Barriers of Early TB Diagnosis among the Poor in Highly Urbanized Areas in the Philippines
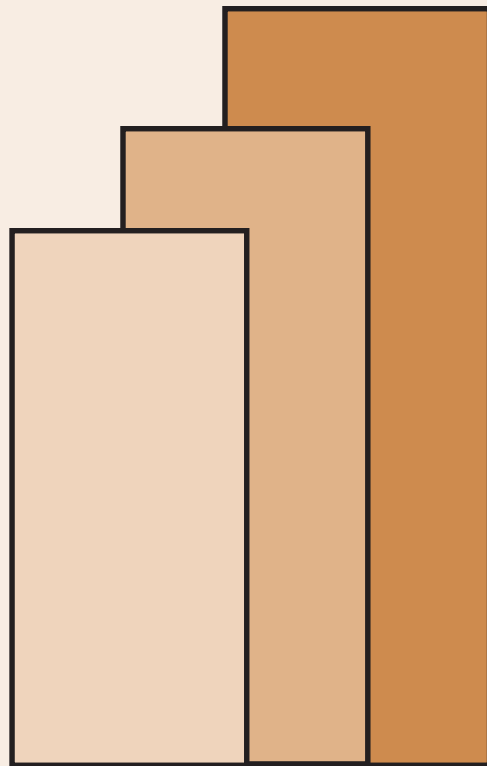
Krishna Reyes and Juan Carlos Amores

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Abstract

Over the last decade, there was a significant drop in mortality and morbidity cases attributed to TB. The high TB Case Detection (CDR) and Treatment Success Rates (TSR) may have underpinned the decreasing prevalence. Despite these successes, TB still appears to be a major health problem in the country. Disturbingly, the rate of decrease in the mortality and morbidity is not fast enough. This makes the country's MDG goal targets on TB eradication shaky. The Philippines is also in the list of 27 countries with the highest burden of TB.

To further augment case detection rate and early diagnosis, this study aims to qualitatively explore the barriers to diagnosis among the poor highly-urbanised population, one of the identified high-risk population groups. Using Focus Group Discussions of TB patients with delayed diagnosis conducted in three highly urbanized cities in the Philippines, namely, Metro Manila, Cebu and Davao, the researchers investigated and explored wide-range of factors that hinder patient to seek healthcare despite the presence of triggering factors among urban poor. Results suggest socio-cultural, financial and health system factors are identified as important barriers. These factors ascertain the findings identified in most developing countries. This study hopes to augment the prevention and control program of the Department of Health and Philippine Health Insurance Corporation to increase awareness and health seeking behavior.

Keywords: Tuberculosis, TBDOTS, early diagnosis, case detection rate, highly urbanized population, poverty

Acronym and Abbreviations

AGR	Annual Growth Rate
CDR	Case Detection Rate
DOH	Department of Health
FGD	Focus Group Discussion
LGU	Local Government Unit
MDRTB	Multi-Drug Resistant TB
MDG	Millennium Development Goals
NCD	Non-Communicable Disease
NSO	National Statistics Office
NTPS	National Tuberculosis Prevalence Survey
PhilCAT	Philippine Coalition Against TB
PPMD	Private Public Mix DOTS
TB	Tuberculosis
TB DOTS	Tuberculosis Direct Observe Treatment Short Course
TSR	Treatment Success Rate
USAID	United States Agency for International Development
WHO	World Health Organization

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Executive Summary

Over the last decade, there was a significant drop in mortality and morbidity cases attributed to TB. The high TB Case Detection (CDR) and Treatment Success Rates (TSR) may have underpinned the decreasing prevalence. Despite these successes, TB still appears to be a major health problem in the country. Disturbingly, the rate of decrease in the mortality and morbidity is not fast enough. This makes the country's MDG goal targets on TB eradication shaky. The Philippines is also in the list of 27 countries with the highest burden of TB.

One of the strategies of the Department of Health to strengthen the country's TB prevention and control program is to further expand programmatic and policy interventions towards vulnerable segments, particularly the urban poor population. One of the most important goals is to increase CDR and promote early diagnosis among these segments.

This study aims to understand and explore the barriers of early and timely diagnosis among the poor population living in highly urbanized areas (i.e. Metro Manila, Davao and Cebu). The findings are summarized below:

- There is plethora of factors that potentially hinders urban poor population to seek healthcare despite the presence of persistent cough and other signs and symptoms, which should have motivated them to visit health facilities.
- Cultural factors remain an important barrier. The following cultural beliefs or behaviors somehow contribute to the delay: (1) attribution of the signs and symptoms to a condition with folkloric origins, (2) resilience of Filipinos towards hardship conditions or status, (3) family orientedness.
- The perceived gravity of signs and symptoms appears to be a common theme. Most of the participants thought that their signs and symptoms are transient and harmless.
- Opportunity costs of going to a health facility force them to forego or delay.
- Private health facilities are preferred over government health facilities for medical consultation.
- On the positive side, family members are important motivating factor for patients to seek healthcare.

Anchored on the findings of the study, the following are major recommendations that need to be done by DOH and other relevant sectors:

- Conduct a quantitative version of this study. This include cross-sectional studies that would determine the mean duration of delay and average medical non-medical costs (i.e. transportation costs):
- Conduct an opportunity cost analysis. It is also necessary to understand the marginal utility cost of going to a health facility. This is very necessary in the development of specific monetary incentives for TB patients.
- Conduct more market studies that would determine the feasibility of expanding private TBDOTS facilities in urban areas.
- Assess the health promotion capacity of local government units. Determine if the health promotion addresses myths and facts regarding tuberculosis.
- Create mechanism to expand private TBDOTS centers in urban poor areas. Strengthening the demand side through Philippine Health Insurance Corporation can do this.

- The Philippine Health Insurance Corporation should give monetary incentives to patient who goes to a health facility for check-up for suspected TB. This is necessary to cover the opportunity and transportation costs. It may also necessary to give incentives after the completion of treatment.
- Hire private consulting firms to develop the health promotion plan for population living in urbanized areas.

