

# STIGMA TOWARDS TUBERCULOSIS PATIENTS IN SHASEMENE TOWN

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## **LIST OF ABBREVIATIONS**

ACORD Agency for Cooperation and Research and Development

AIDS Acquired Immuno deficiency Syndrome

CDC Center for Disease Control

DOTS Directly Observed Short Course Therapy

EPHA Ethiopian Public Health Association

FGD Focus Group Discussion

HIV Human Immunodeficiency Virus

MOH Ministry of Health

TB Tuberculosis

WHO World Health Organization

## ABSTRACT

A community based cross sectional survey was conducted from November 2003 to March 2004 to assess the magnitude of stigma towards tuberculosis patients among the residents of Shashemene town, age 18 years and above. A multistage sampling procedure was used to select 845 study subjects. Both quantitative and qualitative data collection methods were utilized.

The study shows that there was a misconception about cause of tuberculosis and its transmission in which majority 90.2% of the respondents reported cold as the major cause of tuberculosis, and 397(48.6%) of the respondents reported that all TB patients are infected with HIV/AIDS. Four hundred ninety one (60.1%) and 400(49%) of respondents reported that eating together and shearing toilet with TB patients, respectively, could transmit TB.

Most of the respondents reported the presence of stigma towards tuberculosis patients, in which , 612(74.9%) of the respondents were not willing to disclose their disease status and 364(44.6%) of the respondents also were not willing to allow their child to learn in the same School where a child who have tuberculosis is learning. Five hundred and three (61.6%) of the respondents were not willing a teacher who has got tuberculosis to teach in the school weather he/she has started the treatment. Further more, 391(47.9%) of the respondents were not willing to allow a marriage between their daughter/son with a person who has been cured from tuberculosis. Most participants of the Focus Group Discussion (FGD) sessions reported that all tuberculosis patients were considered to have HIV/AIDS.

Thus, careful design and implementation of health education and incorporation of the issues of tuberculosis related stigma along with other programs of TB and HIV/AIDS and further studies to enrich the knowledge about stigma surrounding TB and TB patients are recommended.

**Key Words:** Stigma, Tuberculosis, Feeling, Avoidance

## **1. Introduction**

Tuberculosis (TB) is a chronic infectious disease that has major public health problem globally and it accounts for the suffering and loss of millions of lives as well as failure of social and economic development (1). The burden of tuberculosis is high around the world (2,3). It counters for 2.5 percent of global burden of disease and 26 percent of avoidable deaths of which 80 percent of those deaths are from developing countries (3). The region most severely affected by tuberculosis is sub - Saharan Africa and South East Asia (4,5)

In Ethiopia according to Ministry of Health (MOH) report 94,954 patients were reported from all forms of tuberculosis and 33,028 new smear-positive pulmonary TB cases in areas where Directly Observed Short Course Chemotherapy (DOTS) is implemented by the end of 2001. It is continuous to be one of the leading cause of death among adults in their most productive life (6)

The HIV/AIDS pandemic has substantially altered the Epidemiology of tuberculosis (7) and the stigma of HIV/AIDS has increased the existing stigma surrounding tuberculosis (5).

The term stigma is a Greek word, which describes signs that indicate something out of the ordinary or bad about the person (8,9). Stigma often leads to discrimination, which refers to any form of distinction, exclusion or restriction because of some personal characteristic (8).

Stigma is produced by the attitudes and action of families, communities and societies towards other perceived to have a discrediting attribute or undesirable difference. It is a social process that is used to create social control and social inequalities by creating difference in terms of illness or disabilities (10).

Stigma is a major barrier to proper utilization of health services, for the shame associated with the disease, which discourages individuals from seeking health care. Stigmatization fuels the TB and HIV epidemics by creating, silence, ignorance, blame, shame and victimization of those who are affected by the disease (8,10,11,12).

Since the start of Tuberculosis control program in 1960s and the current implementation of the directly observed short course therapy (DOTS), Ethiopia has played its own part on the prevention and control of TB (6). However, there is information, which tells growing of stigma and social isolation of tuberculosis patients among the community (13,14).

Tuberculosis patients are facing many problems in Ethiopia. For instances, coping with their disease, poverty, lack of knowledge about the disease condition and negative attitudes from the community. These refrains many people from knowing their disease status for fear associated with risk of stigma, social ostracism or even violence.

Ethiopia has developed a 2002-2006 strategic plan for TB control that includes DOTS (15), and many researches have been conducted on the magnitude of the disease. However, scrutiny of the public understanding, on the disease condition and

stigmatization attitude towards tuberculosis patients among the community is not well studied. Thus, this study attempts to assess the stigmatization of tuberculosis patients in urban communities of Shashemene town. The information generated from this study will be useful for policy makers and interested groups who are devoted in prevention and control of TB and the stigma related to it.

## **2. Literature Review**

### **2.1 Current Situation of Tuberculosis**

Tuberculosis is a chronic infectious disease, which poses a major public health problem throughout the world (1,6). Tuberculosis accounts for 2.5% of the global burden of disease and for 26 percent of preventable death (2,5,6) Approximately 80 percent of tuberculosis cases are from developing countries which the highest incidence rate found in South East Asia and Africa (2, 4, 5,16,17).

Globally, the prevalence of infection with TB is similar in both sexes until adolescence, after which it is higher in males. There is an estimated 2:1 male to female ratio of cases notified to public health authority (18).

In Ethiopia, according to Ministry of Health, 94,954 patients were reported from, all forms of tuberculosis and 33,028 new Smear-positive pulmonary TB cases in areas where directly observed short course chemotherapy (DOTS) is implemented by the end of 2001 (6). On the other hand TB and HIV co-infection rate is high and was estimated about 40% of adult TB cases in urban communities (6,13). Thus the burden of TB is one of the highest Public Health problem.

Tuberculosis affects individuals of all ages and both sexes with in every socio-economic group among the population. There are, however groups who are more vulnerable to develop the disease. Poverty, malnutrition and crowded living conditions have been known for decades to increase the risk of developing the disease (6)

## **2.2 Tuberculosis and stigma**

The term stigma is a Greek word, which describes signs that indicate something out of the ordinary or bad about a person (8,9) and often leads to discrimination, which refers to any form of distinction, exclusion or restriction (8). It is also a powerful discrediting and spoiling social label that radically changes how individuals view themselves and are viewed as persons. When individuals fail to meet normative expectations because of attributes that are different or undesirable, they are reduced from accepted people to discounted ones (8,9)

Thus, the discrepancy between what is desired and what actually spoils the social identity and isolates the individual from self as well as from social acceptance (19, 20,21).

Societies have historically reacted with fear to disfiguring & debilitating diseases, and have translated this aversion into discriminatory actions against the victims or patients infection (19,22).

Stigma towards affected people is association of the disease with wrongdoing or bad behavior such as promiscuity (8,16). According to Katz however, individuals are discredited less because they display attributes that violate accepted standards attributes are considered deviant (21).

Even though visible lesions or deformities, debilitating and fatal disease lead to stigma by pointing out affected individuals the underlying beliefs of the community are important in determine the ways in which stigma is manifested (8, 22,23).

Although, many debilitating disease are subject for stigmatization, tuberculosis has became one of the stigmatized disease now a days than ever before, because people think that TB is associated with HIV/AIDS and viewed negatively that results stigmatization and social isolation of TB patients (17,18).

Thus, a given attribute which is stigmatized is not inherently pathological immoral or deviant but derived from culturally embedded meaning. Therefore, various forms of deviance are stigmatized along with other diseases in the context of a particular historic period and cultural perspective (17,18).

Stigmatization of patients affects their ability to fulfill necessary, culturally expected and economically productive roles in society and the stigma experienced may vary from community to community.

Different studies from developing countries showed that different population groups experienced negative attitude towards TB patients and their families. For example, almost half of the study subjects in Karachi, Pakistan were considered TB to be social stigma (24) another study in South Africa indicated that TB is failed in wrong belief of the community that it is the result of breaking cultural rules that demand abstinence from

sex after the death of a family member and after a women has spontaneous abortion people also believe that resulting disease can be treated by traditional healers (25). Another study conducted among immigrants to USA showed that most of the study subjects expressed a belief in the extreme contiguousness of TB than ever before, which leads to social stigma and isolation (26). This social stigma also seen in the study conducted in India indicated the association of TB related stigma with diverse psychosocial sequence on patients. (27) Another study in Kenyan Community showed that TB is attributed to causes such as hard work, exposure to cold, sharing of toilet with TB patients, and hereditary (28). This also substantiated by another study conducted in Addis Ababa that 69.0% of the study participants feel that TB patients are not accepted in the community and over 75% of them fear physical contact with TB patients (14). Marriage disturbance was observed in rural and urban part of Ethiopia (13,14).

Stigmatization of TB patients, which derives from the confusion between HIV and TB is a major barrier to screening and treatment, and is hampering both active and passive case detection (17). Stigma and discrimination fuels the TB and epidemic by creating a culture of secrecy, silence, ignorance, blame, shame and victimization (8,10,17). This causes increased pain and suffering and devastating social and economic consequences for the people who are affected by the disease, their families and communities (8). This Stigma and discrimination also presents a serious challenge to effectiveness of prevention and care activities. The resulting fear of consequences of open disclosure and self-identification has created silence that threatens all of us (8).

