. The combination of a family member and someone from an NGO was tried in only two cases. Treatment partners composed of a nurse plus a member of a FBO or some other group numbered 7 or 5.8 percent.

We may summarize the data by saying that, in as much as two-thirds (66.67 percent) of all the cases, a family member served as a TB patient's treatment partner (singly or jointly with another person). In two-fifths of the cases (40.83 percent), a nurse or health provider, singly or in tandem with someone else, served as a treatment partner.

Table 5-19. Treatment partners of enrolled patients at the DLSU-HSC PPM DOTS Center as of May 2004

Treatment Partners	
Family Member	64
Nurse	
CN	19
DN/ PPMDN	9
Others	
FBO/NGO/O	5
FM+RN/RHN/CN/DB/PPMDN	14
FM+NGO/O	2
RN+O	4
CN/DN+FBO	3
Subtotal	120
No data *	43
Total	163

Legend:

CN	Certified Nurse
DN	DOTS Nurse
FBO	Faith Based Org
FM	Family Member
NGO	Non Government Org
O	Others
PPMDN	Public Private Mix DOT
RHN	Rural Health Nurse
RN	Registered Nurse

* No data for the months of Dec 2003 and June 2004, and lacking entries for May 2004

The TB symptomatics masterlist shows in its records the “main treatment partner.” The data are presented in Table 5-20. Consistent with the data just presented, Table 5-19 shows that family members were the main treatment partners in 65 percent of the cases. But clinic treatment partners comprised 29.2 percent only of the cases.

Table 5-20. Main treatment partner, DLSU-HSC PPM DOTS Center

Treatment Partners	n	%
Family Member	109	64.88%
Clinic Treatment Partner	49	29.17%
NGO Volunteer	8	4.76%
NGO Volunteer/Clinic Treatment Partner	1	0.60%
No Input	1	0.60%
Total	168	100.00%

Treatment Partner Interviews: Background Characteristics

Five treatment partners (who did not correspond to the patients in the exit interviews) were interviewed at or near the DOTS facility. Four of them were members of the patient’s family: a mother, a daughter, a wife, and a sister-in-law. One treatment partner was a member of a faith-based organization (FBO); she attended to five patients and was the youngest partner at 22 years of age. The daughter was 42 years old. The mother reported her age as 53 years. The wife was also 53 years old. The sister-in-law, at 64, was the oldest treatment partner. The mean age of the five women was computed at 46.8 years. Without the FBO volunteer, the mean age of the family treatment partner was 53 years.

Three of the treatment partners had some years of college education, one completed high school only (the FBO volunteer), and another one finished elementary education only. Of the family members, two had no gainful employment, one was a street vender, while one had an accountancy work in a private firm.

The FBO volunteer considered being a treatment partner, in particular “delivering medicines,” as her “work,” for which the church gives her ₱500 per week as a “love gift.” The vendor earns about ₱280 to ₱300 per week, but her husband, who works overseas, earns US$300 per month from which he remits from ₱8,000 to ₱10,000. The private sector employee reported a household income of from ₱30,000 to under ₱60,000 per month. As in the case of the exit interviews of patients, treatment partners revealed a large diversity in socioeconomic statuses.

Training and Perceived Role of a Treatment Partner

Only two of the treatment partners said they underwent training in order to perform their role as treatment partner. The FBO volunteer attended one seminar at the DLSU-HSC in 2003 and another one at a church in March 2004. She reported learning about “how to

treat patients" and keeping records. The mother also underwent training in March 2004, where she learned about the origin of TB and how it is contracted and transmitted, and about the importance of taking medicine "on time everyday."

Although not recognized as "training," the wife and sister-in-law did undergo "orientation" from the DOTS nurse and learned about what to do. In the daughter's case, she sent her child (the grandchild of the patient) to attend the seminar and then instruct her on what to do.

All five treatment partners, however, were aware that their main responsibility is to check and ensure that the patient takes the medicine on a daily basis. As the wife said, "*nakatutok*," referring to the close monitoring of her husband's compliance with the DOTS treatment. She would tell him to stop smoking, and give him reminders about the dos and don'ts. The mother saw her duties as also involving giving encouragement to her daughter, telling her to be strong-willed. The FBO volunteer saw her duties as including making inquiries on the patient's health, and immediately reporting problems to the health center or DOTS clinic. All five were conscientious about their individual roles as treatment partners.

When asked about their relationship, as treatment partner, with the "attending physician" (*duktor na tumitingin sa pasyente*), the family members gave responses such as accompanying the patient in seeing the doctor or listening to what the doctor says about the patient's condition. No family member saw her role as reporting the patient's condition to the attending physician. The FBO volunteer said there was no need to see the doctor at the DLSU-HSC center, but at the local health clinic, where some of her patients are enrolled, she needs to report to the doctor the patient's condition in case the latter was unwell.

Although only one family member said it is her duty to accompany the patient to the center to get the medicine for the other days, all the family members interviewed actually accompanied the patient. The only exception was the mother who went to the clinic by herself to get the medicines because her daughter had to go to class. It was the third instance that she alone got the medicines, and so far it had happened once a month only.

When asked how they felt about the number of TB patients they were looking after, the wife said "not sure," while the daughter said it was "okay." The sister-in-law said she could take one more patient for a total of two, while the mother said she was "trying to help other relatives." The FBO volunteer felt she was looking after only a "few" patients. Three of the five seemed willing and eager to assist more patients.

Strategies to Promote Adherence to Treatment

Only the wife said she did not have to devise strategies to ensure that her husband-patient would adhere to the DOTS regimen because he himself is committed to it: "*kusang nagta*-take *ng gamut*." He is "law-abiding," she said.

But the other treatment partners reported the need to strategize, mostly by giving pep talk and encouragement to the patient. The mother said her strategies are effective, and the daughter would even take the vitamins suggested by the doctor. The sister-in-law, however, would go beyond mere encouragement. She would also threaten the patient that she might die if she did not take the medicines.

The daughter admitted she would become angry if her mother did not take the medicine. She would pinch her, and it would be "quite successful." She explained that her mother also suffers from diabetes, and must take five drugs for diabetes and six for tuberculosis. She decided to "divide the drugs into small doses to be taken throughout the day." She admits her mother sometimes feels nauseated by all the drugs she is taking.

The FBO volunteer also admitted that some patients could be hardheaded, especially those enrolled at the health center. "*Nasusunod ang pasyente, hindi ang* barangay health worker," she recounted. But she understands why some patients refuse to take the medicine because of its "taste" and side effects.

As an "incentive" to ensure completion of treatment, the mother has promised to throw a party for her daughter "when she 'graduates' in September," to coincide with her birthday. Her mother promises to save up to get her daughter a new dress. The father who works overseas has sent her a bracelet, also as an incentive to complete treatment.

To ensure that the patient actually takes the drugs, the family treatment partners would inspect the blister pack. Only the sister-in-law reported that "she always watches" the patient take the medicine. The other family members somehow operate on the basis of trust, taking the empty blister pack as adequate evidence of drug intake.

For her part, the FBO volunteer would request the older people in the household to make sure the patient takes the drug during weekends or holidays. She would later ask those persons if the drugs were really taken and ask for the blister pack.

All treatment partners said they keep the treatment confidential, and their responses indicated that they did so because of the stigma attached to persons with tuberculosis. The disease is perceived to be an "embarrassment." "*Nakakahiya malaman ng iba*," as the sister-in-law put it. The wife says the househelper might gossip (*tsismis*). They are fearful the patient could be ostracized if the TB becomes known. So the wife would say her husband has "diabetes," which was untrue.

The treatment partners, therefore, go to such lengths to conceal the information about the patient from other people, including other members of the family and household. The mother did not tell her other children about their sibling's TB, and the only other person in the family who knows about it is the father. The wife and the mother said they never talk about it in public, or with other family members within hearing distance. The sister-in-law said only the immediate family members know, and she would hide "safely" the treatment records of her patient. Finally, the FBO volunteer would also dissimulate, telling others the drugs were "vitamins." She would also fill out the forms in private.

Satisfaction with Role as Treatment Partner

Three respondents said that the only costs they bear as treatment partners is the transportation expense, which did not seem to be a heavy burden. But only the daughter looking after her sick mother said she receives "incentives" for fulfilling the duties of a treatment partner, and those were the words of praise coming from her siblings. Her being a filial daughter has not gone unnoticed and unappreciated.

Three respondents made the unqualified statement that they are happy with their role as treatment partner. They are pleased when they see the condition of their patient improving. The daughter said that she feels happy when she sees her mother looking well, but she would also feel annoyed, especially when the patient "forgets her medicine." The FBO volunteer also said she feels happy to see her patient get better, and she relishes the thought that she can help other people. However, she also said it was "frustrating, especially if the patient is hardheaded."

When asked if being a treatment partner was just like doing any job (*para lang isang trabaho*), the mother said it could not be because she must fulfill her parental role, while the sister-in-law saw herself as extending help rather than doing work. The other three respondents, however, said being a treatment partner was a job and a chore. The wife said it was like a job to which one must give time and effort, including checking the medicines. The daughter gave a similar assessment of her role as a treatment partner: "Yes, it's actually like a job. You really need to look after the patient, and attend to the patient extensively." The FBO volunteer said it was like work, but had a rather different reason: "It's probably like work, it seems, because we go out and do tasks and activities, just like going to work everyday."

When asked if performing their role as treatment partner was hard (*mahirap*) or easy (*madali lang*), the wife said it was rather easy because her husband was cooperative. The sister-in-law made a similar response. But two family members said the role was not easy. The daughter attending to her elderly mother said, "It's difficult, because you really need to look after the patient." It must be difficult because she has her own family to look after, so her two social roles must be stretching her. The mother who is looking after her 18-year-old daughter said it was hard and she would sometimes think of giving up(*susuko na pero talagang pinipilit*) , but she would resist giving up "because it's my obligation." For her part, the FBO volunteer found the role hard when she needs to go to the clinic "because it's hard to travel, and you have to give an extra day to come here." But she also found it easy when the patient is easy to get along.

Suggestions to Improve Role

The perception of how light or demanding the role of a treatment partner is seems to depend a lot on the behavior of the patient. Obedient and compliant patients make the treatment partner's role easy, but patients who behave otherwise make it difficult for the treatment partner, regardless of whether the partner is a relative or not.

The respondents' suggestions to improve one's performance as a treatment partner were influenced by the patient's behavior. Those who found their patients, and their role, easy made suggestions such as understand the patient who may wallow in self-pity, and encourage and motivate the patient to trust and follow you. Those who found their patients difficult made suggestions to fortify themselves. "Patience!" exclaimed the daughter. "Work on your attitude," said the mother. But the latter also looked at the overall system and suggested that others should be taught the procedures for the DOTS treatment, and that these should be followed diligently.

The issue of compliance with procedures was also stressed by the FBO volunteer. Her suggestion focused on barangay health workers, whom she said should have an agreement signed by the patient who should make a commitment to complete treatment. Seeing that "hardheaded" patients could get their way, this volunteer said that barangay health workers at the health center should exert a "stronger, heavier hand" to ensure the strict implementation of the DOTS program.

EVALUATION OF CHANGES SINCE THE ENHANCEMENT PLANS

Table 5-21 shows the enhancement plans prepared by FACE for this clinic, and the actual accomplishments as of June 2004. In terms of **political commitment**, the mother organization has not made a firm commitment concerning the salary of the DOTS center staff. There is a continued reliance on external sponsors and funding agencies. However, a clerk/typist from the Center for Indigenous Medicine has been made available to the clinic, but this person has been working in a DOTS clinic without any proper training and knowledge about DOTS.

The plan to give out plaques of recognition to referring physicians has been fulfilled. The center has a total of 68 referring physicians, 43 (or 63 percent) of whom have had basic DOTS training. The problem of financial incentives to referring physicians appears to find solution in the PhilHealth package, although there appears to be problems with processing at the PhilHealth end. The referring physicians interviewed for this study were acquainted with DOTS and appear committed to the fight against tuberculosis.

The supply and production of IEC materials continue to be a major lack in the center. There is no website, although clinic records have been computerized. Despite some problems, the data in the computer files are very useful. But there is an overall lack in the education of patients, as data on beliefs about tuberculosis in the exit interviews suggest.

Table 5-21. Enhancement Plan for the DLSU-HSC TB DOTS facility and actual accomplishments as of June 2004

Enhancement Activities	Target Dates (From SA 1)	Party Responsible	Indicators of Change	Actual Accomplishment (As of June 2004)
Political Commitment				
1.1 Identify sources of funds/seek support from partners	Jan 2004 (PhilCAT CDC project will end Oct 2004)	DLSU Executive Committee, Finance Officer, TRU Director	Salary of DOTS staff and supplies for DOTS Center to be fully supported by mother organization	Mother organization pays for the salaries of the 2 med techs; other staff get their salaries from CDC and PhilTIPS, some office supplies especially for trainings come from partner institutions
1.2 Review commitment of mother organization				Mother org has promised to provide more space for clinic
1.3 Recognize the efforts of DLSU in the control of TB by giving plaques of recognition annually during the World TB Day to MDs who refer ≥ 5 patients				Plaques of recognition given out last March 22, 2004
2.1 Give out flyers, put up banners/posters advertising services offered by the DOTS center	January 2004	DLSU	Increase in referrals and walk-in patients	No banners and flyers given out but compared to enrollments during SA 1, there is an increase in average monthly referrals and walk-ins
2.2 Set up a website*	January 2004	DLSU	Increase in referrals and walk-in patients	No website has been set up

* Based on a phone interview with the clinic administrator, the target date for the website was moved to next year, 2005

Enhancement Activities	Target Dates (From SA 1)	Party Responsible	Indicators of Change	Actual Accomplishment (As of June 2004)
2.3 Designate a place in the clinic for IEC materials that patient can avail of; provide TV and VCD in the patients' waiting area	January 2004	DLSU/TIPS		There is designated place for IEC materials (shelf in the conference area) but is not quite accessible to patients, no TV and VCD in the reception area
2.4 Develop IEC materials for potential referring MDs	January 2004	DLSU/TIPS		IEC materials for referring physicians were supposedly given by PhilTIPS to DLSU, but the clinic claims it has not received the materials
Quality Assured Sputum Microscopy				
1.1 Acquire a microscope	DOH agreed to provide microscope	DLSU/TIPS	Sustained provision of sputum microscopy	Microscope from DOH in place
2.1 Designate a med tech for the TB lab and another for the DOTS Center *or* identify person responsible for specific tasks	Done-Additional Med Tech hired and redistribution of work done November 2003	DLSU	Release of laboratory results w/in 24 hours	Even with new addition of another med tech, lab results still not released within 24 hours
Regular Drug Supply				
Formalize MOA with DOH	January 2004	DOH, DLSU	MOA signed	Initial revisions of original MOA done but final MOA not yet signed by DOH
Standardized Treatment Including DOT				
1.1 Develop structured orientation programs for treatment partners	January 2004	DLSU/PhilTIPS	Treatment Partners Observe DOTS of Patients	DOTS, strictly defined, not observed during fieldwork; no structured orientation

Enhancement Activities	Target Dates (From SA 1)	Party Responsible	Indicators of Change	Actual Accomplishment (As of June 2004)
				programs for treatment partners alone, orientation during health ed with enrolling patient
1.2 Define selection criteria of treatment partners	January 2004			There is a selection criteria for treatment partners but not stated explicitly in written form
1.3 Develop IEC materials for treatment partners	January 2004			IEC materials for treatment partners available (from PhilTIPS)
2.1 Develop monitoring tools for treatment partners	December 2003	DLSU	Documentation of home visits; decrease in missed doses and potential defaulters	Home visit forms now in place, defaulter rate has gone down, TIPS provided the fieldworkers with cellphones to contact potential defaulters
2.2 Assign field treatment supervisors to supervise home treatment partners	Done-Field worker hired Nov 2003	DLSU		Done
3.1 Define catchment area to make defaulter tracing feasible	Done-December 2003	DLSU	Defined cachment area implemented	Defined cachment area implemented
Recording and Reporting System				
1.1 Designate a person who has the time to update the records of the TB registry 1.2 Train the personnel on MIS	December 2003 December 2003	DLSU DLSU/FACE/ TIPS	Updated records, MIS in place	Records not updated, MIS in place although there is a very minor glitch in the system Personnel trained
1.3 Review TB Management Kit	December 2003	DLSU		TB management kit still under revision
1.4 Acquire a computer for MIS	December 2003	TIPS		Laptop computer in place

Enhancement Activities	Target Dates (From SA 1)	Party Responsible	Indicators of Change	Actual Accomplishment (As of June 2004)
2.1 Develop a checklist for evaluating staff performance	January 2004	DOTS Administrator/DOTS Coordinator	Evaluation system in place	Still in the process of revision
2.2 Coordinate with NTP to develop supervision, monitoring and evaluating system	January 2004	DOTS Administrator/PhilTIPS	Evaluation system in place	No clear-cut, structured evaluation system in place, still in brainstorming stage
Infection Control				
Develop infection control guidelines during health education sessions with sputum positive patients	January 2004	DOTS Staff	Developed infection control guidelines implemented	Incoming patients are required to wear masks during health ed sessions, but observed that it is not strictly implemented, no clear-cut infection control guidelines
Service Delivery				
Review Scheduling of activities. Redistribute weekly visits of patients/ treatment partners for their drug supply	January 2004	DLSU	Lesser waiting time Patients and DOTS nurse have more time to discuss other health concerns	Patients in maintenance phase with their treatment partners can now get their weekly supply of medicine any day of the week the clinic is open

The organizational set-up of the DLSU-HSC PPM DOTS Center is very flexible, but roles and functions do get mixed up. There is no clear system of staff evaluation. Some center staff members are performing roles for which they are not trained and properly equipped.

In the area of **quality-assured sputum microscopy** the goal of releasing laboratory results within 24 hours has not been achieved, despite the additional microscope from DOH. Hopefully, the recent increase in laboratory staff will soon begin to make a difference. The data indicate that 78 percent of new smear positive cases begin treatment within one week of the first sputum test. There has been a discernible increase in smear negative cases diagnosed to be active TB.

Regular drug supply has become a problem area, with problems in sourcing from the PHO made mandatory by a recent change in DOH policy. The Third Quarter of 2004 started with very inadequate supplies, and the problem may lie with the PHO, but also with the DOH—the issue remains to be investigated in greater depth. At present, many patients are in still in SDF but starting February 2004 the clinic has dispensed FDC drugs. The transition to FDC is compounded by problems with obtaining supplies at the PHO. The clinic also does not have in stock medication to deal with the adverse effects of the DOTS regimen.

The **standardized treatment of DOT** has probably been improved given the overall improvement in treatment outcomes between the first and second situation analyses. But even in the clinic itself, the taking of drugs is not strictly “directly observed” as the service providers get preoccupied with filling out record forms. The flowcharts for case detection and case holding may need to be revisited for clarity and efficiency.

But the center has made impressive gains despite its various constraints. The proportion of defaulters has declined and the cure rates and completion rates have increased since the first situation analysis. The hiring of fieldworkers has been an area of strength that will ensure the proper implementation of DOT even away from the clinic.

Service statistics suggest that the monthly enrollments have peaked in September 2003, although arguably this may be part of an annual cycle. But the resource constraints of the center may eventually hamper enrollment rates. More seriously, if the problem of drug supply is not resolved, the enrollment figures may decline substantially.

The fieldworkers, who also dispense drugs in the clinic, need better training for them to be better assistants or substitutes to the DOTS nurse. When fieldworkers dispense medicine at the clinic, their interaction with clients lasts no more than 5 minutes. They are not equipped to deal with the health concerns of the patients.

All enrolled patients in the intensive phase are now required to take their medication at the clinic, regardless of regimen. In the maintenance phase, the current practice of allowing patients to get several days’ supply of medicine for DOT at home is followed.

The **standardized recording and reporting system** takes a lot of time, but the DOTS center staff do whatever they can to comply with the system. The TB symptomatics masterlist is behind by over a month, not only because of the case load but also because of a lack of clarity in negotiations with the CDC.

Infection control continues to be an area of concern as both those heavily afflicted by TB and other persons going to the clinic are intermingled in the waiting area. Patients seem prepared to wait and are, in general, satisfied with the services provided by the center. But the DLSU-HSC management has committed to grant the center more space after the positive results of the recent CDC evaluation visit.

SWOT ANALYSIS

Strengths

The mother organization has demonstrated political commitment in terms of non-consumable items, and is prepared to provide more space to the DOTS clinic. The clinic has been air-conditioned with the necessary facilities.

The TRU Director-cum-DOTS Center Administrator exerts strong leadership and advocacy.

All those who serve in the DOTS clinic, whether on a full-time or part-time basis, are highly committed personnel, despite their rather low wages. Many, but not all, are knowledgeable in the DOTS strategy.

The services of fieldworkers from faith-based organizations have made for more successful monitoring of and compliance with DOT at home. Defaulter tracing has been made more efficient.

Family members who serve as treatment partners are very committed to the role.

The physician and facility are PhilHealth accredited.

The clinic’s PhilHealth accreditation serves as an attraction to referring physicians.

The DOTS center has developed its own TB monitoring and reporting forms, based initially on the NTP recording and reporting forms. There is a computerized information system in place.

Weaknesses

The mother organization provides a regular annual budget for the TB laboratory only. The budget of the DOTS center comes from the CDC grant, which will end in October

2004, without a definite word from the mother organization regarding what happens next. The center is banking on Philippine TIPS for external support.

The center staff are forced into excessive multitasking, and their roles in the clinic, the laboratory, and in research get intermingled. They are overworked for very low pay. They become so busy that even filling in the forms detracts from the doing DOT properly. Updating the records also becomes a problem. There was an expressed need to hire more staff, despite the recent addition of two new medical technologists.

The supply of anti-TB drugs must now be obtained from the POH, and there are structural problems that have resulted in highly inadequate supplies and buffer stock at the clinic. However, currently enrolled patients are guaranteed adequate supply.

Clients who belong to low socioeconomic positions are distinguished from those that can afford to pay, but this step seems redundant at the moment since there is no difference in terms of cost-of-services. Poor clients spend for bottled water to drink the medicine in the clinic.

There remains a delay in the release of results because of the heavy workload (and other tasks) of the medical technologists.

The clinic lacks IEC materials. It may need to improve its marketing strategy, but an increase in new enrollees may stretch the clinic's resources beyond its reasonable capacity.

The present waiting area has become too cramped and presents a threat to infection control.

Opportunities for Improvement

The hiring of fieldworkers has been an excellent idea. The position must be better paid and the fieldworkers given better training. They are the ones bringing DOTS seriously to the homes of patients and reducing defaulter rates.

With the new space promised by the mother organization, the waiting area can be improved. Patients in the intensive phase may be segregated as they wait for their turn (although even in the current set-up they can be prioritized).

Proper lectures or group talk can be given to enrolled patients and treatment partners.

The presence of three medical technologists in the center may help speed up the process of sputum microscopy.

The Diagnostic Committee may be able to devise a system for making an early decision on smear negative cases, rather than making nearly half of such patients wait for over two weeks before they are started on DOTS.

Threats and Limitations

The monthly enrollments at the clinic appear to have tapered off after the first situation analysis. The current drug supply problem, unless resolved, will lead to fewer enrollments.

The staff members whose salaries are drawn from the CDC project will have to be retained, but there is uncertainty as to what happens after October 2004 when CDC support ends.

Alternative sources of drugs, apart from the PHO, may need to be explored. Perhaps direct negotiations with the DOH can be held, with assistance from Philippine TIPS.

Although required for financial viability, the prospect of charging some patients for the services of the clinic and not charging others will need to be managed properly, especially because by now the clinic has built a reputation of providing everything for free.

Chapter 6. Best Practices of the Four Prototype Clinics

This chapter presents comparative data across the four TB DOTS prototype model clinics examined in this second situation analysis. The first part provides a presentation of best practices and lessons learned. It is followed by a comparative analysis and discussion of the four clinics following a set of key variables along the five major components of the DOTS strategy. This chapter provides a summary of program indicators for the four model clinics and the results of a cohort analysis for TB patients who were registered during the period October 2003 to January 2004. In an attempt to quantify the fulfillment of enhancement plans and to explain program indicators and accomplishments, this chapter concludes with a set of scores for each of the four clinics.

COMPARATIVE ANALYSIS OF FOUR CLINICS

Political Commitment

Presence of a champion

In DLSU-HSC DOTS Facility, the first champion was Dr. Charles Yu and, many years after, he was later replaced by the very able Dr. Victoria Dalay, who is now the DOTS Administrator. She has remained very committed to the program.

In the Manila Doctors Hospital (MDH) TB DOTS Clinic, the champion is Dr. Abundio Balgos, through whose efforts the DOTS Clinic was able to get clinic space from MDH management and funding from CDC. He remains as Project Manager and DOTS physician. He is also an active member of the Diagnostic Committee of that facility. The fact that the DOTS Manager and Nurse is his wife is a good indication of their continuing commitment.

The first champion for the PhilamCare (PAC) DOTS Clinic was the former President of the PhilamCare Clinic who learned about DOTS and its success though a PhilCAT-sponsored lecture. His initial interest and efforts culminated in the establishment of a DOTS Clinic in August 2003. At present, the Vice-President for Clinical Services, Dr. Erlinda Tiuseco, has over-all supervision of the DOTS Clinic. She has expressed her commitment for as long as the staff members are provided training and given free medicines by the DOH. However, the extent to which she is able to influence management decisions needs to be investigated further.

In the case of FriendlyCare (FC) TB DOTS Clinic, the initial champions were the top management represented by then President, Dr. Alberto Romualdez, and Manager, Dr. Juan Antonio Perez. Through their prodding and representations with the DOH, the DOTS Clinic was established in September 2002. However, both persons are no longer connected with FC, and the current management of FC is deemed unstable at the moment. There are plans to increase program pricing to make the project a viable financial

undertaking. The FC President, in fact, has issued a memorandum instructing FC clinics to cease accepting TB patients in the DOTS Program until a new treatment fee has been set. The DOTS Physician who is the DOTS Coordinator for the whole FriendlyCare Foundation is the only champion to speak of.

Physical Facilities

The parent organizations in all four TB DOTS Clinics have provided space for the clinic operations. DLSU has supported the transfer and expansions of their DOTS Clinic in the present site, with a promise to also give the CT Scan room to the DOTS Clinic once it is vacated. The managements of Friendly Care and MDH have provided small rooms (10 square meter area), while the PhilamCare has just provided a small open corner of their clinic to place patients' files and medicines for the DOTS program. The MDH DOTS Clinic shares clinic space and equipment with another physician, but the space in FC and PAC are solely for DOTS activities.

Staffing and Salaries

DLSU, through the TB Research Unit, is lending some of its salaried staff for work in the DOTS Clinic. They include two Medical Technologists, the Research Assistant, and the Clerk/Typist. The key personnel, the DOTS Physician, and DOTS Nurse are paid by PhilCAT, through the CDC Project, and the Field Workers are paid through the PhilTIPS Project. However, the CDC Project finishes in October this year.