Barriers of early TB diagnosis among the poor in highly urbanized areas in the Philippines

I. Introduction

Tuberculosis (TB) still ranks as one of leading cause of morbidity and mortality in the Philippines. Based on the 2007 Philippine National Tuberculosis Prevalence Survey, there are approximately three cases of TB in every 1000 population. In 2009, 25,000 registered deaths were attributed to TB. The disease makes it as the fourth leading cause of mortality in the country (Ulep, 2011). Over the last decade, there was a significant drop of TB prevalence. From 1998 to 2007, it decreased from 5.3 to 3.4 per 1,000. However, the prevalence of Multi-Drug Resistance TB, a more fatal form of TB is increasing (Department of Health, 2012)

The high TB Case Detection (CDR) and Treatment Success Rates (TSR) underpin the decreasing prevalence of TB in the country. In 2010, CDR and TSR are 76 percent and 91 percent, respectively. Both indicators are above the global targets. Despite these successes, stronger programmatic and policy efforts are still expected. Alarmingly, the rate of decrease in TB mortality and morbidity in the country is not fast enough. This makes the country's MDG goals on TB eradication gloomy. Philippines is also in the list of 27 countries with highest burden of TB (World Health Organization, 2013)

The Department of Health identified eight (8) strategies to strengthen the TB prevention and control program. One of these is the expansion of TB detection and treatment services among vulnerable and high-risk population segments like the urban poor population.. Literature suggest plethora of factors exacerbate the higher occurrence of disease among the urban poor. These include pitiable nutrition and sanitation, unfavorable environment (i.e. overcrowding) and bottlenecks in the healthcare delivery system.

The non-inclusive growth of the economy and fast internal migration exacerbates the burgeoning urban poor population especially in big cities like Metro Manila, Cebu and Davao. In fact, the urbanization rate in the Philippines is very fast compared to the world average (Ulep et al, 2013). These socio-demographic dynamics increase the base of high-risk population group. With the backdrop, the government should streamline its prevention and control program towards urban poor population. The intervention should focus on increasing case detection and early diagnosis.

This study attempts to understand the barriers that hinder diagnosis among poor population living in highly urbanized areas like Metro Manila, Davao and Cebu. The results of the study hopes to guide the Department of Health, local government units and other concerned organizations in the development of more specific strategy that will increase CDR and early diagnosis among the urban poor population.

II. Objectives of the Study

This study has the following research and policy objectives:

1. Identify and understand thoroughly the barriers that hinder population to seek healthcare or diagnosis despite the presence of triggering factors.

2. Craft specific policy and programmatic recommendations for the Department of Health, Local Government Units (LGUs) and other concerned institutions.

III. Significance of the Study

The results of this study aim to assist the different agencies and institutions in the development of pragmatic policies and programs on TB. Specifically, the results should serve the following purpose:

1. Help the Department of Health in shaping policies that will increase Case Detection Rates (CDR) among vulnerable segments-- urban poor population.

2. Guide local government officials in crafting localized policies and programs on TB control and prevention.

3. Help LGUs and DOH in deciding whether there is need to streamline or enhance existing health promotion efforts designed for vulnerable segments, as the study results would identify key variables that need to be addressed and invested on.

III. Review of Related Literature

This section narrates data and findings related to the study of interest: TB and urbanization in the Philippines.

A. Tuberculosis in the Philippines

The prevalence of the TB in the Philippines is decreasing over the years. From 1998 to 2007, the TB prevalence decreased from 5.3 to 3.4 per 1,000 (Department of Health, various years). This decreasing number of recorded mortality and mortality is also validated using DOH and NSO data (see Figures 1 and 2).

Figure 1. Percent change in mortality rates from 2000 to 2009, top causes of mortality, Philippines
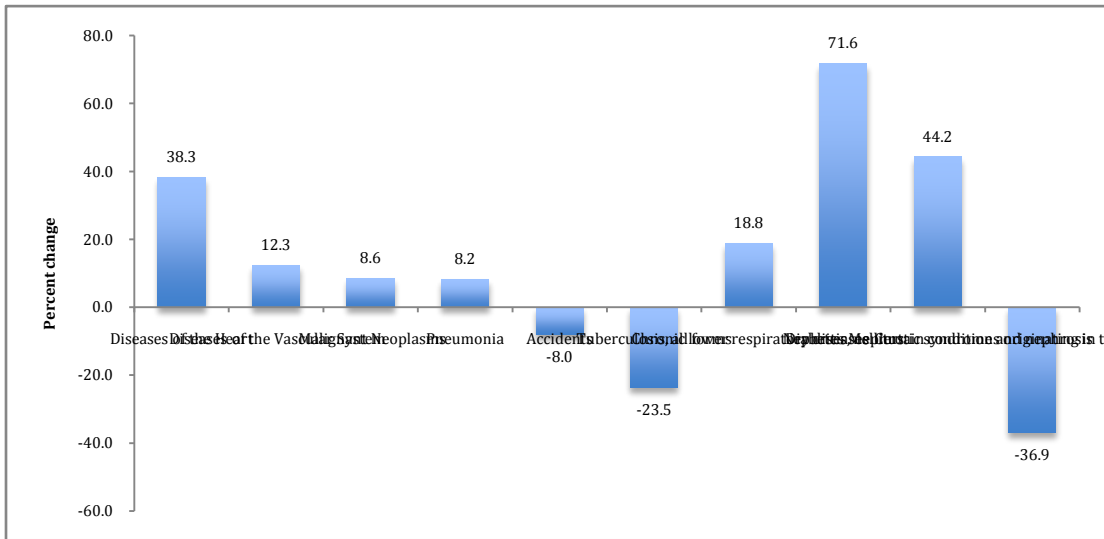
Source: Author's calculation of raw data from DOH

Figure 2. Percent change in the rate of selected morbidities, Philippines, 1999-2009
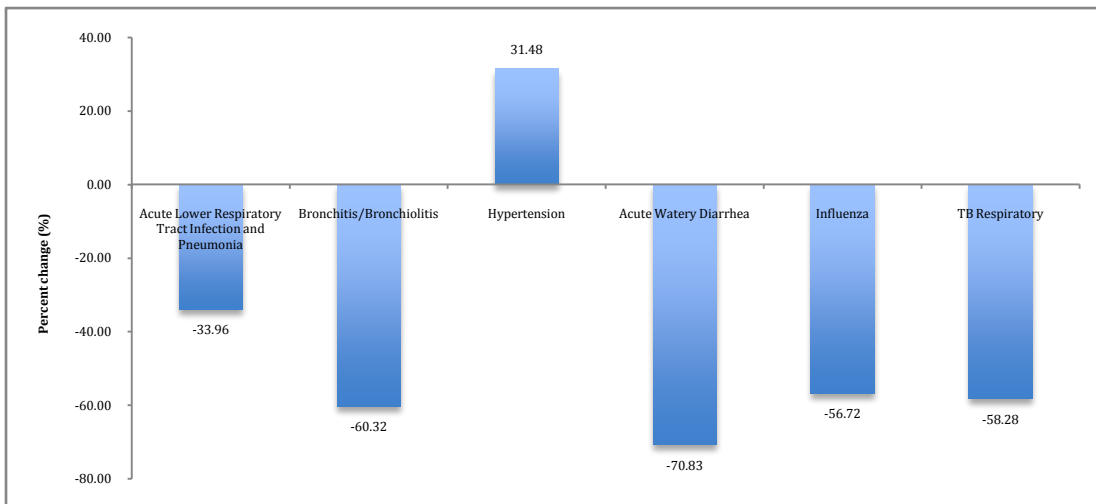
Source: Author's calculation of raw data from DOH