A fundamental requirement for breaking the silence and overcoming the TB epidemic is eradication of stigmatization and discrimination (17,24).

Stigma could be enacted which prevents societies from appropriately addressing specific disease related issues at the community and national levels with the appropriate health care services and legal and educational strategy (8). The felt stigma that refers to the shame and fear that the person perceives; which discourages the individuals from seeking health services, for prevention, diagnosis, treatment and voluntary counseling (8,23).

It is important to address TB related stigma among the community for a verity of reasons, because TB can be cured, proper treatment renders the TB-stricken individuals non-infectious. Moreover, it is very important strategy to reduce the infection . However, in practice where stigma is strong, disclosing ones disease condition is difficult and when pervasive stigma and discrimination exist, concerned individuals feel reluctant to seek medical treatment due to fear of discriminatory repercussions (8,22,29). If the affected individual realizes that disclosure of ones disease condition results isolation, harassment, loss of employment and denial of health services and she/he remains hidden which fires the TB in the community.

Stigma and discrimination continue to affect TB patients, hampering the ability of community to normalize the disease and integrant it in to shared coping strategies as might occur with other terminal illness. (30).

Despite the challenges faced by TB patients in response to disclosure of their disease status marked improvement have shown on the prevention and control of TB specially after DOTS has being practiced (6,13). To make the DOTS implementation effective however, has to address the involvement of patients, community and clubs since they have great role in bringing significant behavioral; change (31). TB clubs are greater potential in the fighting TB stigma and for potential adherence to treatment, passive case detection, defaulter tracing, TB reporting recording and community involvement in integrated care and support (32).

Available studies that explored the extent and impact of TB are not targeted in identifying its related stigma. In addition to these, they were done in context of specific community and areas. However, the valuable works indicate that forms of stigma differ according to the cultural, social and other related factors of a given society. Thus, it is high time to investigate the extent of TB related stigma in our context. Identifying these would be useful for policy makers and interested groups in privation and control of stigma related to tuberculosis and foster supportive community. Hence, this study was designed with objectives of filling the existing gap in this area.

### **3.Objectives**

#### **3.1 General Objectives**

To assess magnitude of stigma towards tuberculosis patients in the urban community.

#### **3.2 Specific objectives**

1. To assess knowledge of the community about tuberculosis and its mode of transmission.
2. To assess attitudes of the community towards tuberculosis patients
3. To assess practice of the community towards tuberculosis patients

## **4. Research Methods**

**4.1 Study design:** A cross sectional (descriptive) design was used

**4.2 Study area:** The study was conducted in Shashemene, is located 250 kilometers south of the capital, Addis Ababa, situated at a crossroad to Bale, Arsi, Zeway, Awasa and most parts of Southern Ethiopia. It is a transition town with approximately 18,000 people passes everyday (33). According to the Central Statistic Authority 52,080 people (51% female and 49% male) are estimated to live in the town (34).

The town is divided in to 10 Kebeles (the smallest administrative units) with an average population of over 6000 in each Kebele (33).

Shashemene is selected because of the following reasons such as it is a transition town to many parts of Ethiopia, many rural and urban migrants are attracted for trading possibilities and seasonal employment and it is the most ethnically mixed town in Ethiopia, furthermore, the activities of informal sectors are targeted the large mobile people in the area so it is useful to see the picture of TB related stigma in such town

### **4.3 Study Population**

The study population includes individuals (males and females) who were residents of Shashemene town for at least six months prior to the date of interview and who are age 18 years and above.

#### 4.4 Sample Size

The sample size was estimated using sample size determination formula for a single population proportion formula. Since there were no previous studies which estimate the prevalence of stigmatizing attitude to TB in the area, a prevalence level that estimate maximum sample size (50%), marginal error (d) 0.05, non response rate of 0.1, design effect of two with 95 percent confidence certainty and alpha 0.05 was considered. Based on these assumptions, a total sample size of 845 was calculated using the formula indicated below.

$$n = \frac{(Z_{\alpha/2})^2 p (1-P)^2}{d^2}$$

$$n = \frac{(1.96)^2 \times 0.5(0.5)}{(0.05)^2} = 384$$

$$384 \times 2 = 768 \text{ (design effect of two)}$$

$$768 \times 10 \% = 77 \text{ (Non-response rate of 10\%)}$$

$$\text{Total sample size} = (384 \times 2) + (768 \times 10\%)$$

$$= 768 + 77$$

$$= \underline{\underline{845}}$$

#### **4.5 Sampling procedure**

The study subjects were selected using multistage sampling technique (Fig. 1), The town has one woreda with ten Kebeles. From the total of ten Kebeles six Kebeles were selected randomly. Sampling fraction was allocated based on probability proportional to the number of households in each Kebele, and 845 households were identified using systematic random sampling technique by dividing the total number of houses (H) by the required number of houses (h). The number "k" obtained by dividing  $H/h = k$  was used to identify the interval among each housing unit. A random number was drawn between one and "k" to identify the first housing unit, which was used as a starting point in the process of data collection. Finally, from each housing unit one individual was selected for the interview. In the presence of more than one eligible respondent in the unit one of them was selected by a lottery method and in the absence of eligible respondent in the given household no substitution was made. Three repeated attempts were made before labeling an individual is unavailable for the study

Figure 1

## **4.6 Data Collection procedure and data quality**

### **4.6.1 Quantitative data**

The data was collected by using structured questionnaire, which consists of three main categories namely socio demographic variables, knowledge variables, and feeling and avoidance intentions.

The English version of the questionnaire was translated into Amharic and back to English by two people who can speak and read both languages to check its conceptual equivalence

Twelve data collectors, who are grade 12 complete and two supervisors who have Diploma in Nursing were used for data check. Training was given to the data collectors and supervisors for three days on procedures, techniques of forwarding the questions to collect the necessary information. The responsibilities of the supervisors were supervising the data collectors and checking whether the questionnaire was correctly completed or not and reporting problems encountered immediately to the principal investigator.

#### **Pre Test**

The Amharic version of the questionnaire was pre- tested in Adama town, which has similar geographic setting and socio demographic profile with study area to assess for its

clarity, understandability and completeness. During the pre-test repetition of questions, problems on the order, response option and difficult sentence constructions were identified. Based on the finding of the pre test rearrangement of sequence and change of wording of questions were made.

#### **4.6.2 Qualitative data**

Semi- structured focus group discussion (FGD) guide (Annex II) was prepared by the principal investigator reviewed by an expert who has Masters in Public Health was used during the discussion. Six focus group discussions were conducted in two kebeles of the town, which were not included in the quantitative survey. All the FGDS were conducted after the completion of the survey. The purpose of the FGD was to obtain in-depth information on people's attitude towards TB patients. Each session was tape-recorded after getting consent form the participants. Key informants in the selected Kebeles were identified individuals for FGD. The FGD include people who are able to express their idea and living in Shashemene town for the last six months before data collection. Grouping of the participants were made based on three age categories (18-25 years, 26-49 years, and 50 and above years) and gender. One group was formed for each category and this grouping was believed to help having common understanding among the participants. The principal investigator facilitated all FGDS and two supervisors were taking notes and tape recording the discussion. Each focus group was having minimum of eight and maximum of twelve participants and took an average of one and half hours.

## **4.7 Variables**

### **☛ Independent**

#### **A. Socio-Demographic Variables**

- Age
- Sex
- Marital Status
- Religion
- Educational Background
- Ethnicity
- Income
- Occupation.

### **☛ Dependent**

- Knowledge
- Attitudes
- Feelings
- Avoidance

## **4.8 Management of Data Collection**

Twelve data collectors (six males and six females) and two supervisors were recruited from the study area and were trained for three days by the principal investigator. All the data collectors have completed 12<sup>th</sup> grade. Strict daily supervision of the data collection process was maintained throughout the data collection period. Each supervisor was responsible for two groups of data collectors composed of three females and males. Supervisors collected the questionnaires from data collectors daily, and checked each questionnaire for completeness the completed questionnaires were then submitted to the principal investigator for final check. Incomplete questionnaires were returned to the specific data collector to be corrected by revisiting. There was daily meeting through out the data collection process to discuss on the process.

During data collection, data collectors were not able to locate 10 (1.2 %) housing units. Fifteen (1.8 %) respondents (5 female and 10 males) were not willing to give consent for the interview. Three individuals (0.3 %) were not available for the interview after three repeated attempts. This gave a total of 817 individuals who were participated in the study.

## **4.9 Data Processing and analysis**

The collected data was entered in to EPI-info version 6 for re-coding of variables and analysis SPSS version 10 (Statistical Package for Social Sciences) was used. Respondents were classified to have correct response to respective knowledge questions and measured by the correct response given for each knowledge variable. Correct response for a given variable was given a value of " 1" and if not "Zero". and selected questions were cross tabulated with personal characteristics to see their association.

