PEOPLE LIVING WITH TUBERCULOSIS PWTB

THE SAMPLED POPULATION FOR THE SURVEY

Residential LGA	Community	Family	Health worker	TB Patient
Ajeromi-Ifelodun	51	36	4	25
Alimosho	80	39	33	51
Amuwo-Odofin	26	14	2	17
Apapa	7	1	2	4
Badagry	67	17	1	38
Epe	35	17	4	17
Eti-Osa	14	10	6	8
Ibeju-Lekki	24	13	2	12
Ifako-Ijaiye	59	15	4	15
Ikorodu	128	73	14	72
Kosofe	39	20	6	23
Lagos-Island	41	22	2	22
Lagos-Mainland	37	18	4	17
Mushin	50	26	4	23
Ojo	51	25	2	35
Oshodi-Isolo	84	42	4	50
Somolu	53	30	8	37
Surulere	19	9	14	10
TOTAL	865	427	116	476

Table 1. The Sampled Population for The Survey

DATA ANALYSIS

All of the digital data was downloaded from Computer Assisted Personal Interviewing (CAPI) to MS Excel. The data was validated through running a logical test to detect doubles, mining missing values and feature engineering. The list of indicators selected for analysis reflected the international TB stigma assessment implementation handbook:

- Indicators used to identify the «stigma radar» associated with TB, e.g., comprehensive analysis of self-stigma, secondary stigma within the family, anticipated stigma within the community and in the health care community (see. Attachment 1);
- specific manifestations or dimensions of stigma within each key population;
- Indicators of experienced stigma along the TB journey, including the ones which inhibited.

PWTB from seeking and receiving care;

- stigma indicators observed by the key populations along the TB journey;
- Indicators used to assess the legislative and political climate and its impact on stigmatisation and discrimination of PWTB.

The analysis of quantitative data was mostly statistically-descriptive, e.g., calculations of frequencies and percentages and mean values.

Qualitative data analysis focused on developing the interview transcripts using MS Word and identifying specific topics as per the developed list of codes. MS Excel was used for coding qualitative data collected in the course of the surveys and focus groups. The interview topics were analysed in respect to the participant's gender and age. For the report the researchers have selected some of the most distinctive quotes which best describe the selected topic. For some of the most disputed subjects conflicting messages were selectee to reflect their controversial nature.

Multiple linear regression was used to simultaneously analyse the impact of several variables on the dependent variables. The results are presented in a table and the regression coefficient values are compared to the reference group. Its 95% confidence interval and p values. The confidence interval indicates that if this analysis was repeated many times over, in 95% of studies the actual discrepancy between the means or percentages within a population will stay within the same interval. Confidence intervals which exclude the null value and $p<0.05$ indicate that there are statistically significant discrepancies between populations.

SELF-IDENTIFICATION BY PWTB WITH KEY POPULATIONS, PARTICIPANTS AND PERCENTAGE %

PWTB are most likely to identify with the following four groups: Urban Slum Resident, Rural Poor, Indigenous Person and Person who Uses Drugs. 1% of the population identify with refugee, 1% also identify with Health Care Worker.

Self-Identification	n=476	%
Urban Slum Resident	270	57%
Rural Poor	93	20%
Indigenous Person	54	12%
Person Who Uses Drugs	43	9%
Refugee	7	1%
Health Care Worker	4	1%
Person Living With HIV	2	0%
Miner	2	0%
Person with Disability	1	0%
Former Prisoner	0	0%

Table 2. Self-Identification by PWTB With Key Populations, Participants and Percentage %