The decrease in the overall mortality and morbidity is underpinned by the relatively good case and success rates. In 2010, the Case Detection (CDR) and Treatment Success Rates are 76 percent and 91 percent, which are above the global targets (see figures 3 and 4) (World Health Organization, various years). The CDR is defined as the percentage of estimated new infectious tuberculosis cases detected under the internationally recommended tuberculosis control strategy directly observed treatment short course (DOTS). While TB treatment success rate is the percentage of new, registered smear-positive (infectious) cases that were cured or in which a full course of treatment was completed (World Bank, 2013)

Figure 3. Case Detection Rate, Philippines and income and regional grouping
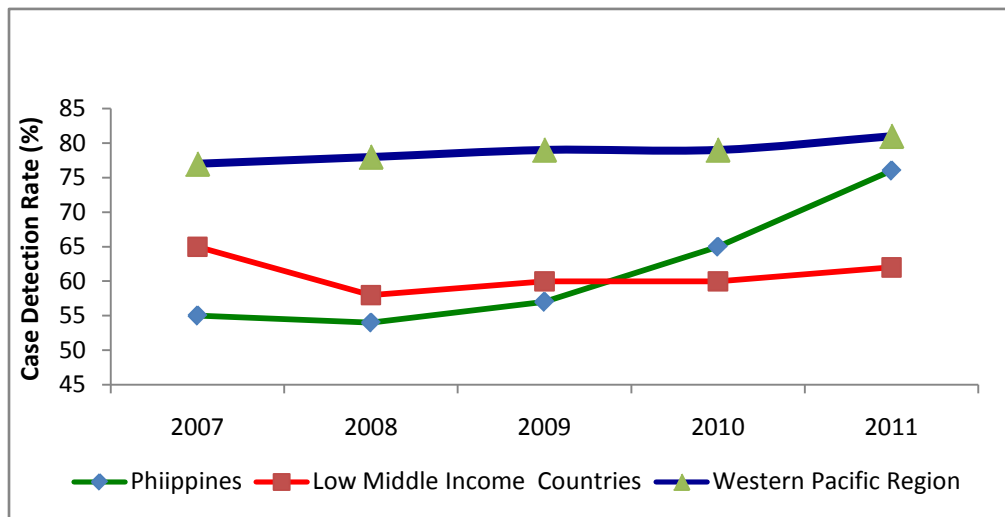
Figure 4. Smear-positive treatment-success rate, Philippines and income grouping, Philippines, 1996-2010
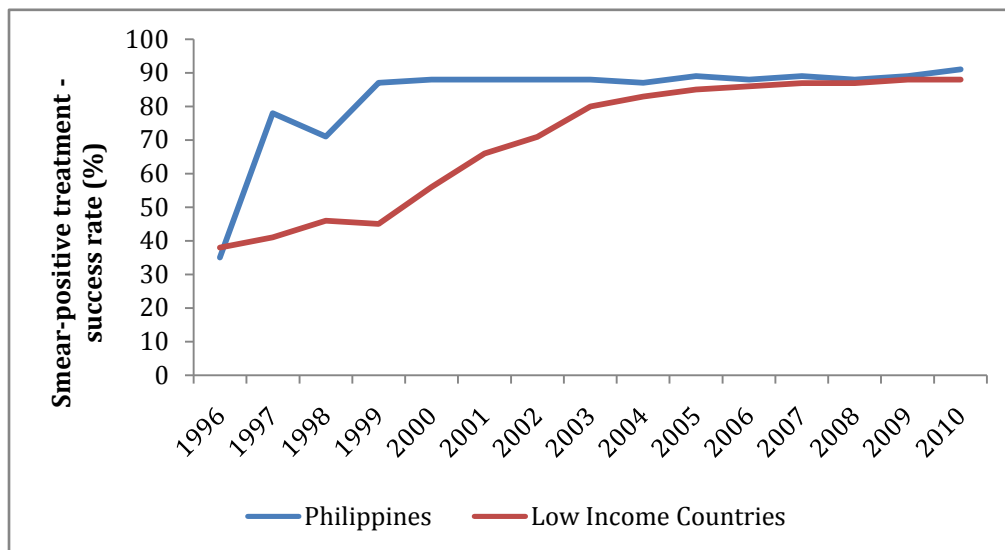
Source: Word Health Organization Statistical Information System

Despite the decreasing mortality and morbidity, i stronger policy and programmatic efforts are still needed. The following backdrop can argue this:

- The Philippines is included in the list of 27 countries with highest Burden of Diseases due to tuberculosis (World Health Organization, 2013). These countries are considered as high priority areas that need drastic efforts.

- The decrease in the morbidity and mortality attributed to TB is not fast enough. Hence, there is a gloomy chance that the country can achieve its MDG targets on TB by 2015.

The country is aiming for 0 prevalence and mortality rates (National Statistical Coordination Board, 2013)

There is an increase in the prevalence of multi-drug resistant forms of TB (MDRTB). In 1997, the percent share of MDRTB on total new cases increased from 1.5 percent in 1997 to 2.1% in 2007. This form of TB is more fatal and expensive to treat (Department of Health, 2012).

B. Tuberculosis control and prevention in the Philippines

The current national program of TB is embraced in the 2010-2016 Philippine Plan of Action to Control Tuberculosis (PhilPACT), a multi-sector collaboration. The Plan of Action outlines activities that would facilitate the reduction of mortality and morbidity by 2015. There are four general activities enshrined in PhilPACT in which programs and policies of Department of Health and its partners should promote: (1) scale-up and sustained implementation of Direct Observed Treatment (DOTS); (2) reduce out-of-pocket expenditures related to TB diagnosis and treatment; (3) ensure the implementation of quality TB services; and (4) reduce local variations in TB control program performance ((Department of Health, 2013).

In the actual implementation, TB program in the Philippines is highly decentralized. Generally, the DOH at the Central Office develops the plans and policies, which is then cascaded to regions. They also monitor and supervise the implementation of local government units through the regional DOH (CHDs). Allocation of funds, human resources and procurement of commodities necessary for TB program are the responsibilities of LGUs. However, the procurement of first line anti-TB drugs is centralized.

In parallel, the Philippines also adopted the private public mix DOTS as a national strategy to increase CDR. In 2003, PhilCAT, sub-recipient of Global Fund started to rollout PPMD clinics. PhilTIPS, a project of USAID also augmented the PPMD initiative (United States Agency for International Development, 2012).

The Philippine Health Insurance Corporation (PhilHealth) also rolled-out an outpatient benefit package for TBDOTS. Financing TB DOTS through social insurance facilitates the system to be more demand-driven. Both private and government primary care facility can harness this as an alternative mode of sustainable financing. Over the years, the number of TBDOTS facilities accredited by PhilHealth is increasing (PhilHealth).