PhilamCare has allowed, on company time, the training on DOTS of eleven of its clinic physicians, the Clinic Operations Manager, and two nurses. All receive their salaries from PhilamCare. While no one is assigned full-time to the DOTS Clinic (the volume of patients does not make this practical), but all are knowledgeable on DOTS and can easily be tapped for additional work, if the need arises. Although the staff is not given additional pay for the added work on DOTS, the volume of work is distributed to ensure that they are not overworked.

FriendlyCare also utilizes its present salaried staff to run the DOTS Clinic, but nobody works full-time. No added compensation is given for their work on DOTS as it is considered part of their regular work.

MDH does not pay for the salaries of the DOTS Clinic. The DOTS Nurse and Research Assistant are both being paid out of the CDC Grant.

Comments

The DLSU-HSC DOTS Clinic is considered a coalition-based DOTS model, but support only comes from a few local sources: DLSU, physicians in the medical center, a church group. There is no support coming from the LGU. Most of the funding comes from external sources which may have been made available because of the coalition. However, these sources are limited and some will be ending soon. More contribution from other

local players is required. Local medical societies as coalition partners can contribute by referring clients to the DOTS clinic.

The support given by PhilamCare to its DOTS Clinic may be small, but it seems to be workable and sustainable. The management is willing to continue with the project provided there is no additional outlay required and that the drug supply remains free.

There has been a waning in the commitment of the management of FriendlyCare due mainly to the lack of financial returns for DOTS. This position is probably affected by the overall financial viability of FriendlyCare. It is at present seriously reassessing its stand on DOTS. There is, however, an effort to keep the project going by increasing the price of treatment. An assurance of support perhaps from PhilCAT, PhilHealth, and DOH, plus a good plan for sustainability, will be required to sustain operations.

MDH may be doing well now, but the lack of a clear-cut plan for providing salaries for its two key personnel threatens its viability and sustainability. It is not known if they will be continuing with their present roles when the CDC grant ends in October of this year.

Lessons Learned

The DOTS Clinics need a champion to sustain the political commitment of existing partners and players. He/she may also be needed to ask for an increased commitment from some of them as clinic operations expand and the patient load increases. The loss of a champion and the absence of an equally capable and committed replacement creates instability in the system and threatens the survival or viability of the project, as was the case in Friendly Care. The loss of the initial champion in PhilamCare was apparently handled well and its commitment remains strong until the present. The same is seen in the DLSU-HSC experience. The presence of committed individuals strategically located within the organizational structure ensures a smooth succession and transition if and when the acknowledged champion decides to move on to other endeavors.

Good treatment outcomes and a fair return on investment probably will help ensure continued support from top management and donors.

For local coalition building to be meaningful, the members should provide something more substantial than advocacy. They should provide tangible resources like salaries, equipment, and supplies. The parent organization should be asked to provide the salaries of at least the DOTS Nurse and an assistant because they are really the key personnel. While clinic space is important, what will make the DOTS Clinic successful are its personnel, they should be properly trained, adequately compensated, and made secure in their positions.

The coalition can devise and strengthen a system of patient referrals if physicians are members of the local coalition.

Case Finding

Catchment Area/Clientele

The DLSU-HSC TB DOTS Clinic has a well-defined catchment area and good statistics on the potential patient load. However, it caters mainly to patients who consult physicians in the Medical Center; there are few clients who come as referrals from the community, from GPs, or walk-ins. It considers 63 physicians are referring physicians, but one-third of them do not have training in DOTS.

Clients of the PhilamCare DOTS Clinic are qualified policyholders, but their insurance policies must have an effectivity of at least four months for them to be considered qualified. They may live or work within the vicinity of the clinic. Policyholders outside the area are referred to other PhilamCare clinics that also offer DOTS.

Friendly Care caters mostly to walk-in patients; it has only two referring physicians despite the wide catchment area.

MDH caters mostly to patients of the pulmonologists and infectious disease specialist with clinics in the hospital; these specialists see an average of seven to eight TB patients per week. It is envisioned that other private and government hospitals and clinics will be referring to this DOTS Clinic. The catchment area includes those within a two-kilometer radius from the hospital.

Referring Physicians

It is interesting to note that, despite prior training in the DOTS Strategy, not many doctors in the four clinics have been able to enumerate the five components of the DOTS strategy during the interviews for this study. Nonetheless, many are still inclined to refer their TB patients because of the benefits of free drugs and supervised treatment in the DOTS clinics. Many see TB as a priority disease and feel it is their social responsibility to have their patients properly treated. However, they emphasize that patients and physicians should be given a choice in the manner of treatment. This preference is especially applicable for higher-income patients, who are more likely to decline participation in DOTS and opt to buy their own medicines. Many physicians see the benefits of DOTS as applicable mainly to the lower-income groups.

Concerns of physicians which should be addressed include the high cost of AFB smears relative to the chest x-ray, the long time for the wait for AFB results, and inconvenience posed by DOT to many patients. Physicians also need to be assured that they are not going to lose patients if they refer to the DOTS clinics. The stigma of TB on patients should likewise be handled delicately, especially for the rich and for young people.

Flow of Referrals and Procedures

MDH does not have its own manual of operating procedures but follows NTP guidelines. It is not clear at what point patients are referred to a DOTS clinic. Apparently, referring physicians initially work-up the patients with chest x-ray and AFB smears and, if diagnosed with TB AFB and/or (?) chest x-ray, patients are referred to the DOTS clinics. In some cases, patients are worked up after referral to the clinic, if they have not done it previously. Sputum is usually collected at home. The Diagnostic Committee meets once a month, but treatment may be started if the chest x-ray is read as TB by the radiologist or by the Project Leader. The decision is later reviewed by the Diagnostic Committee. This system ensures that majority of smear negative patients are started on treatment within fourteen days (or two weeks) of the first sputum test (Table 6-2).

In DLSU-HSC, patients are seen by referring physicians and, in most cases, a chest x-ray is already done. Patients who are suspected of TB based on symptoms or chest x-ray are referred to the DOTS clinic. How the referral is made, whether with a referral form or by word, is not certain. The patient is received by the receptionist who is also the medical technologist, who then fills up the pre-enrolment form and request for AFB smear. Spot specimen may be done on first consultation. Smear results are available after one to two days after submission of the third specimen. If positive, the referring physician is informed. If negative, the patient is sent back to the referring physician for chest x-ray. After the x-ray is done, it is sent to the Diagnostic Committee that meets two to three times a month. This means that the decision of the committee will not be known after one or two weeks. Nearly half of smear negative patients thus begins treatment after fourteen days have elapsed (Table 6-2). Meanwhile, what is done to the patient during the waiting time is not indicated.

In FC, patients are initially evaluated by clinic physicians (referring physicians) by symptoms and, usually, chest x-ray. Those with x-rays suggestive of TB undergo sputum examination. Sputum specimen are collected at home and processed in the clinic laboratory. Results are available after one week. If smears are negative, symptomatic treatment is given, and chest x-ray and/or AFB microscopy are repeated after three to four weeks. Most of the smear negative cases are placed on a DOTS regimen within fourteen days (Table 6-2).

In PhilamCare, patients undergo sputum if with symptoms or with chest x-ray suggestive of TB as seen during the annual checkup. Sputum is collected at home and sent to the clinic; the specimen is then brought to the laboratory at the Quezon Institute. If AFB smears are negative, chest x-rays are reviewed by the Diagnostic Committee composed of three pulmonologists and the clinic radiologist who are on-call basis. Members evaluate the chest x-ray individually.

Initial Evaluation

In PhilamCare the nurse screens patients for cough of two weeks' duration and refers them to the DOTS-trained physician for further evaluation.

In DLSU the receptionist fills up the Pre-enrollment Form and requests for AFB smears.

In MDH the referring physicians do the initial clinical and laboratory evaluation for patients seen in the clinic.

In FriendlyCare the nurse screens for symptoms and refers patients to the clinic physician for chest x-ray.

Use of Diagnostic Tests

Chest x-rays are available on-site in the four clinics. Films are examined by the physicians themselves. AFB smears are done within the facility in FriendlyCare, within the hospital in DLSU-HSC and MDH, and in an outside facility in the case of PhilamCare. As a rule (see Table 6-1), the three sputum smears cost more than the chest x-ray. In DLSU-HSC, smears cost ₱105 more; in FriendlyCare, ₱205 more; in MDH, also ₱205 more. In PhilamCare, patients do not pay for the AFB smear and chest x-ray, but the AFB smear it pays for at the Quezon Institute is the cheapest (₱ 225 for three specimens) of the four clinics.

Comments

Only MDH has done preliminary studies to determine the maximum expected patient load from the identified catchment area. DLSU-HSC relies on DOH statistics for estimates on patient load. None of the clinics has standard referral forms to be accomplished by the referring physicians. In all clinics, chest x-rays remain an important part of the initial evaluation of the referring physicians. This means that cost of diagnosis is higher for patients as compared to before, since both chest x-ray and AFB microscopy are now being requested.

Availability of the AFB smear results vary with the clinic, it may be up to one week in some cases. Diagnostic Committees vary in frequency of meeting and method of assessment of the films. In some cases, treatment is initiated before the Diagnostic Committee has the chance to evaluate the case (as the in case of MDH).

Lessons Learned

To encourage private physicians to refer their patients to PPM DOTS clinics, the benefits to them and their patients should be highlighted. These include the free medicines and the assurance of completion and cure for the patient as well as, for the physicians, financial incentives from PhilHealth and the psychic reward of meeting a social responsibility. They should also be assured that delays in treatment are reduced, and that their patient’s sensitivities and concerns are delicately handled.

Most private physicians still consider the chest x-ray as an important screening tool along with the symptom evaluation (despite the DOTS trainings and orientations). Flow charts

do not show this practice. Clearly, there must be an effort to maximize the benefits of the chest x-ray as an early diagnostic tool without minimizing the central role of sputum microscopy in clinching the diagnosis.

The delay in the start of treatment may be reduced if clinical assessment is not redundant (the referring physicians can already do them), referral back to the RP's is avoided (the DOTS Staff can already do the needed workup and assessment), the smear results are made available in less than one week (three days is acceptable), and the Diagnostic Committee meets more often or referrals may be made by phone.

The presence of an on-site microscopy unit may be considered an advantage by many, but this is not apparent given the experience of two clinics. FriendlyCare, which has a medical technologist and facilities for microscopy within the clinic, takes one week for results to be released, while PhilamCare which has to have sputum specimens processed in Quezon Institute receives the results within the day the third specimen is submitted. Utilization of outside laboratories may not really be a big disadvantage if the results are made available quickly and if the laboratory is reliable.

Case Holding

Pre-treatment Procedures

In DLSU-HSC, diagnosed TB patients are told to return to the clinic with a prospective treatment partner. (There are no written guidelines in the choice of treatment partners but family members are considered the last choice). Patient and treatment partner undergo group lecture, then signs a consent form and contract agreement, respectively. They are then assessed by the Social Service for "paying capacity" although all medicines are free.

In MDH, patients sign a contract with the DOTS Clinic. The patient and treatment partner undergo lectures and counseling, and are given IEC materials.

In PhilamCare and FriendlyCare, patients and treatment partner sign a contract of agreement, and then are given one-on-one lectures.

Treatment Partners

In PhilamCare no treatment partners were interviewed. Treatment partners are required to sign a contract, undergo one-on-one lectures, and accompany the patient at least once a week during the intensive phase and once a month during the maintenance phase. They are responsible for giving the drugs four days in a week during the intensive phase, and nearly daily during the maintenance, as well as sign the treatment card.

In MDH, guidelines on selection of treatment partners are in the manual of procedures. Treatment partners receive training to perform their role. The interviewed treatment partners understood their responsibility and accepted them. However, not all go to the clinic to get medicines for their patients. They all understood the need of the patient and

his family for confidentiality of the illness given the prevailing social stigma attached to TB.

In DLSU-HSC, there are no written guidelines for assigning treatment partners, but family members are considered the least preferred. However, statistics of the clinic show that family members make up 65 percent of treatment partners. Apparently, not all treatment partners receive training. All are aware of their responsibility and part of that is to keep the treatment confidential.

In FriendlyCare, most of the treatment partners are family members but their manual of procedures allows for any responsible individual.

Treatment Supervision

In FriendlyCare patients are asked to go to the clinic daily, or once a week if daily is not possible, during the first two months, then every two weeks thereafter.

In DLSU-HSC, starting January 2004, all patients in the intensive phase are required to take the drugs at the clinic under the supervision of the DOTS nurse. However, some are allowed every other day intake at the clinic.

In PhilamCare patients are required to visit the clinic three times a week during the intensive phase and once a week during maintenance.

In MDH, most patients have DOT at the TB Clinic, especially during the initial phase, but during holidays treatment is done at home.

Defaulter Tracing Mechanism

In PhilamCare, if the patient missed three consecutive visits, two calls are made to the patient or the treatment partner; if no response is received, the company that employs the patient is contacted. Only one patient defaulted so far.

In DLSU-HSC, when a patient defaults, the DOTS nurse calls the patient if a contact number is available. If not, the nurse waits until 12 noon the following day. If the patient does not appear, the fieldworker is sent to the patient’s home.

In FriendlyCare the DOTS protocol states that community relationship officers and barangay health workers should be tapped to follow-up lost cases. DOTS supervisors should contact the patient or the patient’s relatives in cases of failure to follow-up.

In MDH, the staff trace defaulters by calling them up or visiting their homes to encourage them to continue and complete their treatment.

Causes of Default

In MDH, the common cause for default is difficulty of going to the clinic; one patient was employed overseas and the other could not be located because he left no contact number. In FriendlyCare, there have been two defaulters out of twelve patients; the reasons for defaulting were not stated. In DLSU-HSC, default rate is only 7 percent (4 cases) but no reasons are stated for the default. In PhilamCare, there is only one defaulter in twenty patients. This patient went to Mindanao and did not come back to Metro Manila.

Comments

Only DLSU-HSC has a mechanism for tracing patients to their homes; others rely on telephone or texting for defaulter tracing. The presence of fieldworkers for defaulter tracing probably is the reason for the decline in default rate at DLSU-HSC. The rise in the number of defaulters in MDH may be due to the absence of clear-cut guidelines on which patients would be good candidates for DOT in the clinic. A lot of the defaulters attribute their dropping out to difficulty of coming to the clinic. They either live or work very far or the hours are not suitable for them. These reasons should be explored.

Patients are required to visit the clinics daily in MDH, DLSU-HSC, and FriendlyCare; however, exceptions are made. In PhilamCare, DOT by the staff is done three times a week, again with some exceptions to suit the needs of the patients.

The signing of agreements or contracts is universal to all four clinics. But the documents are often written in English and not easily understandable by lower-income clients. Family members make up the majority of treatment partners, despite the policy in DLSU-HSC that makes them the least preferred. Family members make good treatment partners because their responsibilities for this role are usually extensions of their other household tasks and kin relations. Confidentiality is foremost in the minds of the treatment partners.

Lessons Learned

Allotting personnel and resources for defaulter tracing pays huge dividends in terms of reducing defaulter rates. However, it will also help if the clinic has a profile of patients who are likely to default so that they can identify them early and do the corrective measures early on. Contract signing is apparently helpful, but it is doubtful if the document has any legal force or if its contents are really understood. It will help to know the reasons for defaulting of patients in each clinic.

Family members are good treatment partners. However, they should receive proper training and their performance should also be monitored and evaluated by the clinic staff.

Confidentiality is very important to patients and treatment partners. The disclosure that a patient has TB may have a negative impact on the outcome so that the patient’s right to privacy should be respected. However, some work should be done to reduce the stigmatization of TB, since it will encourage other people to seek medical attention.

Drug Supply

Sources of Drugs

The four clinics get their drugs mainly from the DOH or the LGU counterpart. MDH gets their drugs directly from the DOH Central Office. Although DOH does not supply them enough to maintain the needed buffer stock, they have never ran out of drugs because they use PhilCAT funds to buy additional drugs or solicit them from physicians and pharmaceutical companies. However, later, they will be required to get their drugs from the Manila City Health Office.

In DLSU-HSC, they still get drugs from the DOH Central Office; however, a recent DOH Memorandum required the clinic to get their supplies from the Provincial Health Office of Cavite. The PHO still has to dispense drugs since their staff are still undergoing training on FDCs. Also, the clinic has no vehicle to collect the drugs from the PHO. No alternative sources of drugs have been tapped. The clinic has enough medicines for currently enrolled patients. In the last six months, no patient was turned away due to lack of medicines.

In FriendlyCare, the drugs are procured by the company's central Logistics Department from the DOH Central Office and distributed to all FC Clinics. There were two instances when a patient could not be enrolled because of lack of drugs, during 2003 (the period of the first situation analysis) and from February to June 2004. There was one instance when the clinic had to purchase Ethambutol because it had run out of it. The clinic has already received FDCs but has not yet dispensed them.

In Philamcare, the drugs are provided by the DOH Central Office. At present, the clinic has not experienced any problem in getting drugs since acquisition is facilitated by PhilCAT. However, problems are anticipated when drug distribution is devolved to the City Health Office since the drugs are supposedly for Manila residents only. It has received FDCs last April 2004 but these have not been dispensed since the old medicines have not run out.

Drug Requisitions, Inventory, and Monitoring

In PhilamCare, the DOTS Nurse prepares the Requisition Forms while the Research Assistant from PhilCAT procures them from DOH and sends them to the clinic. The clinic has no written drug inventory and storage policy but the DOTS Nurse keeps an informal inventory. The management is planning to formulate a drug inventory policy in time for the October 2004 termination of PhilCAT assistance. However, the "first in, first out" policy is strictly implemented. Some of the drugs are place outside of the clinic because of the lack of storage space. The clinic has enough drugs for currently enrolled patients, plus supply good for five patients as buffer stock. Drugs are replenished once the stock is down to two patients, except for Category II patients wherein the stock is replaced once used. The Research Assistant is the Drug Supply Manager (assisted by the DOTS Nurse) and coordinates with DOH and procures them for distribution to the clinic.

The DLSU-HSC clinic has an inventory policy but the written inventory has not been updated. The clinic has a system to ensure that drugs are dispensed on a “first expiry, first out” basis. The clinic has an estimated 55 patients every three months, but lacks the prescribed buffer stock for another 55 patients. The DOTS Nurse acts as the Drug Supply Manager and facilitates the request and distribution of drugs, coordinates with DOH (and, lately, the PHO) for drug supply, ensures availability of drugs at all times, and prepares receipts for the drugs. She came out “empty-handed” during a trip to the PHO made during the period of the second situation analysis. (Drugs were later procured from the PHO, but the reasons for their release contrary to regulations need to be studied.)

In FriendlyCare, the DOTS supervisor/nurse is assigned to receive the drugs and store them properly. She keeps an inventory of the drugs. All drugs are dispensed according to first expiry, first out system. There are two enrolled patients (both enrolled during the period of this study) and the clinic has a (fresh) buffer stock enough for three patients.

In MDH, the Clinic Supervisor (DOTS nurse) serves as the Drug Supply Manager. She submits the required drug inventory, but says she receives less than the appropriate amount for the regular and buffer stock from the DOH so that she also takes charge of soliciting or purchasing them. Drugs are dispensed on FIFO basis. It does not meet the standard for buffer stocks enough for 21 patients for each quarter.

Comments

All DOTS clinics initially got their drugs from the DOH Central Office but the continued supply is threatened by the new DOH Memorandum that directs local health offices to be the ones to distribute the drugs to these clinics. None of them has a MOA with the local health office.

DLSU-HSC has not tapped additional sources of drugs aside from DOH, despite the brewing problems on drug supply. Drug supply may become a big problem since this clinic of the four studied takes care of the most number of patients, and any lack of drugs will greatly affect its operations. It is noteworthy that MDH and Friendlycare have tapped additional sources, like its own or from donations.

The problem of the maintenance of an adequate buffer stock is a problem of DLSU-HSC and MDH which cater to the most number of patients. It is easier to maintain the required buffer stock if the patient load is lighter, as in PhilamCare.

Recording and Reporting

Recording

In PhilamCare, recording is done by DOTS nurses, and forms are kept in a safe place in accordance with company policy. Symptomatic and asymptomatic patients are both listed

in the TB Symptomatic Masterlist. The Laboratory Register is maintained by the Quezon Institute Laboratory, but the clinic has a photocopy. Treatment Cards and the TB Register are not complete. This is attributed to the fact that both nurses are doing other tasks in the clinic aside from those of the DOTS clinic. The clinic did not have quarterly reports on laboratory activities, new cases and relapses, and drug inventory and requirements.

In DLSU-HSC, the TB Symptomatic Masterlist was compiled only in January 2004. Still, there is some confusion whether or not to include asymptomatics in the masterlist. This uncertainty made the updating of the masterlist difficult. The Laboratory Register was complete but not the records kept in the clinic. The delay in completion of the treatment cards, and information on treatment outcomes and treatment partners are attributed to the big workload with which the staff must cope.

In MDH, the forms are filled up by the Treatment Supervisor and Research Assistant. Instead of the TB Symptomatic Masterlist, the clinic keeps a logbook of TB patients. The treatment cards are up-to-date, although some information is missing. The Laboratory Register is accomplished and kept by the MDH laboratory medical technologist.

In FriendlyCare, the TB Symptomatic Masterlist is not utilized. The treatment cards are not updated or complete. The TB Registry was not updated on checking but was later updated. Some entries do not coincide with information in the treatment cards. Recording of laboratory activities is done by the Medical Technologist. The bulk of work done by the Supervisor could account for the deficient quality of the forms.

Reporting

In FriendlyCare, the last report submitted to NTP was in May 2004. These reports have also been submitted to PhilHealth as part of the requirements for renewal of accreditation. Quarterly reports were not up-to-date and were incomplete at time of evaluation.

In MDH, the Clinic Supervisor submits the reports to the Manila City Health Office, DOH, and PhilCAT. The Research Assistant accomplishes the quarterly report on drug inventory and requirement, and records treatment outcomes and submits them to the Clinic Supervisor.

Comments

The four clinics still have deficiencies in terms of recording and reporting. It seems that these are the last in priority in terms of the five components of DOTS.

Whether to keep a TB Symptomatic Masterlist and what to include in it is a bone of contention. Usually the forms are updated during the free time of the assigned DOTS provider, which may not arise very often because of the patient load. Ideally, the reports should be submitted to their respective city, municipal or provincial health office so that the patients can be incorporated in the case detection for the whole area.

Training

Knowledge of Providers on NTP Procedures

The service providers in DLSU-HSC were familiar with TB symptoms, and their need for smears. There is, however, some confusion on what to do if all three smears are negative. *Even the physician was not sure about what to do.* According to the guidelines, patients are referred back to the attending physician, who requests for a chest x-ray. If the attending physician is convinced of TB, treatment is initiated. Otherwise, the case is referred to the Diagnostic Committee. Just exactly what a convincing chest x-ray is is not indicated. The providers were familiar with the classification of cases and the appropriate regimen. However, there is confusion on the use of "Regimen" and "Category." There are deficiencies in knowledge on steps to ensure compliance; most were able to mention two or three but not all of the expected responses. The importance of repeat smear for monitoring response is not clear to some providers, as well as what to do for adverse reactions. Not everybody was familiar with the reporting system or the evaluation system. (The Clinic Administrator acknowledged deficiencies in reporting and supervision).

The DOTS Physician and nurse in PhilamCare were quite knowledgeable on NTP procedures and classification of cases and their treatment. There was some confusion on the reporting mechanism. (The Vice President found the reporting a tedious process.)

In FriendlyCare, the providers feel that their DOTS training is adequate. Their interview showed that they were quite knowledgeable in the areas of case finding and case holding.

In MDH, the DOTS Physician answered the questions on procedures correctly, except the use of Regimen III in treatment failure, and follow-up smears after one month of treatment only. The clinic supervisor and research assistant answered all the questions appropriately.

Referring Physicians

The sole interviewed referring physician of FriendlyCare thinks that the DOTS strategy is effective and beneficial to patients. She appreciates the role of private physicians in the fight against TB. However, she thinks that only new PTB cases should be referred to the DOTS Clinic because only they are covered by PhilHealth. She thinks that DOTS centers are not properly marketed.

The five referring physicians in DLSU-HSC believe that the DOTS strategy is effective (although not everybody could mention all five components) and beneficial to patients. One disagreed with the regimen being given in case of EPT. All think that private physicians can make a huge social contribution to the control of TB. Everybody thinks the DOTS clinic can stand better marketing.

The three referring physicians in PhilamCare all believe that DOTS is effective but differ in their idea on whom to refer. (The clinic does not have a standard referral mechanism). All believe in the need for private-public sector cooperation.

In MDH, the three referring physicians think the use of DOTS is an advantage. They all think that it is not adequately marketed. All agree that private physicians have a social contribution to make to control of TB. They refer varying percentages of the patients they see. One refers those who lack or want to save money, others only those who live nearby. One feels that physicians should be given more information about the services provided by the clinic.

IEC Materials

PhilamCare has leaflets on TB that are handed to patients during consultations. They also have leaflets on the services offered by the DOTS clinic, how to become a certified DOTS Physician, and how to participate in the DOTS referral system. These have been provided by PhilTIPS. The clinic also has a flipchart on the management of TB for use of physicians and DOTS service providers.

FriendlyCare has flip charts about diagnosis and treatment of TB. Brochures, pamphlets, and comics are also found in the clinic. These materials were made by ReachOut Foundation International.

MDH has pamphlets provided by PhilTIPS and Wyeth. DLSU-HSC has IEC materials made by DOH, World Vision, and PhilTIPS.

Comments

There are no standard guidelines for referral that referring physicians can follow in all the clinics. Some referring physicians have misconceptions on what patients to refer. Some providers, the physicians especially, need to regularly review the SOPs for the clinics. None of the referring physicians has received PhilHealth benefits for their referrals.

Lessons Learned

Physicians should regularly review procedures in case finding and case holding. Sometimes DOTS nurses and other support staff are more familiar with the procedures than the physician. Referring physicians should have an initial orientation of the policies of a particular DOTS center since these policies may vary from clinic to clinic. They should be informed regularly about the current status of referred patients. The clinic should facilitate the processing of PhilHealth claims so that referring physicians will have a reason to keep referring patients to the DOTS clinics.

Evaluation System

In DLSU-HSC, most seem to know that there is an evaluation system for the staff but nobody seems to know exactly how this is being done. There is a system of validation of smear results.

In FriendlyCare, there is an existing evaluation form that is provided by the FC management. The DOTS Coordinator/Physician feels the need for evaluation but says that she does not have the capacity to do it. The providers varied in what they think the criteria for evaluation were.

In MDH, the CDC made the evaluation of their performance. The project leader is guided by a target list that identifies the specific goals of the clinic and the time these should be accomplished. In PhilamCare, no mention of the evaluation system was made.

Performance Indicators

Patient Load

DLSU-HSC sees an average of 15 to 20 patients a month. It lists its drug requirements for three months as 55 patients (26 or 47 percent for Category I, 8 or 15 percent for Category II, and 21 or 38 percent for Category III). The present case load may already represent the maximum capacity of the clinic.

FriendlyCare has received only 1 to 2 patients a month since October 2003. But the report shows that more patients are recruited in the last quarter and the least during the second quarter. Considering that the clinic caters to the Cubao area, which is a densely populated area, the present case load may still not be the maximum.