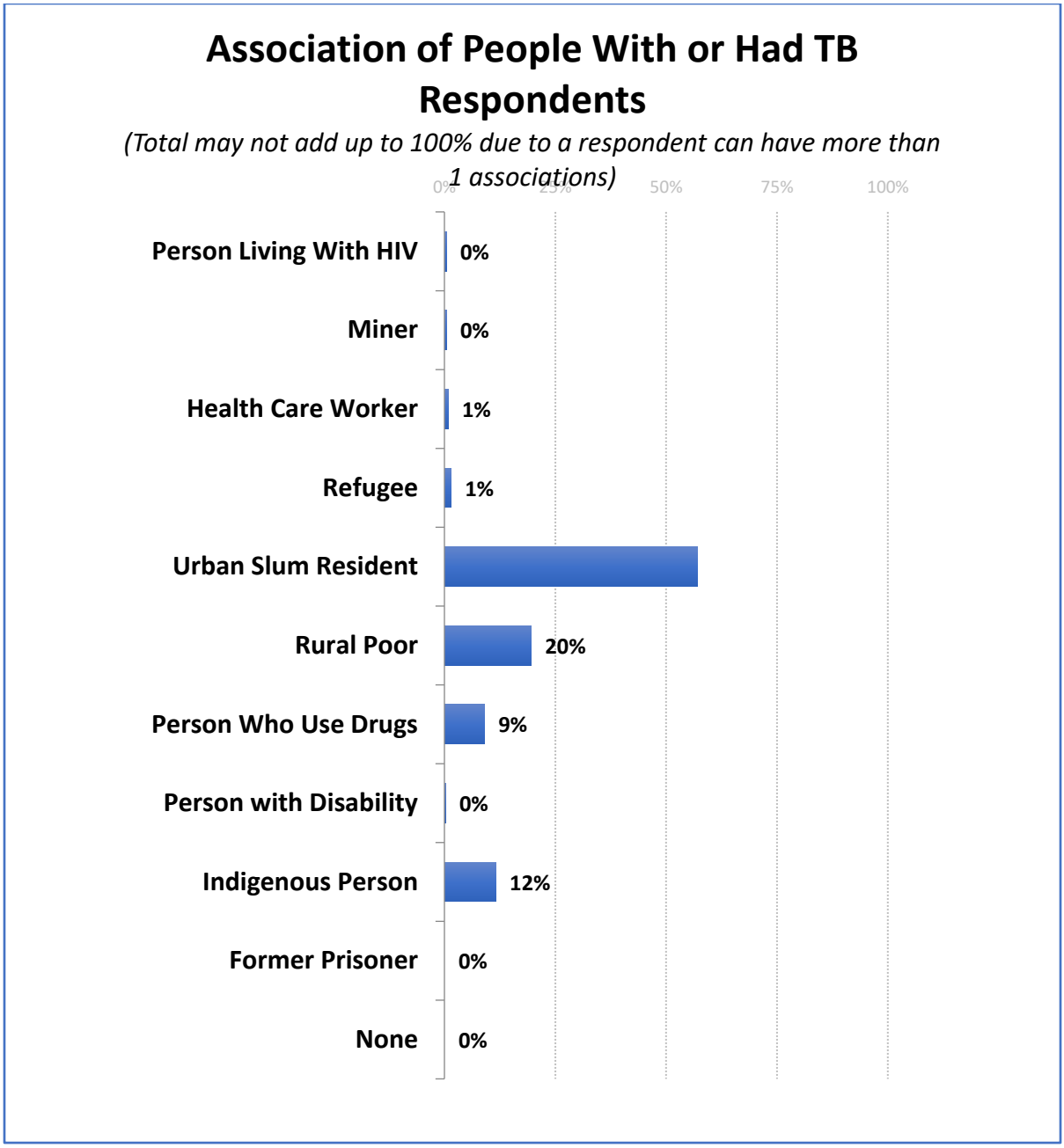


Figure 1. Association of People with or Had TB Respondents

GENDER OF PEOPLE WITH OR HAD TB RESPONDENTS

Historically, the terms "sex" and "gender" have been used interchangeably, but their uses are becoming increasingly distinct, and it is important to understand the differences between the two. In general terms, "sex" refers to the biological differences between males and females, such as the genitalia and genetic differences. However, Gender for the purpose of this research study refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women. Result from this analysis revealed that majority of the respondents in the study area (58%) were male while 42% were female. However, 0% was recorded for transgender and others.

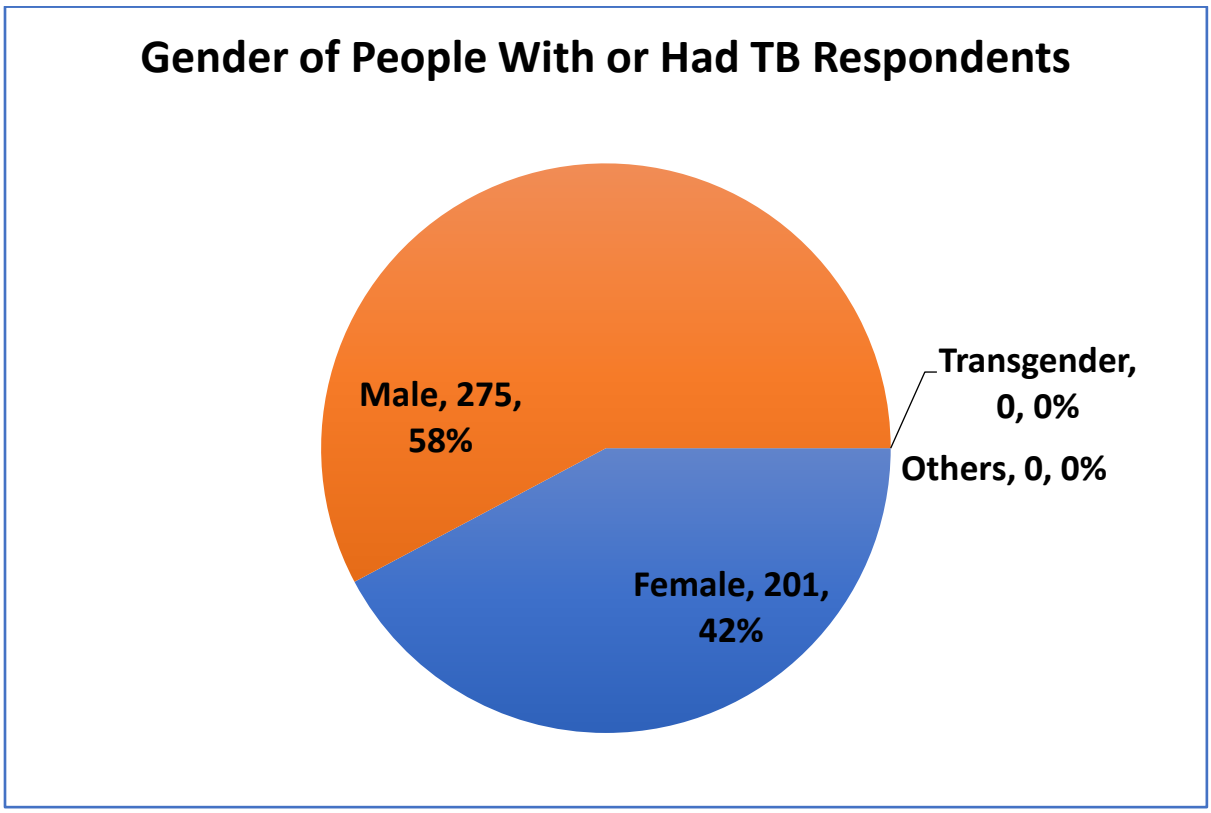


Figure 2. Gender of People with Or Had TB Respondents

AGE OF PEOPLE WITH OR HAD TB RESPONDENTS

The age distribution of respondents in the study also showed that a large majority (56%) of the respondents were between age group 25-44 years. Respondents within age group 45-64 years and 18-24 years accounted for 27% and 12% of the sampled size respectively. However, only 5% of respondents in the study were 65 or older years.