C. Urbanization in the Philippines

In the last ten years, the Philippine domestic economy is increasing rapidly. The country posted an average annual economic growth of 5 percent from 2000-2013. However, despite the robust economic growth, the poverty incidence and unemployment rates remained relatively stagnant. Hence, the economic growth made no significant dent in decreasing the poverty levels (Picazo, Ulep, Ortiz, Aldeon, dela , & dela Cruz, 2013)

One of the spillovers of non-inclusive growth is the growing of number of urban poor population. Table below shows the increasing number of poor population in large town/cities in the country (Ulep, 2013).

Table 1. Poverty Incidence by location, Philippines, 2000 and 2006

Location	2000		2006	
	% to Population	Number of Poor	% to Population	Number of Poor
Philippines	33.02	25,472,358	32.89	27,589,745
Rural	47.76	18,645,869	48.72	19,663,144
Urban	17.92	6,826,489	19.17	7,926,601
Small Cities	22.14	219,081	29.8	335,990
Large Towns	11.36	450,223	11.62	499,285
Large Cities	15.64	1,947,512	17.56	2,329,661
Large Towns/Cities	14.61	2,397,735	17.24	2,828,946
Metro Manila	7.75	860,934	10.41	1,156,313

Source: Ulep (2012)

High urbanization is a result of robust domestic economy. The urbanization rate is high in the Philippines. In fact, the annual growth rate is one of the fastest in Asia. The Annual Growth Rate (AGR) of proportion living in urban areas in the country is relatively higher than the world average (see table 2).

Table 2. Urbanization rate of selected Asian countries, 1970-2010

Country	1970	1980	1990	2000	2010	AGR
World	36	39.1	43	46.7	50.9	0.90%
OECD	65	68.8	72	74.6	77	0.50%
Philippines	33	37.5	48.8	58.5	66.4	1.60%
Indonesia	17.1	22.1	30.6	42	53.7	2.70%
Thailand	20.9	26.8	29.4	31.1	34	1.10%
Vietnam	18.3	19.2	20.3	24.3	28.8	1.40%
China	17.4	19.6	27.4	35.8	44.9	2.10%
India	19.8	23.1	25.5	27.7	30.1	1.10%

Sources: World Bank; Ulep, V.

In general, urban poor population has poorer health status compared to their non-poor counterparts. They have higher risk of acquiring both infectious and non-communicable diseases.

A study conducted in Cape Town, South Africa demonstrated the high social inequalities with regard to NCDs. The distribution of non-communicable diseases displays socioeconomic disparities, with the heaviest burden for poor communities in urban areas. People living in poor districts have higher age-standardized mortality is higher compared to their richer counterparts (Mayosi et, al, 2009). A study conducted in African cities revealed increasing prevalence of overweight population. The increase was higher among the poor compared to their richest counterparts (Ziraba et al, 2009).

Urban poor population is also more at risk of acquiring infectious diseases like pneumonia, upper respiratory tract infection and gastro-intestinal diseases. The higher risk can be attributed to poor sanitation and hygiene.

D. Tuberculosis among the poor and vulnerable population

TB is not exclusively found among the poor. Figure 5 shows their direct and reverse causal relationships.

Aggregate studies on poverty conducted by the World Health Organization conclude the impact of poverty on the occurrence of TB. This is true for both at the regional, national, sub-national and sup-population levels. Poor and vulnerable groups are more at risk of the acquiring the bacteria compared to the general population because of poor housing conditions (i.e. overcrowding), substandard living and working conditions, poor nutrition and sanitation.

Interestingly, the TB may pushes household to poverty given the catastrophic effect of the diseases. According to World Health Organization, around 20 to 30% of annual wage among the poor can be lost. The costs resulting from time that is lost in seeking care are generally higher for poor people, who are mainly daily wage earners or engaged in minor trading with no income security. Moreover,, most of them operate in the informal economy, so they are particularly vulnerable not only to loss of income but also to the possibility of dismissal from work (World Health Organization, 2005). The high impoverishment effect is attributed to the chronicity of the disease, which exposes patients to multiple healthcare episodes, which puts households more at risk to impoverishments

Figure 5. Conceptual pathway of TB and poverty
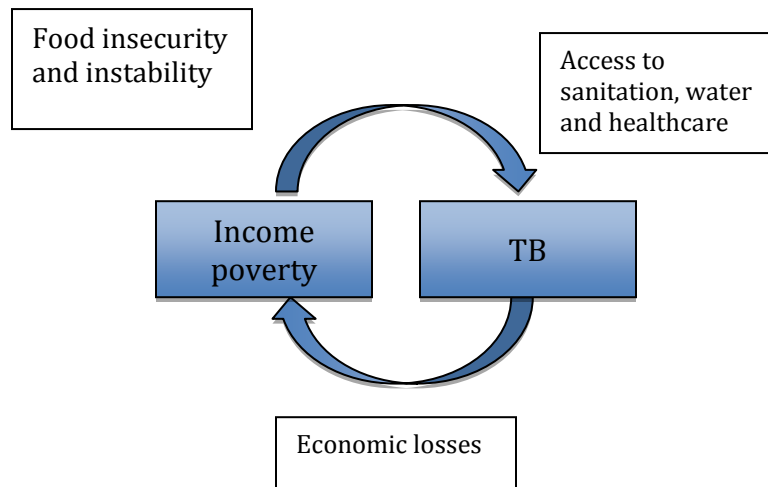
Source: World Health Organization, 2005

Table 2. Summary of studies on TB and poverty

Levels	Findings
LIC (Regional)	Persons originating from low-income countries are at higher risk of harboring infection than their counterparts originating from economically advanced countries.
Norway, USA, Viet Nam (National)	Prevalence of disease was higher among poor populations than national averages and/or non-poor populations.
	Relative risk of TB disease, as suggested by routinely reported TB incidence, for the poorest 25% of the population was 2.3 greater than for the wealthiest 25%
Afro-American groups (sub-population)	The TB case rate among Afro-American and other non-white homeless people was 3.5 times greater than among the general population
Urban poor in the Philippines (sub-population)	Urban poor communities have 1.5 times higher prevalence of disease than non-poor counterparts
Poor villages in China (sub-national)	In prevalence survey, the sputum smear-positive TB prevalence rate was 2.4 times higher among village residents than city residents; 78% of TB cases had income lower than the population average in areas surveyed
Refugees in Kenya (sub-population)	Incidence of smear+ TB 4 times greater among refugee camp residents than for the local population.
Prisoners in the Philippines (sub-population)	Prisoners are also eyed as one of the vulnerable groups because of their exposure to environment that exacerbates transmission like overcrowding and poor sanitation. In the study conducted by Borja, it is estimated that TB is 30 to 100 times more prevalent than in the general population (International Union Against Tuberculosis and Lung Diseases, 2009)