PhilamCare has an average of 2 patients per month (20 patients in 10 months). This probably represents the actual case load for the clinic since it only caters to policyholders most of whom live or work near the clinic.

Enrollment in MDH has been increasing since the clinic's inception, and there are at least 6 to 8 patients recruited every month during the past six months. This figure represents just 25 percent of the expected TB patients within MDH (the estimate is 7 to 8 TB patients a week). It is difficult to say if the clinic has already reached its full working capacity.

Patient Types

In MDH, 52 percent are Category III, 39 percent in Category I, and 9 percent in Category II. This state of patient type is reflective of the fact that only 21 percent of all PTB Cases are smear-positive. Positive rate is not given. It is not clear what percentage of patients are asymptomatic but based on the above statistics, it can be deduced that majority of patients are probably asymptomatic and are detected only by chest x-rays.

In PAC, 80 percent of patients are smear-negative, with eventually 55 percent of all patients receiving Category I treatment and 45percent for Category III. Only 15 percent of PTB cases are smear-positive. Positive rate is 2 percent. This may be due to the fact that policyholders undergo annual PE and many of them show up with TB infiltrates even without symptoms.

In FriendlyCare, 75 percent are in Category I and 25 percent in Category II. Some 55 percent of new PTB cases are smear-positive. The positive rate is not given.

In DLSU-HSC, 43 percent of PTB cases are smear-positive. The positive rate is 21 percent. The actual patient load during this situation analysis is 56 percent for Category I, 15 percent for Category II, and 29 percent for Category III.

Outcomes

In DLSU-HSC, the cure rate is 80 percent for new smear-positive cases; completion rate is 85 percent for new smear-negative (success rate of 82 percent for new PTB cases). Defaulter rate for all types is 7 percent. These are all improvements from the first SA.

In FriendlyCare, 3 out of 5 new smear-positive cases were cured; 4 out of 4 smear-negative patients completed treatment (success rate of 78 percent for new PTB cases). Defaulter rate is 18 percent (2 out of 11). These are all improvements from the first SA.

In MDH, 1 out of 3 new smear-positive patients was cured, 4 out of 9 new smear-negative completed treatment (success rate of 42 percent). Defaulter rate is 33 percent. Outcomes were not as good as the first SA.

In PhilamCare, 1 out of 1 case was cured, 6 out of 7 completed treatment (success rate of 87.5 percent). One of 8 patients defaulted.

Summary and comparative data on the four model clinics are presented in Table 6-1, according to the five key components of the DOTS strategy. Comparative program indicators may be found in Table 6-2. Monthly enrollment figures have been plotted in Figure 6-1. To smoothen the curve, moving averages for three-month intervals have been calculated and plotted in Figure 6-2. The graphs suggest that DLSU-HSC has the most number of TB patients, but monthly enrollments have declined since September 2003. FriendlyCare enrollments have dipped to near zero, while PhilamCare has a low level of enrollments that has also somewhat declined. Only the MDH clinic appears to have an upward trend, but because it has no established defaulter tracing mechanism the default rate has increased in recent months. MDH has a rather low overall success rate in terms of program indicators and the cohort analysis in Table 6-3.

Table 6-1. Comparative Data on the Four TB DOTS Clinics based on the five key components of the DOTS strategy

DOTS Components	Variables	DOTS Clinics			
		UN PhilamCare	**Manila Doctors Hospital**	**Friendly Care-Cubao**	**DLSU-HSC**
Political Commitment	Annual budget for the program	No dedicated annual budget but with salaried staff doing part-time DOTS work	CDC-PhilCAT provides an annual budget of around PhP 800,000	No budget for the TB DOTS program but with salaried staff doing part-time DOTS work	Mother organization provides a regular annual budget for the TB laboratory; budget for the Program comes from the CDC-PhilCAT.
	Number of staff involved in the Program	Part-time staff: 1DOTS Physician 2 DOTS nurses (3 part-time staff)	Full-time staff: 1 research assistant (RA) 1 clinic supervisor/ DOTS nurse Part-time staff: 1 DOTS physician/project leader (2 full-time, 1 part-time staff)	Part-time staff: 1 DOTS physician/ coordinator 1 DOTS supervisor/nurse 1 medical technologist 1 radiology technician 1 cashier 1 clinic manager (6 part-time staff)	Full-time staff: 1 DOTS nurse/drug supply manager/staff coordinator 1 research coordinator/ assistant 1 fieldworker/field treatment supervisor 1 field worker Part-time staff: 1 clerk/typist 1 DOTS physician 1 center administrator 1 laboratory coordinator/ senior medical technologist 2 medical technologists (4 full-time, 6 part-time staff)
	Main source of funds	Internal	External	Internal	External

DOTS Components	Variables	DOTS Clinics			
		UN PhilamCare	**Manila Doctors Hospital**	**Friendly Care-Cubao**	**DLSU-HSC**
Political Commitment	Presence of "champion"	(Dr. Erlinda Tiuseco ?)	Dr. Abundio Balgos	None	Dr. Victoria Dalay
	Space allocation for the Program	7.5 square meters (corner table)	10.5 square meters	10 square meters	82 square meters
	Equipment allocation for the Program	Shared by the entire clinic	Shared with the MDH prepaid clinic, except for one filing cabinet	Medical equipment shared by the entire clinic	With its own medical equipment
	Perception of financial viability by the mother organization	Management has yet to gain profit from the program pending PhilHealth Accreditation	No perceived financial problem but awaiting MDH financial plan	Management perceives the program as "financially burdensome;" plans to increase treatment cost from PhP 1,000 to PhP 4,000	No perceived financial problem at the moment but needs fresh external funds after October 2004
	Clear organizational structure	No	Yes	No	No
	PhilHealth accreditation	No	Yes	Yes	Yes
	Cost of services	Free for qualified policyholders and their eligible dependents	Free	Treatment package of Php 4,000 per enrolled patient; includes fees for follow-up consultations	Free
	Catchment area	No defined catchment area	Half of 5th district of Manila	Marikina and Cubao, Quezon City	Imus, Dasmariñas and General Trias, Cavite Province
	Number of referring physicians	12 referring physicians within the clinic	34 referring physicians (28 from MDH and 6 from nearby hospital/ institutions)	2 referring physicians (1 internal and 1 external)	68 referring physicians (defined as those with enrolled TB patients)

DOTS Components	Variables	DOTS Clinics			
		UN PhilamCare	**Manila Doctors Hospital**	**Friendly Care-Cubao**	**DLSU-HSC**
Sputum Microscopy	Sputum Collection area	None	Collapsible sputum collection booth, but hardly used	None	Well-ventilated area
	Accredited AFB Smear Laboratory	None (Contracted to Quezon Institute)	Yes	Yes	Yes
	Cost of Smear Examination	Free for qualified policyholders and their eligible dependents	PhP 200/smear	PhP 245/smear (starting 1 August 2004)	PhP 130/smear
	Cost of X-Ray	Free for qualified policyholders and their eligible dependents	PhP 395.00	PhP 240.00	PhP 285.00
	Time of release of AFB smear results	Released on the same day third specimen submitted	After two to three days	After one week	After two to three days
	RITM- trained medical technologist	1	3	1	3
	Proportion of respondents who received IEC materials	Not applicable	4 out of 5 respondents were given IEC materials	2 out of 3 respondents were given IEC materials	2 out of 6 respondents were given IEC materials
	Defaulter Tracing Mechanism	DOTS nurse (phone calls)	DOTS nurse and RA (occasional visit)	DOTS nurse (through the Barangay Health Worker)	Fieldworkers (home visits)
	Frequency of visits during intensive phase	At least three times a week	Daily	Daily	Daily

DOTS Components	Variables	DOTS Clinics			
		UN PhilamCare	**Manila Doctors Hospital**	**Friendly Care-Cubao**	**DLSU-HSC**
DOT Strategy	Frequency of clinic visits during maintenance phase	Once a week for patient	Daily, or once a week if not possible	Daily, or once a week	Daily
	DOT Strategy	Not observed during fieldwork	Observed	Not observed during fieldwork	Not observed during fieldwork
	Treatment partner	Family member	DOTS staff	Family member	Family member
	Provision of drinking water for patient	No	Yes	No	No
	Mechanisms for dealing with adverse reaction to drugs by patients	24-hour hotline	Regular consultation with clinic staff, referred to Diagnostic Committee	During consultation, then referred to physician	Regular consultation with clinic staff, then refer to attending physician; Adverse Reaction Form
DOT Strategy	Frequency of meeting by the Diagnostic Committee	No regular meeting, on call basis; PhilCAT RA gets records from DOTS clinics and takes to committee members	Diagnostic committee forms two teams that alternately meet each month	Meets if there are records to be evaluated	2 times per month
	Individual discussion about TB and DOTS	Yes	Yes	Yes	Yes
	Group lecture about TB and DOTS	No	Yes	No	Yes

DOTS Components	Variables	DOTS Clinics			
		UN PhilamCare	**Manila Doctors Hospital**	**Friendly Care-Cubao**	**DLSU-HSC**
Regular Uninterrupted Drug Supply of Essential Anti-TB Drugs **Regular Uninterrupted Drug Supply of Essential Anti-TB Drugs**	Person in-charge of procuring anti-TB drugs	PhilCAT Research Assistant/Drug Supply Manager	Clinic Supervisor/Administrator Research Assistant	Friendly Care's Logistics Department	DOTS nurse/ Drug supply manager
	Start acquiring FDC drugs	26 April 2004	4 May 2004	21 June 2004	February 2004
	Start dispensing FDC drugs	Has yet to dispense FDC	4 May 2004	30 June 2004	15 March 2004
	Adherence to the "first in first out (FIFO)" policy	Yes	Yes	Yes	Yes
	Adequate buffer stock	Yes	Yes	No	No
	Drug supply problem	Has yet to experience drug supply problem Anticipates this problem in the future	Yes	Yes	Yes
	Cause of drug supply problems	Not applicable	DOH failed to give appropriate buffer stock Inadequate SDF for patients with adverse reaction	Has ran out of one TB drug, Ethambutol Management has yet to act on the MOA for FC and DOH collaboration pending evaluation of the profitability of the program	Provincial Health Office (PHO) and DOH

DOTS Components	Variables	DOTS Clinics			
		UN PhilamCare	**Manila Doctors Hospital**	**Friendly Care-Cubao**	**DLSU-HSC**
	Mechanism of procuring drugs from other sources other than DOH	None	Buy and solicit from medical representatives and pulmonologists	None	None
Standardized Recording and Reporting	Status of TB Symptomatic Masterlist	Legible Not up-to-date Incomplete Both symptomatic and asymptomatic patients are logged in the same register	Legible Not up-to-date Incomplete Uses logbook to accommodate remarks instead of standard NTP form	No TB symptomatic Masterlist	Legible Not up-to-date Incomplete
	Status of NTP TB Registry	Legible Up-to-date Incomplete	Legible Not up-to-date Incomplete	Legible Not up-to-date Incomplete	Legible Not up-to-date Incomplete
	Status of Laboratory Registry	Does not maintain a laboratory registry but keeps a copy furnished by QI	Not observed	Legible Up-to-date Complete	Legible Up-to-date Complete
	Status of Treatment Cards	Legible Up-to-date Incomplete	Legible Up-to-date Complete	Legible Not up-to-date Incomplete	Legible Up-to-date Complete

Table 6-2. Comparative Program Indicators for four TB DOTS clinics, October 2003 to June 2004

	Multi-Practice	Hospital-Based	Local Coalition	HMO	DOH Baseline
Case Finding					
1. Proportion of Pulmonary Smear Positive Cases Out of All Pulmonary Cases	41.67% (5/12)	21.15% (11/52)	42.77% (71/168)	15.00% (3/20)	60-65%
2. Three Sputum Collection Rate	89.80% (44/49)	-	85.35% (606/710)	61.18%* (52/85)	90.00%
3. Positive Rate	24.49% (12/49)	19.51%* (8/41)	18.03% (128/710)	2.35%* (2/85)	15-20%
4a. Proportion of smear positive cases started on DOTS within 7 days from 1st sputum exam	0.00% (0/5)	81.82% (9/11)	74.65% (53/71)	100.00% (3/3)	
4b. Proportion of smear positive cases started on DOTS within 14 days from 1st sputum exam	60.00% (3/5)	9.09% (1/11)	14.08% (10/71)	0.00% (0/3)	
4c. Proportion of smear positive cases started on DOTS after more than 14 days from 1st sputum exam	40.00% (2/5)	9.09% (1/11)	11.27% (8/71)	0.00% (0/3)	
4d. Proportion of smear negative cases started on DOTS within 7 days from 1st sputum exam	0.00% (0/5)	68.57% (24/35)	21.74% (15/69)	43.75% (7/16)	
4e. Proportion of smear negative cases started on DOTS within 14 days from 1st sputum exam	60.00% (3/5)	25.71% (9/35)	24.64% (17/69)	25.00% (4/16)	
4f. Proportion of smear negative cases started on DOTS after more than 14 days from 1st sputum exam	40.00% (2/5)	5.71% (2/35)	47.83% (33/69)	31.25% (5/16)	
5. Average Number of Patients Enrolled Per Month					
SA 2 (Oct 2003-June 2004)	1.33 (12/9)	6 (54/9)	18.67 (168/9)	1.81 (20/11)	
SA 1+SA 2*	2.38 (50/21)	4.22 (97/23)	15.85 (412/26)	1.81 (20/11)	

* data is from 3rd and 4th quarters, 2003 and 1st quarter 2004 only
** SA 1 = 1st Situational Analysis, SA 2 = 2nd Situational Analysis

	Multi-Practice	Hospital-Based	Local Coalition	HMO	DOH Baseline
Case Holding					
6. Sputum Conversion rate	100.00% (2/2)*	100.00% (8/8)**	98.21% (55/56)	100.00% (2/2)***	
7. Treatment Outcomes (for PTB Cases Only)					
New Smear Positive Cases					
Cure Rate	60.00% (3/5)	50.00% (2/4)	80.65% (25/31)	100.00% (1/1)	85.00%
Completion Rate	20.00% (1/5)	-	-	-	
Death Rate	-	-	3.23% (1/31)	-	5.00%
Defaulter Rate	20.00% (1/5)	25.00% (1/4)	9.68% (3/31)	-	5.00%
Transfer Out Rate	-	25.00% (1/4)	3.23% (1/31)	-	2.00%
Restarted Treatment	-	-	3.23% (1/31)	-	
New Smear Negative Cases					
Completion Rate	100.00% (4/4)	66.67% (10/15)	85.00% (17/20)	85.71%**** (6/7)	
Death Rate	-	-	5.00% (1/20)	-	5.00%
Treatment Failure Rate	-	-	5.00% (1/20)	-	5.00%
Defaulter Rate	-	20.00% (3/15)	5.00% (1/20)	14.29% (1/7)	5.00%
Transfer Out Rate	-	13.33% (2/15)	-	-	2.00%
Relapse Cases					
Cure Rate	-	-	33.33% (1/3)	-	
Death Rate	-	-	66.67% (2/3)	-	
Default Cases					
Cure Rate	50.00% (1/2)	-	-	-	
Death Rate	50.00% (1/2)	-	-	-	
Failure Cases					
Completion Rate	-	-	100.00% (1/1)	-	
8. Overall Success Rate	88.89% (8/9)	63.16% (12/19)	82.35% (42/51)	87.50% (7/8)	

* 5 cases have 2nd and/or 3rd sputum exams, but 3 of them were unable to produce sputum
**11 cases have 2nd and/or 3rd sputum exams, but 3 of them have no input
*** Only 2 out of the 3 new smear (+) cases have follow up sputum
****There was a total of 11 new smear (-) cases, but since the 3 had no inputs, it wasn't included in the calculation

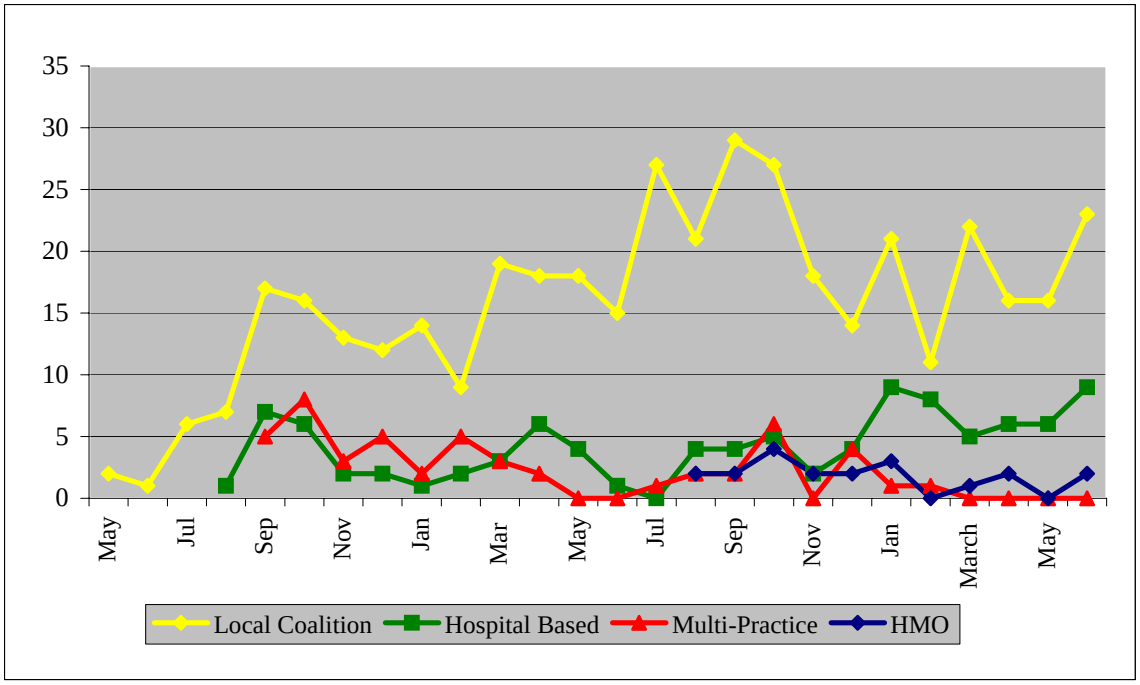


Figure 6-1. Monthly TB patient enrolments in four model clinics, May 2002-June 2004

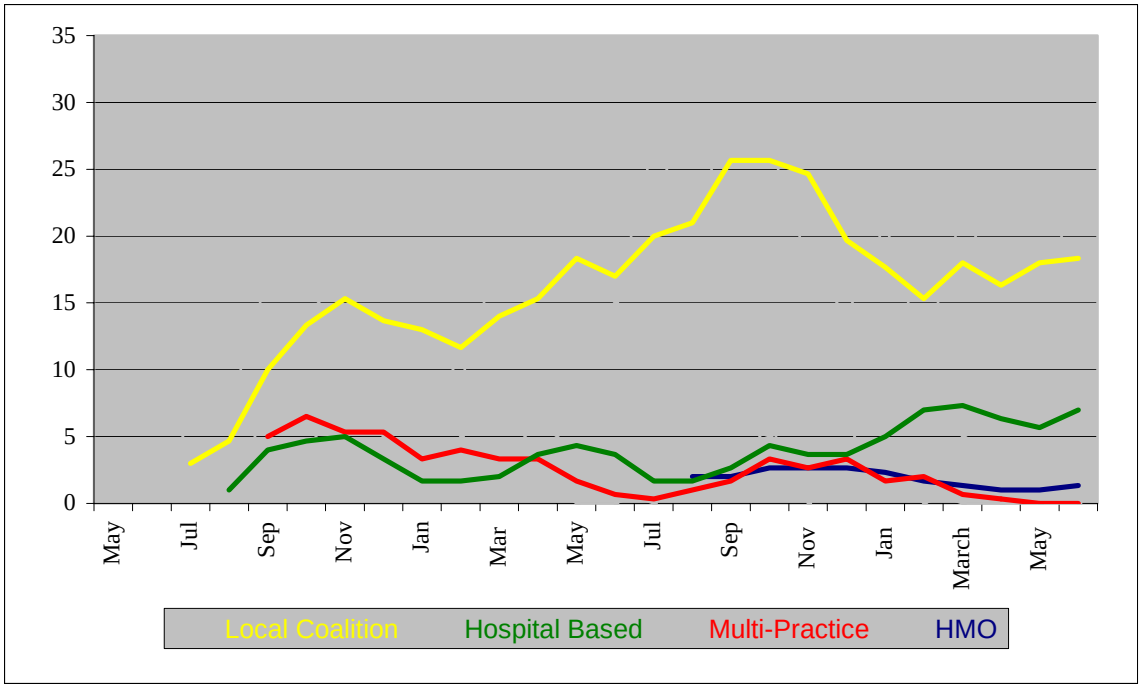


Figure 6-2. Three-month moving averages of monthly TB patient enrolments in four model clinics, May 2002-June 2004

Table 6-3. Cohort Analysis Across Four Model Clinic Types: October 2003-January 2004

	Multi-Practice		Hospital-Based		Local Coalition		HMO		DOH Baseline
New Smear Positive Cases									
Cure Rate	3/5	60.00%	2/4	50.00%	26/33	78.79%	1/1	100.00%	85.00%
Completion Rate	1/5	20.00%	-	0.00%	-		-		
Default Rate	1/5	20.00%	1/4	25.00%	3/33	9.09%	-		5.00%
Failure Rate	0/5	0.00%	-		-		-		5.00%
Mortality Rate	0/5	0.00%	-		1/33	3.03%	-		5.00%
Transfer Out Rate	0/5	0.00%	1/4	25.00%	2/33	6.06%	-		2.00%
Restarted Treatment	-		-		1/33	3.03%	-		
New Smear Negative Cases									
Completion Rate	4/4	100.00%	10/12	83.33%	18/21	85.70%	4/4	100.00%	
Default Rate	-		1/12	8.33%	1/21	4.80%	-		5.00%
Failure Rate	-		-		1/21	4.80%	-		5.00%
Mortality Rate	-		-		1/21	4.80%	-		5.00%
Transfer Out Rate	-		1/12	8.33%	-		-		2.00%
No Input	-		-		-		2/6*	33.33%	
Overall Success Rate	8/9	88.89%	12/16	75.00%	44/54	81.48%	5/7	71.43%	

* There was a total of 6 new smear (-) cases but did not include the two no input cases in the computation of the success rate

CHANGES IN CAPABILITIES SINCE THE ENHANCEMENT PLANS

The accomplishments of the individual TB DOTS clinics relative to the enhancement plans, as of June 2004, are discussed in detail at the end of Chapters 2 to 5. To arrive at a measure of how many of these plans have been put into effect, each of the planned activities was given a score of 1. A completed activity garnered a score of 1/1. A partially completed activity obtained a score of 0.5/1. The scores were then added for all of the planned activities under the five separate components of the DOTS strategy. This system of scoring is admittedly rather rough, and should be treated as merely a gauge of the extent to which the enhancement plans have been accomplished to date. Its advantage is to show which components have been assigned more planned activities compared to other components. The system of scoring thus reveals the component in which a clinic has been strengthened in terms of the higher proportion of fulfilled plans.

When a major activity has been introduced that improved clinic operations despite the absence of any enhancement plan, it merited a score of 1/0. An example is the hiring of Fieldworkers by the DLSU-HSC. The setting up of a collapsible booth for sputum collection and the acquisition of equipment for sputum smear microscopy purchased by the MDH also resulted in a score of 1/0. When a major unplanned activity has been introduced that hampered clinic operations, it merited a score of –1/0. An example is the raising of program costs at the FriendlyCare clinic and the order to cease from enrolling patients in the DOTS program. These two unplanned activities garnered a score of –2/0.

The results of the scoring system are shown in Table 6-4. For each component an overall score of 0.5 or more is considered an enhancement. A score ranging from 0 to less than 0.5 is treated as a standstill situation, or “not enhanced.” An overall score of less than 0 is considered reduced capability.

The scores suggest that political commitment has been enhanced in MDH and PhilamCare, it has not been enhanced in DLSU-HSC, but it has been reduced in FiendlyCare.

In the area of quality-assured sputum microscopy, all four clinics have been enhanced except for PhilamCare. This score, however, is affected by the non-fulfillment of the plan that the clinic should enter into an agreement with MDH to have the sputum specimens of PhilamCare patients tested at the nearby MDH laboratory. But that plan is questionable, and the current arrangement with the Quezon Institute laboratory appears feasible.

On the component of regular, uninterrupted supply of quality-assured essential anti-TB drugs, MDH and PhilamCare have been enhanced. FriendlyCare and DLSU-HSC have suffered reductions in capability due to problems with the buffer stock in DLSU-HSC, and the running out of essential drugs and turning down of patients due to the drug supply in FriendlyCare.

Table 6-4. Summary scores of accomplishments in relation to the enhancement plans DOTS in the four model clinics, as of June 2004

	MDH	**PhilamCare**	**FriendlyCare**	**DLSU-HSC**
Political Commitment	2/4 *Enhanced*	2.5/4 *Enhanced*	-0.5/4 *Reduced*	2/7 *Not enhanced*
Sputum microscopy	4/3 *Enhanced*	0/2 *Not enhanced*	½ *Enhanced*	½ *Enhanced*
Drug supply	1.5/2 *Enhanced*	½ *Enhanced*	-1.5/1 *Reduced*	-1/1 *Reduced*
DOT	4/4 *Enhanced*	0/2 *Not enhanced*	0.5/2 *Not enhanced*	5.5/6 *Enhanced*
Recording & Reporting	0/1 *Not enhanced*	0/3 *Not enhanced*	0/1 *Not enhanced*	2/6 *Not enhanced*
Overall Score	11.5/14 *Enhanced*	3.5/13 *Not enhanced*	-0.5/10 *Reduced*	9.5/22 *Not enhanced*

In the area of standardized short-course chemotherapy, including DOT, MDH and DLSU-HSC have been significantly enhanced, while PhilamCare and FriendlyCare have not been enhanced. All four clinics made no significant progress with regard recording and reporting.

The most number of planned targets and activities were introduced at the DLSU-HSC DOTS clinic. In MDH and PhilamCare the planned activities ranged from 13 to 14, and in FriendlyCare 10 identifiable planned targets were introduced.

The overall scores suggest that the MDH DOTS clinic has met the highest proportion (over four out of five) of the enhancement plans formulated by FACE. The clinic with the next highest accomplishments is the DLSU-HSC DOTS clinic with over two out of five of the plans actually fulfilled. A poor performer is the PhilamCare DOTS facility, but the worst performer is the FriendlyCare DOTS facility in Cubao, Quezon City.

Given the program indicators previously discussed, it appears that the positive performance of the MDH and DLSU-HSC clinics can be explained to some extent by the fulfillment of the enhancement plans. The low-intensity activities in PhilamCare and the reduction of activities in FriendlyCare can also be associated with the failure to act on the enhancement plans.

Enhancement Plans Based on Five DOTS Components

When the scores in Table 6-4 are tallied horizontally for each component, the results suggest that the best accomplishments have been made in the standardized regimen including DOT (10/14 or 71 percent), and in quality-assured sputum microscopy (6/9 or 67 percent). These two component areas, therefore, can be expected to be the most enhanced and most advanced in the PPM DOTS program. They suggest clarity and feasibility of the planned enhancement activities, which may bode well for the nationwide replication of the PPM DOTS program. Nevertheless, there remains the question of the rather low rate of smear positive in the case finding indicators. This situation needs a thorough investigation.