Variables regarding stigmatizing attitude to a particular item were classified to have stigmatizing attitude to a particular item if their response to that variable was "little" or "not at all" for positive worded item and "very much " or "some what" for a negative worded item. Little and not at all responses were coded together to obtain non-stigmatizing response and were given a value of one, while “very much” and “somewhat” responses were given a value of zero. Undecided responses were left out from the analysis.

The data was then summarized and analyzed for the necessary association using SPSS . Frequency and percentages were used to present the finding and binary Logistic regression was used to adjust OR and was used to indicate significance of association.

The tape-recorded focus group discussions was first transcribed in Amharic and was translated in to English by the principal investigator. The transcription and the notes taken during the discussions were used to identify main concepts. The main findings of the discussion, which were different from the survey result, were selected and summarized under the theme of the discussion guide. Finding from the note keeper was also considered.

#### **4.10 Communication of the Result**

The finding of the study will be communicated to all relevant organizations and bodies who can make use of the study findings including Oromia Health Bureau, Addis Ababa University, Department of Community Health, Ministry of Health and will be sent for publication to Local or International Journals.

#### **4.11 ETHICAL CONSIDERATION**

Ethical clearance was secured from the Faculty of Medicine, Addis Ababa University. Permission to proceed with the study was obtained from Oromia Regional State and from administrative bodies of the town including Kebeles. Moreover, the survey questionnaire was anonymous that interview was conducted in a private setting to maintain privacy of the respondents for sensitive questions. Verbal consent was obtained from each respondent; confidentiality was maintained by omitting name of the respondents. The instrument and procedures used in this study did not cause any harm to the study subjects, the community, data collectors and supervisors who were involved in the survey.

#### 4.12 OPERATIONAL DEFINITIONS

- B. **Stigmatizing attitude:** The intension to avoid TB patients from social interaction, work place, and other related areas, support for coercive TB realted policies, blaming a person with TB for acquiring the disease
- C. **Attitude:** A feeling that is directed towards a person, idea, object or situation.
- D. **Feeling:** The extent to which respondents felt angry at, afraid of and disgusted by TB patents.
- E. **Avoidance behavioral intention:** The intention to get TB patents away or avoid them from social interaction, work place and related areas.
- G. **Knowledge is** information or facts that an individual is aware of in this study it was measured based on the ability of the respondents to identify and correctly responded to cause and mode of transmission of tuberculosis.

## **5. Results**

### **5.1 Socio-demographic characteristics**

Among 817 (96.7%) study subjects 480 (58.8%) were females and 337(41.2%) were males (Table 1)

The majority of the respondents were between the ages of 18-27 and 28-37 with minimum of 18 and maximum of 80 years. With median age of 29 years.

From the total respondents 360 (44.1%) were currently married, 384(47%) were single, 59(7.2%) were separated and the rest 14(1.7%) widowed.

Two hundred forty seven (30.2%) of the respondents belong to the Amhara ethnic group followed by Gurage 209 (25.6%), Oromo (24.6%), Welayta 71(8.7%), and the rest were from other ethnic groups such as Kmbata, Sidama, Argoba, and Tigrie. Five hundred twenty (63.8%) of the respondents, were orthodox Christians, 146(17.9%) of the respondents were Muslim, 127(15.5%) of them were Protestant, and 23(2.8%) of the respondents were followers of the Catholic religion

Six hundred sixteen (75.3%) of the respondents reported attending formal education.

From all respondents 117 (14.3%) of them had no income, 299(36.6%) had an income of 1-100 Birr and the average monthly income of the respondents was 102 Birr.

Nearly half (47.6%) of the respondents had no children and 275 (33.7%) of them had 1-3 children.

Regarding occupation one hundred seventeen (14.3%) of the respondents were merchants, 246(30.1%) were daily laborers, 158(19.3%) were housewives, 115(14.1%) student and 89 (10.9%) were unemployed

Table 1. Socio Demographic characteristics of the respondents of Shashemene Town, December, 2004 n=817

Variables	Male n=337 (41.2%)		Female n=480 (58.8%)		Total (n=817 (100%))	
	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%
<b>Age</b>						
1 18-27	142	42.1	224	46.7	366	44.8
2 28-37	98	29.1	112	23.3	210	25.7
3 38-47	45	13.4	83	17.3	128	15.7
4 48-57	22	6.5	36	7.5	58	7.1
5 58-67	20	5.9	21	4.4	41	5.0
6 68+	10	3.0	4	0.8	14	1.7
<b>Religion</b>						
2 Orthodox	190	56.4	331	69.0	521	63.8
1 Islam	90	26.7	56	11.2	146	17.9
3 Protestant	48	14.2	79	16.5	127	15.5
4 Catholic	9	2.7	14	2.9	23	2.8
<b>Ethnicity</b>						
1 Oromo	83	24.6	118	24.6	201	24.6
2 Amhara	94	27.9	153	31.9	247	30.2
3 Tigrie	19	5.6	42	8.8	61	7.5
4 Gurage	99	29.4	110	22.9	209	25.6
5 Welaita	26	7.7	45	9.4	71	8.7
6 Others	16	4.7	12	2.5	28	3.4
<b>Marital status</b>						
1 Never married	198	58.8	186	38.8	384	47.0
2 Currently married	125	37.1	235	49.0	360	44.1
3 Separated	14	4.2	45	9.4	59	7.2
4 Partner died	0	0.0	14	2.9	14	1.7
<b>Number of children</b>						
1 No Children	197	58.5	192	40.0	389	47.6
2 1-3	85	25.2	190	39.6	275	33.7
3 4-7	45	13.4	85	17.7	130	15.9
4 >7	10	3.0	13	2.7	23	2.8

Table 1 cont'd socio demographic characteristics of the respondents of Shashemene Town, December 2004. N=817

Variables	Male n=337 (41.2%)		Female n=480 (58.8%)		Total (n=817 (100%))	
	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%
<b>Education</b>						
Illiterate	24	7.1	106	22.1	130	15
Write and Read	20	8.9	51	10.6	71	8.7
1-6 grade completed	46	13.9	63	13.1	109	13.3
7-8 grade completed	65	19.3	78	16.3	143	17.5
9-12 grade completed	136	40.4	164	34.2	300	36.7
College	46	13.6	18	3.8	64	7.8
<b>Occupation</b>						
Unemployed	33	9.8	56	11.7	89	10.9
Civil servant	39	11.8	21	4.4	60	7.3
Student	43	12.8	72	15.0	115	14.1
House wife	0	0.0	158	32.9	158	32.9
Daily Laborers	126	37.7	120	25.6	246	30.1
Pensioned	15	4.5	32	3.5	32	3.9
Merchant	81	24.0	36	7.5	117	14.3
<b>Monthly income</b>						
No income	46	13.6	71	14.8	117	14.3
1-100	86	25.6	213	44.4	299	36.6
101-300	92	27.3	122	25.4	214	26.2
301-500	73	21.3	51	10.6	124	15.2
501-1000	33	9.8	20	4.2	53	6.5
1000+	7	2.1	3	0.6	10	1.2

## 5. 2 Knowledge about Tuberculosis (TB)

Thirteen questions (Annex I, question numbers 201-214) were asked to assess respondents' knowledge about Tuberculosis. Table 2.

The result showed that cold was stated as a major cause of TB by 737 (90.2%) of the respondents and drinking dirty water was reported as a cause by 295(31.1%) of the respondents. Germs were reported as a cause by 370(45.3%) and overcrowding was stated as a cause by 254(31.1%) of the respondents respectively.

Sexual intercourse was one route of transmission for tuberculosis reported by 260(31.8%) respondents. Among all 397(48.6%) of the respondents reported that all TB patients are infected with HIV/AIDS, and 531(65%) of the respondents were reported that injection as one means for transmission of Tuberculosis.

More than half of the respondents (59.1%) reported that mother to child transmission of tuberculosis during pregnancy and 571(69.9%) of the respondents reported that mother to child transmission through breast-feeding. Among all 668(81.8%) and 715(87.5%) of the respondents reported that TB is preventable and curable disease respectively. 400 (48.9%) of the respondents reported that sharing toilet with tuberculosis patient could transmit tuberculosis the disease and 491 (60.1%) of them reported that TB could transmit by eating together with TB patients

As it is indicated in table 3 statistical association was seen regarding transmission of tuberculosis and male sex OR1.4 (1.0,1.9), and unmarried OR: 1.5(1.1,2.1), illiterate OR: 0.4(0.3,0.6).

**Table2 Knowledge about TB among study subjects, Shashmene, Town, Ethiopia, March. 2004, n=817.**

Variable	Correct *		Incorrect **	
	N <sup>o</sup>	%	N <sup>o</sup>	%
TB patients are infected with HIV?	420	51.4	397	48.6
Could TB come from cold?	80	9.8	737	90.2
Do one acquire TB by drinking dirty water?	522	63.9	295	36.1
Do one acquire TB by sexual intercourse?	557	68.2	260	31.8
A person can get TB by Germs?	447	54.7	370	45.3
A person can get TB by sharing injection?	286	35.0	531	65.0
Could TB transmit by sneezing & coughing?	674	82.5	143	17.5
Do TB transmit from overcrowding?	563	68.9	354	31.1
Pregnant women transmit TB to her fetus?	334	40.9	483	59.1
Infected women can transmit TB to her infant through breast milk	246	30.1	571	69.9
TB is preventable	668	81.8	149	18.2
TB is curable	715	87.5	102	12.5
Sharing toilet with TB patients	417	51.1	400	48.9
Eating together with person with TB	326	39.9	491	60.1

\*Correct = right answer for the respective questions.