Source: Adapted from World Health Organization

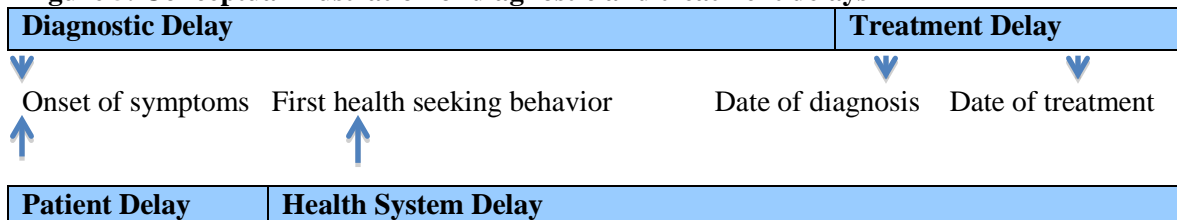### E. Context of Early Diagnosis in TB Prevention and Control Program

Early diagnosis is essential in the control and prevention of TB. At the patient level, delay in the diagnosis facilitates disease progression. Studies have demonstrated higher mortality among patient with longer diagnostic delays (Odunsanya & Babafemi, 2004). At the community level, it

is a contributor factor of higher reproductive rate of TB epidemic. Based on several studies, transmission usually takes place between the period of occurrence of cough and initiation of treatment (Sorla, Solomon, & Bjune, 2009),

Conceptually, diagnostic delay is a component of the 'total delay' during tuberculosis intervention. In general, total delay is the sum of diagnostic delay and treatment delay. Diagnostic delay is defined as the time interval between the advent of symptoms until disease confirmation. While treatment delay is defined as the time interval between tuberculosis diagnosis and the initiation of anti-TB drugs.

Total delay can also be viewed as the sum of patient delay and health system delay during tuberculosis intervention. Patient delay is defined as the time interval between occurrences of symptoms to a presentation to a healthcare provider. While health care system delay is the time interval between the date of health seeking behavior at a healthcare provider and the commencement of anti-TB drug (World Health Organization, 2006).

Figure 5. Conceptual illustration of diagnostic and treatment delays in TB

Diagnostic Delay		Treatment Delay

Onset of symptoms   First health seeking behavior   Date of diagnosis   Date of treatment

Patient Delay	Health System Delay

The systematic review of Storla (2008) reveals that definition of onset of a symptom that triggers health-seeking behavior is highly variable in literature. Out of the 63 studies, forty-nine defined 'onset' as the occurrence of any symptoms of tuberculosis, and two studies defined onset as debut of cough, and one study defined onset as occurrence of any pulmonary symptom.

F. Understanding delays in TB diagnosis at the patient level

There is a plethora of factors that hinders a person to seek healthcare despite the apparent presence of symptoms. In the case of this tuberculosis, persistent and unusual cough should trigger him to seek healthcare (diagnosis or treatment). Though despite the presence of triggering factors, delay still occurs. Based on rigorous literature review, there are potential domains that underpin the delay in seeking health care or diagnosis at the patient level: (1) knowledge of tuberculosis (including gravity and perception); (2) access to healthcare services; and (2) stigma. These domains are underpinned by interrelated and complex secondary and tertiary factors.

1. Knowledge of tuberculosis

Numerous studies reveal the relationship of delayed diagnosis and knowledge about the disease especially among the poor. As TB starts gradually, symptoms may be easily neglected. Most often, because of most patients are pre-occupied with work and household related activities, health seeking behavior are not given due priority. Coupled with the lack of awareness of the disease, patients may dismiss going to health facilities or to attribute their signs and symptoms to cases like pneumonia or influenza (WHO, 2005). Since most of the poor population commonly experience upper respiratory tract infection, they may not be able to determine the gravity of their condition.

In a study conducted in Lagos, the largest city in Nigeria, the delay in seeking healthcare for diagnosis can be attributed to the low level of knowledge and awareness of the diseases and the lack of information about the availability of free treatment. However, the study found no significant effect of diagnosis delay and educational attainment. This can be attributed to the cosmopolitan nature where health facilities are relatively accessibility (Odunsanya, O. and Babafemi, J., 2004). This was also validated by a qualitative study conducted in Indonesia (Rintiswati , 2009)

In the study conducted by Auer, Sarol, Tanner and Weiss, almost 53 percent of TB patients who reported to have delayed diagnosis perceive their illness as harmless. In the same study by Auer, Sarol and Weiss (2000), thirty two percent of symptomatic patients took 1-2 months before they sought healthcare. Sixty (60) percent of those who reported delay perceive their signs and symptoms as harmless. And ten (10) percent of them reported lack of money as the main reason why they delayed to seek care.

The perception of patients with tuberculosis has implications on the timeliness of healthcare utilization. In a study conducted by Auer, Sarol and Weiss (2000) in Malabon, a highly urbanized city in the Philippines, 48 percent of TB patients believe that TB is caused by vices (i.e. smoking and alcohol consumption) and too much work. While ten (10) percent believe sudden change of temperature and hereditary as the causative agents of the disease,

The poor perception of TB patients on gravity of the disease may also be related to self-treatment. According to the study of Asch et al (1998), patients who felt that they could treat their condition themselves delayed 31% of the time, as compared with only 14% of patients who didn't feel this.

In a study conducted in Lusaka, Zambia, socio-demographic attributes like gender is related to delays in TB diagnosis. Females are more likely to be delayed compared to males (72 days vs. 58 days) (Needham , 2001).

2. Health system bottlenecks

In areas with high concentration of poor (i.e. city slums), healthcare may still be inaccessible. This can be attributed to several reasons, like lack of health facilities, health workers, diagnostics and poor quality of services. In some settings, the poor sections of the population may be discouraged from seeking diagnosis and treatment by a perception that the health system does not address their needs, and may even appear to discriminate against them. Public, government-run services in some countries are perceived by the poor to be unreliable and of poor quality (WHO, 2005).

Studies reveals that presence of accessible health facilities has lower delay time compared with those without. Moreover, exposure to health care services has also an impact on the timeliness of TB diagnosis. In the same study by Needham et al (2001), those who had previous visit to a health facility in the last 6 months have lower mean days of delay (55 days vs. 78 days). Those patients who visited private physicians are also less likely to have lower mean delays (60 days vs. 75 days) ((Needham et al, 2001).

3. Stigma

Stigma associated to tuberculosis is prevalent in countries with high HIV cases, where HIV and TB co-infection is very common. In other countries, tuberculosis is also associated with other diseases, social stature (poverty) and malnutrition. The psychological put by society on tuberculosis hinders patients to seek healthcare despite the presence of symptoms (Courtwright and Turner, 2010).