Next to these two components is political commitment (6/19 or 32 percent). Despite the divergent situations across clinics, political commitment is an area where it is possible to produce tangible results; however, it remains as the “middle” achievable component among the five.

The two components that across all four clinics have been problematic are recording and reporting (2/11 or 18 percent), and the supply of essential anti-TB drugs (0/6). In the replication of the PPM DOTS program nationwide, the supply of essential drugs needs to be carefully managed and planned (the clinics studied were in or near Metro Manila; worse problems can arise in places further from the national capital region), otherwise the program will not meet with much success, or may even collapse.

The recording and reporting aspect of the DOTS strategy needs to be designed in such a way that it does not hamper clinic operations. The individual treatment cards, TB (and/or laboratory) registers, and TB symptomatic masterlists may be maintained by the DOTS clinic staff themselves. But the collating of data for quarterly and analogous reports—which is of more interest to the national program office than to the DOTS clinic itself—can be “traded” by the clinic in exchange for a more efficient and effective delivery of quality DOTS services. A central or regional office or entity may perform the function of collating and checking the reports that DOTS clinics are at present required to produce.

Chapter 7. Inputs to Revision of Replication Guidelines

POLITICAL COMMITMENT

Political commitment or "political will" in PPM-DOTS represents the continuing desire and efforts of a group of individuals or an organization to provide or mobilize available resources to sustain the operations of the DOTS facility. Political commitment is essential for the other four components to be implemented and sustained.

Political commitment begins with the mother organization deciding to make TB control a high priority and a core activity of the health care system. This political commitment is often built on the awareness of top management of the TB problem and the availability of a cost-effective proven solution, and the understanding of the benefits of implementing effective TB control.

However, to have an impact, political commitment must translate to policy, resource mobilization and program implementation. Policy makers must lay the groundwork by drafting guidelines that will define the scope of work and the steps to implementation. Once policy has been established, financial resources and trained staff are needed to put the program into action.

It is difficult to measure or quantify the political commitment of an organization. However, the following may serve as useful indicators on how far the organization has progressed:

The Presence of a "Champion"

A "champion" is the chief advocate and supporter of the DOTS Clinic in the system. The person not only possesses a firm grasp of the TB situation but also a strong belief of the effectiveness DOTS strategy. By virtue of his/her intellect, charisma, position or stature in social, political or professional circles, he/she is able to influence policy makers to commit manpower and other resources to the DOTS facility.

A DOTS Clinic needs a champion to obtain and sustain the political commitment of existing partners and players. He/she may also be needed to ask for an increase commitment from some of them as the clinic operations expands and the patient load increases. The champion is quick to grab opportunities whenever they present themselves.

The loss of a champion and the absence of an equally capable and committed replacement create instability in the system and may threaten the survival or viability of the DOTS facility. This was the case of a DOTS Clinic that lost its original champion, who happened to be the President of the organization. Nobody took the cudgels with his exit. He was replaced by someone who was less convinced of the project and soon the DOTS facility had to stop enrolling patients while the organization rethinks its position. Some other DOTS Clinics, however, may handle the loss of the original champion well

and have remained committed to the program. The presence of other committed individuals within the organization ensures a smooth succession and transition if and when the acknowledged champion decides to move on to other endeavors.

Main Source of Funds

DOTS Clinics may have two sources of funds for maintenance and operations: internal or provided by or generated within the organization, and external or provided by donors or funding agencies. The Philippines has done a lot in terms of the development of the private sector in TB control and this has caught the attention of many funding agencies like the USAID, CIDA, World Vision, Global Drug Facility (GDF), and Global Fund for AIDS, TB and Malaria (GFATM). Many DOTS Clinics, particularly those representing various models for PPMD, are recipients of grants from these groups. The funds are used for salaries of clinic personnel, and to buy equipment and supplies, and other maintenance and operating expenses.

While these funds help to jumpstart the operations of these clinics, it should be realized that these funds are not limitless and that, at some point in time, they should be relying on their own resources to support clinic operations. The mother organization, at some point, should allocate part of its budget to finance the operations of the facility, particularly the salaries of the key personnel. Some of the more successful PPM-DOTS Clinics are still relying mainly on support from external sources for their operations and salaries. Most often, management of these clinics provides support to “money-making” enterprises like the TB Laboratory and the X-ray department because they are assured of a fair return on investment. They may be hesitant to provide salaries to DOTS clinic staff because, at the moment, the operations of most DOTS facilities do not generate additional income to the mother organization.

However, some organizations need not allocate additional funds for DOTS operations if they are able to incorporate the services provided by the DOTS clinic in their usual clinic operations. This is possible when the pre-existing clinic already has a small number of TB patients as clientele. The addition of DOT (directly observed treatment) in the care of these patients, utilizing the present staff, will not require an additional budget allocation. Good treatment outcomes and a fair return on investment probably will help ensure continued support from top management and donors.

Number of Full-time DOTS Staff

There is no magic formula to determine the ideal number of staff required for the efficient operations of the DOTS Clinic. The number should depend on the patient load and the financial capabilities of the organization.

Based on observations of four DOTS Clinic Models, a clinic probably needs, excluding the DOTS Administrator, at least two full-time clinic staff and at least one-full-time fieldworker doing home DOT and defaulter-tracing. This is also assuming that the Microscopist or the Medical Technologist doing the sputum smears is not considered as a

regular staff of the DOTS Clinic. The work of the three full-time staff may be divided to a number of persons doing part-time work for the clinic. For example, two part-time nurses can do the work of one full-time nurse.

As stated earlier, DOTS Clinics with pre-existing clinics operations need not hire new full-time staff to run the DOTS operations. Full-time salaried employees may do “multi-tasking” or do part-time work in the DOTS Clinic in addition to their original functions. The duties in the DOTS clinic may be divided among several personnel so as not to unduly burden some individuals. Thus, the clinic may include DOTS services in their clinics without having to hire additional workers or to increase their compensation. However, this may only be possible in clinics with a small caseload of patients. With an increasing number of patients, it would be difficult to rely on a few personnel doing part-time jobs.

Space and Equipment Allocation

The ideal size of the clinic space will depend on the extent of regular clinic operations (i.e., the number of personnel, the patient load, volume of drug supply and patients records), the support activities like training (i.e., volume of IEC materials), microscopy and diagnostic procedures, including the meetings of the Diagnostic Committee, other services offered by the clinic (i.e., tuberculin testing) and research activities.

There should be ample space for interviewing and examining of, and administering drugs to patients. There should be a waiting room for patients waiting for their turns to be seen. There should also be enough space for safe storage of drugs and records. At present, existing DOTS clinics have allocated space from as small as 7.5 square meters (this is just a small corner in the pre-existing clinic) to one as big as 82 square meters in a large health facility.

Large DOTS facilities should have their own set of medical equipment while smaller ones may share equipment with adjacent clinics or with the mother clinic, in case of multi-practice or polyclinics.

Clear Organizational Structure

The Organizational Structure is a requirement for the accreditation of DOTS Clinics. However, it is recognized that the structure and functions may be continuously changing as the clinic strives to streamline its operations or as the number of personnel increases. In these cases, appropriate changes in the reported organizational structure must be made at regular intervals in order to enable policy makers, external evaluators and even patients and referring physicians to get a true picture of the clinic operations.

CASE FINDING

Case Finding under DOTS is the use of sputum smear microscopy to identify people with TB among those attending general health services. Sputum microscopy is accepted as the most cost-effective method of screening pulmonary TB suspects. The types of TB vary according to local situations. Out of all TB cases, approximately 50 to 60 percent are sputum smear-positive pulmonary cases; 35 to 40 percent are sputum smear-negative pulmonary cases; and 10 to 15 percent extra-pulmonary cases.

In PPM-DOTS, both passive and active casefinding methods may be applied. Passive case finding refers to the procedure of identifying patients with TB symptoms among persons consulting at a health facility. Active case finding refers to either looking for TB symptomatics in the community, or the use of screening procedures such as chest x-rays or tuberculin testing, to identify TB cases among persons without TB symptoms. Many private physicians still request chest x-rays as a screening procedure, together with the symptom check, even if they would eventually request for sputum smears. Flow charts of clinic procedures, especially those patterned after the NTP procedures, may not show this practice. There is a need to find ways to maximize the benefits of the chest x-ray as an early diagnostic tool without minimizing the central role of sputum microscopy in clinching the diagnosis.

The success of the Case Finding component may be dependent on the following factors:

Referrals from "Referring Physicians"

Case finding usually starts with the initial evaluation of a TB suspect by a referring physician of the DOTS Clinic. The exact definition of a "referring physician" has not been standardized. In some clinics, they refer to a physician who has referred at least one patient, regardless of that patient's eventual classification. Other clinics only consider as referring physicians those who have referred at least one confirmed TB case who was treated by the DOTS clinic. Under the PhilHealth TB Out-patient Benefit Package, certified DOTS Referring Physicians are those who have attended the Basic DOTS Course and have a certificate of completion and an official certification number issued by PhilCAT. In some clinics, some of the "referring physicians" have not undergone the Basic DOTS Course.

If the patient exhibits TB symptoms or has a chest x-ray suggestive of TB, the referring physician may request a set of 3 sputum examinations or immediately refer the patient to the DOTS clinic. To encourage private physicians to refer their patients to DOTS clinics, the benefits to them and their patients should be highlighted during their orientation or certification seminar. These benefits include free medicines and the assurance of completion and cure for the patient, and financial incentives from PhilHealth and the thought that one is fulfilling one's social responsibility as a physician. They should also be assured that their patients are promptly and courteously attended to and that delays in treatment are reduced to an acceptable level. Physicians also expect that their patient's

sensitivities and concerns are delicately handled, particularly regarding the desire of many to keep their illness a secret.

Duration of Diagnostic Evaluation

After referral, the patient should expect a delay of a few days to a few weeks before they are started on treatment. They delay may be attributable to the patient, the TB laboratory, or the Diagnostic Committee. Patients may contribute to the delay if they do not promptly submit the required three sputum specimens. Results of smears from TB laboratory or microscopy units may be available as early as two days to as late as seven days. A waiting period of two to three days would be acceptable.

Patients with three negative smears are referred back to their physicians for a chest x-ray, if deemed necessary. If a chest x-ray has been done previously, the case of the patient is immediately referred to the Diagnostic Committee for evaluation of the chest x-ray findings. Diagnostic Committees meet at regular intervals, but may be as often as once a week or as long as once a month. Only when the case is deemed to be a TB case by the Diagnostic Committee is the patient started on treatment.

A delay of two weeks is considered acceptable by program standards, considering that these cases are smear-negative and less likely to be infectious. However, these should be adequately communicated to the patient who may think that that two weeks is a long time to wait.

Sputum Collection Area and On-site Microscopy

The presence of a clean, well-ventilated sputum collection area in the clinic allows for the collection of spot sputum specimens. Under the NTP, first sputum specimen is a spot-specimen collected at the time of first consultation, the second specimen is an early-morning sputum collected at home, and the third is another spot-specimen collected at the time of submission of the second specimen. Thus, the availability of a sputum collection area enables patients to complete the three specimens within 24 hours. On the other hand, in the absence of a sputum collection area, patients would have to collect specimens in a span of three separate days. The sputum collection area may be an open corner on the outside of the clinic, or an enclosed area within the clinic. One particular DOTS clinic has a collapsible collection booth that is unfolded during collection and folded back if not in use.

To do on-site sputum microscopy, the clinic must have a DOH-trained medical technologist or microscopist. The presence of an on-site microscopy unit may be considered an advantage by many but this is not apparent with the experience with two clinics. One clinic, which has a medical technologist and facilities for microscopy, take one week for results to be released, while another which has to have their sputum processed in the Quezon Institute receives the results in two days, or even within the day the third specimen is examined. Utilization of outside laboratories may not really be a big

disadvantage if the results are made available quickly and if the laboratory is reliable. Results may be immediately phoned in and the written report may follow in a few days.

Cost of Diagnostic Tests

The sputum smear and chest x-rays are the main diagnostic tests used for case finding. In most private clinics, a chest x-ray machine is available and x-ray films may be viewed after a few minutes. The cost of chest x-ray examinations vary with the clinic and may be as high as Php 395.00 in some clinics. The cost of smear examination also varies from as low as Php 75 each in the Quezon Institute to over Php 200 each in other clinics. In many clinics, the cost of the three sputum examinations is higher than the cost of the chest x-ray examination. It would be ideal if the cost of the three smears would be comparable to that of the chest x-ray to make it more appealing to patients and physicians as an initial diagnostic test.

CASE HOLDING

Case Holding refers to the use of standardized short-course treatment with direct observation. Short-course chemotherapy (SCC) is a treatment regimen that lasts six to eight months using combinations of the five first-line anti-TB drugs, isoniazid, rifampicin, pyrazinamide, ethambutol and streptomycin. There are three standard regimens under the NTP for all cases of pulmonary and extrapulmonary TB. PPM-DOTS Clinics use these same regimens. Directly-observed treatment (DOT) or watching patients taking their medications is essential at least during the intensive phase of treatment (but many clinics continue it even during the entire maintenance phase of treatment). With direct observation of treatment, the patient does not bear the sole responsibility of adhering to treatment. Treatment partners, whether they are clinic staff, barangay health workers, community volunteers or family members, share the responsibility also. Anyone who is willing, trained, responsible, and acceptable to the patient, can be selected as a treatment partner.

Important considerations in case holding are as follows:

Pre-treatment Procedures

Once diagnosed as a TB case, patients are told to return to the clinic with a prospective treatment partner. Patient and treatment partner then undergo a group lecture and provided IEC materials. The patient may then sign a Consent Form while the treatment partner may be asked to sign a Contract Agreement. Formalized agreements with the patient and treatment partner, especially if discussed in the local language, serve to demonstrate the importance of the treatment process and to remind the parties of their respective duties and responsibilities. Preferably, the forms should also be in the local language.

Frequency of Visits During Treatment

Ideally, direct observation by the designated treatment partner should be done daily during the intensive phase. However, this is often not possible when the main treatment partner is a clinic staff. Most clinics are only open during weekdays, and perhaps in the morning of Saturdays. In the days when the clinic is closed, DOT is carried out by family members who have undergone some form of training or orientation. Some clinics allow some flexibility in the frequency of clinic DOT for those who may find it difficult to come to the clinic on account of their place of residence or work. Clinic DOT may be done once to three times a week with the remaining days done by family treatment partners.

During the maintenance phase, clinic visits may be once a week or even two weeks. In most cases, family members serve as the primary treatment partners during this stage.

Treatment Partners

As mentioned earlier, the treatment partner plays an important role in case holding since they share the responsibility of completing treatment with the patient. Clinics should have clear-cut guidelines on the selection of treatment partners but based on observation, many clinics do not have these guidelines. However, as a rule, anybody who is willing, trained, responsible and acceptable to the patient may be chosen as a treatment partner. Based also on observations of PPM-DOTS Clinics, family members make up the bulk of treatment partners of patients under DOT (although in the NTP, family members are considered last choice as candidates for treatment partner).

All treatment partners should receive some training on their duties and responsibilities. At the moment, there is no standard method for training treatment partners but some IEC materials are being developed by some sectors for this purpose.

Defaulter Tracing Mechanism

DOTS Clinics are required to have a mechanism for tracing persons who fail to meet their clinic appointments and considered as having defaulted. Acceptable rate of default cases under the NTP is 5 percent or less. Most clinics record the addresses and phone numbers of their enrolled patients. At the first instance of default, patients and/or treatment partners are usually contacted by phone. Text messaging is becoming a popular mode of communication and this is now also being utilized for defaulter tracing. In a particular DOTS Clinic, the nurses are given an allotment of ₱50 per month to send text messages to the enrolled patients. In cases when patients fail to reply to phone calls or when patients have no telephone units, clinic staff or fieldworkers are sent to their homes to determine the cause of default, to administer treatment, and to convince patients to continue the treatment.

Allotting personnel and resources for defaulter tracing pays huge dividends in terms of reducing defaulter rates. A certain DOTS Clinic hired volunteers from a church

organization to serve as fieldworkers for defaulter tracing and its defaulter rate dropped from 25 percent to just below 10 percent.

It would help if the clinic has a profile of patients who are likely to default so that they can identify them and do the corrective measures early on. It is also helpful to determine common reasons of patients for defaulting in each clinic so that the corrective measures may be instituted.

REGULAR, UNINTERRUPTED DRUG SUPPLY

A regular, uninterrupted drug supply is a key element of DOTS. Earlier, the Department of Health made an unprecedented commitment to provide the anti-TB requirements of all certified PPM-DOTS Clinics. Consequently, all these clinics initially got their drugs from the DOH Central Office without any problems. This was true even with the transition to Fixed-Dose Combinations (FDC) from the earlier Single Drug Formulations (SDF) distributed under the NTP. Most PPM-DOTS have already received their initial stocks of FDC. Many clinics have started dispensing FDC to their enrolled patients while some are still in the process of disposing of their remaining stocks of SDF before shifting completely to FDC.

Drug Supply Problems

Lately, however, the regular supply is threatened by the new DOH Memorandum that directs the Local Government Health Offices to be the ones to distribute the drugs to these PPM-DOTS Clinics. Most of these DOTS Clinics had MOAs with the DOH Central Office but not all of them have an agreement with their respective local health offices. In addition, DOTS Clinics in Health Maintenance Organizations (HMO) do not strictly have a catchment area since its clients are qualified policyholders regardless of place of residence or work. They may not be allowed to provide drugs to some patients who reside outside of the areas of the Local Health Office.

A delay in the delivery of FDCs has been experienced by some DOTS Clinics because of the new DOH memorandum that requires clinic personnel to have training on FDC before they can receive and dispense them to patients. Even personnel in the City, Town or Provincial Health Offices are required to attend the training and are not allowed to distribute the FDCs to the DOTS Clinics until then.

Mechanism for Procuring Drugs from Other Sources

Large DOTS Clinics with a big patient load should explore additional sources of drugs aside from DOH, especially if problems on drug supply often occur. Even a short-term disruption in drug supply will greatly affect operations. It is noteworthy that some DOTS Clinics have already tapped additional sources, like the use of their own funds to purchase drugs or solicitation of loose drug samples from physicians or from pharmaceutical companies.

Adequacy of Buffer Stock

The problem in drug supply is not the availability of drugs for enrolled patients but for buffer stocks. Buffer stocks refer to additional drug supplies for enrollment of patients above the quarterly average of the clinic. Drug policy in all DOTS Clinics requires that patients are not started on treatment unless the whole drug supply for the intensive and maintenance are already available in the clinic. This policy has been strictly enforced in all existing DOTS Clinics. The required buffer stock is 100 percent of the quarterly average of the clinic. For example, if the clinic sees an average of 20 patients within a three-month period, it is required to have drug supply enough for 40 patients for the period: a regular stock for 20 patients and a buffer stock of 20 additional patients.

RECORDING AND REPORTING

The recording and reporting system is important because it is needed to systematically evaluate patient progress and treatment outcomes, as well as overall program performance. The recording system in DOTS Clinics consist of a Laboratory Register that logs all patients who have a smear examination done, Patient Treatment Cards that detail the regular intake of medications and follow-up sputum examinations; and the TB Register, which lists patients starting treatment and monitors their individual and collective progress towards cure. This recording system allows for individualized follow-up of patients and enables the clinic staff to help those who may not be making satisfactory progress.

The reporting system, on the other hand, allows program managers to evaluate the effectiveness of TB control activities in any given area. This involves the submission of quarterly reports on smear conversion and success rates. These quarterly reports give middle- or high-level managers timely, and concrete indicators of achievement or of problems requiring action such as low cure rate, high default rate, higher than expected proportion of sputum smear-negative cases, and lower than expected case detection rate.

Standard Recording Forms

DOTS Clinics are given and required to maintain the Laboratory Registry, the TB Registry and Individual Treatment Cards. The Laboratory Registry is maintained and kept by the Medical Technologist or Microscopist of the Unit. The TB Registry and Treatment Cards are the responsibility of the DOTS Nurse or Treatment Supervisor but other members of the DOTS Clinic are usually called upon to maintain and complete them. The Treatment Cards are filled up during each follow-up visit of the patient whether for DOT, pick-up of drugs or sputum examinations so clinic staff usually do not have problems in updating and completing them. The TB Registry, on the other hand, presents the most problem in terms of completion and updating based on spot checks. This is usually filled up during the free time of the clinic staff which may not be frequent if the patient load is high. This problem may be easily remedied if the clinic staff dedicates an hour or two each week to fill up and complete the registry.

TB Symptomatic Masterlist

Many DOTS Clinics maintain a TB Symptomatic Masterlist which records information on all patients referred to the clinic for evaluation, although this is considered optional under NTP guidelines. However, a number of patients seen in PPMD Units are 'TB asymptomatics" or patients without symptoms but who have evidence of TB based on routine or annual chest x-rays. There is some confusion on what to do with these TB asymptomatics, whether to enter them together with the TB symptomatics in the TB Symptomatic Masterlist or to keep a separate masterlist for them. The matter is still to be resolved. In the meantime, some clinics keep a single TB Masterlist for both patients, others keep separate Masterlists, while another just uses a logbook to accommodate remarks instead of the standard NTP form. Regardless of the method used, it is important to make the distinction between the two patient types. TB asymptomatics usually are smear-negative and, if they make up a large percentage of the referred patients in a clinic, the resulting smear-positive rate may be unusually lower than the benchmark.

Reporting

Ideally, quarterly reports should be submitted to the respective city, municipal, or provincial health office so that the patients from the clinic can be incorporated in the case detection rate for the whole area. This is now facilitated by the transfer of the drug procurement from the DOH Central Office to the respective local health office. This will compel clinics to submit their reports regularly in exchange for a regular drug supply. However, the central office may take over the reporting functions which the DOTS clinic staff see generally as tedious and which detracts them from rendering quality DOTS services to the clients.

Computerization

For organizations with Information Technology (IT) resources, an Excel-based TB Information system has been developed for use in both recording and reporting. Some of the DOTS Clinics have been provided this program but it has not been utilized fully apparently because of the presence of a bug in the system.

Training

Training is an integral part of the DOTS strategy. The five essential components of the strategy can only be achieved through the awareness of the top management, DOTS providers, patients and treatment partners of the TB problem, the availability of DOTS as a cost-effective proven solution, and the benefits of implementing effective TB control.

DOTS providers, particularly the DOTS Physicians, DOTS Nurse and Microscopists, and Referring Physician are required to undergo standardized training before they and their DOTS Clinic can be certified by PhilCAT and accredited by PhilHealth. They should be thoroughly familiar with the procedures in Case Finding, Case Holding, Recording and

Reporting in their clinics which, though patterned after the NTP Manual of Procedures, may vary according to local conditions and resources. Physicians should regularly review procedures in Case Finding and Case Holding as it has been observed that sometimes the DOTS nurses and other support staff are more knowledgeable with diagnostic classification and management than their physician.

Patients and treatment partners require orientation and counseling on their duties and responsibilities during the course of treatment and follow-up. Frequent reminders on procedures and delivery of motivational messages serve to enhance compliance and ensure completion and success of treatment.

The use of IEC materials enhances learning obtained from one-on-one or group lectures. Each clinic has its own set of IEC materials which may be developed within the clinic, donated by government and non-government aid or advocacy groups, and even pharmaceutical companies with lines of anti-TB drugs. Many IEC materials for PPMD Units have been developed under the TIPS Project and have been disseminated.

Training materials and modules for treatment partners and members of the Diagnostic Committee are also being developed, and awaiting evaluation prior to their dissemination.

Annex

TB DOTS Situation Analysis (SA) Instruments

1. Inventory of TB DOTS Clinic Facilities, Equipment, and Services Provided
2. Interview Guide for TB DOTS Service Providers
3. Observation Guide for Interaction Between TB Patient and Service Provider
4. Exit Interview for TB DOTS Patients
5. Focus Group Discussion Guide: Referring Physicians
6. Focus Group Discussion Guide: Treatment Partners

INVENTORY OF TB DOTS CLINIC FACILITIES, EQUIPMENT, AND SERVICES PROVIDED

INSTUCTIONS TO DATA COLLECTORS:
This inventory should be completed by observing the clinic facilities and through discussions with the person in charge. In all cases you should verify that the items exist by actually observing them yourself. If you are not able to observe them, then code accordingly. Remember that the objective is to identify the equipment and facilities that currently exist in the clinic and not to evaluate the performance of the staff or clinic. For each item, tick the response or describe, as appropriate.