\*\* Incorrect = wrong answers for the respective questions

**Table 3. Knowledge about Tuberculosis and its transmission in relation to personal characteristics of the respondents, Shashemene Town, Ethiopia, March, 2004**

Variables	Correct	Incorrect	Crud OR(95% CI)	Adjusted OR(95% C.I)
General				
TB patients are infected with HIV				
Male	189(45)	148(37.3)	1.4(1.0,1.8)	1.2(0.9,1.6)
Female	231(55)	249(62.7)	1.0	
Illiterate/read & write	71(16.9)	130(32.7)	0.4(0.3,0.6)	0.5(0.3,1.7)
Attended Formal Education	349(83.1)	267(67.3)	1.0	
Marriage				
Never married	226(53.8)	158(39.8)	1.8(1.3,2.3)	1.4(0.9,1.8)
Ever married	194(46.2)	239(60.20)	1.0	
TB could be preventable				
Male	290(43.4)	47(31.5)	1.67(1.1,2.4)	1.4(0.9,2.0)
Female	378(56.6)	102(68.5)	1.0	
Education				
Illiterate/read & write	134(20.1)	67(45)	0.3(0.2,0.50)	0.4(0.3,0.6)*
Attended Formal Education	537(79.9)	82(55)	1.0	
Marriage				
Never married	337(50.4)	47(31.5)	2.2(1.5,3.2)	1.5(0.9,2.3)
Ever married	331(49.60)	102(68.5)	1.0	
Transmission				
One can get TB by				
Sharing injection				
Male	138(48.30)	199(37.5)	1.6(1.2,2.1)	1.3(0.9,1.7)
Female	148(51.7)	332(62.5)	1.0	
Education				
Illiterate/read & write	34(11.9)	167(31.5)	0.3(0.2,0.4)	0.4(0.3,0.6)*
Attended Formal Education	252(88.5)	364(68.5)	1.0	
Marriage				
Never married	166(58)	218(41.1)	1.99(1.48,2.7)	1.4(1.1,1.9)*
Ever married	120(42)	313(58.9)	1.0	
Drinking dirty water				
Male	240(46)	97(32.9)	1.74(1.3,2.3)	1.4(1.0,1.9)*
Female	282(54)	198(67.1)	1.0	
Education				
Illiterate/read & write	86(16.50)	115(39)	0.3(0.2,0.4)	0.4(0.3,0.6)*
Attended Formal Education	436(83.5)	180(61)	1.0	
Marriage				
Never married	281(53.8)	103(34.9)	2.2(1.6,2.9)	1.5(1.1,2.1)*
Ever married	241(46.2)	192(65.1)	1.0	

\*Significant associations

#### **5.4. Feeling Towards Tuberculosis Patients**

The result on Table 4 showed that 200 (24.5%) of the respondents reported that they do have some sort of unusual feeling when they see TB patients. Six hundred twenty four (76.6%) of the respondents said that they do not afraid TB patients while 184 (22.5%) of the respondents reported that they afraid of TB patients and 299(36.6%) of the respondents were reported that they hate tuberculosis patients.

As indicated in Table 6 there is an association between unusual feeling and being male OR 1.6(1.1,2.3) and Illiterate/read and write OR 1.9(1.3,2.9). Afraid of TB patients also has an association with being Illiterate/read & write OR 1.9(1.3,2.7).

### **5.5. Avoidance of TB patients**

Eleven questions were raised to assess the avoidance behavior intentions of the respondents Table 7. The mean  $\pm$ SD score was  $3.7\pm 3.0$  with maximum of 11 and minimum of zero. Three hundred sixty four (44.6%) of the respondents were not willing to allow their child to a school where a child with TB and who is on treatment is learning and 503(61.6%) of the respondents were not willing to allow a teacher with TB to teach in a school where their child is learning even if she /he is on treatment. More than half (74.9%) of them reported to keep their personal disease status secret and 391(47.9%) of the respondents were not volunteer to allow marriage between their daughter/son and a person who has been cured from TB. Seven hundred fifty four (92.3%) of the respondents were willing to care for their relatives at home and 718(87.9%) of the respondents were willing to allow a person with TB to be the member of their Eder (Community based organization) in their locality and 715(87.5%) of the respondents were willing to participate in a religious ceremony with a person with TB.

As indicated in Table 7 Statistical association was seen between avoidance behavior and Illiterate OR: 3.5 (1.5,4.2) and religion OR: 2.4(1.5-3.9) but no association was observed with sex and marital status

**Table 4.** Feeling towards Tuberculosis patients among residents of Shashemene town, Ethiopia, March 2004.

<i>Feeling towards TB patients</i>	<b>Stigmatizing *</b>		<b>Non-stigmatizing**</b>	
	N <sup>o</sup>	%	N <sup>o</sup>	%
Do you Feel something unusual when you see TB patients?	200	24.5	611	74.8
Do you hate TB patients because of their illness?	184	22.5	626	76.6
Are you afraid TB patients because of their illness?	299	36.6	510	62.4

NB Total may not add up to 100% because some of the respondents were not sure for their response.

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\*Stigmatizing category combines responses "Very much" & "Some what "

\*\* Non-stigmatizing category combines "Little" & " Not at all"

**Table 5: Avoidance Intention towards Tuberculosis Patients among residents of Shashemene town, Ethiopia, March 2004. N=817**

Avoidance behavioral intention	Stigmatizing*		Non stigmatizing**	
	N <sup>o</sup>	%	N <sup>o</sup>	%
Allowing child to attend in the school where one of the student was known TB patient and on treatment	364	44.6	453	55.4
Willingness to continue friendship	111	13.6	706	86.4
Willing to work with your colleagues who had TB and on treatment on the same office	148	18.1	669	81.9
Willing to care for relative with TB at home	63	7.7	754	92.3
Willing to shop from shopkeeper with TB and on treatment	184	22.5	663	97.5
Keep personal disease status secret	612	74.9	205	25.1
Willing to visit the house of neighbor with TB	70	8.6	745	91.4
Allowing a person who was cured from TB to marry your daughter or son	391	47.9	426	52.1
Allowing a teacher with TB and on treatment to continue teaching in child's school	503	61.6	314	38.4
Willingness to allow TB patient to be the member of Eder	99	12.1	718	87.9
Willingness to participant in a religious ceremony with TB patient	102	12.5	715	87.7

\* Stigmatizing wrong answer for the respective questions

\*\* Non- stigmatizing correct answer for the respective questions

**Table 6.** Feeling towards TB in relation to personal characteristics of the respondents, Shashemene Town, Ethiopia, March, 2004

<b>Variables</b>	<b>Stigmatizing</b>	<b>Non-Stigmatizing</b>	<b>Crud OR (95% CI)</b>	<b>Adjusted OR (95% C.I)</b>
<b>Feeling towards TB Patients:</b>				
<b>Unusual felling</b>				
<b>Sex</b>				
Male	91(45.5)	243(39.8)	1.3(0.9,1.7)	1.6(1.2,2.3)*
Female	109(54.5)	368(60.2)		
<b>Education</b>				
Illiterate/read & write	69(34.5)	130(21.3)	1.9(1.4,2.8)	1.9(1.3,2.9)*
Attended Formal Education	131(65.5)	481(78.7)		
<b>Marriage</b>				
Ever married	79(39.5)	301(49.3)	0.7(0.5,0.9)	0.8(0.6,1.2)
Never married	121(60.5)	310(50.70)		
<b>Afraid of TB patients</b>				
<b>Sex</b>				
Male	121(40.5)	210(41.2)	0.9(0.7,1.3)	1.1(0.8,1.5)
Female	178(59.5)	300(58.8)		
<b>Education</b>				
Illiterate/read & write	98(32.8)	102(20)	1.9(1.4,2.7)	1.9(1.3,2.7)*
Attended Formal Education	201(67.2)	408(80)		
<b>Marriage</b>				
Never married	124(41.5)	257(50.4)	0.7(0.5,0.9)	0.8(0.6,1.2)
Ever married	175(58.5)	253(49.6)		