However, in the qualitative study in Indonesia conducted by Rintiswati et al (2009) indicated that most patient did not feel stigmatized because most of their family members are supportive or they showed no change in behavior when it became known that a patient had TB (Rintiswati et al, 2009)

IV. Methodology

The section describes the study design and analysis employed in this study.

A. Study Design

This is a qualitative study. Focus Group Discussions (FGDs) of TB patients who experienced delay in going to health facilities were conducted. In this study, patients were considered to have 'delayed' diagnosis if they skipped medical care despite the presence of triggering symptoms—persistent cough. Their status (whether delayed or not) was determined retrospectively. A participant was considered poor if his/her place of residence belongs to pre-identified poor community, and her household income is below the poverty threshold.

Three (3) FGDs were conducted in the three major cities in the Philippines: Metro Manila, Davao and Cebu. The figure below show the steps employed in recruiting participants for the FGDs.

Figure 6. Steps in recruiting study participants

- The researcher coordinated with the following public/NG TB DOTS Center: German Doctors (Caloocan, Metro Manila), Mandaue City Health Office (Cebu City, Cebu) and Southern Philippines Medical Center (Davao City). These centers were chosen because most of their patients cater to the urban poor settlements of the city.

- All patients during the actual day of scheduled FGD will be recruited for the preliminary screening of participants. Prior to the screening, patients were informed about the objective and goal of the study. Patients who were not willing to participants were excluded. Those who were willing signed a consent form stipulating that their participation is voluntary.

- TB patients who agreed were asked if they did not go to a health facility despite the presence of cough that needs medical attention. Those who said yes were recruited in the actual FGDs.

- An expert facilitator who is conversant with Visayan and Tagalog dialects was hired to discuss the discussion. Approximately 45 minutes to 1 hour were allocated per FGD. The audio of the discussions was recorded.

- The audio recordings were sent to a professional transcriptionist.

B. Analysis

All the transcriptions of the conversation were forwarded to a health researcher familiar with social science analytical methods or content analyses. The transcripts were analyzed to identify emerging and recurrent themes. Text units were coded systematically to observed the frequency of key issues and trend. Results will be presented in three dialects: Tagalog, and English.

V. Limitation of the Study

Like any study, this study has its own limitations. This is a qualitative study. Hence, it will not determine the extent and distribution of health seeking behavior or practices among urban poor population. Instead, this study explores the sociological and ethnographic perspectives of the study of interest.

In an operational point of view, the focus of the study is only highly urbanized areas. This does not capture the urban poor areas as defined by the National Statistics Office. Hence, there might be variation of responses if broader urban poor definition is used.

VI. Results

Demographics of study participants

Table 3 shows the distribution of study participants. The study met the recommended number of participants for a focus group discussion. Most of them are adults and the ratio of male and female participants are relatively the same.

Table 3 . Distribution of study participants

Name of Institution; Location ASD	Number of Participants	Age (Min; Max)	Sex (Male; Female)
Southern Philippines Medical Center; Davao	4	32; 56	2; 2
Mandaue City Health Office; Cebu	7	17; 64	3; 4
German Doctors; Manila	10	23; 63	6; 4

The common themes transpired during the three focus group discussions conducted in Caloocan, Davao and Cebu are summarized below:

Duration of delay

The participants of the FGDs have highly variable duration of delay. Upon the presence of severe cough and/or unusual symptom that should have triggered them to seek health care, most of them visited private or public facility after three days to 3 years. Participants from Davao and Cebu have longer delays compared to their counterparts in Metro Manila. The following are some of the transcriptions: *"Ang akin ay nagsimula din sa lagnat at ubo ng halos dalawang linggo. After three weeks, nagpasuri ako dahil sa laging pagsakit ng aking tiyan", "mga halos dalawang buwan bago ako nakapagpa x-ray", "...mga dalawang linggo po"* and *"mga 4 na araw din po bago ako nagpacheck-up"* and *"mga tatlong taon na po akong sobrang pumapayat at may ubo".*

Triggering symptoms

Almost all participants experienced cough. However, other physical manifestations were also present, which further motivated them to seek medical advice. This includes: pain in the back and stomach areas, asphyxia (especially when exposed to irritants like dust and tobacco smoke), weight loss, fever and hemoptysis. However, after tallying all the responses, it occurs that back pain and hemoptysis as the common triggering symptoms.

The following are some of the transcripts: *". ...pero kapag nagbuhat ako ng mabibigat na bagay dun talaga sobrang masakit aking kanang tagiliran", ".....pero napansin ko na rin po kasi maam na kapag nakalanghap ako ng amoy ng sigarilyo ay naninikip yung dibdib ko na parang di na ako makakahinga", "oo nga maam nahihirapan din akong huminga, kaya nga kapag may katabi akong naninigarilyo ay agad akong umaalis",* 'sumuka po ako ng dugo....", *"pinapabayaan ko lang po yun maam, pero nung pagka-ubo ko tapos nakita ko na ang plema ko ay may kasama ng dugo", "halos kada hapon parang palagi akong nilalagnat at inuubo ng may dugo kaya nagdesisyon na ako na magpacheck-up na lang"* and *"..basta ang napansin ko lang pumayat lang ako bago pa man yung pag nakalanghap ako ng usok ay naninikip na yung dibdib ko at palaging may ubo"*

Gravity of the disease

The seriousness of signs and symptoms appears to be an important factor that hinders patients to seek healthcare or diagnosis. Most of them perceived their most obvious symptom as common and transient, which everyone can experience. Most of them consider their cough, the most common symptom of TB as 'normal". Sample transcriptions are the following: *"...akala ko po kasi normal lang na ubo"* and *"normal na ubo lang naman".*

Patients also attribute their symptoms as offshoot of their pre-existing conditions (i.e. asthma) that will remise soon. As an example, one patient expressed her symptom-- *"Akala hika lang to na normal lang".*

Some of them relate their symptom/s to be caused by "pasma" or weather changes—*"....dahil sa sa may mga gabing medyo mainit kaya pinagpawisan tayo", "binalewala ko lang maam dahil akala ko pasma lang"* and *"pag-aakalang lamig lang iyon".*

Patients also perceived their symptoms as a cause of overwork or lack of rest—*"... Binalewala ko lang maam dahil akala ko epekto sa pag dadrive"*, *"....epekto na pagdrdrive... "ung tipong hanggang umaga ang biyahe"* and *"ang sa akin po maam baka kulang lang sa tulog"*.

The role of family members

Encouragement of family members drives patient to seek medical care. Spouses and children play a big role. It appears that most patients are oblivious about the gravity and unusualness of their symptoms. The following are some of the transcriptions *"....pinilit na talaga ako ng aking anak ngayon na kailangan ko na daw magpacheck-up dahil meron daw talaga akong sakit"* , *"sinabi sa akin ng asawa ko na kailangan ko mapacheck-up"* and *"ang nagpadesisyon sa akin maam ay ang asawa ko at ang anak ko"*.