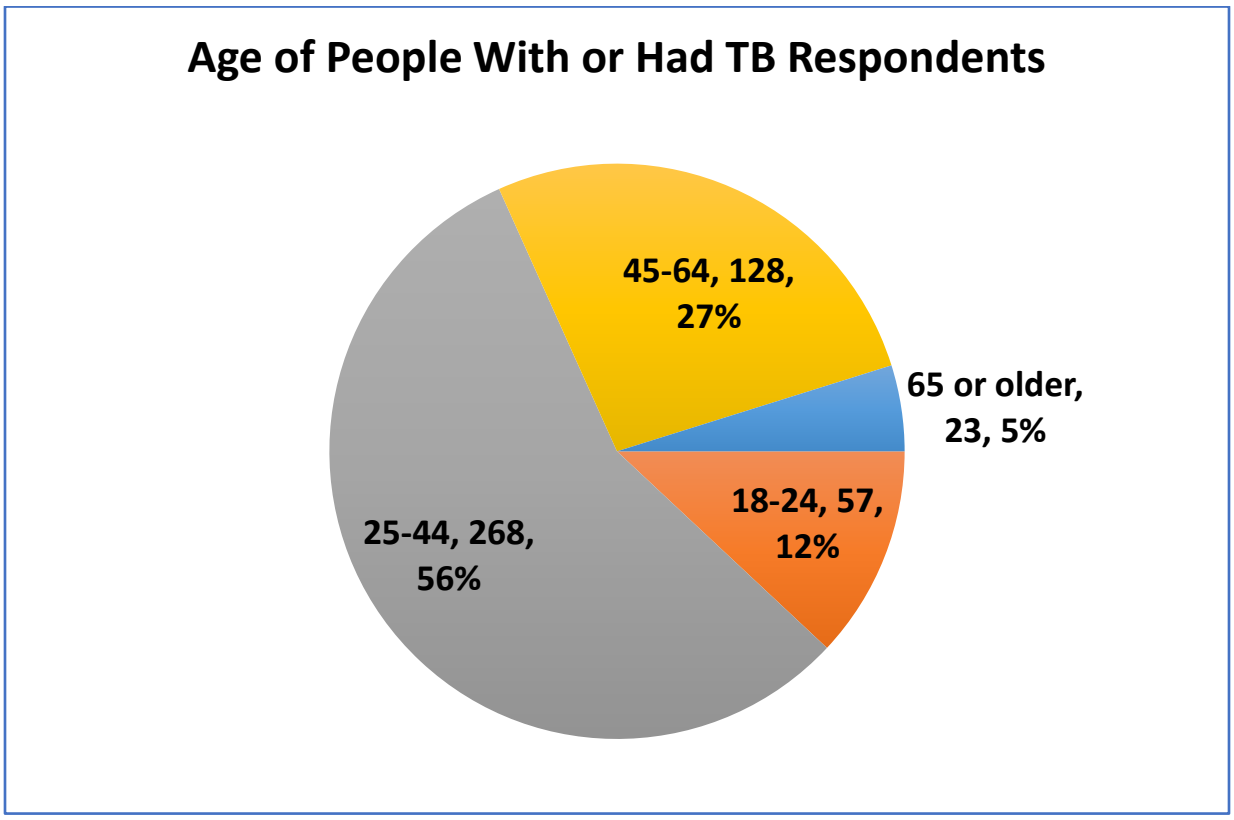


Figure 2. Age of People with Or Had TB Respondents

MARITAL STATUS OF PWTB

Investigation into respondents' marital status showed that of the sampled respondents, only 6% are widow. However, it was established that majority of the respondents (66%) were married. This was followed by 29% of the respondents who were single. Only 5% of the sampled respondents were separated/divorced.

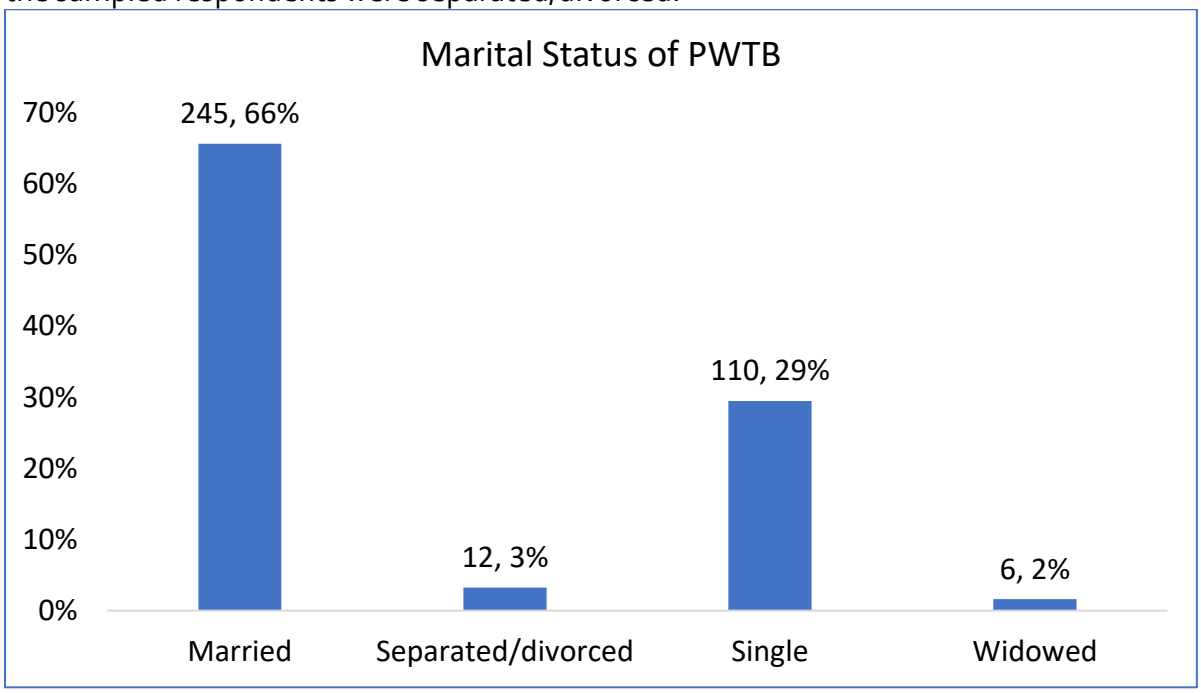


Figure 3. Marital Status of PWTB

EDUCATION STATUS OF PWTB

Analysis of PWTBs' education attainment showed that almost half of the respondents (46%) had secondary education in the study area. However, only 4% proportion of the respondents had no formal education. However, Primary education accounted for 11% while 18% of PWTBs hold tertiary education has certificate.