\* Significant Associations

**Table 7.** Avoidance behavior to personal characteristics of the respondents, Shashemene Town, Ethiopia, March 2004

Variables	Stigmatizing	Non-Stigmatizing	Crud OR (95% CI)	Adjusted OR (95% C.I)
<b>Allowing a child to learn with:</b>				
Sex				
Male	145(39.8)	192(42.40)	0.9(0.7,1.2)	0.9(0.7,1.3)
Female	219(60.2)	261(57.6)		
Education				
Illiterate/read & write	102(28)	99(21.9)	1.4(1.0,1.9)	1.3(0.9,1.9)
Attended Formal Education	262(72)	354(78.1)		
Religion				
Muslim	70(19.2)	76(16.8)	1.2(0.8,1.7)	1.1(0.9,1.8)
Christians	294(80.8)	337(83.2)		
Marriage				
Never Married	163(44.8)	221(48.8)	0.9(0.6,1.2)	0.9(0.7,1.3)
Ever married	201(55.2)	232(51.2)		
<b>Allowing Marriage:</b>				
Sex				
Male	147(37.6)	190(44.6)	0.7(0.6,0.9)	0.8(0.6,1.1)
Female	244(62.4)	236(55.4)		
Education				
Illiterate/read & write	115(29.4)	86(20.2)	1.6(1.2,2.3)	1.4(1.0,2.1)*
Attended Formal Education	276(70.6)	340(79.8)		
Religions				
Muslim	70(17.9)	76(17.8)	1.0(0.7,1.4)	1.1(0.8,1.6)
Christians	321(82.1)	350(82.2)		
Marriage				
Never married	166(42.5)	218(51.2)	0.7(0.5,0.9)	0.8(0.6,1.1)
Ever married	225(57.5)	208(48.8)		
<b>Religious ceremony</b>				
Sex				
Male	49(48)	288(40.3)	1.37(0.9,2.07)	1.36(0.87,2.12)
Female	53(52)	427(59.7)		
Education				
Illiterate/read & write	32(31.4)	169(23.6)	1.48(0.94,2.3)	1.5(0.9,2.5)
Attended Formal Education	70(68.6)	546(76.4)		
Religions				
Muslim	32(31.4)	114(15.9)	2.41(1.52,3.8)	2.42(1.49,3.91)*
Christians	70(68.6)	601(84.1)		
Marriage				
Never married	42(41.2)	342(47.8)	0.76(0.5,1.16)	0.76(0.47,1.22)*
Ever married	60(58.8)	373(52.2)		

\* Significant associations

## **5.6. Findings from Focus Group Discussion (FGDs)**

All participants of the FGD stated that they heard about TB and majority of them reported of knowing TB patients in their locality.

None of the participants mentioned out the family member or relative who had TB.

Similar to the result collected from the quantitative survey majority of the participants reported that exposure to cold is the main cause and many believe that contracting TB leads to HIV. Some stated that TB is caused by God and that it is the reason why it is frequently seen among sex workers as a punishment for their bad behavior. Concerning modes of transmission majority of the participants related it with HIV/AIDS. The common agreement was a "person with TB definitely would have HIV". Coughing and sneezing were mentioned by some participants.

A 42-year-old female participant believed that TB affects the youth because of its relation with HIV. In all groups majority of the participants, both young and older people believe on the similarity of TB and HIV/AIDS.

All participants agreed that physically thin (having weight loss) and coughing are the signs for TB and HIV/AIDS.

### **Community attitude and practice**

Most participants agreed that not only the patient but his family is also labeled to have HIV/AIDS. A 50 years old female stated that "Many people who have got TB died in the streets due to lack of care from their families and the community".

Most FGD participants agreed that their community has a negative attitude towards TB patients. If some one presented with TB the public starts talking about the person by

considering as if she/he has HIV/AIDS and this avoids the affected group from social relations. As it was stated by 24 years male participant that tuberculosis has strong influence on social interaction like marriage. Another female participant also added that she new a friend who was preparing for marriage but unfortunately she has developed TB and near the time of wedding ceremony her counter part asked her to take blood test alone, lastly she has decided to stop that wedding. Another participant added "that one of her neighbors abandoned his wife after he learnt that she had TB."

The other point raised by 35 years old male participant that when cough is changed to cold meaning "Nefas" in Amharic everybody in that locality understands TB as HIV". Another 40 years old female participant also added, "if some one has got TB no body wants to see him."

Most participants' (24-49 years old of both sexes) clearly expressed that people with TB do not want to forward their problem because the public wants to isolate them. A 48 years old female added that isolation is not only limited to the community alone but also extends to health workers that their attention is minimal to those who are affected. The problem would force them to go to private clinics and where might not be affordable by themselves and their families.

Social disturbance especially on funeral ceremony was another important point raised by male participants of 50 years and above. As one of 50 years old male stated that "We don't have problem to wash dead body of a person died of car accident or other cases but

it is difficult to wash dead body died of TB because dead body can have HIV so what we are doing is simply flushing water and cleaning by using eucalyptus tree from fare.

### **3. Participants attitude and practice**

#### **Reasons for not disclosing**

Only few participants showed their willingness to discuss their disease status. The reason stated were as one of the participants, age 54 female said that "I personally am not willing to disclose my disease to others because, "I want to keep my social interaction with my neighbors"

Participants (aged 25-49 years female and 50 years and above both sexes) expressed their stand by saying "They will avoid having contact with TB patients because they are not sure weather are free from HIV or not." A 60 years old female participant also added that "I will not visit a house of a person who is sick, because the current TB is incurable as it is resulted from HIV and "I will not eat or drink from that house." The above idea was shared by majority of the participants. The group also expressed their fear of shopping from a grocery where the owner is sick even if she/he has started the treatment.

In the group where participants of 50 years and above were formed, both sexes agreed that a teacher should not be allowed to teach in the school once if she/he is sick and a student with TB should not be in the same class with other even though she/he has started treatment .

Most of the participants (both sexes and age group) stressed that stigmatization is related to poor knowledge about the transmission and preventive mechanism of the disease. They also pointed out that discussion about HIV/AIDS are common but no attempt was made to show the clear variations between TB and HIV, so that education on TB should be given to the community.

## 6. Discussion

The Study provided important information regarding knowledge about transmission and stigmatizing attitudes of the public towards tuberculosis patients in the area. The result may contribute for policy makers' curriculum developers and those who are interested to work on the area of TB and related stigma among the community. In this study cold was reported as a major cause of TB by 90.2% of the survey respondents and most of the FGD participants. Similar results were reported in the studies conducted in rural and urban parts of Ethiopia and Kenya. (14,28,35) this indicates occurrence of misunderstandings among the community.

In this study sexual intercourse was one route of transmission as mentioned by 260(31.8%). Among all 397 (48.6%) of them reported that all TB patients are infected with HIV. The latter was supported by most of FGD participants. It is similar to the study conducted in Addis Ababa and Baherdar (14,35). Then the misunderstanding concurring the cause and transmission of TB could magnify the stigmatization attitude of the public towards TB patients and could be one of the main contributing factors for isolation of patients from the community.

In our study majority of the respondents 59.1% and 69.9% reported that mother to child transmission during pregnancy and breast-feeding to be means of transmissions for TB respectively. The confusion about the transmission mechanism of TB was clearly seen

among FGD participants, similar result was reported in the study conducted in Metropolis (14)

In an area where TB is considered to be transmitted by sex and mother to child might indict the presence of misunderstanding of the difference between TB and HIV. And this intern lead to isolation of the affected and their families out of social interaction and disturbs their social tie such as marriage. Similar rejection was reported both in rural and urban part of the country (13,14), and there is a need to work on the issue so as to avoid the existing stigma from the community.

The other issue seen in our survey is that 81.1% and 87.7% of the respondents reported that TB is preventable and curable respectively. This is consistent with the previous study conducted in Metropolis (14) where most respondents considered TB as curable diseases. However, In our FGD clearly indicated that majority of participants knows that the current TB is incurable. This inconsistency by itself is an indication of the occurrence of confusion between TB and HIV/AIDS in that locality and this intern leads to rejection of the affected people. Thus it is very important to consider the issue of TB along with HIV/AIDS so that the community would get opportunity to fight both epidemics

The knowledge on the transmission of TB was high among males compared to females. Similar results were reported in different studies (35,36). The gender difference in this study could be resulted from high illiteracy rate in females, because of family and work demand, lack of power in the resource utilization and carrying role of female might play

an important role in not joining formal education. The finding also indicated high awareness about TB among singles compared to the married ones, this might be related to the fact that single ones have chance for education and they may have access for information. The finding indicated that illiterate ones have lower knowledge compared to those who attended formal education. This might be related to the fact that those who attended formal education might get opportunity for information in clubs and while attending their education

Misconceptions' regarding TB transmission through was identified in this study. The fact that 60.1 % of the respondents were reported that TB resulted from eating together with TB patients and 49 % of the respondents reported that TB resulted sharing toilet with those who have TB

The observation by the majority of the respondents in FGD indicated that TB patients are not well accepted in the society is further supported by the fact hat 24.5% of the respondents feel something unusual when they saw TB patients and 22.5% of them feel that TB patients are persons to be afraid of. Similar social rejection was also reported in a study conducted in rural and urban part of Ethiopia and immigrants to USA (13,14,29). In both cases most of FGD participants reported the presence of stigmatization of TB patients by the fact that they were the one who brought the disease and considering them as if they were HIV cases

Most of (74.9%) of the respondents reported to be secretive about their illness. This is resulted from misunderstanding about transmission of TB and totally association with HIV/AIDS, leads to the perception that TB is a very dangerous disease and is intern contributes to avoidance of TB patients and the resultant stigma as it was clearly indicated in our FGD that majority of the participants and 61.6% of survey respondents were not willing for a teacher to teach in that school and 44.6% of them were not willing to allow their child to learn in the same school where a child with TB is learning even if she/he has started treatment

The social isolation and consequence of TB has an impact on social interactions like marriage & as it was clearly indicated in most of FGD participants and 47.9% of survey participants were not willing to allow marriage between their son/daughter with a person who has been cured from TB and marriage disturbance was clearly indicated in our FGD report similar rejection was reported in rural and urban part of Ethiopia (13,14).