Self-medication

Patients who experience symptoms appear to self-medicate before they seek-medical care. Pain-relievers are the most common medicine they take. Example of transcriptions opined during the FGDs are the following: *"...nagamot lang sa paracetamol..."*, *"...gumamit na lang ako ng pain reliever"*, *"uminom lang po ako ng biogesic dahil ang akala ng mama ko ay normal na lagnat lang"*, *"may lagnat na rin kasi akong naranasan maam na pagka inom ng gamot ay kinabukasan pwede na iligo"*, *"hinahagod-hagod ko lang sabay inom ng paracetamol at pain reliever"* and *"di maam kung kaya pa sa mga paracetamol, mga pain reliever para sa amin ok lang"*.

Interestingly, most patient prefer to take medicine instead of going to a health facility for check-up---*"sana kung alam na namin na may ganito na akong sakit para diretso na sa mga gamot, kaysa kailangan pa gumastos para magpacheck-up"*. This is validated by a participant by his perception of going to a health facility if the severity if symptoms become unbearable-*"lumalapit na lang sa doctor pag malala na ang ating sakit"*.

Work-related

Patients opt not to go to health facilities for check up despite their symptoms to avoid being absent at work. This theme is very common among patients who have full-time work. One patient mentioned the following statement: *"....dahil yun sa busy sa trabaho. Kailangan po kasi ng kompanya na di um-absent. Kaya tiniis ko muna dahil sa trabaho"* and *"....saka mam manghihinayang ka sa isang araw na pinagpaliban, kasi lalo mam kung ikaw lang talaga ang kumakayod wala kang katulong sa buhay"*. It also appears that, though they consider health as important, they need to prioritize their work. As echoed by one participant, *"naisip ko na mas importante sa akin ang aking kalusugan pero mas nakatuon ako sa kompanyang aking pinagtatrabahuhan"* and *"Parehas mam na imortante. Kung iisa lang ang nagtatrabaho, yun pa ang may sakit. Papaano na kayo mabubuhay niyan?"*

On the positive note, participants also wanted to seek medical care and get well so they can be productive again—*"sa akin po ay para malunasan na ang aking karamdaman at para makapagpatuloy pa ako sa aking trabaho"* and *".....para kumita na ako ng pera"*.

Financials

Lack of financial resources is also a big bottleneck. Most patients still require money for transportation. Some patient narrates *"di po ako nakapunta kaagad kasi wala pong pera"*, *"dahil nga po sa hirap maam di ko muna po iniinda yung sakit sa aking likuran"* and *"nagplano po ako*

na magpacheck-up na dito, ngunit wala nga akong pamasahe tapos kailangan ko pa maghanap para sa gamot niya. Buti na nga lang nagkaroon ako ng kaunting sahod kaya nagkaroon ako ng pamasahe papunta dito"

Some participants also narrated the catastrophic effect of his diseases—*"nabenta ko na nga yung lote dahil di na ako makapagtrabaho sa kagustuhan ko lang na gumaling"* and *"Nanghihingi at umuutang na lang po ako sa kapatid ko ng pangastos, kaya minsan naiiyak na rin po ako".*

Self-sacrifice for family members

It appears that some participants forego or delay healthcare because of self-sacrifice or they feel that they need to prioritize first what they think is important. Some participants echoed, *"kaya't sa halip na pampacheck-up yung pera ay doon ko na lang muna gagastusin sa mas importanteng bagay. Kung sa pakiramdam ko ay kaya pa, doon ko na lang muna ilalaan sa iba na mas importante".* This attitude of self-sacrifice pushes them to skip healthcare until they feel the necessity---*"lumalapit na lang sa doctor pag malala na ang ating sakit"* and "*yan yung ugali ng mga Pinoy maam na kung kaya pa, titiisan muna. Saka pa lang gagawa ng aksiyon pag di na talaga kaya"* and *"Pag ikaw lang talaga ang mag-isa na kumakayod sa pamilya siyempre hindi maiiwan ung trabaho. Imbes na bigyang pansin yung sakit"*

It appears that some patients are more motivated to seek healthcare when a family member experiences the same 'unusual' symptom. One of the participants admitted that she would not delay going to a doctor like what she did if one of her family member experiences the same—*" Pero mas inuuna ko si papa. At yun na nga napabayaan ko na ang aking sarili"* and *"kung siguro yung anak ko makitaan ko ng simptomas, dadalhin ko siya agad sa doctor".*

For some, they still think of their family when they decided to seek healthcare—"*ang sa akin natakot ako maam dahil ang sakit na ito ay nakakahawa. So kailangan tayo magpagamot upang di tayo makahawa sa iba, katulad ko mayroon akong mga anak natatakot rin ako maam na baka pati sila mahawa…"*

Preference towards private health facilities

Some patients mentioned that had delays going to health facility because they are waiting for money so they can go to a private health facility for check-up or diagnosis. The following are some of the transcripts: "*gusto magpacheck-up pero walang perang pampacheck-up sa Chongwa (private facility)"* and "*medyo mas advantage pag sa private"*

Knowledge about TB

Some participants have heard TB. In fact, a lot of them know that TB can be transmitted. Interestingly, their knowledge about the disease increased after consultation to a health center as they were now exposed to series of lectures, and they even participated in TB patient clubs. However, some patients are not fully aware of the disease. As one participant echoed *"..pero di ko pa narinig ang tungkol sa Tuberculosis at sa mga sintomas nito".* However, for some participants who have heard about the disease, they cannot immediately relate their signs of symptoms as potential TB, and they usually related it to other pre-existing disease conditions like asthma or pneumonia, which led them to forego or skip healthcare and rely on self-medication.

Stigma-related factors

Stigma is not identified as common theme among participants. No noted narrations that may indicate the experience of stigma from their family members or from heir communities, which may potentially hinder them to seek medical care. Interestingly, however, one participant mentioned that some of her friends felt shameful of going to a health facility—*"yung iba po kasi nahihiya na magpakonsulta, tska nalang po sila magpapacheck-up pag malala na"*

VII. Discussions

Based on the results of the FGDs, there are plethora of factors that contributes why urban poor population delays healthcare despite the presence of triggering signs and symptoms. For the sake of coherent discussion of results, the duration of delay will be discussed first followed by the contributory factors:

A. Duration of delay

As noted in the results, the duration of delay is highly variable. This study estimated the duration of delay from presence of persistent cough coupled with other unusual signs and symptoms (which is considered unusual by patient to actual consultation). Based on published literature, there is no standard formula in measuring health-seeking delay in TB. In the study conducted by Sarol et al (2001), the duration of delay was calculated from the awareness of symptoms to the commencement of treatment. Odunsanya and Babafemi (2004) used similar operational definition. Delay was calculated from the appearance of any of the symptom to healthcare visit. In the meta-analysis conducted by Storla, Ymer and Bjune (2008), forty-nine studies commence the calculation from onset as the debut of any symptom, while 2 studies began from the onset as debut of cough.