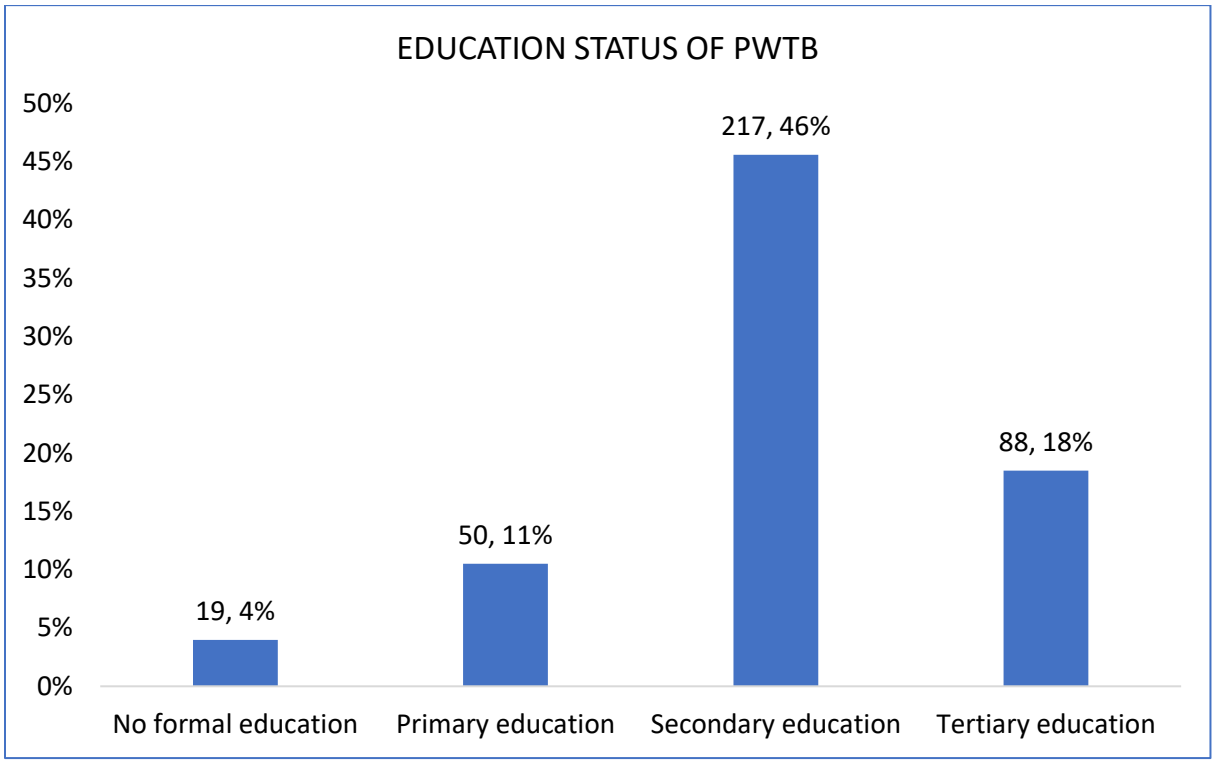


Figure 4. Education Status of PWTB

RELIGION OF PWTB

The report shows that more than half of the respondents (62%) are Christian while 36% are Muslim. However, only 2% of the respondents practice traditional religion.

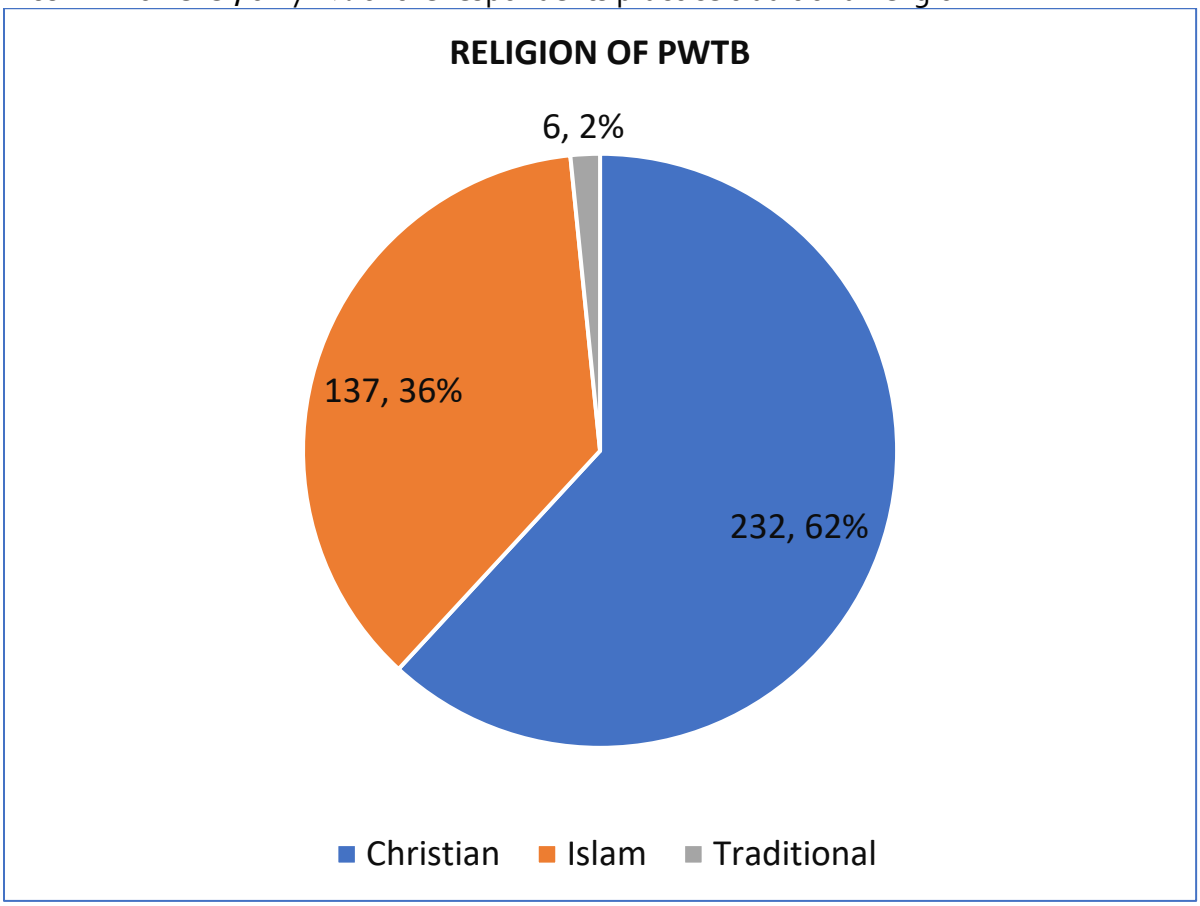


Figure 5. Religion of PWTB

JOB CATEGORY OF PWTB

The study examined the job category of PWTB in order to determine their standard of living and status in the society. The report shows that 28% of the respondents are artisans while 7% are government workers. Further investigation also revealed that 14% are not currently working while 21% are traders. However, only 10% of PWTB are students while 22% work in a private setting.