The other surprising issue that with the presence of misunderstandings about transmission of TB most of 87.9% of survey respondents were willing to allow a person with TB to be the member of there Eder (community based organization) this resulted by the fact that from the very nature of Eder is to facilitate funeral ceremony and they allow TB patients from the intention that person is going to die soon. The willingness by itself was stigmatizing. AS one of the FGD participant said that TB patients are dying so they should be the member of Eder as soon as possible otherwise who is going to bury them.

On the other hand 87.5% of the respondents were willing a to participate religious ceremony with a person with TB but variation on stigmatizing effect among Muslims was higher than other Christians. Though it was not clearly indicated religious variation on social isolation was reported in study conducted in Addis Ababa (14). This social rejection is another important issue that responsible bodies should think of the health education area among different religious group.

## **7. Strength and Limitation of the study**

### **7.1 Strength**

- Gives baseline information concerning Tuberculosis stigma in the area
- Use of the quantitative and qualitative methods of data collection in such type of study where responses might be compromised by the stigma it self could be sited as strength of the study.

### **7.2 Limitations**

- Since the study was compromised by the stigma it self, respondents might not report their genuine attitude towards a given question. Moreover, the investigator could not be sure weather the responses given to the variables are heartily and realistic to the real situation. The study therefore, could be confounded by social desirability biases
- Absence of similar studies in the area also has made compression of the result difficult
- Difference between male and female respondents could be taken as a limitation

## **8. Conclusion and Recommendations**

### **8.1 Conclusions**

Majority of the respondents in the present study has misconception about the cause and transmission of tuberculosis. Widespread stigma against tuberculosis patients was indicated in the community, which was manifested by considering all tuberculosis patients as HIV/AIDS cases, showing negative feeling towards them, and supporting isolation of them. Because of these only few people willing to disclose their disease status to the public. Avoidance of tuberculosis patients and their relatives clearly observed. This could be resulted from misunderstandings as to the mode of transmission of tuberculosis. Activities related to prevention of TB were not adequate in bringing behavioral changes and overcoming the stigma. Presence of stigma in the present study indicated the need for public awareness and strengthening mechanism to design strategies to tackle TB epidemic

### **8.2 Recommendations**

- ☛ Programs that are targeted to prevent and treat tuberculosis should address the issue of stigma.
- ☛ Incorporate stigma related points to tuberculosis in the package of information carried in to urban population by anti-AIDS clubs.

- ☛ Use social gatherings such as Edir, Churches, Mosques and Schools etc. and organize small groups to facilitate discussions about tuberculosis and related stigma in the village level.
- ☛ Institutions working towards prevention of HIV/AIDS should include the issue of tuberculosis and related stigma
- ☛ Further studies, to build knowledge about stigma in specific area should be encouraged.

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## Annex I Survey questionnaire (English Version).

Addis Ababa University, Faculty of Medicine, Department of Community Health  
 Survey questionnaire on Stigma towards to Tuberculosis Patients in Urban Community of  
 Shashemene Town.

001 Questionnaire identification number \_\_\_\_/\_\_\_\_/\_\_\_\_ 002. Region \_\_\_\_\_  
 003. City \_\_\_\_\_ 004. Kebele \_\_\_\_\_ 005. House Number \_\_\_\_\_  
 Time at the beginning of the interview \_\_\_\_\_

### **Introduction:**

My name is \_\_\_\_\_. I am working for a Masters degree  
 thesis research project conducted in collaboration with the Addis Ababa University and  
 Ethiopian Public Health Association/CDC. I am conducting this interview in order to find  
 out peoples feeling about Tuberculosis in relation to HIV/AIDS in Urban community.

### **Confidentiality and consent:**

" I am going to ask you general and some very personal questions. Your name will not be  
 written on this form, and will never be used in connection with any of the information  
 you tell me. You don't have to answer any questions that you don't want to answer, and  
 you may end this interview at any time you want to. However, your honest answers to  
 these questions will help us better understand what people think, say and do about certain  
 kinds of behaviors related to TB. We would greatly appreciate your help in responding to  
 these questions. The survey/ interview will take about 40 minutes.

Would you be willing to participate? (Indicate by ticking the appropriate response)

Yes \_\_\_\_\_ No \_\_\_\_\_

Signature of interviewer certifying verbal informed consent \_\_\_\_\_

Interviewer visit

	Visit 1	Visit II	Visit III
Date			
Interviewer			
Result			

Result codes: 1. Completed 2. Respondent not available 3. Refused  
 4. Partially completed 5. Households not found 6. Households closed 7. Others

006. Interviewer: code \_\_\_\_/\_\_\_\_/\_\_\_\_ Name \_\_\_\_\_

007. Date of Interview \_\_\_\_/\_\_\_\_/\_\_\_\_ Time \_\_\_\_\_

008.Checked by Supervisor: Signature \_\_\_\_\_ day \_\_\_\_\_ month \_\_\_\_\_ year \_\_\_\_\_

1. Socio-Demographic Variables (circle)			
No	Questions	Coding Categories	Skip
101	What is Your Age? (Enter in the space)	_____ Year	
102	Your Sex (don't ask this question)	1. Male 2. Female	
103	What is your Religion?	1. Islam 2. Orthodox 3. Protestant 4. Catholic 5. Others (Specify)_____	
104	Your Ethnicity?	1. Oromo 2. Amhara 3. Tigrie 4. Guragea 5. Welayta 6. Others (Specify)_____	
105	What is your Educational Level?	1. Unable to read & write 2. Read and Write 3. Grade 1-6 4. Grade 7-8 5. Grade 9-12 6. College & above	
106	What is Your Marital States?	1. Single 2. Married 3. Separated 4. Widowed/partner died	
107	For how long have you lived in this town? (Enter in the space)	_____	
108	How many children do you have (Enter in the space)	_____	
109	What is your average monthly income	1.No income 4 301-500 2. 1-100 5. 501-100 3. 101-300 6. >1000	
110	Occupation	1. Unemployed 7. Merchant 2. Civil servant 8. Farmer 3. Student 9. Others 4. House wife 5. Daily laborer 6. Pensioned	

**Part Two: Knowledge about TB and its transmission.**

**2.1 Knowledge about TB**

201	Do all TB patients are infected with HIV?	1. Yes 2. No 3. I do not know	
202	Could TB comes from cold	1. Yes 2. No 3 I do not know	
203	Could TB transmitted by sneezing & coughing	1. Yes 2. No 3. I don't know	
204	Do TB transmit from overcrowding	1. Yes 2. No 3 I don't know	
205	Do one acquire by drinking dirty water	1. Yes 2. No 3. I do not know	
206	Do one get TB by sexual intercourse	1. Yes 2. No 3. I do not know	
207	A person can get TB by germs	1. Yes 2. No 3. I do not know	
208	A person can get TB by shearing Injections	1. Yes 2. No 3. I do not know	
209	Pregnant mother can transmit TB to her fetus	1. Yes 2. No 3. I do not know	
210	Infected women can transmit TB to her infant by breast milk	1. Yes 2. No 3. I do not know	
211	Is it possible to prevent TB?	1. Yes 2. No 3. I do not know	
212	Is TB curable disease?	1. Yes 2. No 3. I do not know	
213	Sharing a meal with someone who is living with TB cause TB	1. Yes 2. No 3. I do not know	
214	Sharing a toilet with a person with TB could cause TB?	1. Yes 2. No 3. I do not know	

### Part Three Stigma Items

<b>3.1</b>	<b>Feelings: People have many different feelings when they think about people who have TB</b>		
<b>As I read each of the following feelings, Please tell me how you personally feel. (Circle one)</b>			
301	Do you feel something unusual when you see TB patients?	<ol style="list-style-type: none"> <li>1. Very much</li> <li>2. Some what</li> <li>3. Not sure</li> <li>4. Little</li> <li>5. Not at all</li> </ol>	
302	Do you hate patients because of their illness?	<ol style="list-style-type: none"> <li>1. Very much</li> <li>2. Some what</li> <li>3. Not sure</li> <li>4. Little</li> <li>5. Not at all</li> </ol>	
303	Are you afraid of TB patients because of their illness	<ol style="list-style-type: none"> <li>1. Very much</li> <li>2. Some what</li> <li>3. Not sure</li> <li>4. Little</li> <li>5. Not at all</li> </ol>	