In this study, the duration of delay as mentioned by participants ranges from 4 days to 3 years with a median of 2.5 weeks. This approximates the estimates conducted by Sarol et al (2001) in which almost 60 percent of the TB patient sampled had reported one to four months. However, the comparability of results should be taken with a grain of salt, as this study is qualitative in nature.

B. Factors that affect delay

The study found many contributory factors of delays. To facilitate the discussion, these factors will be categorized into three: cultural, socio-economic and health systems.

1. Cultural

The result of this study points the following cultural beliefs or behaviors: (1) attribution of the disease to a condition with folkloric origins, (2) resilience of Filipinos towards hardship conditions or status, (3) family orientedness.

Noted as one of the results, the attribution of the signs and symptoms to 'pasma' and other conditions because of the sudden changes in temperature or weather are still very common. As these physical conditions are thought to be transient, they perceived it to harmless. This finding

reflects the study conducted by Sarol et al (2001). Almost 60 percent of those patients who had delay perceived their signs and symptoms to be harmless.

This finding is not common in the Philippines. Qualitative studies in most developing countries reveal similar results. In a study conducted in Colombia, the prominent flu-like symptom with cough and some malaise is attributed to the folk complex called 'gripa pasmada'. Reasons given by the patients for getting a *gripa pasmada* were lack of good nutrition during the peak of symptoms, exposure to sudden changes in temperature and unprotected exposure to rain or mist (particularly at night or after a heavy working day) and sudden exposure to cold weather or becoming drenched by rain. This was for the patients the most important factor contributing to the development of *gripa pasmada* (Jaramillo, 2002). The result is also related to the study conducted by Sarol et al (2001). Around 60 and 40 percent of TB patient surveyed believe that tuberculosis is caused by 'drying sweat at the back' and 'sleeping in cold floor'.

Filipinos are known for their resilience when faced with hardships. The result of this study relates to the common trait among Filipinos especially those in the lower socio-economic status, which is to endure the symptoms and forego healthcare as they need prioritize their family members.

On the positive side, family members are important motivating factor for them to seek healthcare. In the same study conducted by Sarol et al (2001), about two-thirds of patients (69%) had been told by someone to have a medical check-up for their symptoms. This advice came from a spouse (18%) or a relative or someone else in the household (59%).

2. Socio-economic

Poverty is an important driver of delayed seeking behavior. It pushes many poor households to forego care because they are potential monetary cost that may incur in going to health facility. Alternatively, many of them rely on self-medication rather than seek healthcare provider first. It appears that NSAIDs and antibiotics are the usual drug of choice. Handful of studies reveals that the poorer segments of the population are more at risk of practicing self-medication. In the study of Lavado and Ulep (2011), the share of drug expenditure is extremely high among the poor relative to their non-poor counterpart. However, their healthcare utilization is low. This suggests the heavy reliance of drugs that are not prescribed by physicians.

It also appears that most urban poor population thought of the opportunity cost of going to a health facility. Most of the participants opined that going to a health facility would prevent them to work. Since most of them earn on a daily basis, they cannot afford to be absent as they cannot buy their necessities for that day.

3. Health systems

Unlike in rural areas, it appears that availability of health facilities is not a major concern among the urban poor. However, in this study, two important ideas were raised with regard to health system: (1) transportation cost and (2) the accessibility of private health care providers.

Most participants seem to be aware about the location of the health facilities. However, it appears that the lack of money to pay for transportation hinders them to go. Some of participants also mentioned they prefer going to seek healthcare in private facility. Hence, they need to wait for money so they can go to a private health facility. The preference towards private health facilities

reflects the low quality of government health facilities. This result also reflects the study conducted by Sarol et al (2001). Their data shows that 29% of TB patient went first to the public health center, compared with 53% who went first to a private doctor, is consistent with other studies in the Philippines.

VIII. Recommendations

Anchored on the findings of this study, the following are research and policy recommendations:

A. Research

i.   Understanding the expenditure patterns on TB

a. Conduct quantitative version of this study. This include cross-sectional studies that would determine the following: (1) mean duration of delay; (2) average medical non-medical costs (i.e. transportation costs):   (3) the extent of risk factors.

For more rigorous policy and program planning, it is necessary to determine pertinent expenditure data on TB at the household level and triangulate this with the duration of delay. It appears in this study that non-medical cost (i.e. transportation cost) drives most patient in dismissing healthcare. Hence, if the government determines the average non-medical cost, this can be incorporated as part of benefit package or subsidy to be provided.

b. Conduct opportunity cost analysis. It is also necessary to understand the marginal utility cost of going to a health facility. This is very necessary in the development of specific monetary incentives for TB patients (see policy recommendations).

c. Conduct more market studies that would determine the feasibility of expanding private TBDOTS facilities in urban areas. As noted in this study, private health facilities are preferred over public or government-run facilities. Hence, the Philippine Health Insurance Corporation should improve its purchasing strategies in order to entice private health providers to proliferate in areas with vulnerable population.

ii.   Assess the health promotion programs on TB.

a. Conduct rigorous impact evaluation of preventive programs on TB. Determine whether existing programs especially health promotion activities has impact on the behavior of urban poor population.

b. Assess the health promotion capacity of local government units. Determine if the health promotion addresses myths and facts regarding tuberculosis.

iii. **Assess the KAP of urban poor population**

    a. Conduct studies that will determine the knowledge, attitude and practices of urban poor population. The results should be the basis of health promotion programs to be institutionalized.

B. Policy and programmatic

i. **Addressing health financing issues**

    a. The Philippine Health Insurance Corporation should give monetary incentives to patient who goes to a health facility for check-up for suspected TB. This is necessary to cover the opportunity and transportation costs. It may also necessary to give incentives after the completion of treatment.

    b. The Department of Health should coordinate with the Department of Labor and Employment in the development of national policies that would give job protection and security to those patients who are undergoing diagnosis and treatment.

ii. **Addressing health service delivery**

    a. Create mechanism to expand private TBDOTS centers in urban poor areas. Strengthening the demand side through Philippine Health Insurance Corporation can do this.

    b. Continuous improvement of quality of diagnostic capability of government-run TBDOTS facilities by offering trainings on chest x-ray reading and sputum microscopy. It may also necessary for PhilHealth to streamline its payment mechanism and ensure that health providers and diagnosticians are given financial incentives from social insurance reimbursements.

    c. Capacitate the health promotion activities of LGUs with regards to TB control and prevention.

iii. **Addressing socio-cultural issues**

    a. PhilHealth should incorporate awareness program on the primary care package 1. The awareness should address the common myths about the signs and symptoms of TB.

    b. Hire private consulting firms to develop the health promotion plan for population living in urbanized areas.

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