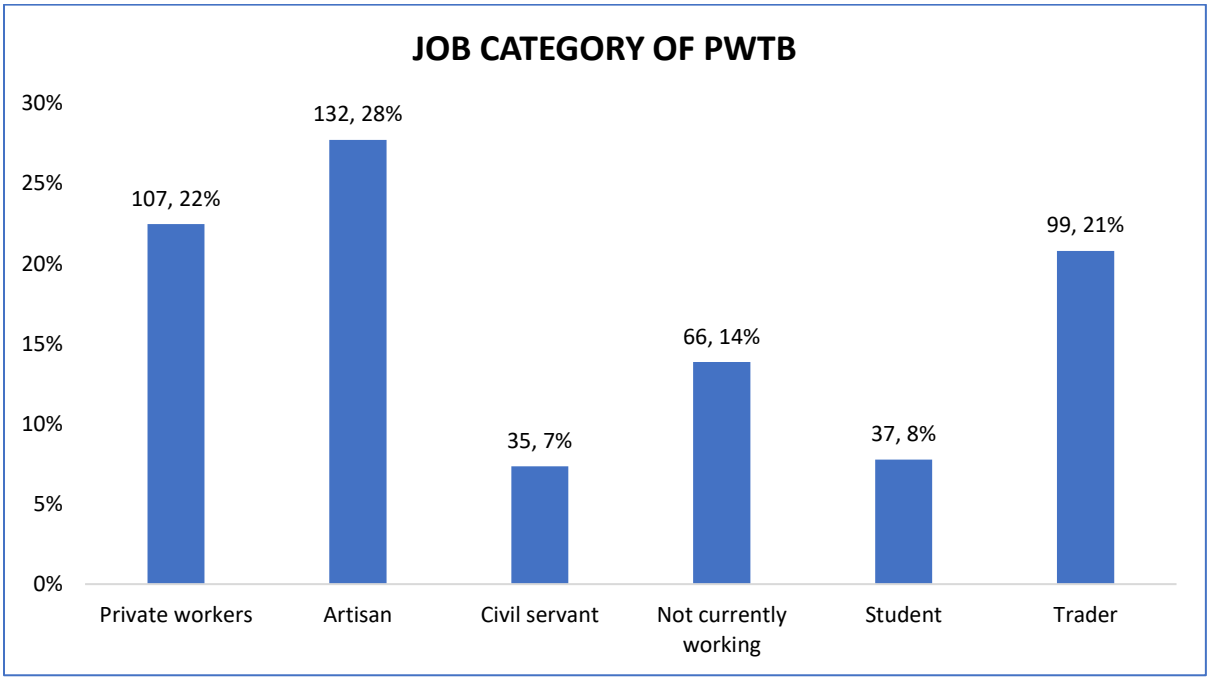


Figure 6. Job Category of PWTB

HOUSING CHARACTERISTICS OF PWTB

Housing is one of man's most fundamental requirements, and providing quality and affordable housing has long been recognized as an important component of societal obligations. Housing includes not only physical structures, but also all required services, facilities, equipment, and technologies for the family's and individual's physical and mental health and social well-being. In other words, housing serves as a centre of a family's total residential environment; a focus of housing encompasses more than just the construction of regular housing units. Housing's principal function is to give shelter. For the residents, privacy and security are essential. Housing also gives residents access to income and work, improves efficiency of other investments, and boosts productivity through the benefits that better housing has on morbidity and health, labour stability etc. Housing characteristics of People with or living with Tuberculosis (PWTB) were examined in this study and the outcomes are discussed below.

LIVING APARTMENT OF PWTB

Investigation on the living apartment of PWTB respondents revealed that 37% are staying in a room and parlour with shared bathrooms and toilets services, while 15% are staying in a single room self-contained apartment. Further investigation also revealed that 27% of the respondents are living in a room apartment where they share toilets and kitchen with neighbours. 14% of the respondents are living in a 2-bedroom flat apartment. 5% are living in a 3-bedroom flat apartment while respondents living in a 4-bedroom flat and 5-bedroom flat or more accounted for 1% respectively.

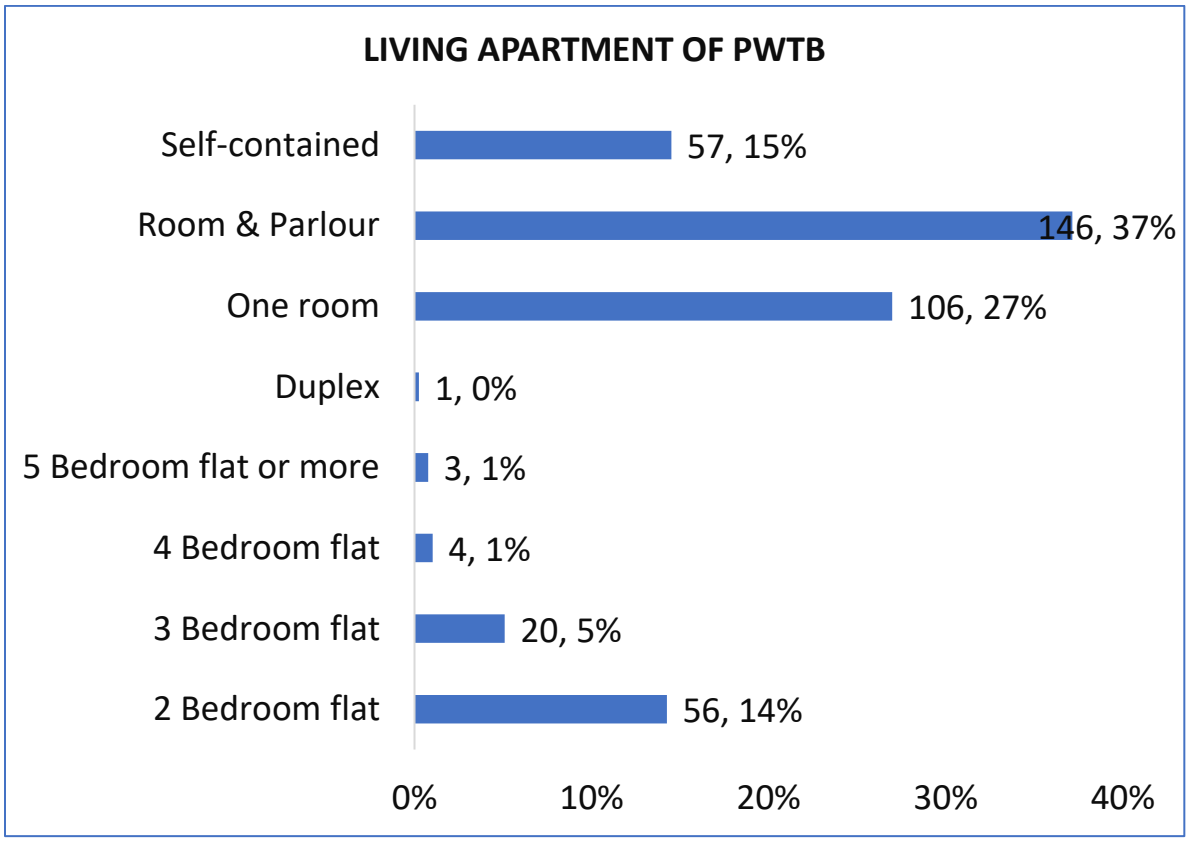


Figure 7. Living Apartment PWTB

PERCENTAGE/NUMBER OF HOUSEHOLD LIVING IN THE SAME HOUSE WITH PWTB

Analysis on the percentage/number of households living in the same house with people living with TB are examined and the report shows that 14% of the respondents are living with one household. 12% of the respondents also said they have two (2) other households living in the same house with them. further investigation also revealed that 17% of the respondents are living with three (4) other households in the same house. However, only 2% of the respondents have 9 households living with them in the same house.