FACILITY INFORMATION

Facility ID Code [___] [___] [___] [___]

Name of facility

Address
Street_____Brgy:_____

Town/City_____

Name of TB DOTS facility administrator
Family:_____First:_____Middle____

Date of visit ____/____/_____
<dd/mm/yyyy>

Name of observer _____

Signature of team leader _____

Type of physical facility where TB DOTS clinic is based:

1 = Hospital
2 = Stand-alone clinic
3 = Community-based (Sponsor: _____)
4 = Work-based clinic
5 = Group practice
6 = Other: _____

ACCESSIBILITY			
1.	**ASK**	**What is the official opening time for this health facility?** **_____ am / pm**	
2.	**OBS**	**At what time did the first client arrive today?** **_____ am / pm**	
3.	**OBS**	**At what time was the first client seen today?** **_____ am / pm**	

4.	**OBS**	**At what time was the last client seen today?** **_____ am / pm**			
5.	**ASK**	**What is the official closing time for this health facility?** **_____ am / pm**			
6.	**ASK**	**How many days a week are TB DOTS services offered at this facility?** **_____ Number of days**			
7.	**ASK**	**Does this facility (READ 1-5)? IF NO, ASK THE REASON WHY AND INDICATE THIS IN THE REMARKS COLUMN.**			
			YES	**NO**	**REMARKS**
	1. Provide DOTS				
	2. Provide health education to all patients				
	3. Offer sputum AFB smear microscopy –				
	a. on-site				
	b. referral				
	4. Provide chest X-ray				
	5. Provide other services: **_____**				
8.	**OBS**	**Is there a clear sign that indicates the name of the clinic and that the clinic is a TB DOTS facility? (NOTE THE CONTENT OF THE SIGN, e.g., time clinic is open and closes; IF SIGN IS VISIBLE ENOUGH, etc.)** **_____ Yes** **_____ No**			
9.	**OBS**	**Is there a process flowchart of what a patient goes through in the treatment of TB?** **_____ Yes** **_____ No**			
10.	**ASK**	**Does the facility/service provider have contact numbers which patients can call in case they have inquiries?** **_____ Yes** **_____ No**			
		INFRASTRUCTURE AND EXAMINATION FACILITIES			
11.	**OBS**	**Is the facility generally clean both inside and outside?** **_____ Yes (No accumulation of garbage inside the facility or along its perimeters, floor is generally free of dust and/or mud, furniture and equipment are dust-free)** **_____ No (An accumulation of garbage inside and outside; floor, furniture, and equipment are dusty)**			
12.	**OBS**	**Is there a waiting area for patients?** **_____ Yes** **_____ No**			

13.	**OBS**	**Is there adequate seating in the waiting area sufficient to accommodate the usual number of patients and others who would be waiting at any one time?** **_____ Yes** **_____ No**	
14.	**OBS**	**Is there sufficient ventilation in the waiting room (that is, the room has sufficient windows and electric fan/s to provide a comfortable ambient temperature and allow continuous air flow)?** **_____ Yes** **_____ No**	
15.	**OBS**	**Does the facility have adequate light (that is, the light allows easy reading of forms by a person of normal vision)?** **_____ Yes** **_____ No**	
16.	**OBS**	**Does the sputum collection area have appropriate ventilation (sufficient windows and electric fan) to prevent transmission of TB bacilli?** **_____ Yes** **_____ No**	
17.	**OBS**	**Is there adequate water supply for washing hands and equipment?** **_____ Yes** **_____ No**	
18.	**OBS**	**Is there soap available in the facility for patients to wash their hands?** **_____ Yes** **_____ No**	
19.	**OBS**	**Are there covered garbage containers with color-coded segregation?** **_____ Yes** **_____ No**	
20.	**OBS**	**Is there adequate auditory privacy in the examination room?** **_____ Yes** **_____ No**	
21.	**OBS**	**Is there adequate visual privacy in the examination room?** **_____ Yes** **_____ No**	

		STAFFING	
22.	**ASK**	**How many (READ 1-8) are assigned to work full time/part-time at this facility?** **FULL-TIME** / **PART-TIME** **1. TB DOTS facility administrator** _____ _____ **2. Physician** _____ _____ **3. Nurse** _____ _____ **4. Midwife** _____ _____ **5. Accountant** _____ _____ **6. Medical technologist** _____ _____ **7. Drug supply manager** _____ _____ **8. Other: _____** _____ _____ **_____**	
23.	**ASK**	**How many (READ 1-8) are on duty today?** **1. TB DOTS facility administrator** _____ **2. Physician** _____ **3. Nurse** _____ **4. Midwife** _____ **5. Accountant** _____ **6. Medical technologist** _____ **7. Drug supply manager** _____ **8. Other: _____** _____	
24.	**ASK**	**How do you access a physician when one is not currently available in the facility but is needed by a patient?** **_____ Call the physician in charge of the TB DOTS facility** **_____ Call a resident in the hospital** **_____ Other: _____**	
		IEC MATERIALS	
25.	**OBS**	**What IEC materials on TB are available in the facility?** **_____ Flip chart** **_____ Brochure/Pamphlet** **_____ Poster** **_____ Comics** **_____ Other: _____**	
26.	**ASK**	**Do you hold individual or group lecture/discussions with TB patients and/or their family?** **_____ Yes** **_____ No (To Q30)**	
27.	**ASK**	**When was the last time you held an individual or group lecture/discussion with TB patients and/or their family?** **_____**	
28.	**ASK**	**When do you plan to hold the next one?** **_____**	

29.	**ASK**	**What topics do you discuss during these sessions? (DO NOT READ, BUT PROBE BY ASKING, "ANY OTHER TOPICS?")** **_____ TB is infectious** **_____ TB can be cured but requires regular drug intake** **_____ Consequences of irregular drug taking** **_____ Side-effects of anti-TB drugs** **_____ Importance of follow-up sputum smear examination** **_____ Importance of family/treatment partner support** **_____Other: _____**	
30.	**ASK**	**Do you hold weekly consultation meetings with TB patients where TB management-related issues are raised and discussed?** **_____ Yes** **_____ No**	

EQUIPMENT AND COMMODITIES INVENTORY AND MANAGEMENT

31.	**OBS**	**Tick if the following equipment and supplies are available and working in the facility.**	
a		**Count the number of the following equipment and supplies available and working in the facility.**	

	Tick if available	a. QUANTITY
1. Stethoscope		
2. Examination table		
3. Thermometer		
4. Weighing scale		
5. Microscope		
6. Masks		
7. Sputum collecting containers		
8. Disposable needles and syringes		
9. Sharps container		
10. AFB reagents		
12. Glass slides		
13. Cover slips		
14. Sterile cotton swabs		
15. All NTP forms and logbooks		
16. Electric fan:		
a. Wall-mounted		
b. Ceiling fan		
c. Exhaust fan		
d. Other: _____		
17. Cabinet		
18. Table		
19. X-ray machine		
20. Other: _____		

32.	**ASK**	**Is there a written inventory for the above equipment and supplies?** **_____ Yes** **_____ No** **_____ Don't know**	

33.	**ASK**	**Does the facility usually provide the following drugs?**	
34.	**OBS**	**(IF DRUG IS USUALLY PROVIDED) Physically check and tick if drugs are available today.**	
35.	**ASK**	**(IF DRUG IS USUALLY PROVIDED) Has there been any stock-out in the last six months?**	

DRUGS	**33. Tick if yes**	**34. Tick if available**	**35. Tick if yes**
1. Type 1 (HRZ)			
2. Type II (HR)			
3. Ethambutol (400 mg)			
4. Streptomycin (1 g)			
5. INH tab (100 mg)			
6. PZA tab (500 mg)			
7. INHsrp (100 mg/tsp 120 ml)			
8. RFPsrp (100 mg/tsp 60 ml)			
9. 4-drug FDC tablets			
10. 3-drug FDC tablets			
11. 2-drug FDC tablets			
12. Antihistamines			
13. Pyridoxine			
14. Aspirin or NSAID			
15. Allopurinol			
16. Antipyretics			
17. Other: _____			

36.	**ASK**	**Is there a written inventory for the above drugs?** **_____ Yes** **_____ No** **_____ Don't know**	
37.	**ASK/ OBS**	**Are the following drugs stored by expiry date? In other words, is there a system of "first expiry first out?" (READ 1-17 AND TICK IF YES)**	
38.	**OBS**	**For each commodity, are the storage facilities clean, and protected from rain, sun, and floodwater? (READ 1-17 AND TICK IF YES)**	

	37. Tick if yes	**38. Tick if yes**
1. Type 1 (HRZ)		
2. Type II (HR)		
3. Ethambutol (400 mg)		
4. Streptomycin (1 g)		
5. INH tab (100 mg)		
6. PZA tab (500 mg)		
7. INHsrp (100 mg/tsp 120 ml)		
8. RFPsrp (100 mg/tsp 60 ml)		
9. 4-drug FDC tablets		
10. 3-drug FDC tablets		
11. 2-drug FDC tablets		

	12. Antihistamines		
	13. Pyridoxine		
	14. Aspirin or NSAID		
	15. Allopurinol		
	16. Antipyretics		
	17. Other: _____		
39.	**ASK**	**Is the entire supply of drugs required for the entire duration of treatment per TB patient secured and given to the treatment partner in charge of the patient?** **_____ Yes** **_____ No** **_____ Don't know**	

RECORD KEEPING

40.	**ASK/ OBS**	**Does this facility have (READ 1-12)?**	
a	**ASK**	**Is there a person officially designated to fill out (READ 1-12)?**	
b	**ASK**	**If YES, who? (FILL OUT 40b.)**	
c	**ASK**	**If NO, why? (FILL OUT 40c.)**	

TYPE OF FORM	**40. Tick if avail-able**	**40a. Tick if desig-nated**	**40b. If yes, who?**	**40c. If no, why?**
RECORDING FORMS				
1. TB symptomatics masterlist				
2. Laboratory request form for sputum examination				
3. Laboratory register				
4. Treatment card				
5. Identification card				
6. TB register				
7. Referral/Transfer form				
REPORTING FORMS AND COUNTING SHEETS				
8. Quarterly report on laboratory activities				
9. Counting sheet for laboratory activities				
10. Quarterly report on new cases and relapses				
11. Counting sheet for treatment outcome				
12. Quarterly report on drug inventory and requirements				

41.	OBS	In what condition is (READ 1-7)? (TICK AS APPROPRIATE.)		
		UP-TO-DATE Tick if yes	**LEGIBLE Tick if yes**	**COMPLETE Tick if yes**
1. TB symptomatics masterlist				
2. Laboratory register				
3. Treatment card				
4. TB register				
5. Quarterly report on laboratory activities				
6. Quarterly report on new cases and relapses				
7. Quarterly report on drug inventory and requirements				

SUPERVISION

42.	ASK	Is there anyone who supervises the work of the providers in this facility? _____Yes _____No (To Q45)	
43.	ASK	(IF YES) Who supervises the work of the providers in this facility?	
		Tick if mentioned	
1. TB DOTS facility administrator			
2. Physician			
3. Nurse			
4. Midwife			
5. Other: _____			
44.	ASK	What does the supervisor do? (DO NOT READ, BUT PROBE BY ASKING, "ANY OTHER ACTIONS?")	
		Tick if mentioned	
1. Compare and verify			
TB register with laboratory register			
TB register with treatment cards			
2. Review the treatment cards			
3. Review the laboratory register			
4. Interview health workers and patients			
5. Conduct physical inventory of logistics and other supplies			
6. Inform or advise the other providers of the assessment of their work			
7. Other: _____			
45.	ASK	Has there ever been an external evaluation/supervision done of this facility? _____Yes _____ No (To Q49) _____ Don't know (To Q49)	

46.	**ASK**	**When was this conducted?** _____	
47.	**ASK**	**Who conducted the external evaluation/supervision of this facility?** **_____Provincial NTP coordinator** **_____City NTP coordinator** **_____Other: _____**	
48.	**ASK**	**During the evaluation/supervision, what did the supervisor do? (DO NOT READ, BUT PROBE BY ASKING, "ANY OTHER ACTIONS?")**	

	Tick if mentioned	
1. Compare and verify		
TB register with laboratory register		
TB register with treatment cards		
2. Review the treatment cards		
3. Review the laboratory register		
4. Interview health workers and patients		
5. Conduct physical inventory of logistics and other supplies		
6. Inform or advise the health worker of the findings from the visit		
7. Other (Specify _____)		

SERVICE STATISTICS

INSTRUCTIONS:
Compile statistics for the number of patients served in a continuous period of 9 months in any of the last 12 months. In those cases where a continuous 9-month period is not available, use the longest continuous period for which there are statistics.

49.	**COM-PILE**	**How many patients were seen and managed in this facility in a continuous period of 9 months in any of the last 12 months?**	

VARIABLE	**NO.**	
1. Total number of TB symptomatics examined		
Male		
Female		
2. Number of TB symptomatics who submitted 3 sputum specimens		
3. Number of sputum smear-positive cases discovered		
4. Total number of TB cases registered		
5. Age of TB cases		
Male		
0 - 14		
15 - 24		
25 - 34		
35 - 44		
45 - 54		
55 - 64		
65 and above		

Female		
0 - 14		
15 - 24		
25 - 34		
35 - 44		
45 - 54		
55 - 64		
65 and above		
6. Disease classification		
Pulmonary TB		
Extra-pulmonary TB		
7. Type of patient		
New: Smear-positive		
Smear-negative		
Relapse		
Transfer in		
Return after default		
Failure		
Other: _____		
8. Treatment category		
Category I		
Category II		
Category III		
9. Treatment outcome		
Cure		
Relapse		
Transfer in		
Return after default		
Failure		
Other: _____		
10. Number of new sputum-positive cases which are smear-negative at the end of two 3-months treatment		
11. Treatment partner		
Nurse		
Midwife		
Family member		
Other: _____		

50.	**OBS**	**Indicate the calendar month and year of the most recent month reported in the table above.** **Month _____ Year _____**	
51.	**ASK**	**What is the client charged for obtaining (READ 1-5) in this facility?**	

SERVICE/COMMODITY	**AMOUNT (PhP)**	
1. Consultation		
2. Sputum smear examination		
Before treatment		
Succeeding smear examinations		
3. Drugs		
4. X-ray		

5. Other: _____			
52.	**ASK**	**Does this facility apply a system to determine which patients will be charged or not charged for drugs and/or services?** **_____ Yes** **_____ No**	
53.	**ASK**	**(IF YES) Can you please describe how this system operates?**	
54.	**ASK**	**How do patients pay for drugs and services?** **_____ Out-of-pocket** **_____ PhilHealth** **_____ HMO** **_____ Employer-funded** **_____ Other: _____**	

FINANCING

INSTRUCTIONS:
Data for this section should be obtained from the person who handles the financial side of operating the TB DOTS facility.

55.	**ASK**	**In the last year, where did this facility get the funds needed to operate it? (READ 1-4 AND TICK IF MENTIONED.)**	
a.		**How much funds came from (READ 1-4)? (WRITE AMOUNT IN COLUMN 55a.)**	

	55. Tick if mentioned	**55a. AMOUNT (PhP**
1. Fee for service:		
a. Patient's fee		
b. Insurance:		
PhilHealth		
HMO		
c. Employer-funded		
2. Grant:		
a. Government: _____		
b. Private: _____		
3. Hospital subsidy		
4. Other: _____		

56.	**ASK**	**Does this facility apply a financial management system?** **_____Yes** **_____No**	
57.	**ASK**	**(IF YES) What does this financial management system consist of? (DO NOT READ LIST, BUT PROBE BY ASKING, "ANYTHING ELSE?")** **_____ Maintaining a separate book of records** **_____ Keeping track of the facility's financial performance** **_____ Other: _____**	

58.	**ASK**	**Is there a profit level that this facility is required to meet?** **_____Yes** **_____No (To Q60)** **_____Don't know (To Q60)**	
59.	**ASK**	**(IF YES) What is this profit level?** **_____**	
60.	**ASK**	**Could you give me an estimate of the total annual operating budget for this facility?** **PhP_____**	
61.	**ASK**	**How much of this operating budget goes to (READ 1-8)?**	

	AMOUNT (PhP)	
1. TB drugs		
2. Supplies and materials:		
Office supplies and materials		
Medical/Laboratory supplies and materials		
4. Staff salaries and benefits:		
a. Medical staff		
Physician/s		
Nurse/s		
Midwives		
Medical technologist		
Other: _____		
b. Administrative staff		
TB DOTS facility administrator		
Drug supply manager		
Accountant		
Other: _____		
5. Utilities:		
Electricity		
Water supply		
Telephone/Communication		
6. Maintenance (housekeeping, minor repairs)		
7. Waste disposal		
8. Staff training		
9. Other: _____		

62.	**ASK**	**How much was invested in (READ 1-4) being used for TB DOTS?**
63.	**ASK**	**What was the source of funds for (READ 1-4)?**

	62. AMOUNT (PhP)	**63. SOURCE/s OF FUND**	
1. Clinic space/building			
2. Equipment:			
Microscope			
X-ray machine			
Other: _____			
3. Furniture: **Examination table**			

		Cabinet/s			
		Other: _____			
		4. Other: _____			
64.	**ASK**	**To end with, what steps would you suggest to make this facility financially viable? Please specify.**			

THANK YOU VERY MUCH.

QUESTION-BY-QUESTION GUIDE: INVENTORY OF TB DOTS CLINIC FACILITIES, EQUIPMENT, AND SERVICES PROVIDED

This instrument seeks to determine the readiness of a facility to provide TB DOTS services. It inventories the services available; draws up a complete list of all equipment, supplies, materials, and commodities; and assesses the functioning of several subsystems, including physical infrastructure, staffing, IEC materials, logistics, supervision, and record keeping. In addition, it looks into the financial side of operating the facility.

The inventory should be done soon after the arrival of the research team at the facility. It may take the entire day to fill it up. If the field researcher is not a nurse, he/she may need the assistance of the facility nurse to complete the inventory.

To conduct the inventory, the researcher has to observe the situation or ask questions of the person in charge of the facility, and the finance person for the financing aspect. The abbreviations OBS and ASK on the right side of the item numbers cue the interviewer to do one or the other to obtain the information sought.

ACCESSIBILITY

1. What is the official opening time of this facility?
2. At what time did the first client arrive today?
3. At what time was the first client seen today?

These questions will determine if the facility is actually open and providing services at the official opening time. The researcher should try to come to the facility before it is officially open. Record the time the first patient arrived, and the time he/she began his/her consultation with the provider. When entering the time, be sure to circle “am” or “pm.”

4. At what time was the last client seen today?

To answer this question, the researcher should stay at the facility until it stops providing services for the day. If only one TB patient came for consultation, fill in the time the patient was seen in Questions 3 and 4.

5. What is the official closing time for this facility?

Ask the staff in charge about the official closing time. This question, together with Question 4, will show if services are offered during the stated hours.

6. How many days a week are TB DOTS services offered at this facility?

Ask the staff in charge the number of days per week TB DOTS services are offered. Parts of days count as full days. Thus, if services are offered three hours a day, three days a week, enter 3. If services are offered eight hours, one day a week, enter 1.

7. Does this facility provide/offer (several services)?

This question will help assess the range of services that clients can access at the facility. Tick the appropriate box. If a particular service is not offered, ask the reason why and indicate this in the Remarks column.

8. Is there a clear sign that indicates the name of the clinic and that the clinic is a TB DOTS facility?

Signs help clients understand that they can receive/access TB DOTS services at the facility. Look for a sign that says TB DOTS is available at this facility. If there are several signs, indicate this in the inventory instrument. Note, too, the contents of the sign (e.g., opening and closing time of the clinic), and whether the sign is visible enough.

9. Is there a process flowchart of what a patient goes through in the treatment of TB?

Check if there is such a flowchart. Tick "yes" if the flowchart is displayed on the wall for the patients to see. If there is no flowchart hanging on the wall, ask the staff in charge if there is one. Tick "yes" if the facility keeps such a flowchart but note that this is not displayed.

10. Does the facility/service provider have contact numbers which patients can call in case they have inquiries?

Making available providers' contact numbers to patients is a measure of accessibility.

INFRASTRUCTURE AND EXAMINATION FACILITIES

The basic infrastructure of a facility affects its ability to provide high quality services as well as ensure clients' satisfaction with services.

11. Is the facility generally clean both inside and outside?

Check the facility inside and outside. Tick "yes" if there is no accumulation of garbage inside the facility or along its perimeters, the floor is generally free of dust and/or mud, and the furniture and equipment are generally dust-free.

12. Is there a waiting area for patients?
13. Is there adequate seating in the waiting area sufficient to accommodate the usual number of patients and others who would be waiting at any one time?

Tick "yes" if the facility has a waiting area and adequate seating.

14. Is there sufficient ventilation in the waiting room (that is, the room has sufficient windows to provide a comfortable ambient temperature and allow continuous air flow)?

Check whether the waiting room has sufficient windows and electric fan/s to provide a comfortable ambient temperature and allow continuous air flow.

15. Does the facility have adequate light (that is, the light allows easy reading of forms by a person of normal vision)?

Adequate light means a functioning electric light or sufficient natural light from a window that allows easy reading of forms by a person of normal vision, or allows a nurse or doctor to do an adequate examination.

16. Does the sputum collection area have appropriate ventilation to prevent transmission of TB bacilli?

Appropriate ventilation means the area has sufficient windows and electric fan/s.

17. Is there adequate water supply for washing hands and equipment?

Adequate water means a sufficient quantity of clean water for washing hands and equipment. Check if there is piped running water. Sometimes there is a tap and pipes but no water.

18. Is there soap available in the facility for patients to wash their hands?

Check if there is soap in the toilet or wash area.

19. Are there covered garbage containers with color-coded segregation?

Check if there are garbage containers with color-coded segregation, and if these are covered. If there are garbage containers but are not covered or are not color-coded, note these observations.

20. Is there adequate auditory privacy in the examination room?

Auditory privacy means that a conversation between the patient and the nurse or doctor cannot be understood by other clients. While the other clients might be able to see that an interaction between patient and provider is taking place, auditory privacy means they cannot hear what is being said. If there are no clients on the day of the visit and you cannot judge the level of auditory privacy, enter the code 98 for Question 20.

21. Is there adequate visual privacy in the examination room?

Visual privacy means that other clients cannot see the interaction between a patient and a nurse or doctor. Usually this means there is a separate examination room that is private, or there is an area that has a curtain or partition that prevents other clients from seeing the patient-provider interaction. If there are no clients on the day of the visit and you cannot judge the level of visual privacy, enter the code 98 for Question 21.

STAFFING

22. How many (various staff types) are assigned to work full time/part-time at this facility?
s
The staffing pattern in a facility can indicate the level of services that could or should be provided there. Ask the person in charge of the facility the number of staff of each type who work full time or part-time at this facility. Do not include the positions that are established but not currently filled. Some staff may have more than one position (e.g., the nurse may also assume the part-time role of drug supply manager). Note this observation.

23. How many (various types) are on duty today?

This is a follow-up to the preceding question. Ask the number of staff members who are on duty today. If a staff member is supposed to be on duty today, but is out today due to illness or other problem, do not count him/her as "on duty." This information will assess the facility's practical, daily capacity to deliver services (as compared to the formal capacity measured by the previous question).

24. How do you access a physician when one is not currently available in the facility but is needed by a patient?

Physicians may not always be present in the facility. This question assesses whether the facility has established procedures for accessing them when they are needed.

IEC MATERIALS

25. What IEC materials on TB are available in the facility?

IEC materials can be valuable aids to communication; their presence enhances the quality of services. For each item in this question, verify that a particular IEC material is present. This means you actually have to see it. Look for posters on the walls or doors of the facility. Ask the person in charge if they have flipcharts, brochures, pamphlets, or comics. Tick the appropriate box only if you see the materials. If the facility has only a few copies of the brochure or pamphlets – not enough to distribute to clients – still tick them as available since they can be used during TB discussions with the patients.

26. Do you hold individual or group lecture/discussions with TB patients and/or their family?
27. When was the last time you held an individual or group lecture/discussion with TB patients and/or their family?
28. When do you plan to hold the next one?
29. What topics do you discuss during these sessions?

These questions assess whether clients have access to TB information outside of consultations with providers. Ask Questions 27-29 only if the answer to Question 26 is "yes." For Question 29, do not read the responses, but probe by asking "Any other topics?"

30. Do you hold weekly consultation meetings with TB patients where TB management-related issues are raised and discussed?

This question assesses whether providers follow one of the prescribed procedures in implementing TB DOTS.

EQUIPMENT AND COMMODITIES INVENTORY AND MANAGEMENT

31. Tick if the following equipment and supplies are available and working in the facility.
31a. Count the number of the following equipment and supplies available and working in the facility.

Verify the presence of each item by actually seeing and counting all the equipment and commodities in the clinic and in the laboratory, if the facility has one. It is important to determine if the equipment actually works. For example, if a microscope is available but is not used because it does not work, it should not be counted. If a piece of equipment is shared with other providers (or departments if the facility is hospital-based) it should still be counted. However, this observation should be noted.

32. Is there a written inventory for the above equipment and supplies?

This question assesses whether the facility applies a tracking system for equipment and supplies.

33. Does the facility usually provide the following drugs?
34. (If drug is usually provided) Physically check and tick if drugs are available today.
35. (If drug is usually provided) Has there been any stock-out in the last six months?

These questions assess how reliable is the facility's stock of TB drugs. The stock is particularly important because if there are no TB drugs, a facility cannot offer TB DOTS.

Ask the person in charge of the facility which drugs are usually provided. Tick the appropriate boxes under Question 33. Then go to the stock room or cabinet and check the drug supplies. Tick the box under Question 34 if there is at least one unexpired unit of each type of drug. Be sure to check the expiration date. If there is no expiration date do not count the item. If it is not possible to gain access to the supplies, write code 98 in these boxes.

The information for Question 35 can be obtained from two sources. First, ask the person in charge or the drug supply manager if any of the drugs usually provided have ever been out of stock in the last six months. Second, try to verify whether they have been out of stock through the records, if available. If either the staff member or records indicate a stock-out, tick the boxes under Question 35. If there is some confusion, enter 98 in these boxes.

36. Is there a written inventory for these drugs?

Ask the person in charge of the facility or the drug supply manager if there is a written inventory for the listed drugs. An inventory is a system of keeping track of the number of drugs received and the number dispensed.

37. Are the following drugs stored by expiry date? In other words, is there a system of "first expiry first out?"

A storage system based on expiration data protects clients from receiving expired drugs and allows the facility to avoid wastage. For each drug, ask the person in charge of the facility or the drug supply manager if the drugs are stored by expiration date. Verify the answers by asking to see the system for recording expiration dates and stocking accordingly.

38. For each commodity, are the storage facilities clean, and protected from rain, sun, and floodwater?

Exposure to rain, sun, and floodwater compromise the efficacy and safety of drugs. Ask to see where the drugs are stored and determine whether the storage is adequate, that is, it is not exposed to rain or sun and will not be flooded.

39. Is the entire supply of drugs required for the entire duration of treatment per TB patient secured and given to the nurse or midwife in charge of the patient?

This question assesses whether the facility follows one of the prescribed steps in TB DOTS implementation.

RECORD KEEPING

40. Does this facility have (various recording and reporting forms)?
a. Is there a person officially designated to fill out (various recording and reporting forms)?
b. If yes, who?
c. If no, why?

These questions focus on the issue of continuity of appropriate and effective care. Well-kept patient records will allow providers to build on the care previously received by clients. Ask the person in charge if the facility has the different recording and reporting forms. If yes, tick the boxes under Column 40. For each form, ask if there is a person officially designated to fill it out. If there is, tick the boxes under Column 40a and fill in Column 40b with the provider designated to do so. The provider here refers to doctor, nurse or midwife rather than the name of the provider. If there is no designated person to fill out the forms, ask the person in charge why this is so and enter the reason in Column 40c.

41. In what condition is (various recording and reporting forms)?

Ask to see the different forms listed in Question 41 and check whether they are up-to-date, legible, and complete. Tick the appropriate boxes. If you cannot gain access to a particular form, enter code 98 for that form.

SUPERVISION

42. Is there anyone who supervises the work of the providers in this facility?
43. (IF YES) Who supervises the work of the providers in this facility?
44. What does the supervisor do?

People tend to perform better if they know that someone is interested in and concerned about their work. Supervisory visits should serve this function and thereby improve the quality of services.

Questions 42-43 refer to internal supervision, that is, supervision by a staff member of the facility (or of the hospital if the DOTS facility is hospital-based). For Question 44, do not read the responses, but probe by asking "Anything else?"

45. Has there ever been an external evaluation/supervision done of this facility?
46. When was this conducted?
47. Who conducted the external evaluation/supervision of this facility?
48. During the evaluation/supervision, what did the supervisor do?

These questions refer to external supervision. It is probable that an NTP (National Tuberculosis Control Program) coordinator supervises TB DOTS implementation in the facility. These questions address this concern. Note that Questions 46-48 are asked only if the answer to Question 45 is "yes." Otherwise, the researcher should skip to Question 49. For Question 48, do not read the responses, but probe by asking "Any other actions?"

SERVICE STATISTICS

49. How many clients were seen and managed in this facility in a continuous period of 9 months in any of the last 12 months?
50. Indicate the calendar month and year of the most recent month reported in the table above.

Compile statistics for the number of patients served in a continuous period of nine months in any of the last 12 months. In cases where a continuous nine-month period is not available, use the longest continuous period for which there are statistics. If there are gaps and it is impossible to obtain nine consecutive months, then take the most recent set of months for which statistics are available. Ask to see the TB register and the laboratory register to fill in the data for this section.
When the table is complete, enter in Question 50 the calendar month and year of the most recent month used in the table. This indicates the recency of the data.