4.2	Avoidance behavioral intention (Circle one)	
404	Would you leave your young child in the same school if one of the student attending school with him was known to have TB & on treatment	1 leave him in the same school 2 Send him to other school 3 I don't know
405	Would you be willing to continue your friendship if you learn that your close friend had TB on treatment.	1.Yes 3. I don't know 2.No
406	Would you willing to work with your colleague in the same office if you knew that he/she had TB on treatment.	1.Yes 3. I don't know 2.No
407	If relative of yours become ill with TB, would you be willing to care for him/ her in your household?	1.Yes 3. I don't know 2. No
408	If you know that a shopkeeper had TB who is under treatment would you buy food from him?	1.Continue to shop there 2. Go same place else 3. I don't know
409	If you found out that you had TB, would you tell to others?	1.Yes 3. I don't know 2.No
410	Would you be willing to move in to a house, if the neighbor was TB positive and under treatment	1.Yes 3. I don't know 2.No
411	Would you allow your son/daughter to marry a person with TB and who is cured	1.Yes 3. I don't know 2.No
412	If you know a school teacher with TB and on treatment, would you allow her/him to teach in that school?	1.Yes 3. I don't know 2.No
413	Would you allow a person with TB on treatment wants to be the member of EDER in your locality?	1.Yes 3. I don't know 2.No
414	Are you willing to participate religious ceremony with TB patients?	1.Yes 3. I don't know 2.No

- ❖ This is the end of our questions. Thank you again for giving us your time to respond to our questionnaire
- ❖ Time at the end of interview \_\_\_\_\_



መሆኑን ልንገልፅልዎ እንወዳለን። ቃለ ምልልሱን ለመፈፀም የሚፈጀው 20 ደቂቃ ነው።

ሊያነሱት የሚፈልጉት ጥያቄ አለዎት አዎን \_\_\_\_\_ የለም \_\_\_\_\_

የሚቀርቡልዎትን ጥያቄዎች ለመመለስ ፈቃደኛ ነዎት? ይህንን ምልክት /"√"

በማድረግ አመልክት/

አዎን \_\_\_\_\_ አይደለሁም \_\_\_\_\_

ፈቃደኛነትን ያረጋገጠው መረጃ ሰብሳቢ ስምና ፊርማ

ስም \_\_\_\_\_ ፊርማ \_\_\_\_\_

የመረጃ ሰብሳቢው የጉብኝት ሰሌዳ

	ጉብኝት 1	ጉብኝት 2	ጉብኝት 3
ቀን			
መረጃ ሰብሳቢ			
ወጤት			

ወጤት፡- 1. የተጠናቀቀ 2. ተጠያቂው አልተገኘም 3 የተቃወመ 4. በከፊል የተሟላ

5 ያልተገኘ ቤት 6. የተዘጋ ቤት 7. ሌላ

006. የመረጃ ሰብሳቢው መለያ ቁጥር \_\_\_\_\_

007. ቃለ ምልልሱ የተሞላበት ቀን \_\_\_\_\_ ወር \_\_\_\_\_ ዓ.ም \_\_\_\_\_ ሰዓት \_\_\_\_\_

008. ትክክለኛነቱን ያረጋገጠው ተቆጣጣሪ ስም \_\_\_\_\_

ፊርማ \_\_\_\_\_ ቀን \_\_\_\_\_ ወር \_\_\_\_\_ ዓ.ም \_\_\_\_\_

**ክፍል አንድ፡ አጠቃላይ የተጠያቂው መረጃ /አንዱን በመክበብ አሳይ/**

ተ/ቁ	መጠይቅ	አማራጭ መልስ	ዝላል
101	እድሜዎ ስንት ነው ?	_____ ዓመት	
102	የተጠያቂው ጾታ ምንድን ነው? /ይህንን ጥያቄ አትጠይቅ/	1. ወንድ 2. ሴት	
103	የየትኛው ሃይማኖት ተከታይ ነዎት?	1. እስልምና 2. ኦርቶዶክስ ክርስትና 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ ከሆነ ይጥቀሱ _____	
104	የየትኛው ብሄረሰብ አባል ነዎት?	1. ኦሮሞ 2. አማራ 3. ትግሬ 4. ጉራጌ 5. ወላይ 6. ሌላ ከሆነ ይጥቀሱ _____	
105	የትምህርት ደረጃዎ ምን ያህል ነው?	1. አልተማርኩም 2. ማንበብና መጻፍ 3. አንደኛ ደረጃ 4. ከ7 - 8ኛ 5. ከ9 - 12ኛ 6. ኮሌጅ	
106	የቤተሰብዎ ሁኔታ እንዴት ነው?	1. አላገባሁም 2. በአሁኑ ወቅት አግብቻለሁ 3. ፈትቻለሁ 4. ሌላ ከሆነ ይጥቀሱ _____	
107	ለምን ያህል ጊዜ እዚህ ከተማ ኑረዋል? /በተሰጠው ክፍት ቦታ ላይ ይሞላ/	-----	
108	ስንት ልጆች አለዎት በተሰጠው ክፍት ቦታ ላይ ይሞላ	-----	
109	የወር ገቢዎ በአማካኝ ስንት ነው?	1. ገቢ የለኝም 2. 1 - 100 3. 101 - 300 4. 301 - 500 5. 501 - 1000 6. > 1000 7. ፈቃደኛ አይደለሁም::	
110	የመተዳደሪያ ስራዎ ምንድን ነው?	1. ሥራ አጥ 4. የቤት እመቤት 2. የመንግስት ሠራተኛ 5. የቀን ሠራተኛ 3. ተማሪ 6. ጡረተኛ 7. ነጋዴ 8. ገበሬ 9. ሌላ ከሆነ ይጥቀሱ -----	

**ክፍል ሁለት፣ ስለ ሣምባ /ቲቢ/ ያለውን ግንዛቤ በተመለከተ**

ተ/ቁ	መጠይቅ	አማራጭ መልስ
201	ሁሉም ሣምባ /ቲቢ/ የያዛቸው ሰዎች ኤች አይ ቪ አለባቸው?	1. አዎን 3. መልሱን አላውቅም 2. የለም
202	ሣንባ /ቲቢ/ በንፋስ ማካኝነት ሊይዘን ይችላል?	1. አዎን 2. የለም 3. መልስ የለኝም
203	ሣንባ /ቲቢ/ ከትንፋሽ በሚወጡ ብናኝ ሊተላልፍ ይችላል?	1. አዎን 3. መልሱን አላውቅም 2. የለም
204	ሣንባ /ቲቢ/ አብሮ ተፋፍጌ በመኖር ሊተላልፍ ይችላል ?	1. አዎን 3. መልሱን አላውቅም 2. የለም
205	ሣንባ /ቲቢ/ ቆሻሻ ውሃን በመጠጣት ሊይዘን ይችላል?	1. አዎን 3. መልሱን አላውቅም 2. የለም
206	ሣንባ /ቲቢ/ በግብረ ስጋ ግንኙነት ሊተላለፍ ይችላል?	1. አዎን 3. መልሱን አላውቅም 2. የለም
207	ሣንባ /ቲቢ/ በተዋሰኖ/ጀርሞች/ አማካኝነት ሊተላልፍ ይችላል?	2. አዎን 3. መልሱን አላውቅም 2. የለም
208	ሣንባ /ቲቢ/ በተበከለ መርፌ በመወጋት ሊተላልፍ ይችላል?	1. አዎን 3. መልሱን አላውቅም 2. የለም
209	ሣንባ /ቲቢ/ ከእናት ወደ ፅንሰ ሊተላልፍ ይችላል?	1. አዎን 3. መልሱን አላውቅም 2. የለም
210	ሣንባ /ቲቢ/ በእናት ወተት አማካኝነት ሊተላልፍ ይችላል?	1. አዎን 3. መልሱን አላውቅም 2. የለም
211	የሣምባ /ቲቢ/ በሽታን መከላከል ይቻላል ?	1. አዎን 3. መልሱን አላውቅም 2. የለም
212	የሣንባ /ቲቢ/ በሽታ በህክምና ይደናል	1. አዎን 3. መልሱን አላውቅም 2. የለም
213	የሣምባ /ቲቢ/ ህመምተኛ ከሆነ ሰው ጋር መፀዳጃ ቤትን በጋራ በመጠቀም	1. አዎን 3. መልሱን አላውቅም 2. የለም
214	የሣምባ /ቲቢ/ በሽተኛ ከሆነ ሰው ጋር አብሮ በመብላት	1. አዎን 3. መልሱን አላውቅም 2. የለም

### ክፍል 3 አድሎዎና መገለል

የሣምባ /ቲቢ/ ህሙማን ላይ ማግለልና መፀዋና በተመለከተ የቀረበ

3.1	የተለያዩ ሰዎች የሣምባ /ቲቢ/ ህሙማንን በተመለከተ የተለያዩ አመለካከቶች አሉአቸው እኔ ከዚህ በመቀጠል እነዚህን አመለካከቶች ሳነብልዎት እርስዎ በግልጽ ምን እንደሚሰማዎት ይገልጹልኛል።	
301	የሣምባ /ቲቢ/ ህሙማን ላይ ያለዎት ስሜት ምንድን ነው?	<ol style="list-style-type: none"> <li>1. በጣም ይሰማኛል</li> <li>2. ይሰማኛል</li> <li>3. ሀሳብ የለኝም</li> <li>4. አይሰማኝም</li> <li>5. በጭራሽ አይሰማኝም</li> </ol>
302	የሣምባ /ቲቢ/ ህሙማንን መጥላት በተመለከተ ያለዎት ስሜት ምን ድነው?	<ol style="list-style-type: none"> <li>1 በጣም ያስጠለኛል</li> <li>2. ያስጠለኛል</li> <li>3. ሀሳብ የለኝም</li> <li>4. አያስጠለኝም</li> <li>5. በጭራሽ አያስጠለኝም</li> </ol>
303	የሣምባ /ቲቢ/ ህሙማንን መፍራት በተመለከተ ያለዎት ስሜት ምንድነው?	<ol style="list-style-type: none"> <li>1 በጣም እፈራቸዋለሁ</li> <li>2. እፈራቸዋለሁ</li> <li>3. ሀሳብ የለኝም</li> <li>4. አልፈራቸውም</li> <li>5. በጭራሽ አልፈራቸውም</li> </ol>