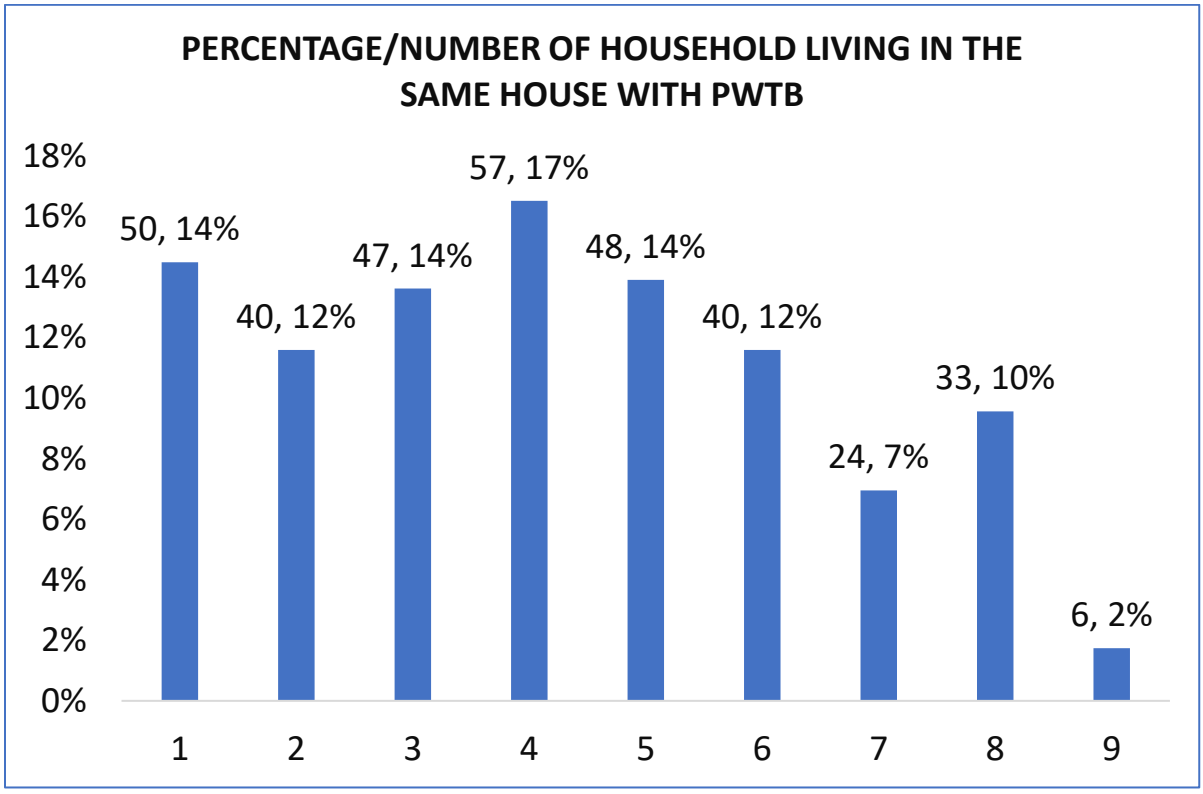


Figure 8. Percentage/Number of Household Living in The Same House with PWTB

HOUSEHOLD SIZE OF PWTB

Household size is the amount of people (of any age) who make up an economic unit. According to the survey, 14% of respondents live alone, while 19% live with one other family member. Further analysis indicated that 15% of the population lived in three-person households, whereas 26% lived in four-person households. 21% of the PWTB also live in five-person households. However, just 1% of households were larger than the average.

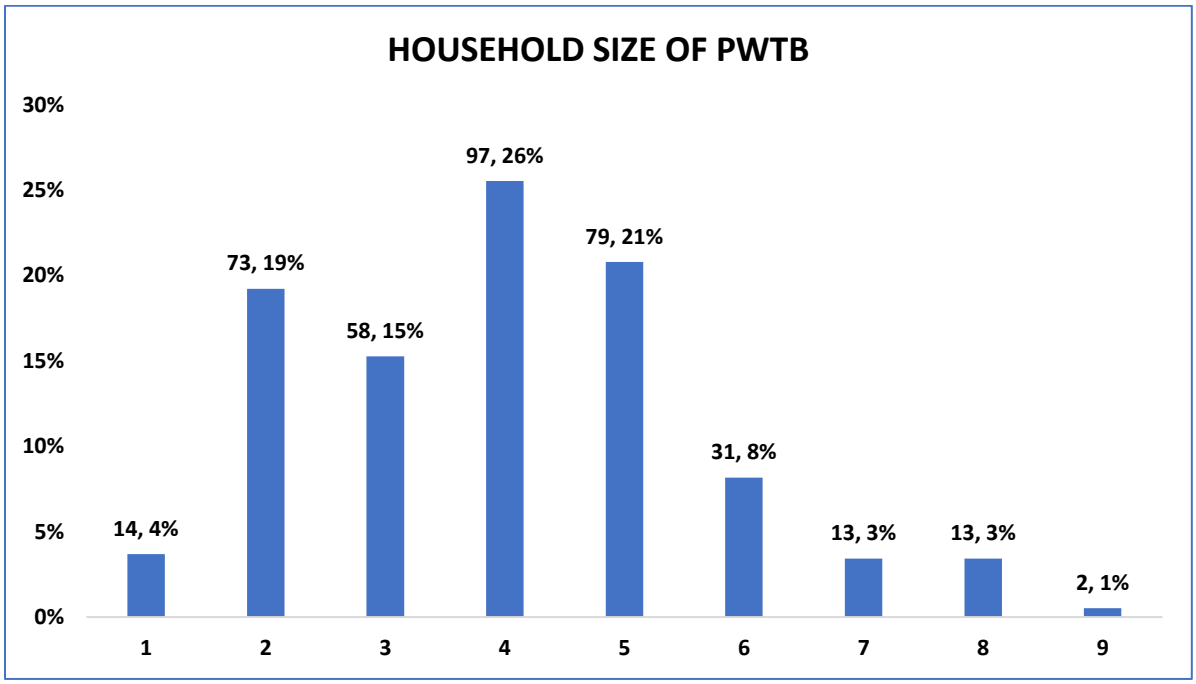


Figure 9. Household Size of PWTB

TOILET FACILITIES USED BY PWTB

Proper sanitation facilities (for example, toilets and latrines) promote health because they allow people to dispose of their waste appropriately. Throughout the developing world, many people do not have access to suitable sanitation facilities, resulting in improper waste disposal. According to the findings 61% of the PWTB are using flush toilet WC in their households whereas 20% are using pit covered. It was also discovered that 2% are using uncovered pit and 10% are using squat toilet WC. However, only 1% of the PWTB are without toilet in their households.