51. What is the client charged for obtaining (various services) in this facility?

Cost is a factor in access to service. By gathering information on client fees, we can have an idea of the financial barriers to TB DOTS service. Ask the person in charge of the facility about the fees patients pay for each type of service. Note that we are interested in the fees patients <u>actually</u> pay, not the cost to the facility of providing a service.

52. Does this facility apply a system to determine which patients will be charged or not charged for drugs and/or services?
53. (IF YES) Can you please describe how this system operates?

Some health facilities charge patients for all drugs and services that have been provided to them. Others screen patients according to their ability to pay and apply a discounting system. These questions address this issue. Note that Question 53 is asked only if the answer to Question 52 is "yes." Ask the person in charge to describe in detail how their screening system operates.

54. How do patients pay for drugs and services?

This question assesses the means through which TB patients pay for their medications and treatment.

FINANCING

Questions 55-64 are financing-related. Answers to these questions may be obtained from the person who handles the financial side of operating the facility. Ask the person in charge of the facility who this person is. If necessary, request the person in charge to introduce you to the finance person and explain to the latter the purpose of the research.

55. In the last year, where did this facility get the funds needed to operate it?
55a. How much funds came from (READ 1-4)?

These questions seek to determine the sources of funding for the operation of the facility as well as how much funds each source contributes. If the amount from a particular source is not available, enter code 98 in the corresponding box.

56. Does this facility apply a financial management system?
57. (IF YES) What does this financial management system consist of?

We are interested here in finding out whether a financial management system is used to keep track of the facility's finances and what comprise this system. Note that Question 58 is asked only if the answer to Question 57 is "yes."

58. Is there a profit level that this facility is required to meet?
59. (IF YES) What is this profit level?

Question 59 is asked only if the answer to Question 58 is "yes."

60. Could you give me an estimate of the total annual operating budget for this facility?
61. How much of this operating budget goes to (various cost items)?

For Question 61, the amount that goes to "salaries and benefits" may be lumped together if this could not be indicated separately for medical staff and administrative staff. If the amount for a certain cost item cannot be ascertained, enter code 98 for that item.

62. How much was invested in (various cost items) being used for TB DOTS?
63. What was the source of funds for (various cost items)?

These questions provide information on capital costs and the source/s of funds for these costs. If the amount for a particular cost item is not available, enter code 98 for that item.

64. To end with, what steps would you suggest to make this facility financially viable? Please specify.

This question is intended to elicit suggestions. Do not rush the interviewee. Encourage him/her to explain or elaborate on what he/she is saying. Ask him/her to give specifics.

INTERVIEW GUIDE FOR TB DOTS SERVICE PROVIDERS

INSTUCTIONS TO INTERVIEWER:
All health facility staff who are responsible for providing TB services should be interviewed individually and in private at the end of the working day. It should be made clear that you are seeking their assistance in finding ways of improving the delivery and quality of the services offered by the clinic in general and are not evaluating the performance of the facility or of themselves individually. For each item, circle/tick the response or describe as appropriate.

Facility ID Code [___] [___] [___] [___]

Name of facility

Address
Street_____Brgy:_____

District/Town/City_____

Study staff number [___] [___] [___] [___]

Date of this interview ____/____/_____
<dd/mm/yyyy>

Time the interview started _____:_____
hours: minutes

Time the interview ended _____:_____
hours: minutes

Name of interviewer _____

Signature of team leader _____

Type of health facility:
- **1 = Hospital**
- **2 = Stand-alone clinic**
- **3 = Corporate social responsibility clinic**
- **4 = Work-based clinic**
- **5 = Group practice**
- **6 = Single practice**
- **7 = Other**

Designation of staff member
- **1 = TB DOTS clinic administrator**
- **2 = Physician**
- **3 = Nurse**
- **4 = Midwife**
- **5 = Medical technologist**
- **6 = Drug supply manager**
- **7 = Other:** _____

READ GREETING:

We are carrying out a survey of health providers in _____ (**STATE NAME OF FACILITY**) in order to understand the system for providing TB services. The purpose of the study is to find ways of improving DOTS service delivery. We are interested to know your experiences so far in providing TB DOTS services. Could I ask you some questions about this? Please be assured that this discussion is strictly confidential and your name will not be recorded. Also, you are not obliged to answer any question you don't want to, and you may withdraw from the interview at any time. May I continue?

If the provider agrees to continue, ask if he/she has any questions. Respond to questions as appropriate, then ask Q1.

If the provider does not agree to continue, thank him/her and go to the next interview.

EXPERIENCE AND TRAINING IN TB DOTS SERVICE DELIVERY			
1.	**I'd like to ask you about the services you provide to clients at this facility. Do *you yourself* provide (READ 1 - 5) to patients at this facility?**		
		Tick if yes	
	1. DOTS		
	2. Health education to patients		
	3. Sputum AFB smear microscopy on-site		
	4. Chest X-ray services		
	5. Other services: _____		
2.	**How long have you been working here at this facility?** **_____ years (ROUND OFF TO NEAREST YEAR)** **_____Less than six months** **_____Don't know**		
3.	**What specific tasks do you perform at this facility? (DO NOT READ LIST, BUT PROBE BY ASKING, "ANYTHING ELSE?" CIRCLE ALL THAT APPLY.)** **Case finding** **1 = Evaluate TB symptomatics** **2 = Collect sputum specimens for microscopy** **3 = Refer diagnosed TB cases to the physician or nurse for clinical evaluation and initiation of treatment** **4 = Maintain and update the treatment cards/TB symptomatics masterlist/TB symptomatics target client list** **5 = Monitor and supervise the procedures for case-finding activities**		

	Case holding **5 = Examine TB cases** **6 = Prescribe appropriate treatment regimen and management of adverse reactions, if any** **7 = Assign and supervise a treatment partner for patients who will undergo DOTS** **8 = Implement DOT** **9 = Monitor patient's response to drugs (e.g., adverse effects, weight gain, symptoms)** **10 = Provide continuous health education to all TB patients placed under treatment** **11 = Conduct regular consultation meeting with TB patient during the course of treatment** **12 = Collect sputum specimen for follow-up sputum examination** **13 = Report and retrieve defaulters within two days** **14 = Refer patients with adverse drug reactions to the physician for further evaluation and management** **15 = Maintain and update the TB register** **16 = Prepare and submit reports to the facility administrator/ physician** **17 = Monitor and supervise providers to ensure the proper implementation of DOTS** **Microscopy** **18 = Do sputum smear examination for diagnosis and follow-up** **19 = Submit results of sputum examination to the physician or nurse** **20 = Maintain and update the laboratory register** **21 = Prepare quarterly report on laboratory activities and submit to the facility administrator/physician/nurse** **22 = Prepare and submit quarterly laboratory requirements to the facility administrator/physician/nurse** **Drug supply management** **23 = Facilitate the requisition and distribution of drugs and other supplies** **24 = Prepare and submit the quarterly report on drug inventory and requirement to the facility administrator/physician/nurse** **25 = Coordinate with the Department of Health for drug supply** **Training/Educations** **26 = Conduct training of health providers/treatment partners** **27 = Educate medical students/clerks on TB diagnosis and treatment** **28 = Other: _____**	
4.	**How many years ago did you finish your medical/nursing/medtech degree?** **_____ years (ROUND OFF TO NEAREST YEAR)** **_____ Don't know**	
5.	**Did your medical/nursing/medtech degree cover (READ 1 - 9)?**	

	Tick if yes	
1. TB prevention and control		
2. Clinical aspects of TB		
3. NTP policies and procedures		
4. NTP program management		
5. TB DOTS		

	6. Management and distribution of TB drugs and supplies		
	7. AFB smear microscopy		
	8. Laboratory quality assurance		
	9. Other: _____		
6.	**Have you ever received a TB DOTS training?** **_____ Yes** **_____ No (To Q10)**		
7.	**When and where did you obtain this training?** **_____** **_____**		
8.	**Who conducted the training?** **_____**		
9.	**Did the TB DOTS training cover the following topics? (TICK IF YES.)**		
		Tick if yes	
	1. NTP policies and procedures		
	2. Case finding		
	3. Case holding		
	4. Recording and reporting		
	5. Logistics management		
	6. Monitoring and supervision		
10.	**Are you familiar with the *Manual of Procedures for the National Tuberculosis Control Program*?** **_____Yes** **_____No**		
11.	**Have you heard of the Comprehensive and Unified Policy on Tuberculosis?** **_____Yes** **_____No**		
	TB DOTS SERVICE DELIVERY KNOWLEDGE AND PRACTICES		
12.	**Do you adhere to a particular procedure for managing your TB patients?** **_____ Yes (Specify: _____)** **_____ No. Why not? _____**		
	CASE FINDING		
13.	**What are the signs and symptoms that will help you identify an individual as TB symptomatic? Please give at least four symptoms. (DO NOT READ LIST, BUT PROBE BY ASKING, "ANY OTHER SYMPTOMS?")** **1 = Cough of two or more weeks duration** **2 = Fever** **3 = Sputum expectoration** **4 = Significant weight loss** **5 = Hemoptysis or recurrent blood-streaked sputum** **6 = Chest and/or back pains** **7 = Sweat, chills, fatigue, body malaise, shortness of breath** **8 = Poor appetite** **9 = Other: _____** **98 = Don't know**		

14.	**Once you have determined a patient to be a TB symptomatic, what are the next steps you take? (DO NOT READ LIST, BUT PROBE BY ASKING, "ANYTHING ELSE?")** **1 = Register the identified TB symptomatic in the TB Symptomatics Masterlist (or TB Symptomatics Client List)** **2 = Collect sputum specimen and transport it to microscopy unit or laboratory as soon as possible** **3 = Request for a sputum AFB smear to be done by a trained microscopist** **4 = Educate the patient on TB DOTS (duration of treatment, adverse effects, contact tracing)** **5 = Refer the patient to a physician** **6 = Other: _____** **98 = Don't know**	
15.	**Do you obtain the sputum specimen during the TB symptomatic's first visit?** **_____Yes** **_____No** **_____Don't know**	
16.	**Where do you send the sputum specimens for laboratory examination? (DO NOT READ LIST.)** **1 = Private laboratory facility outside the DOTS facility** **2 = Public microscopy center** **3 = On-site microscopy center** **4 = Other: _____** **98 = Don't know**	
	DIAGNOSIS AND INITIATION OF TREATMENT	
17.	**Do you have access to the classification of patients according to laboratory examination results?** **_____Yes** **_____No (To Q19)** **_____Don't know (To Q19)**	
18.	**(IF YES) Where is this record kept?** **_____** **98 = Don't know**	
19.	**<u>READ:</u> AT THIS POINT, I'D LIKE TO ASK YOU A FEW QUESTIONS THAT I HOPE YOU WON'T MIND MY ASKING. THESE QUESTION SOUND LIKE I'M TESTING YOU, BUT WE DO NEED YOUR ANSWERS TO COMPLETE OUR DATA.** **Supposing all his/her smears were found negative, what do you tell the patient? (DO NOT READ LIST. CIRCLE ALL THAT APPLY.)** **1 = He/she will be referred to the physician** **2 = The physician may prescribe symptomatic treatment for 2-3 weeks** **3 = If after 2-3 weeks the symptoms persist, another three sputum specimens will be collected from the patient and the physician will re-assess his/her condition** **4 = Other: _____** **98 = Don't know**	

20.	**How do you classify a TB symptomatic with two sputum smear-positive results?** **1 = Smear-positive** **2 = Smear-negative** **3 = Other: _____** **98 = Don't know**	
21.	**What type of TB case is a patient who is sputum-positive at the fifth month of the treatment course?** **1 = Treatment failure** **2 = Relapse** **3 = Other: _____** **98 = Don't know**	
22.	**What health education messages must be emphasized to a TB patient? (DO NOT READ LIST. CIRCLE ALL THAT APPLY.)** **1 = TB is infectious** **2 = Cover mouth when coughing** **3 = TB could be cured but requires regular drug intake for the prescribed duration** **4 = Results of irregular drug intake** **5 = Importance of undergoing follow-up sputum examination on specified dates** **6 = Adverse reaction to the drugs** **7 = Maintain good hygiene and proper nutrition** **8 = Importance of family/treatment partner support** **9 = Other: _____** **98 = Don't know**	
23.	**What treatment regimen is given to a new pulmonary smear-positive case?** **1 = Regimen I** **2 = Regimen II** **3 = Regimen III** **4 = Other: _____** **98 = Don't know**	
24.	**What treatment regimen is given to a treatment failure case?** **1 = Regimen I** **2 = Regimen II** **3 = Regimen III** **4 = Other: _____** **98 = Don't know**	

	CASE HOLDING	
25.	**What steps do you take to ensure that a TB patient complies with treatment through DOTS? (DO NOT READ LIST. CIRCLE ALL THAT APPLY.)** **1 = Explain to the patient the importance of treatment compliance** **2 = Administer the patient's drugs daily with the treatment partner making sure that the patient swallows the drugs** **3 = Ensure that a family member supervises the patient's intake of drugs on Saturdays, Sundays, and holidays when the clinic is closed** **4 = Regularly motivate the TB patient to continue treatment by emphasizing key messages** **5 = The nurse or midwife regularly conducts consultation meeting with the patient and treatment partner for treatment evaluation** **6 = Immediately exert effort to retrieve a patient if he/she fails to report on the day he/she is expected** **7 = Monitor response to treatment through follow-up sputum examination** **8 = Other: _____** **98 = Don't know**	
26.	**If a defaulter comes back for treatment, what would you do for him/her? (DO NOT READ LIST. CIRCLE ALL THAT APPLY.)** **1 = Get him/her to have a sputum smear examination** **2 = Refer patient to the physician for re-evaluation and re-treatment** **3 = Other: _____** **98 = Don't know**	
27.	**How do you monitor response to treatment? (DO NOT READ LIST.)** **1 = Follow-up sputum examination** **2 = Chest X-ray** **3 = Other: _____** **98 = Don't know**	
28.	**How would you manage a patient who had mild skin reactions to anti-TB drugs? (DO NOT READ LIST. CIRCLE ALL THAT APPLY.)** **1 = Encourage patient to continue taking the medicines** **2 = Give him/her antihistamines** **3 = Other: _____** **98 = Don't know**	
29.	**When is the schedule of the first sputum smear follow-up examination for a Category I patient with one month of extension?** **1 = Towards the end of the 2nd month** **2 = Towards the end of the 3rd month** **3 = Towards the end of the 4th month** **4 = Other: _____** **98 = Don't know**	
	TREATMENT OUTCOME	
30.	**Do you keep a record of treatment outcome in your clinic?** **_____Yes** **_____No (TO Q34 IF INTERVIEWEE IS PERSON IN CHARGE OF THE FACILITY; IF NOT, TO Q46)**	

31.	**IF YES, do you report the treatment outcome on a regular basis?** **_____Yes** **_____No (TO Q34 IF INTERVIEWEE IS PERSON IN CHARGE OF THE FACILITY; IF NOT, TO Q46)**	
32.	**How often do you report the treatment outcome?** **1 = Monthly** **2 = Quarterly** **3 = Semi-annually** **4 = Annually** **5 = Other: _____** **98 = Don't know**	
33.	**To whom do you report the treatment outcome? (DO NOT READ LIST. CIRCLE ALL THAT APPLY.)** **1 = TB DOTS facility administrator** **2 = Hospital administrator** **3 = NTP coordinator** **4 = Other: _____** **98 = Don't know**	

(FOR THE STAFF PERSON IN CHARGE ONLY)
INSTITUTIONAL COMMITMENT

34.	**Does the (<u>mother organization</u>) provide a regular annual budget for the implementation of TB DOTS in this facility?** **_____ Yes. How much? _____ (To Q36)** **_____No** **_____Don't know (To Q37)**	
35.	**If the (<u>mother organization</u>) does not provide a budget for this facility, where does this facility get its resources? (READ LIST. TICK ALL THAT APPLY. DESCRIBE AS APPROPRIATE.)**	

	Tick if mentioned	
1. Fee for service:		
a. Patient's fee		
b. Insurance:		
PhilHealth		
HMO		
c. Employer-funded		
2. Grant:		
a. Government: _____		
b. Private: _____		
3. Other: _____		

36.	**What specific items does the annual budget/resources support? (READ LIST. CIRCLE ALL THAT APPLY.)** **1 = TB drugs** **2 = Supplies and materials** **3 = Salary of clinic staff** **4 = Training** **5 = IEC materials** **6 = TB educational campaign** **7 = Incentives for patients to come back** **8 = Maintenance and operating expenses of clinic** **9 = Other: _____** **98 = Don't know**	
37.	**Does the (mother organization) provide other types of support to this facility?** **_____ Yes** **_____No (To Q39)** **_____Don't know (To Q39)**	
38.	**(IF YES) What other types of support does the mother organization provide? (READ LIST. CIRCLE ALL THAT APPLY.)** **1 = Space** **2 = Furniture** **3 = Personnel** **4 = Use of equipment** **5 = Use of vehicle** **6 = Other: _____** **98 = Don't know**	
39.	**Where do you obtain your TB drug supply? Indicate major source. (TICK IF MENTIONED. DESCRIBE AS APPROPRIATE.)**	

	Tick if mentioned	
1. Donation:		
a. Government: _____		
b. Private: _____		
c. Foreign donor: _____		
2. Procurement		
Specify source: _____		
3. Other: _____		

40.	**Do you have sufficient supply of TB drugs for the current caseload in your facility?** **_____Yes** **_____No** **_____Don't know**	
41.	**Who ensures that there is uninterrupted drug supply for patients?** **1 = TB DOTS facility administrator** **2 = Physician** **3 = Nurse** **4 = Midwife** **5 = Drug supply manager** **6 = Other: _____** **98 = Don't know**	

42.	**Is the physician attending this facility PhilHealth-accredited?** **_____Yes** **_____No** **_____Don't know**	
43.	**Is this facility PhilHealth-accredited?** **_____Yes** **_____No** **_____Don't know**	
44.	**Do you have plans to link up with the public sector?** **_____Yes** **_____No (To Q46)**	
45.	**(IF YES) What types of linkage do you have in mind? Please specify.**	
	SOCIODEMOGRAPHIC CHARACTERISTICS	
46.	**To end with, I would like to ask you a few questions about yourself. How old are you?** **_____years old** **_____Don't know**	
47.	**What is your current marital status?** **1 = Married** **2 = Cohabiting/Living together** **3 = Single, never married** **4 = Divorced/Separated** **5 = Widowed**	
48.	**Sex** **_____Male** **_____Female**	

THANK YOU VERY MUCH FOR HAVING SPENT SO MUCH TIME WITH ME.

QUESTION-BY-QUESTION GUIDE: INTERVIEW WITH TB DOTS SERVICE PROVIDERS

This instrument collects information on the training, knowledge, and practices of TB DOTS service providers. Data from the interviews will help program planners to design training programs targeted to the needs of the staff. This information can also be compared with data from the observation of TB patient – service provider interaction to see how well provider knowledge is translated into provider action.

The first person to be interviewed is usually the staff person in charge of the TB DOTS facility. It is expedient to obtain this person's permission to interview other staff, and to make it clear at the very start that the interviews do not seek to evaluate the individual staff or facility performance. After permission is obtained, all TB DOTS service providers should be interviewed.

EXPERIENCE AND TRAINING IN TB DOTS SERVICE DELIVERY

1. I'd like to ask you about services you provide to clients at this facility. Do you yourself provide (various services) to patients at this facility?

This question seeks to determine all the services the staff person provides to clients. The interviewer should make sure that the staff person him/herself is the one who provides the services. For each service listed, ask the provider "Do you yourself provide (the service listed)," emphasizing the word "yourself."

2. How long have you been working here at the facility?

Record the number of years.

3. What specific tasks do you perform at this facility?

This question determines who does what in the facility. For tasks not given in the list, circle "Other" and describe as appropriate.

4. How many years ago did you finish your medical/nursing/medtech degree?
5. Did your basic training cover (various topics)?

These questions aim to find out the staff person's training that qualifies him/her for his/her position in the facility.

6. Have you ever received a TB DOTS training?
7. When and where did you obtain this training?
8. Who conducted this training?
9. Did the TB DOTS training cover the following topics?

These question assess whether the staff person had had a formal training on TB DOTS. Note that Questions 7, 8, and 9 are asked only if the provider answers "yes" to Question 6. For Question 9, tick only those items which the provider's training covered.

10. Are you familiar with the *Manual of Procedures for the National Tuberculosis Control Program (NTP)*?
11. Have you heard of the Comprehensive and Unified Policy on Tuberculosis?

These two questions address the provider's familiarity with the basic guide to the implementation of TB DOTS.

TB DOTS SERVICE DELIVERY KNOWLEDGE AND PRACTICES

12. Do you adhere to a particular procedure for managing your TB patients?

This question ascertains whether TB DOTS is applied in the facility.

13. What are the signs and symptoms that will help you identify an individual as TB symptomatic?
14. Once you have determined a patient to be TB symptomatic, what are the next steps you take?
15. Do you obtain the sputum specimen during the TB symptomatic's first visit?
16. Where do you send the sputum specimens for laboratory examination?

This sequence of questions assesses the provider's case finding practices. For Questions 13 and 14, do not read the responses, but probe by asking "Anything else?" Note that the provider may not use exactly the same language in which the choices were written. Try to categorize the provider's responses according to those in the list.

17. Do you have access to the classification of patients according to the laboratory examination results?
18. If yes, where is this record kept?

These questions are concerned with the provider's access to the classification of patients according to laboratory examination results as reference. Note that Question 18 is asked only if the provider answers "yes" to Question 17.

19. Supposing all his/her smears were found negative, what do you tell the patient?
20. How do you classify a TB symptomatic with two sputum smear-positive results?
21. What type of TB case is a patient who is sputum-positive at the fifth month of the treatment course?
22. What health education messages must be emphasized to a TB patient?
23. What treatment regimen is given to a new pulmonary smear-positive case?
24. What treatment regimen is given to a treatment failure case?

This set of questions assesses the provider's knowledge of TB diagnosis and treatment. For Questions 19 and 22, do not read the responses, but probe by asking "Anything else?"

25. What steps do you take to ensure that a TB patient complies with treatment through DOTS?
26. If a defaulter comes back for treatment, what would you do for him/her?
27. How do you monitor response to treatment?
28. How would you manage a patient who had mild skin reactions to anti-TB drugs?
29. When is the schedule of the first sputum smear follow-up examination for a Category 1 patient with one month of extension?

These questions address the provider's knowledge of and practices in case holding. For Questions 25, 26, and 28, do not read responses, but probe by asking "Anythinge else?"

30. Do you keep a record of treatment outcome in your clinic?
31. Do you report the treatment outcome on a regular basis?
32. How often do you report the treatment outcome?
33. To whom do you report the treatment outcome?

These questions inquire about recording and reporting of treatment outcome. Questions 31, 32, and 33 are asked only if the provider answers "yes" to Question 30. Note the skip pattern if the provider answers "no" to Question 30. The interviewer should ascertain whether the interviewee is the person in charge of the facility or not and skip to the question indicated.

INSTITUTIONAL COMMITMENT

Questions 34-45 are for the person in charge of the facility only. These questions assess the mother organization's commitment to TB DOTS implementation measured in terms of an annual budgetary allocation and/or support in kind. "Mother organization" here refers to the larger unit (e.g., hospital) in which the facility is based.

34. Does the (mother organization) provide a regular annual budget for the implementation of TB DOTS in this facility?
35. If the (mother organization) does not provide a regular annual budget for this facility, where does this facility get its resources?

These questions seek to determine the sources of funds for the maintenance and operation of the facility. For Question 35, read the list and tick all that apply. Specify the name of the funding source as appropriate.

36. What specific items does the annual budget/resources support?

The "annual budget/resources" referred to here is the "annual budget" mentioned in Question 34 and the "resources" mentioned in Question 35. Do not read the responses, but probe by asking "Anything else?" Circle all that apply.

37. Does the (mother organization) provide other types of support to this facility?
38. What are the other types of support that the (mother organization) provides?

Ask Question 38 only if the provider answers "yes" to Question 37. Read responses and circle all that apply.

39. Where do you obtain your TB drug supply?
40. Do you have sufficient supply of TB drugs for the current caseload in your facility?
41. Who ensures that there is uninterrupted drug supply for patients?

These questions assess the source and level of TB drug supply in the facility. For Question 39, tick the response if mentioned and specify as appropriate. Indicate the major source of drug supply by encircling the response.

42. Is the physician attending this facility PhilHealth-accredited?
43. Is this facility PhilHealth-accredited?

These questions provide information on the physician's and facility's accreditation with PhilHealth or the lack of it.

44. Do you have plans to link up with the public sector?
45. What types of linkage do you have in mind?

These questions will serve to identify possible linkage with the public sector that the person in charge of the facility plans to pursue. The linkage referred to here is in addition to the linkage with the Department of Health (DOH) in cases where DOH is the facility's source of TB drugs, or the facility is reporting to DOH with regard to treatment outcome. Note that Question 45 is asked only if the provider answers "yes" to Question 44.

SOCIODEMOGRAPHIC CHARACTERISTICS

46. To end with, I would like to ask you a few questions about yourself. How old are you?
47. What is your current marital status?
48. Sex

These questions will provide some sociodemographic information about the provider. Note that there is really no need to actually ask Question 48; simply mark the appropriate response.

OBSERVATION GUIDE FOR INTERACTION BETWEEN TB PATIENT AND SERVICE PROVIDER

INSTUCTIONS TO DATA COLLECTORS:
Obtain the consent of both client and service provider before proceeding to observe the interaction between them. Make sure that the provider knows you are not there to evaluate him/her and that you are not an "expert" who can be consulted during the session. When observing, be as discreet as possible: try to sit so that you are behind the client but not directly in view of the provider and make notes quickly. For each question, circle the response that most appropriately represent your observation of what happened during the interaction.