4.1	በሣምባ /ቲቢ/ የተጠቁ ሰዎችን ስለማግለል	
401	የሣምባ /ቲቢ/ በሸታ ይዞት በህክምና ላይ ያለ አንድ ተማሪ እሚማርበት ትምህርት ቤት ውስጥ የሚማር ልጅ ቢኖር ልጅዎን በተባለው ትምህርት ቤት ውስጥ ትምህርቱን እንዲቀጥል ያደርጋሉ ወይስ ሌላ ትምህርት ቤት ያዛውሩታል?	1. እዚያው እንዲቀጥል አደርጋለሁ 2. ሌላ ትምህርት ቤት አዛውረዋለሁ 3. መልሱን አላውቅም
402	የቅርብ ጓደኛዎ የሣምባ /ቲቢ/ ህመም የተጠቁ መሆናቸውን ቢያውቁ የነበረዎትን ጓደኝነት ይቀጥሉታል?	1. እቀጥላለሁ 2. አልቀጥልም 3. መልሱን አላውቅም
403	በአንድ ቢሮ ውስጥ አብሮዎት የሚሰሩ ባልደረባዎ በሣምባ /ቲቢ/ መጠቃታቸውን ቢያውቁ እና ህክምናቸውን ከጀመሩ ከተባሉት ሰዎች ጋር በአንድ ቢሮ ውስጥ ለመሥራት ፈቃደኛ ነዎት?	1. አዎን 2. አይደለሁም 3. መልሱን አላውቅም
404	ከዘመዶቹ አንዱ በሣምባ /ቲቢ/ በሸታ ቢጠቁ በቤትዎ ውስጥ ለመነከባከብ ፈቃደኛ ነዎት?	1. አዎን 2. አይደለሁም 3. መልሱን አላውቅም
405	ለምግብ አገልግሎት ሚውል ጥሬ እቃ የሚገዙበት ግርሰሪ /ሱቅ/ ባለቤት የሆነ ደንበኛዎ በሣምባ ተጠቀቶ በህክምና ላይ መሆኑን ቢያውቁ ከደንበኛዎ የምግብ ጥሬ እቃዎች መግዛትዎን ይቀጥላሉ?	1. አዎን 2. አልቀጥልም 3. መልሱን አላውቅም
406	እርስዎ በሣምባ /ቲቢ/ ቢጠቁ ሌሎች ሰዎች እንዳያውቁ በሚስጥር ይጠብቃሉ?	1. እጠብቃለሁ 2. አልጠብቅም 3. መልሱን አላውቅም
407	ከጎረቤቶቹዎ አንዱ በሣምባ /ቲቢ/ ተጠቅተው ህክምና መጀመራቸውን ቢሰሙ ከቤታቸው በመሄድ ይጠይቋቸዋል?	1. እጠይቃለሁ 2. አልጠይቅም 3. መልሱን አላውቅም
408	ልጆችዎ በሣምባ /ቲቢ/ ታሞ ከዳነ ሰው ጋር እንዲጋቡ ይፈቅዳሉ?	1. እፈቅዳለሁ 2. አልፈቅድም 3. መልሱን አላውቅም
409	በአንድ ትምህርት ቤት ውስጥ የምታስተምር መምህር/ት በሣምባ /ቲቢ/ ታሞ/ማ በህክምና ላይ መሆኑን/ዋን ቢሰሙ እዛ ትምህርት ቤት እንዲያስተምር/እንድታስተምር ይፈቅዳሉ?	1. እፈቅዳለሁ 2. አልፈቅድም 3. መልሱን አላውቅም
410	በሰፈርዎ በሣምባ /ቲቢ/ የተያዘ ሰው የእድር አባል እንዲሆን ይፈቅዱለታል?	1. እፈቅዳለሁ 2. አልፈቅድም 3. መልሱን አላውቅም
411	እርስዎ በሚሳተፉበት ፀሎት ፕሮግራም ላይ በሣምባ /ቲቢ/ የተያዘ እና በህክምና ላይ ያለ ሰው አብሮዎት እንዲፀልይ ይፈቅዱለታል?	1. እፈቅዳለሁ 2. አልፈቅድም 3. መልሱን አላውቅም

ጥያቄያችንን እዚህ ላይ ጨርሰናል ጊዜዎን ሰውተው ለጥያቄያችን መልስ በመስጠት ስለተባበሩን ከልብ እናመሰግናለን።

## **ANNEX – 3: FOCUS GROUP DISCUSSION**

### **Topic Guide:**

#### **Theme- 1: Introduction**

Would you introduce your names and from where are you from for the participants. Let me start by research team (Let the research team introduce their name, occupation, ... etc.,)

#### **Theme- 2: Questions to break the silence.**

- Would you tell us about TB? What else?
- What the main modes of transmissions, ways of prevention? What else?
- Who are affected most? Why?

#### **Theme - 3: Community response to TB/HIV**

- Have you ever seen who have been affected with TB? In what circumstances?
- What do mean by people affected by TB? What impression do your colleagues, neighbors have? What do they call in your community?
- What are your feelings towards people who are affected by TB?
- Why do people who are affected with TB do not come forward and discuss their disease condition, suppose a person who had TB, should she/he disclose her/his disease condition Why? Why not?
- Some people say that people who have TB legally separated from the public, others don't support this view. Which one do you prefer? Why?
- Suppose the Government has a plan to develop policies regarding people who are affected with TB, what should be included in the policy in relation to these people?
- Some people say that all TB patients are suspected of HIV/AIDS others do not agree on this, what is your opinion?

- Suppose your son was attending a school where one of the children in the school is known to be TB on treatment, would you allow your son to continue learning in the same school? Why? Or why not?
- What should the social interaction between TB patients and those who don't have should be look like? (For example, teacher, Health workers, Office workers, etc.)
- How do the public handle TB patients?

Probing statements include

Would you elaborate your idea a bit further? Why? How? Have I grasped your point correctly?

#### **Theme- 4: Recommendation**

So far we have discussed about TB and community response to TB patients. Based on what we have discussed so far, what recommendations or suggestions would you make on TB and its prevention?

We would like to thank each of you for giving your time to discuss on this important issue. We also appreciate all your comments.

## **Annex- 4: Key Findings from Focus Group Discussions (FGDs)**

### **Community Response**

#### **Reasons for not disclosing could be**

- ☛ "The community marked all TB patients as HIV carriers (18 years old male)
- ☛ At least to have good families may support those who are sick otherwise no body will give attention to them (45 years old female)
- ☛ The public believe that all TB patients are infected with HIV/AIDS in a society (60 years old male)
- ☛ TB Generally causes unhappiness among the families and the community (20 years old female)

#### **Reasons for not disclosing**

Reasons stated, for not disclosing, by participants and viewed shared by others are:

- ☛ Previously there was no problem to disclose to others but after HIV comes it is risky, because my relatives, friends will isolate me: (49 years old female)
- ☛ Difficult to disclose to the public because it breaks the established social interaction like marriage (24 years old female)
- ☛ Unless the public understands the difference between TB and HIV disclosure could harms ones marriage and other social relation (24 years old female)
- ☛ In all groups majority of the participants (both sexes) agreed that they fear a similar rejection if their illness is known. They don't want people talking about them behind, in their village, market places, social gatherings and associating their disease status with HIV/AIDS.
- ☛ If one of my neighbor have got TB I would not share toilet or their because she/he may have transmit HIV/AIDS (60 years old female)

#### **Avoidance behavior**

When asked about their reaction concerning avoidance behavior

- ☛ "I don't allow my daughter to marry a man who have been treated with TB "(55 years old and female)

- ☛ "I don't allow my child to continue learning in the same school where a teacher with TB and on treatment is teaching" (60 years old male)
- ☛ "I am not comfortable to wash a dead body of a person died of TB, even I don not want to carry a dead body to the boreal because HIV could be transmitted from dead body" (60 years old man)
- ☛ "I will ask premarital HIV-testing for a person being cured from TB, but for others I may not" (35 years old female)

#### Participants attitude

- ☛ Majority of young people and they are not careful in their day to day activities, thus are responsible from transmission of cold and HIV/AIDS (60 years old female)
- ☛ It is true that TB patients do have HIV so it is better to put all TB patients in one concentration campus to protect the community from HIV/AIDS (75 years old male and 53 years old female)