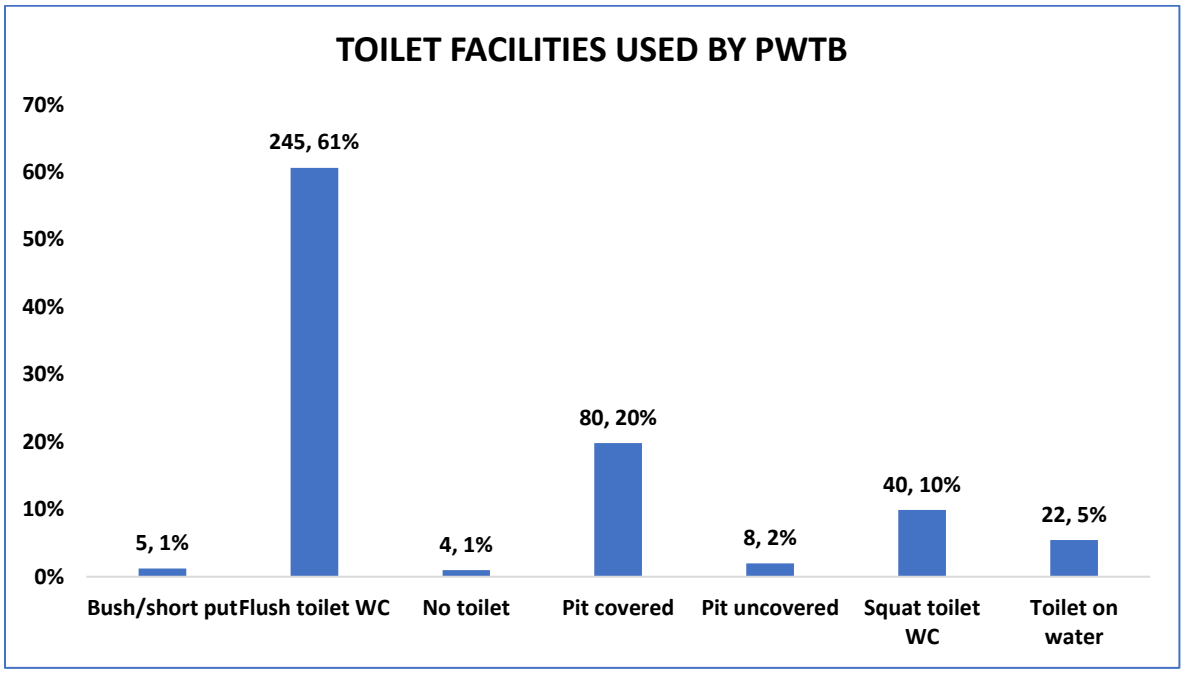


Figure 10. Toilet Facilities Used by PWTB

WATER FACILITIES PROVIDED TO THE HOUSEHOLD OF PWTB

The benefits of having access to an improved drinking water source can only be fully realized when there is also access to improved sanitation and adherence to good hygiene practices. Beyond the immediate, obvious advantages of people being hydrated and healthier, access to water, sanitation and hygiene – known collectively as WASH – has profound wider socio-economic impacts, particularly for women and girls. According to the findings more than half of the PWTB (64%) are using borehole whereas 8% are using portable tap water from government. It was also discovered that 14% are using portable tap water supply from private organisation. 1% of the PWTB are using stream water as a means of water supply to the household. However, 12% of the PWTB are using well water and 1% are without water supply.

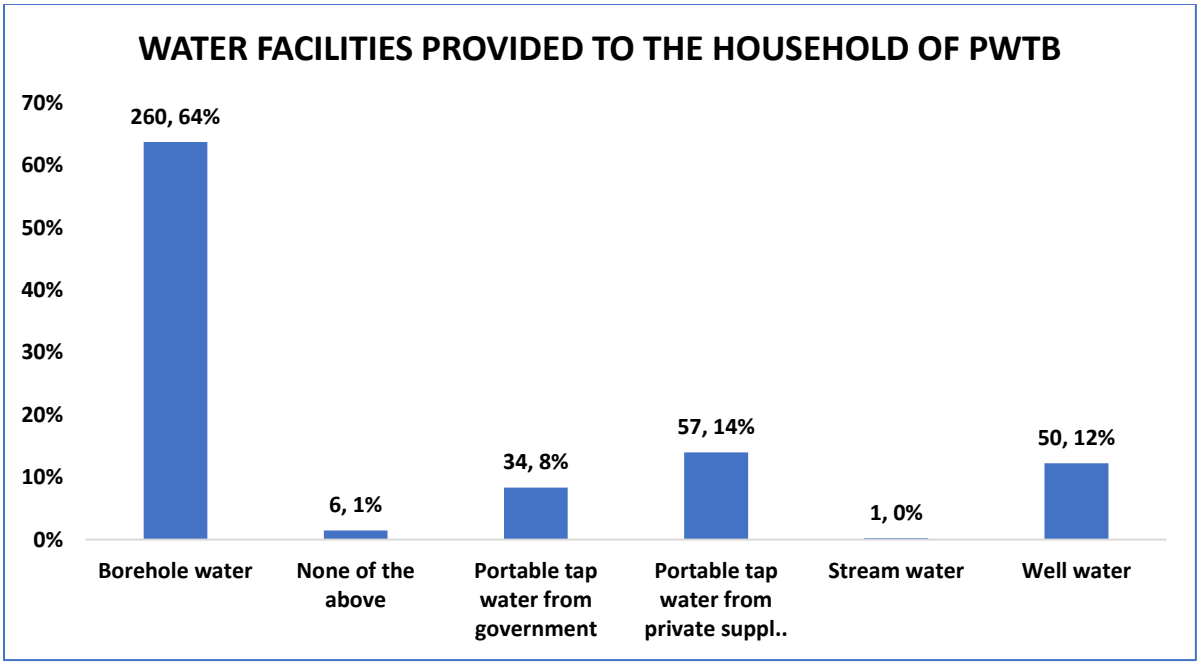


Figure 11. Water Facilities Provided to The Household of PWTB

SIZE OF THE BEDROOM OF PWTB

According to the findings, more than one quarter of the PWTB (33%) are living in a 10X10 feet bedroom. 17% are living in 11X11 feet bedroom. Further analysis also revealed that 21% of the PWTB are living in 12X12 feet bedroom and 29% are also living in 9X9 feet bedroom.