Facility ID Code [___] [___] [___] [___]

Name of facility

Address
Street_____Brgy:_____

District/Town/City_____

Study staff number [___] [___] [___] [___]

Study client number [___] [___] [___] [___]

Date of visit ____/____/_____
<dd/mm/yyyy>

Time observation started _____:_____
hours: minutes

Name of observer _____

Signature of team leader _____

Type of physical facility where TB DOTS is based:
- **1 = Hospital**
- **2 = Stand-alone clinic**
- **3 = Community-based (Sponsor: _____)**
- **4 = Work-based clinic**
- **5 = Group practice**
- **6= Other**

Main purpose of visit as <u>first</u> indicated by patient: _____

New: **1 = First consultation**
2 = Restart TB patient (First consultation after default)

Revisit: **3 = Repeat visit without problems (Continuing RAD, transfer-in with proper referral slip, continuing patients)**
(INDICATE: ____ month of treatment)
4 = Repeat visit with problems (e.g., moving to another location, with adverse reactions to drugs, problem with case manager or treatment partner, failure)
(INDICATE: ____ month of treatment)

Classification of TB case:
- **1 = Pulmonary TB**
- **2 = Extrapulmonary TB**

Service provider attending the patient:

1 = Physician
2 = Nurse
3 = Other: _____

GREETING AND ASSESSING THE PATIENT			
		NEW CLIENTS	REVISIT CLIENTS
1.	Did the provider greet the patient in a friendly manner?	1 = Yes 2 = No	
2.	Did the provider ask about or did the client mention any of these subjects? (CIRCLE ALL THAT APPLY.)	1 = Cough for two weeks or more 2 = Sputum expectoration 3 = Fever 4 = Significant weight loss 5 = Hemoptysis or recurrent blood-streaked sputum 6 = Chest and/or back pains 7 = Sweat with chills, fatigue, body malaise, shortness of breath 8 = If patient has concerns about his/her health 9 = If patient has concerns about his/her TB treatment 10 = If client has any questions/problems 11 = Other: _____ 77 = None was mentioned	
			12 = Adverse drug reactions 13 = Relapse 14 = Interruption of treatment 15 = Transfer from another facility
3.	During the consultation, did the provider take or perform any of these actions? (CIRCLE ALL THAT APPLY.)	1 = Assess weight 2 = Take BP 3 = Perform general physical examination 4 = Collect sputum specimen 5 = Other: _____ 77 = None of these actions	
			6 = Check for adverse drug reactions
4.	Did the provider advise the patient to undergo sputum smear examination for diagnosis as soon as possible?	1 = Yes 2 = No	
5.	Was the TB symptomatic registered in the TB Symptomatics Masterlist (or TB Symptomatics Client List)?	1 = Yes 2 = No	

		NEW CLIENTS	REVISIT CLIENTS
6.	**Did the provider advise household members of the identified TB symptomatic/TB patient, who are also TB symptomatics, to undergo sputum examination?**	**1 = Yes** **2 = No**	
	PROCEDURES PERFORMED		
7.	**Did the provider/treatment partner check in the treatment card the schedule of the patient's next sputum examination?**		**1 = Yes** **2 = No**
8.	**If the sputum examination is due today, did the provider/treatment partner collect the sputum specimen?**	**1 = Yes** **2 = No**	
9.	**If a sputum specimen was collected, did the provider perform any of these actions? (CIRCLE ALL THAT APPLY.)**	**1 = Explain to the patient the purpose of sputum collection before collecting his/her sputum** **2 = Demonstrate how to produce good sputum** **3 = Supervise the patient during the procedure** **4 = Observe contamination precautions** **5 = Label the sputum cup with the patient's complete name and the name of the referring unit** **6 = Seal the sputum specimen container, pack it securely** **7 = Transport the sputum specimen to a microscopy unit or laboratory as soon as possible** **8 = Store the specimen in a cool, dark, and safe place if the specimen could not be immediately transported to a microscopy unit** **9 = Other: _____** **77 = None of these actions**	
10.	**Did the provider/treatment partner remind the patient of the schedule of the next sputum examination?**	**1 = Yes** **2 = No**	
11.	**Was the sputum collection done in a well-ventilated room?**	**1 = Yes** **2 = No**	

		NEW CLIENTS	REVISIT CLIENTS
12.	**If the patient was physically examined, did the provider perform any of these actions? (CIRCLE ALL THAT APPLY.)**	**1 = Brief the client, before the exam, on what procedure the provider will perform** **2 = Wash hands before the exam** **3 = Listen to the lungs** **4 = Examine body parts (e.g., lymph node) that could be affected by extrapulmonary TB** **5 = Wash hands after the exam** **6 = Inform the patient about the result after the exam** **7 = Prescribe the appropriate regimen for the TB patient** **8 = Other: _____** **77 = None of these actions**	
13.	**If treatment was initiated, did the provider perform any of these actions? (CIRCLE ALL THAT APPLY.)**	**1 = Inform the patient that he/she has TB** **2 = Provide the patient with some information on TB** **3 = Motivate the patient to undergo and complete treatment** **4 = Explain the TB DOTS case management to the patient** **5 = Refer the patient to the physician for pre-treatment evaluation and initiation of treatment** **6 = Open the treatment card and two NTP ID cards and start the treatment** **7 = Register the patient in the TB Register** **8 = Assign a treatment partner to the TB patient** **9 = Do DOT** **10 = Record the date when treatment was first started** **11 = Record the due date of the first follow-up sputum examination in the treatment card** **12 = Other: _____** **_____** **77 = None of these actions**	
14.	**If the patient came for his/her daily drug intake, was he/she supplied the necessary drugs?**		**1 = Yes** **2 = No (To Q18)**

		NEW CLIENTS	REVISIT CLIENTS
15.	**Who was the designated treatment partner?**		**1 = Nurse** **2 = Midwife** **3 = Family member: _____** **4 = Other: _____**
16.	**Did the treatment partner observe the patient take the drugs?**		**1 = Yes** **2 = No**
17.	**Did the provider/treatment partner remind the patient of the next appointment?**	**1 = Yes** **2 = No**	
18.	**(If NO) Why was the patient not given his/her drugs today?**		**1 = Drugs out of stock** **2 = Patient cured** **3 = Patient has allergic reactions to the drugs** **4 = Other: _____**
19.	**Did the provider explain to the patient why he/she could not be given his/her drug today?**		**1 = Yes** **2 = No**
	DISCUSSION OF TB AND OTHER HEALTH ISSUES		
20.	**During the consultation, did the provider impart to the patient information on TB?**	**1 = Yes** **2 = No**	
21.	**What key messages did he/she emphasize? (CIRCLE ALL THAT APPLY.)**	**1 = TB is infectious** **2 = Cover mouth when coughing** **3 = TB could be cured but requires regular drug intake for the prescribed duration** **4 = Maintain good hygiene and proper nutrition** **5 = Consequences of irregular drug intake** **6 = Importance of undergoing follow-up sputum examination on specified dates** **7 = Adverse reaction to the drugs** **8 = Importance of family/ treatment partner support** **9 = Other: _____** **77 = None of these topics**	

		NEW CLIENTS	REVISIT CLIENTS
22.	**What other health and related issues were mentioned at any time during the consultation? (CIRCLE ALL THAT APPLY.)**	**1 = Treatment completion** **2 = Reasons for default** **3 = Nutrition** **4 = Pregnancy** **5 = Lactation** **6 = Child immunization** **7 = HIV/AIDS** **8 = Health beliefs** **9 = Social stigma** **10 = Cost of care** **11 = Other: _____** **77 = None of these issues**	
23.	**Which IEC materials, if any, were used during the consultation? (CIRCLE ALL THAT APPLY.)**	**1 = Flipchart** **2 = Brochure/Pamphlet** **3 = Poster** **4 = Comics** **5 = Other: _____** **77 = None**	
24.	**While discussing with the patient, did the provider use clear, simple, and appropriate language?**	**1 = Yes** **2 = No**	
25.	**Did the provider let the patient ask any questions the patient may have?**	**1 = Yes** **2 = No**	
26.	**Did the provider respond to the patient's questions?**	**1 = Yes** **2 = No**	

Time observation finished	_____:_____ *hours : minutes*
Duration of interaction	_____:_____ *hours : minutes*

Thank both provider and client for allowing you to observe their interaction. Staple an exit interview form to this questionnaire. Follow the client out of the room and politely ask if he/she is willing to be interviewed about his/her experience. If the client agrees, introduce him/her to the interviewer. Give both interview form and observation guide to the interviewer.

QUESTION-BY-QUESTION GUIDE: OBSERVATION OF INTERACTION BETWEEN TB PATIENT AND SERVICE PROVIDER

This data collection tool is designed to help record what happens when a service provider (e.g., doctor, nurse, midwife) examines a TB client or supervises the patient's drug intake. It gathers information on how effectively provider knowledge (as gleaned from the staff interview) is translated into practice. It examines the availability and use of IEC materials reported in the *Inventory of TB DOTS Clinic Facilities, Equipment, and Services Provided*. It also gets some data on quality of care.

The interviewer should understand that this tool is only a guide. We don't know when an item of interest will arise in the course of the interaction. It is, therefore, necessary for the interviewer to familiarize himself/herself with the guide, even memorize parts of it so that he/she knows where to record the information when the interaction takes place.

To help the interviewer find the appropriate place to code, three general headings are provided to give some organization to the questions. These headings include *Greeting and Assessing the Patient* which covers the medical information the provider may wish to know to assess the client; *Procedures Performed* which includes the different steps taken in case finding, diagnosis and initiation of treatment, and case holding; and *Discussion of TB and Other Health Issues* which covers TB and other health issues mentioned during the course of interaction as well as the IEC materials used, if any.

Note that this form has two columns on the righthand side – one for new clients (which include new TB patients and restart TB patients) and one for revisit clients (which include repeat visit with and without problems). Many questions apply to both new and revisit clients, but some apply only to one type. When a question is only relevant to a new client, the revisit client column will be shaded out, and vice-versa. When the question is relevant to both types of client, the separation between the columns is deleted.

After the observation is over, staple an exit interview form to this questionnaire. Follow the client out of the room and politely ask if he/she is willing to be interviewed about his/her experience. If the client agrees, introduce him/her to the interviewer. Give both interview form and observation guide to the interviewer.

GREETING AND ASSESSING THE CLIENT

1. Did the provider greet the client in a friendly manner?

This question provides information on quality of care, particularly quality of client-provider interpersonal relationship. Pay attention to tone of voice, facial expressions, gestures, and eye contact all of which may be used to assess whether the greeting was friendly or not.

2. Did the provider ask about or did the client spontaneously mention any of these subjects?

This question determines whether the provider is able to gather the information he/she needs to properly assess the client for TB management. We do not distinguish whether the client spontaneously mentioned an item or answered a question about the item.

3. During the consultation, did the provider take or perform any of these actions?

Our interest here is whether the data collector observes any of these actions during the interaction. This question basically focuses on physical measurements taken from the client. Note the use of code 77, indicating that none of these items were performed. This can only be coded in the final review of the responses, when the consultation is completed.

4. Did the provider advise the patient to undergo sputum smear examination for diagnosis as soon as possible?
5. Was the TB symptomatic registered in the TB Symptomatics Masterlist (or TB Symptomatics Client List)?
6. Did the provider advise household members of the identified TB symptomatic, who are also TB symptomatics, to undergo sputum examination?

These questions assess whether the provider knows and follows some of the prescribed steps in identifying TB symptomatics.

PROCEDURES PERFORMED

7. Did the provider/treatment partner check in the treatment card the schedule of the patient's next sputum examination?

This question determines whether the provider ensures that she does not miss collecting a sputum specimen if an examination is due today.

8. If the sputum examination is due today, did the provider/treatment partner collect the sputum specimen?
9. If a sputum specimen was collected, did the provider perform any of these actions?
10. Did the provider/treatment partner remind the patient of the schedule of the next sputum examination?

These questions determine whether knowledge of sputum specimen collection is correctly translated into action. Note that Question 9 can only be asked if the answer to Question 8 is "yes."

11. Was the sputum collection done in a well-ventilated room?

Information from this question can be compared with that in the *Inventory of TB DOTS Clinic Facilities, Equipment, and Service Provided*.

12. If the patient was physically examined, did the provider perform any of these actions?

This question assesses whether the provider applies quality of care measures such as providing the client information about the procedure. It also determines the diagnostic procedures the provider uses.

13. If treatment was initiated, did the provider perform any of these actions?

This question determines whether provider's knowledge in initiating TB treatment, as gleaned in the provider interview, is put into practice.

14. If the patient came for his/her daily drug intake, was he/she supplied the necessary drugs?

This question assesses the availability of drugs for a TB patient. This information can be compared with that in the *Inventory of TB DOTS Clinic Facilities, Equipment, and Services Provided*. Note the skip pattern if the answer to this question is "no."

15. Who was the designated treatment partner?
16. Did the treatment partner observe the patient take the drugs?
17. Did the provider remind the patient of the next appointment?

These questions elicit information on whether directly observed treatment is actually practiced in the facility.

18. (If NO) Why was the patient not given his/her drugs today?
19. Did the provider explain to the patient why he/she could not be given his/her drug today?

Question 19 addresses a dimension of quality of care, specifically patient's access to information. Ask Questions 18 and 19 only if the answer to Question 14 is "no."

DISCUSSION OF TB AND OTHER HEALTH ISSUES

20. During the consultation, did the provider impart to the patient information on TB?
21. What key messages did he/she emphasize?

This question determines whether the provider actually educates patients on TB and focuses on the important messages the patient must know. To answer these questions correctly, the observer has to listen carefully to the interaction.

22. What other health and related issues were mentioned at any time during the consultation?

This question identifies issues the provider may have to explain, clarify, correct, demystify, or address through some practical means to help the TB patient along the course of his/her treatment. Information this question supplies may be used in the design of IEC materials. Note that this question refers to "at any time during the consultation." The observer, therefore, has to pay keen attention at all times to the exchange of information during the interaction.

23. Which IEC materials, if any, were used during the consultation?

This information may be compared with that in the *Inventory of TB DOTS Clinic Facilities, Equipment, and Services Provided*. It will help determine whether IEC materials were available to each provider. If the provider that is being observed does not use IEC materials *because there are none in the facility*, code this as a 77.

24. While discussing with the patient, did the provider use clear, simple, and appropriate language?
22. Did the provider let the patient ask any questions the patient may have?
23. Did the provider respond to the patient's questions?

These questions address the issue of quality of care, particularly quality of client-provider interpersonal relation and the need to provide the patient with clear information. Information these questions provide may be compared and validated with that generated from the patient interview.

TIME OBSERVATION FINISHED
DURATION OF INTERACTION

Note the time the observation was completed, and check the time the observation began (on page 1 of the observation guide) to compute for the duration of interaction.

EXIT INTERVIEW FOR TB DOTS PATIENTS

INSTUCTIONS TO INTERVIEWERS:
Copy the information from the front page of the observation guide on this page of the exit interview. Read the greeting on the next page to the client, and continue only if he/she gives her consent. For each item in the rest of the interview, circle the response or describe as appropriate.

Facility ID Code [___] [___] [___] [___]

Name of facility

Address
Street_____Brgy:_____

District/Town/City_____

Study client number [___] [___] [___] [___]

Date of visit ____/____/_____
<dd/mm/yyyy>

Name of interviewer _____

Signature of team leader _____

Type of facility/set-up where clinic is based:
1 = Hospital
2 = Stand-alone clinic
3 = Community-based clinic
4 = Work-based clinic
5 = Group practice
6 = Other

Main purpose of visit as <u>first</u> indicated by patient: _____

New: **1 = New TB patient (First consultation)**
2 = Restart TB patient (First consultation after default)

Revisit: **3 = Repeat visit without problems (Continuing RAD, transfer-in with proper referral slip, continuing patients)**
4 = Repeat visit with problems (e.g., relapse, moving to another location, with adverse reactions to drugs, problem with treatment partner)

Classification of TB case:
1 = Pulmonary TB
2 = Extrapulmonary TB

FOR ALL CLIENTS

READ GREETING:

Hello. We would like to help improve the services provided by this facility and would be interested to find out about your experience today. I would like to ask you some questions about the visit you have just had with the **(HEALTH FACILITY STAFF)** and would be very grateful if you could spend some time answering these questions. I will not write down your name, and everything you tell me will be kept strictly confidential. Also, you are not obliged to answer any question you don't want to, and you may withdraw from the interview any time. May I continue?

If the provider agrees to continue, ask if he/she has any questions. Respond to questions as appropriate, then ask Q1.

If the provider does not agree to continue, thank him/her and go to the next interview.

1. What was/were the reason/s you came to this facility today? **ANO ANG SADYA/IPINUNTA NINYO NGAYON SA KLINIK NA ITO?**

1 = Consultation
2 = Directly observed treatment
3 = Health education (through individual/group lecture)
4 = Sputum smear collection
5 = Chest X-ray
6 = Other: _____

2. Did you have an X-ray before you came here for your initial consultation? **NAGPA-X-RAY BA KAYO BAGO UNANG KUMUNSULTA DITO?**

1 = Yes
2 = No
98 = Don't remember

3. Did you experience any symptoms of illness before you came to this facility? **NAKARAMDAM BA KAYO NG MGA SINTOMAS NG PAGKAKASAKIT BAGO KAYO PUMUNTA DITO SA KLINIK?**

1 = Yes
2 = No **(To Q5)**

4. **(IF YES)** What were these symptoms? **(DO NOT READ LIST, BUT PROBE BY ASKING, "ANY OTHER SYMPTOMS?")** **ANU-ANO ANG INYONG NARAMDAMANG SINTOMAS?**

1 = Cough of two weeks or more
2 = Fever
3 = Sputum expectoration
4 = Hemoptysis or recurrent blood-streaked sputum
5 = Chest and/or back pains
6 = Sweat with chills, fatigue, body malaise, shortness of breath
7 = Other: _____

5. How did you know about the services offered in this facility? **PAANO NINYO NALAMAN ANG MGA SERBISYONG IBINIBIGAY DITO SA KLINIK?**

1 = From a relative/friend/neighbor
2 = Read the sign outside this facility
3 = Referred by a doctor/nurse
4 = Other: _____

6. Did you come here with a companion? **MAY KASAMA BA KAYONG MAGPUNTA DITO NGAYON?**

1 = Yes
2 = No **(To Q8)**

7. **(IF YES)** Who accompanied you to this facility? **SINO ANG INYONG KASAMANG MAGPUNTA DITO NGAYON?**

1 = Spouse/Partner
2 = Family member
3 = Friend/Neighbor
4 = Other: _____

8. Did you obtain the services and information you came here for? **SA PAGPUNTA NINYO DITO NGAYON, NABIGYAN BA KAYO NG SERBISYO AT IMPORMASYON NA INYONG KAILANGAN?**

1 = Yes
2 = No
3 = Partially
4 = Don't know

9. Overall, would you say you were satisfied with your visit to the facility today, or were you dissatisfied with your visit today? **SA PANGKALAHATAN, KAYO BA AY NASIYAHAN O HINDI NASIYAHAN SA PAGKUNSULTA NINYO NGAYON?**

1 = Satisfied **(To Q11)**
2 = Dissatisfied
3 = Other (Specify _____)

10. Why were you dissatisfied with your visit today? **BAKIT HINDI KAYO NASIYAHAN SA PAGKUNSULTA NINYO NGAYON?**

_____
_____

11. Do you feel that your consultation with the health provider/treatment partner was too short, too long, or about the right amount of time? **SA TINGIN NINYO, MASYADO BANG MAIKLI, MAHABA, O TAMA LANG ANG TAGAL NG INYONG KUNSULTASYON NGAYON?**

1 = Too short
2 = Too long
3 = About right
98 = Don't know

12. During this visit, did you have any concerns about TB or other health issues that you wanted to discuss with the provider/treatment partner? **SA PAGPUNTA NINYO DITO NGAYON, MAY MGA ISYU O PROBLEMA BA KAYO TUNGKOL SA INYONG KALUSUGAN/SAKIT NA GUSTO NINYONG IKUNSULTA SA NURSE O INYONG TREATMENT PARTNER?**

1 = Yes
2 = No **(To Q14)**

13. **(IF YES)** Did the provider/treatment partner listen to your concerns to your satisfaction? **PINAKINGGAN BA NG NURSE O INYONG TREATMENT PARTNER ANG MGA ISYU O PROBLEMANG ITO?**

1 = Yes
2 = No

14. During this visit, did you have any questions you wanted to ask? **SA PAGPUNTA NINYO DITO NGAYON, MAY MGA TANONG BA KAYO NA GUSTO NINYONG ITANONG SA NURSE O INYONG TREATMENT PARTNER?**

1 = Yes
2 = No **(To Q17)**

15. **(IF YES)** Did the provider/treatment partner let you ask the questions? **BINIGYAN BA KAYO NG NURSE O INYONG TREATMENT PARTNER NG PAGKAKATAONG ITANONG ANG MGA KATANUNGANG ITO?**

1 = Yes
2 = No **(To Q17)**

16. **(IF YES)** Did the provider/treatment partner respond to your questions to your satisfaction? **NASAGOT BA NANG HUSTO NG NURSE O INYONG TREATMENT PARTNER ANG INYONG MGA KATANUNGAN?**

1 = Yes
2 = No

17. During this visit, did the provider/treatment partner conduct any health examinations or procedures? **SA PAGKUNSULTA NINYO NGAYON, INEKSAMIN BA KAYO NG NURSE O INYONG TREATMENT PARTNER?**

1 = Yes
2 = No **(To Q20)**

18. **(IF YES)** Did the provider explain the examinations or procedures before they were performed? **IPINALIWANAG BA NG PROVIDER O INYONG TREATMENT PARTNER KUNG ANO ANG EKSAMINASYON NA ITO BAGO ITO GAWIN?**

1 = Yes
2 = No

19. Did the provider explain the results of the health examinations or procedures? **IPINALIWANAG BA NG NURSE O INYONG TREATMENT PARTNER KUNG ANO ANG RESULTA NG EKSAMINASYON?**

1 = Yes
2 = No

20. In your opinion, did you have enough privacy during your consultation with the service provider/treatment partner? **SA INYONG PALAGAY, NABIGYAN BA KAYO NG SAPAT NA PRIVACY NANG KAYO'Y KUMUKUNSULTA O INIEKSAMIN?**

1 = Yes
2 = No
98 = Don't know

21. During the consultation, did you feel that the provider was easy to understand when explaining things to you, or did you feel that the provider was difficult to understand? **SA INYONG TINGIN, MADALI BA NINYONG NAINTINDIHAN ANG MGA PALIWANAG NA IBINIGAY NG NURSE O INYONG TREATMENT PARTNER?**

1 = Easy to understand
2 = Difficult to understand
98 = Don't know

22. If you could suggest one improvement on the services provided, what would it be? **ANO ANG INYONG MAIMUMUNGKAHI PARA MAPABUTI ANG MGA SERBISYO SA KLINIK NA ITO?**

_____

_____

23. During this visit, were you given or did you take any brochure or educational material to bring home? **SA INYONG PAGPUNTA DITO NGAYON, BINIGYAN BA KAYO O KUMUHA NG BROCHURE/BABASAHIN PARA IUWI?**

1 = Yes
2 = No **(To Q25)**
98 = Don't know **(To Q25)**

24. **(IF YES)** What was the subject/s of the material? **TUNGKOL SAAN ANG BABASAHING ITO?**

	Tick if mentioned
1. Tuberculosis	
2. TB DOTS	
3. Nutrition	
4. Other: _____	
5. Other: _____	
98. Don't know	

25. Did you attend a group talk at this facility today? **NAKA-ATEND BA KAYO NGAYON NG DISKUSYONAN SA KLINIK NA ITO?**

1 = Yes
2 = No **(To Q27)**
98 = Don't know **(To Q27)**

26. **(IF YES)** What messages were covered in the group talk? **(DO NOT READ LIST, BUT PROBE BY ASKING, "Any other topics?")** **ANU-ANO ANG MGA PINAG-USAPAN SA DISKUSYONAN NA ITO?**

	Tick if mentioned
1. TB is infectious	
2. Cover mouth when coughing	

3. TB can be cured but requires regular drug intake	
4. Maintain good hygiene and proper nutrition	
5. Results of irregular drug taking	
6. Adverse effects of anti-TB drugs	
7. Importance of follow-up sputum smear examination	
8. Importance of family/treatment partner support	
9. Other: _____	
98. Don't know	

27. Did any service provider or your treatment partner tell you when to come back for another visit? **SINABIHAN BA KAYO NG NURSE O INYONG TREATMENT PARTNER KUNG KAILAN KAYO DAPAT BUMALIK DITO PARA SA KASUNOD NA KUNSULTASYON?**

1 = Yes
2 = No
98 = Don't know

28. Are the hours the facility is open convenient to you? **OKEY BA SA INYO ANG ORAS NG KUNSULTASYON DITO?**

1 = Yes **(To Q30)**
2 = No
98 = Don't know **(To Q30)**

29. **(IF NO)** What time would be most be convenient to you? **(CIRCLE ONE.)** **ANONG ORAS ANG PINAKA-KUNBINYENTE SA INYO?**

1 = Earlier in the morning
2 = Over lunch hour
3 = Afternoon
4 = Evening
5 = Weekends/Holidays
6 = Other: _____
98 = Don't know

30. Have you ever been turned away from this facility during official working hours? **MAY PAGKAKATAONG BANG KAYO'Y HINDI TINANGGAP PARA SA KUNSULTASYON O TUTOK-GAMUTAN (DOT) NINYO?**

1 = Yes
2 = No
3 = No previous experience with the facility
98 = Don't know

31. About how long did you have to wait between the time you first arrived at this facility and the time you began receiving the services that you came for? **GAANO KAYO KATAGAL NAGHINTAY (MULA NANG KAYO'Y DUMATING DITO SA KLINIK) BAGO KAYO NAASIKASO NG NURSE O INYONG TREATMENT PARTNER?**

_____ minutes
98 = Don't know **(IF NO WAITING TIME, TO Q33)**

32. Do you feel that the wait between the time you first arrived at this facility and the time you began receiving the services you came for was reasonable or too long? **SA INYONG TINGIN, MASYADO BANG MAHABA, O TAMA LANG ANG INYONG IPINAGHINTAY BAGO KAYO NAASIKASO NG NURSE O INYONG TREATMENT PARTNER?**

1 = Reasonable
2 = Too long
98 = Don't know

33. How long did it take you to come to this facility today? **GAANO KATAGAL ANG INYONG BIYAHE PAPUNTA DITO SA KLINIK?**

_____ minutes
98 = Don't know

34. How many rides did you take to come here? **ILANG SAKAY BAGO KAYO NAKARATING DITO SA KLINIK?**

1 = One ride
2 = Two rides
3 = Three rides
4 = Four rides
5 = Other: _____

35. As far as you know, what services other than what you received today are provided at this facility? **(DO NOT READ, BUT PROBE BY ASKING, "Any other services?") SA INYONG PAGKAKAALAM, ANU-ANO ANG MGA SERBISYONG IBINIBIGAY SA KLINIK NA ITO BUKOD DOON SA ISINADYA NINYO NGAYON?**

	Tick all mentioned
1. Consultation	
2. Directly observed treatment	
3. Health education	
4. Sputum AFB smear microscopy	
5. Chest X-ray	
6. Other: _____	
98. Don't know any other services	

36. Apart from this facility, is there any other place near your home where you can go for TB DOTS? **BUKOD SA KLINIK NA ITO, MAY KLINIK O OSPITAL BA NA MALAPIT SA INYO NA PWEDE NINYONG PUNTAHAN PARA KUMUNSULTA TUNGKOL SA TB, O MAGPAGAMOT NG TB?**

1 = Yes
2 = No **(To Q39)**
98 = Don't know **(To Q39)**

37. **(IF YES)** What type of facility is it? **(CIRCLE ONE. IF MORE THAN ONE FACILITY, CHOOSE ONE CLOSEST TO HOME.) ANONG KLASENG FACILITY ITO?**

1 = Health center
2 = Private clinic
3 = Hospital
4 = Company clinic
5 = FriendlyCare clinic

6 = Other: _____
98 = Don't know

38. What would you say is the main reason you did not go there for TB DOTS? **(DO NOT READ LIST. PROBE FOR THE MAIN REASON AND CIRCLE ONE.) ANO ANG PINAKADAHILAN AT HINDI KAYO DOON PUMUNTA PARA KUMUNSULTA O MAGPAGAMOT?**

1 = Inconvenient opening time
2 = Takes too long to get there
3 = Poor quality service
4 = Want to be anonymous
5 = Drugs/Services there are not given free
6 = More expensive there
7 = Prefer provider here
8 = Long waiting time there
9 = Other: _____
98 = Don't know

39. I would like to ask about the cost of travel, and services that you have received from the clinic. How much did you pay for your consultation? **MAY ILANG KATANUNGAN AKO TUNGKOL SA HALAGA NG SERBISYONG TINANGGAP NINYO DITO SA KLINIC, GAYON DIN SA PAMASAHE NINYO PAPUNTA DITO. MAGKANO ANG INYONG IBINAYAD NGAYON PARA SA KUNSULTASYON DITO?**

PhP_____
77 = None
98 = Don't know

40. How much did you pay for your medicines? **MAGKANO ANG INYONG IBINAYAD PARA SA MGA GAMOT?**

PhP_____
77 = None
98 = Don't know

41. How much did you pay for other items such as syringes, cotton, sputum cup? **MAGKANO ANG INYONG IBINAYAD PARA SA IBANG ITEMS TULAD NG BULAK AT SPUTUM CUP?**

PhP_____
77 = None
98 = Don't know

42. How much did you pay for any other services or fees? **MAGKANO ANG INYONG IBINAYAD PARA SA IBANG SERVICES TULAD NG MICROSCOPY O X-RAY NA KAILANGAN PARA SA INYONG TREATMENT?**

PhP_____
77 = None
98 = Don't know

43. How much did you pay for travel to and from this clinic? **MAGKANO ANG KABUUANG PAMASAHE NINYO PAPUNTA DITO AT PAUWI?**

PhP_____
77 = None
98 = Don't know

44. Overall, do you feel that the total cost of obtaining services is much too expensive, a little too expensive, or acceptable to you? **SA KABUUAN, SA TINGIN BA NINYO AY MASYADONG MAHAL, MEDYO MAHAL, O TAMA LAMANG ANG HALAGA NG PAGPUNTA NINYO AT PAGPAPAGAMOT DITO?**

1 = Much too expensive
2 = A little too expensive
3 = Acceptable
98 = Don't know

45. I would like to ask you a few questions about tuberculosis. As far as you know, how does one get tuberculosis? **(DO NOT READ LIST, BUT PROBE BY ASKING, "ANY OTHER MEANS?") MAY ILANG KATANUNGAN AKO TUNGKOL SA TUBERCULOSIS. SA INYONG PAGKAKAALAM, PAANO NAGKAKAROON NG TB ANG ISANG TAO?**

1 = Smoking
2 = Drinking alcoholic drink
3 = Inherited
4 = Inhaling air with TB bacteria
5 = Dirty surroundings
6 = Sexual contact
7 = Insect bite
8 = Other: _____
98 = Don't know

46. As far as you know, is tuberculosis curable? **SA INYONG PAGKAKAALAM, NAGAGAMOT BA ANG TB?**

1 = Yes
2 = No
98 = Don't know

47. What do you think is the <u>best</u> treatment for tuberculosis? **(DO NOT READ LIST. CIRCLE ONE.) SA INYONG PALAGAY, ANO ANG PINAKAMABISANG TREATMENT PARA SA TB?**

1 = Taking anti-TB drugs in the right doses, at the right intervals
2 = Operation
3 = Chest X-ray
4 = Rest and nutrition
5 = Other: _____
98 = Don't know

48. Why do you think it is necessary for people with TB to complete their treatment? **(DO NOT READ LIST, BUT PROBE BY ASKING, "Any other reason?") SA INYONG PALAGAY, BAKIT KAILANGANG KUMPLETOHIN ANG TREATMENT NG TB?**

1 = Cure TB
2 = Prevent further spread of TB
3 = Prevent development and spread of multiple drug-resistant TB
4 = Other: _____
98 = Don't know

49. As far as you know , how long is the treatment for tuberculosis? **SA INYONG PAGKAKAALAM, GAANO KATAGAL ANG PAGGAMOT SA TB?**

1 = 1 month
2 = 2-5 months
3 = 6-9 months
4 = Until one becomes asymptomatic
5 = Other: _____
98 = Don't know

50. As far as you know, do anti-TB drugs have adverse effects? **SA INYONG PAGKAKAALAM, MAY SIDE-EFFECTS BA ANG ANTI-TB DRUGS?**

1 = Yes
2 = No **(To Q52)**
98 = Don't know **(To Q52)**

51. **(IF YES)** What are some of these adverse effects? **(DO NOT READ LIST, BUT PROBE BY ASKING, "ANY OTHER ADVERSE EFFECTS?") ANU-ANO ANG MGA SIDE-EFFECTS NA ITO?**

1 = Mild skin reactions
2 = Orange/Red-colored urine
3 = Pain at the injection site
4 = Gastrointestinal intolerance
5 = Flu-like symptoms (fever, muscle pain)
6 = Other: _____
98 = Don't know

52. As far as you know, is it necessary for a TB patient to undergo follow-up sputum examinations? **SA INYONG PAGKAKAALAM, KAILANGAN BA NG ISANG PASYENTENG MAY TB ANG MAGKAROON NG FOLLOW-UP EXAMINATION NG SPUTUM?**

1 = Yes
2 = No
98 = Don't know

53. As far as you know, do you think you should get an X-ray before you are treated for TB? **SA INYONG PAGKAKAALAM, DAPAT BANG MAGPAX-RAY MUNA BAGO UMPISAHAN ANG TB TREATMENT?**

1 = Yes
2 = No
98 = Don't know

54. **(SEE PATIENT'S MAIN PURPOSE FOR COMING TO THE HEALTH FACILITY ON PAGE 1, THEN READ THIS QUESTION.)**

I understand that your main purpose for coming to the clinic today was **(INSERT PURPOSE FROM PAGE 1)**. Is this correct?

(IF CORRECT, CIRCLE THE SAME RESPONSE THAT APPEARS ON PAGE 1, AND SKIP TO THE QUESTION INDICATED.

IF NOT CORRECT, ASK FOR THE CORRECT PURPOSE OF THE PATIENT'S VISIT, CIRCLE THE CORRECT RESPONSE BELOW, AND SKIP TO THE QUESTION INDICATED.)

1 = New TB patient **(To Q67)**
2 = Restart TB patient (Return-after-default patient, first consultation) **(To Q55)**
3 = Repeat visit without problems **(To Q62)**
4 = Repeat visit with problems **(To Q57)**
5 = Other: _____ **(To Q67)**

FOR RETURN AFTER DEFAULT PATIENTS (FIRST CONSULTATION AFTER DEFAULT)

55. What were the reasons your treatment was interrupted? **(DO NOT READ LIST, BUT PROBE BY ASKING, "ANY OTHER REASONS?") BAKIT NAPUTOL ANG INYONG PAGPAPAGAMOT?**

1 = Felt okay
2 = Lack of support from family
3 = Lack of money to pay for health care
4 = Poor relationship with the health provider/treatment partner
5 = Lack of motivation
6 = Other: _____
98 = Don't know

56. Are you now going to continue your treatment in this facility? **ITUTULOY NA BA NINYO ANG INYONG TREATMENT?**

1 = Yes **(To Q67)**
2 = Maybe **(To Q67)**
98 = Don't know **(To Q67)**

FOR REVISIT PATIENTS WITH PROBLEMS

57. Is it correct that you had a problem with regard to your treatment? **TAMA HO BA NA MAY PROBLEMA KAYO TUNGKJOL SA INYONG TREATMENT?**

1 = Yes
2 = No **(Return to Q54)**

58. What was the main problem you had? **(CIRCLE ONE.) ANO HO ANG PROBLEMA SA INYONG TREATMENT?**

1 = Adverse reactions to drugs **(To Q59)**
2 = Relapse **(To Q61)**
3 = Moving to another location **(To Q61)**
4 = Problem with treatment partner **(To Q61)**
5 = Other: _____ **(To Q61)**
98 = Don't know **(To Q61)**

59. **(IF ADVERSE REACTIONS TO DRUGS)** When you started treatment, were you told that you might experience this problem? **NANG UMPISAHAN NINYO ANG INYONG TREATMENT, SINABIHAN BA KAYO NG NURSE O INYONG TREATMENT PARTNER NA MAAARING MAGKAROON NG SIDE-EFFECTS ANG MGA ANTI-TB DRUGS?**

1 = Yes
2 = No **(To Q61)**
98 = Don't know **(To Q61)**

60. **(IF YES)** Were you told what to do about the problem? **SINABIHAN BA KAYO KUNG ANO ANG INYONG GAGAWIN KUNG SAKALING MAKARAMDAM KAYO NG SIDE-EFFECTS?**

1 = Yes
2 = No
98 = Don't know

61. After this consultation today, do you feel that you are getting appropriate assistance for your particular problem? **PAGKATAPOS NG KUNSULTASYON NINYO NGAYON, SA TINGIN BA NINYO'Y NABIGYAN NG KARAMPATANG LUNAS ANG INYONG PROBLEMA?**

1 = Yes
2 = No
3 = Partially
98 = Don't know

FOR CONTINUING RAD, TRANSFER-IN, AND REVISIT PATIENTS WITH OR WITHOUT PROBLEMS

62. Were you assigned someone to make sure that you take your medications regularly? **MAY INASAYN BANG TAO O TREATMENT PARTNER NINYO PARA MAG-OBSERVE NG PAGINOM NINYO NG GAMOT?**

1 = Yes
2 = No
98 = Don't know

63. **(IF YES)** Who is this person? **SINO ANG INASAYN NA TREATMENT PARTNER NINYO?**

1 = Nurse **(To Q64)**
2 = Midwife (**To Q64)**
3 = Family member **(To Q65)**
4 = Other: _____ **(To Q65)**

64. **(IF NURSE OR MIDWIFE)** During weekends and holidays when the nurse or midwife is not available, how do you ensure that you don't forget to take your medications? **PAANO NINYO SINISEGURO NA HINDI NINYO MAKAKALIMUTANG UMINOM NG GAMOT KUNG SABADO, LINGGO O HOLIDAY NA WALANG NURSE O MIDWIFE?**

1 = Family member reminds and observes drug intake
2 = A neighbor reminds and observes drug intake
3 = Other: _____

65. How often do you see this person assigned to you to have him/her observe your drug intake? **GAANO KADALAS KAYO PUMUNTA SA INYONG TREATMENT PARTNER PARA I-OBSERVE NIYA ANG PAGINOM NINYO NG GAMOT?**

1 = Daily
2 = Three times a week
3 = Other: _____

66. Does this person keep a record of your drug intake? **ITINATALA BA NG INYONG TREATMENT PARTNER ANG PAGINOM NINYO NG GAMOT?**

1 = Yes
2 = No
98 = Don't know

FOR ALL CLIENTS

67. To end with, I would like to ask you a few questions about yourself. How old are you? **MAY ILAN HO AKONG KATANUNGAN TUGKOL SA INYO. ILANG TAON NA HO KAYO?**

_____ years
98 = Don't know

68. What is your current marital status? **KAYO BA AY MAY ASAWA O PARTNER?**

1 = Married
2 = Cohabiting/Living together
3 = Single, never married
4 = Divorced/Separated
5 = Widowed

69. Which languages can you read and understand? **(DO NOT READ LIST, BUT PROBE BY ASKING, "Any other languages?") ANU-ANONG SALITA ANG INYONG NAIINTINDIHAN AT NABABASA?**

	Tick if mentioned
1. Filipino	
2. English	
3. Other: _____	
4. Other: _____	

70. What is the highest level of schooling you completed? **(CIRCLE ONE.) ANO PO ANG PINAKAMATAAS NA ANTAS NG PAG-AARAL ANG INYONG NATAPOS?**

0 No Grade Completed
1 2 3 4 5 6 Elementary
7 8 9 10 High School
11 Some College
12 Vocational
13 Four/Five-Year Course
14 Postgraduate

71. Sex

1 = Male
2 = Female

READ CLOSING:
Thank you very much for answering these questions. **MARAMING SALAMAT HO.**

QUESTION-BY QUESTION GUIDE: EXIT INTERVIEW WITH TB DOTS CLIENTS

This instrument focuses on getting information about services that TB DOTS clients have just received in the facility. This information will help assess the quality of care that clients received. It will also tell how clients feel about the services, whether key information is effectively communicated, and how well clients understood this information.

When conducting the interview, the data collector should be sensitive to the fact that the patient may have traveled far, waited a long time to be attended to, and may have been through an ordeal. The interviewer should lead the patient to a pre-selected place that provides ample privacy, away from the clinic staff and other patients, and should read the greeting. This greeting is vitally important because it ensures that the patient gives his/her informed consent to participate in the study. If necessary, the interviewer may encourage the patient by saying "Your participation will greatly help us and will be appreciated." In case the client does not wish to be interviewed, his/her decision must be respected. If the patient refuses to participate, thank him/her and move on to the next client.

For the rest of the interview, follow instructions for recording the patient's responses by circling a pre-coded response, ticking a box, or writing a response as instructed. Some questions are filters; they divide patients who have had a certain experience from those who have not had that experience. These filter questions always include a skip pattern that skips questions for those patients who did not have that experience. The interviewer should pay careful attention to these skip patterns. When the interview is completed, quickly review the coded responses for completeness and correctness, and address any problems while the patient is still available. Make sure that the correct skips have been followed.

FOR ALL CLIENTS

1. What was the reason you came to this facility today?

This question informs the interviewer about the purpose of the client's visit and the type of service/s the client received.

2. Did you have an X-ray before you came here for your initial consultation?

Many doctors still prescribe an X-ray for TB symptomatics despite the National Tuberculosis Control Program's policy on the use of sputum smear examination as the preferred method for TB diagnosis. This question assesses whether this practice is true for this particular patient.

3. Did you experience any symptoms of illness before you came to this facility?
4. (If yes) What were these symptoms?

Answers to these questions may be compared with that gathered in the observation of the patient-provider interaction. Note that Question 4 may only be asked if the answer to Question 3 is "yes." For Question 4, do not read the responses, but probe by asking "Anything other symptoms?"

5. How did you know about the services offered in this facility?

This question determines the means through which patients come to know about the facility. This information may be useful in designing programs and materials to raise awareness about the facility and its services.

6. Did you come here with a companion?
7. (If yes) Who accompanied you to this facility?

Note that Question 7 is asked only if the patient answers "yes" to Question 6.

8. Did you obtain the services and information you came here for?

Clients come to a facility to obtain particular services and information. The purpose of this question is to determine whether the client did obtain the services and information he/she desired.

9. Overall, would you say you were satisfied with your visit to the facility today, or were you dissatisfied with your visit today?

This question assesses the patient's overall satisfaction or dissatisfaction with the visit he/she had today.

10. Why were you dissatisfied with your visit today?

This question is intended to elicit reasons for the client's dissatisfaction. Do not rush the client. Encourage the patient to express his/her dissatisfaction by using a simple probe. You may also use probes like "Can you tell me more about why you feel that way?"

11. Do you feel that your consultation with the health provider/treatment partner was too short, too long, or about the right amount of time?

This information can be compared later to the actual length of the consultation (from the observation) to determine the length of consultation time that clients are most comfortable with.

12. During this visit, did you have any concerns about TB or other health issues that you wanted to discuss with the provider/treatment partner?
13. (If yes) Did the provider/treatment partner listen to your concerns to your satisfaction?

"Concerns" include but are not limited to worries or rumors of health risks, adverse reactions to anti-TB drugs, how to maintain confidentiality of treatment, etc. If the patient says he/she has no concerns, ask Question 14.

14. During this visit, did you have any questions you wanted to ask?
15. (If yes) Did the provider/treatment partner let you ask the questions?
16. (If yes) Did the provider/treatment partner respond to your questions to your satisfaction?

Whether clients feel free to ask questions and whether they are responded to satisfactorily are a strong indicator of quality in interpersonal relations. It also probably affects a client's continuity of visit. These three questions determine whether the client felt comfortable asking the information he/she needed.

"Questions" can be on any subject such as what the consequences of irregular drug intake are. Questions can also include "concerns" as defined above.

The client may consider many dimensions in answering Question 16, for example, the completeness, or style the provider used in his/her responses. Let the patient determine his/her satisfaction with the provider's responses to his/her questions.

17. During this visit, did the provider/treatment partner conduct any health examinations or procedures?
18. (If yes) Did the provider/treatment partner explain the examinations or procedures before they were performed?
19. Did the provider explain the results of the examinations or procedures?

"Health examinations" include examination on any part of the body. "Procedures" include giving an injection, taking blood pressure or temperature, etc.

If patients are aware of the examinations and procedures that will be done on them, they will be more at ease during their visit. An explanation of the examination or procedure involves telling the client what the provider is about to do, why the provider needs to do it, and what the client can expect to feel. Explaining the results of the examination or procedure involves telling the client the provider's conclusion or diagnosis based on the examination. In cases where a diagnosis is not immediately available, explaining the results would include telling the client that the results will be available at a later date and that he/she will be informed/contacted later about the results.

20. In your opinion, did you have enough privacy during your consultation with the provider/treatment partner?

Response to this question is the client's opinion, however he/she determines it.

21. During this consultation, did you feel that the provider/treatment partner was easy to understand when explaining things to you, or did you feel that the provider was difficult to understand?

Response to this question is the client's opinion, however he/she determines it.

22. If you could suggest one improvement to the services provided, what would it be?

Clients frequently want to be courteous; they are reluctant to express criticisms. This question allows the patient to mention something that bothered him/her about the experience, without being critical.

23. During this visit, were you given or did you take any brochure or educational material to bring home?
24. (If yes) What was the subject/s of that material?

These questions provide a check on the availability or unavailability of IEC materials indicated in the *Inventory of TB DOTS Clinic Facilities, Equipment, and Services*.

25. Did you attend a group talk at the facility today?
26. (If yes) What topics were covered in the group talk?

These questions provide a check on the information provided in the *Inventory of TB DOTS Clinic Facilities, Equipment, and Services* and the provider interview.

27. Did any service provider or your treatment partner tell you when to come back for another visit?

This information is also collected in the observation, so this question can test whether patients who are given follow-up dates are aware of them.

28. Are the hours the facility is open convenient to you?
29. (If no) What time would be most convenient to you?

Opening hours of the clinic can pose a large barrier to clients and these questions focus on the convenience of the clinic hours. These questions provide information that can be useful in getting policies on clinic hours changed if necessary.

30. Have you ever been turned away from this facility during official working hours?

"Turned away" means refused service, or told to come back at another time. This is about the client's history with the facility (ever), rather than about today's visit. Also, this involves being turned away due to overcrowding or other unspecified reason. If the client came once, saw a provider, and was told to return with his/her second sputum, this does not count as "turned away" for this question.

31. About how long did you have to wait between the time you first arrived at this facility and the time you began receiving the services that you came for?

This question seeks to determine the client waiting time.

32. Do you feel that the wait between the time you first arrived at this facility and the time you began receiving the services you came for was reasonable or too long?

Response to this question is the client's opinion about overall waiting time experienced before he/she started to receive the services he/she came for. Registration procedures are not considered as part of the services he/she came for and, therefore, are not factored in in the waiting time.

33. How long did it take you to come to this facility today?
34. How many rides did you take to come here?

These question assess the client's travel time from his/her home (or relative's house or work if the client came from there). The idea behind these questions is that travel time can pose a large barrier to services.

35. As far as you know, what types of services other than what you received today are provided in this facility?

This question addresses client's awareness of other services provided in the facility. Information this question generates will later be compared to the actual services available. This will give an idea whether some services are underutilized because people are not aware of them. Do not read the responses, but probe by asking "Any other services?" Note that patients may not use the terms applied in the list of responses. Interpret the patient's responses and categorize them according to those in the list.

36. Apart from this facility, is there any other place near your home where you can go for TB DOTS?
37. (If yes) What type of facility is it?
38. What would you say is the main reason you did not go there for TB DOTS?

A client's choice of facility is important because it may have been motivated by the quality of care and/or services he/she experiences. These three questions address those clients who have decided to come to this facility rather than another.

If the patient says there is another facility near his/her home or workplace, ask Questions 37 and 38. Encourage the patient to think of only one other facility, the one closest to his/her home or workplace. If the patient mentions more than one reason for Question 38, encourage him/her to decide on one main reason.

I would like to ask about the cost of travel, and services you have received from this facility.
39. How much did you pay for your consultation?
40. How much did you pay for your medicines?
41. How much did you pay for other items such as syringes, cotton, sputum cup?
42. How much did you pay for any other services or fees?
43. How much did you pay for travel?

Details of how much the facility charges clients for services will be reported in the *Inventory of TB DOTS Clinic Facilities, Equipment, and Services Provided*. The information on the amount actually paid by clients will reveal the true cost of services to individuals (including travel, etc.) versus the price charged by the facility.

44. Overall, do you feel that the total cost of obtaining services is much too expensive, a little too expensive, or acceptable to you?

The burden of expenses is relative to a client's income. This question assesses the client's difficulty in paying for services, even if the cost is low.

I would like to ask you a few questions about tuberculosis.
45. As far as you know, how does one get tuberculosis?
46. As far as you know, is tuberculosis curable?
47. What do you think is the best treatment for tuberculosis?
48. Why do you think it is necessary for people with TB to complete their treatment?
49. As far as you know, how long is the treatment for tuberculosis?
50. As far as you know, do anti-TB drugs have adverse effects?

51. (If yes) What are some of these adverse effects?
52. As far as you know, why is it necessary to undergo follow-up sputum examinations?
53. As far as you know, do you think you should get an X-ray before you are treated for TB?

These questions assess what the client remembers from the TB information the provider/treatment partner supposedly should have provided him/her.

54. I understand that your main purpose for coming to this facility today was (insert purpose). Is this correct?

This is a filter question that is asked to determine where the interviewer should go next in the questionnaire. Depending on the patient's main reason for the visit, different questions are asked. It is, therefore, important to correctly identify the client's main reason for attending the clinic.
Go back to page 1 of the exit interview guide and ascertain the client's main reason for visiting the clinic. Then read Question 54 to check if the main reason has been correctly recorded on page 1. If so, circle the reason again in Question 54 and skip to the appropriate question. If not, ask the client the correct purpose of his/her visit, circle the answer, and skip to the appropriate question number.

FOR RETURN-AFTER-DEFAULT PATIENTS (FIRST CONSULTATION AFTER DEFAULT)

55. What were the reasons your treatment was interrupted?

This question identifies the client's reasons for default.

56. Are you now going to continue your treatment in this facility?

This questions seeks to ascertain the client's decision with regard to his/her treatment.

FOR REVISIT PATIENTS WITH PROBLEMS

57. Is it correct that you had a problem with regard to your treatment?

This question checks that the client is truly a revisit client who experienced problems. If not, he/she is switched to the proper section of the questionnaire.

58. What was the main problem you had?
59. (If adverse reaction to drugs) When you started treatment were you told that you might experience this problem?
60. (If yes) Were you told what to do about this problem?

These questions are specific to patients with adverse effects of anti-TB drugs. Adverse effects is one of the key information that should be communicated to TB patients. Questions 59 and 60 specifically check whether clients who experienced adverse effects had been informed about them previously.

61. After this consultation today, do you feel that you are getting appropriate assistance for your particular problem?

This is a satisfaction question aimed specifically at those clients who need special attention for the problem they have been experiencing with their treatment.

FOR CONTINUING RAD, TRANSFER-IN, AND REVISIT PATIENTS WITH OR WITHOUT PROBLEMS

62. Were you assigned someone to make sure that you take your medications regularly?
63. (If yes) Who is this person?
64. (If nurse or midwife) During weekends and holidays when the nurse or midwife is not available, how do you ensure that you don't forget to take your medications?
65. How often do you see this person assigned to you to have him/her observe your drug intake?
66. Does this person keep a record of your drug intake?

A treatment partner is a key player in treatment completion. These questions assess the presence or absence of a treatment partner for each patient undergoing treatment.

FOR ALL CLIENTS

To end with, I would like to ask a few questions about yourself.
67. How old are you?
68. What is your current marital status?
69. Which languages can you read and understand?
70. What is the highest level of school you attended?
71. Sex

These questions address selected sociodemographic characteristics of the clients. Information elicited by these questions can be used in designing programs, appropriate IEC materials, and arranging services in socially and culturally acceptable ways.

For Question 70, emphasize to the patient the word "completed." In the responses, the numbers for elementary and high school correspond to the grade and year level, respectively. Ask the client the grade or year level that he/she completed and circle the appropriate number.

Note that there is really no need to actually ask Question 71; simply mark the appropriate response.

FOCUS GROUP DISCUSSION GUIDE: REFERRING PHYSICIANS

1. What do you know about TB DOTS?

2. Knowing what you do about TB DOTS, would you comply with the DOTS protocol? If yes, why? If no, why not?

3. Do you refer your TB symptomatic patients to the DOTS facility in this hospital? If yes, what specifically is your functional relationship with the DOTS facility staff? If no, why not? Where do you then refer your TB symptomatic patients?

4. Would you refer your TB symptomatic patients to a public DOTS facility? If yes, why? If no, why not? What policies and incentives are necessary to encourage you to refer your TB symptomatic patients to a public DOTS facility?

5. If you are already referring your TB symptomatic patients to a public DOTS facility, what specifically are the arrangements in terms of monitoring, incentives, etc.?

6. What policies and incentives will help strengthen private sector role in TB control?

FOCUS GROUP DISCUSSION GUIDE: TREATMENT PARTNERS

1. What specifically are the roles of treatment partners in TB DOTS implementation?

2. Were you given any training that would enable you to effectively perform these roles? If yes, what specifically did this training consist of? How long ago did you receive this training? If no, how are you able to effectively do your job as treatment partner?

3. What is the functional linkage between you, the treatment partner, and the [attending] physician? Do you regularly report to the [attending] physician on the progress of each of your patients?

4. How many patients do you usually handle as treatment partner? Do you think this is too much, too little, or just enough to effectively monitor the patient's DOTS?

5. At the start of a patient's treatment, do you develop and employ any strategies to increase the likelihood that the patient will complete his/her treatment? What are these strategies? How successful have you been in maintaining patient adherence through the use of these strategies?

6. Do you use any incentives[1] and/or enablers[2] to encourage patients to complete their treatment? What are these incentives and/or enablers? In your experience, how well do these incentives and/or enablers increase the chances that patients will complete their treatment?

7. How do you ensure that patients take their medicines on Saturdays, Sundays, and holidays when the clinic is closed?

8. How do you improve adherence to treatment among children and adolescents?

9. How do you ensure confidentiality of treatment?

10. Do you receive any incentive/s for doing the tasks of a treatment partner? In what form/s are these incentive/s?

11. How do you feel about your role as treatment partner? Do you derive any personal satisfaction from it or do you see it as just another job? Do you find it difficult? Why so? Easy? Why so?

12. What measures would you suggest to enhance your role as treatment partner?

[1] Incentives – small rewards given to patients to encourage them to take their own medicine or keep their clinic DOTS appointments (e.g., nutritional supplements)
[2] Enablers – those things that make it possible or easier for patients to receive treatment by overcoming barriers such as transportation difficulties