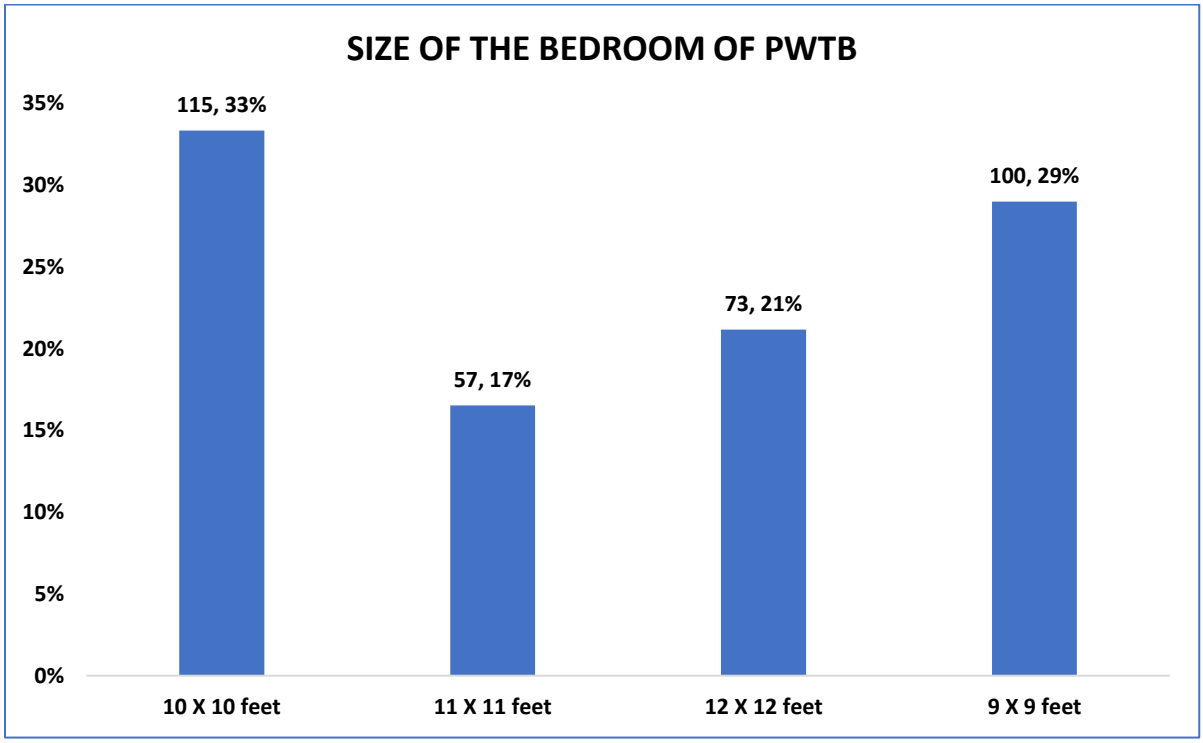


Figure 12. Size of The Bedroom Of PWTB

NUMBER OF WINDOW(S) IN PTWB BEDROOM

According to a study of the number of windows in PWTB bedrooms, 46 percent have two windows, while 45 percent have only one window. Further investigation indicated that 8% of PWTB have many windows in their bedrooms, yet only one person in the PWTB does not have a window in their bedroom.

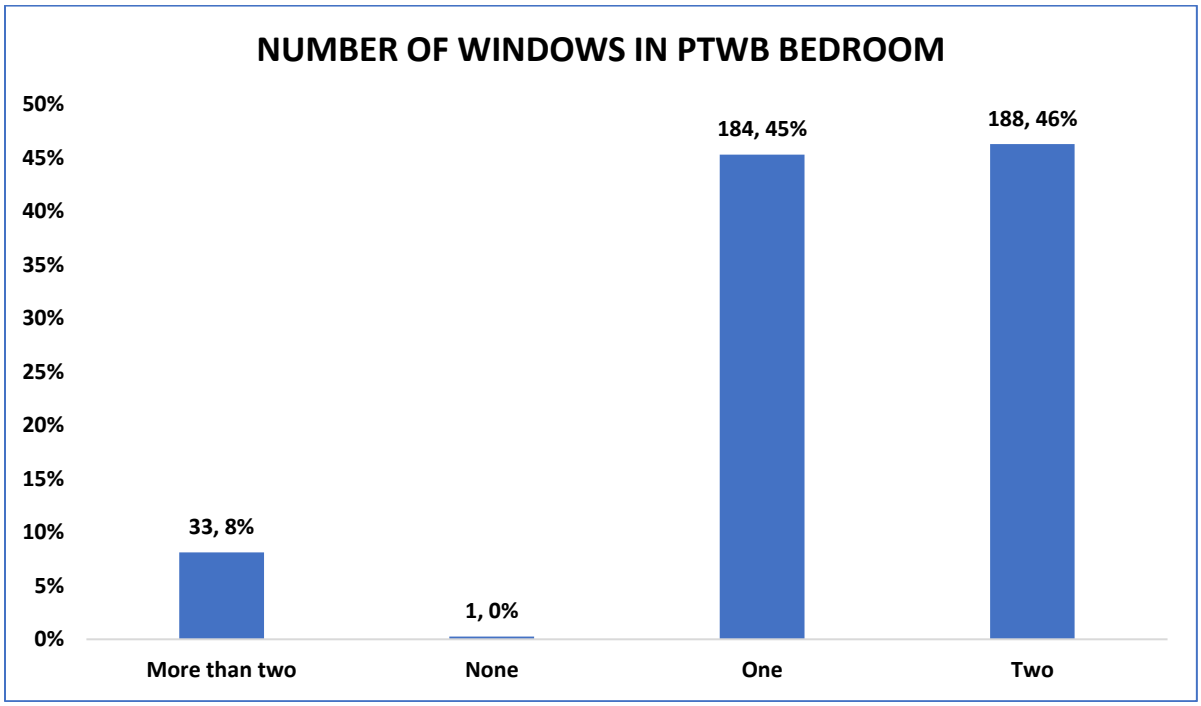


Figure 13. Number of Window(s) in PTWB Bedroom

DRAINAGE SYSTEM USED IN PWTB RESIDENCE

There are both closed and open drains in different areas. Closed drain forms a complex network underground. The primary refuse from individual areas is collected and transported to the main network which finally goes to a treatment plant. An open-drain is mostly used to collect wastewater that is not sewage. Use of open drains to dispose of sanitary waste is extremely unhygienic and unsafe. Use of open drains to a certain degree can be acceptable. However, any place with a collection of water breeds various disease-carrying pathogens. According to the findings, 51% of PWTB live in a home with an open drainage system, whereas 41% live in a home with a closed drainage system.

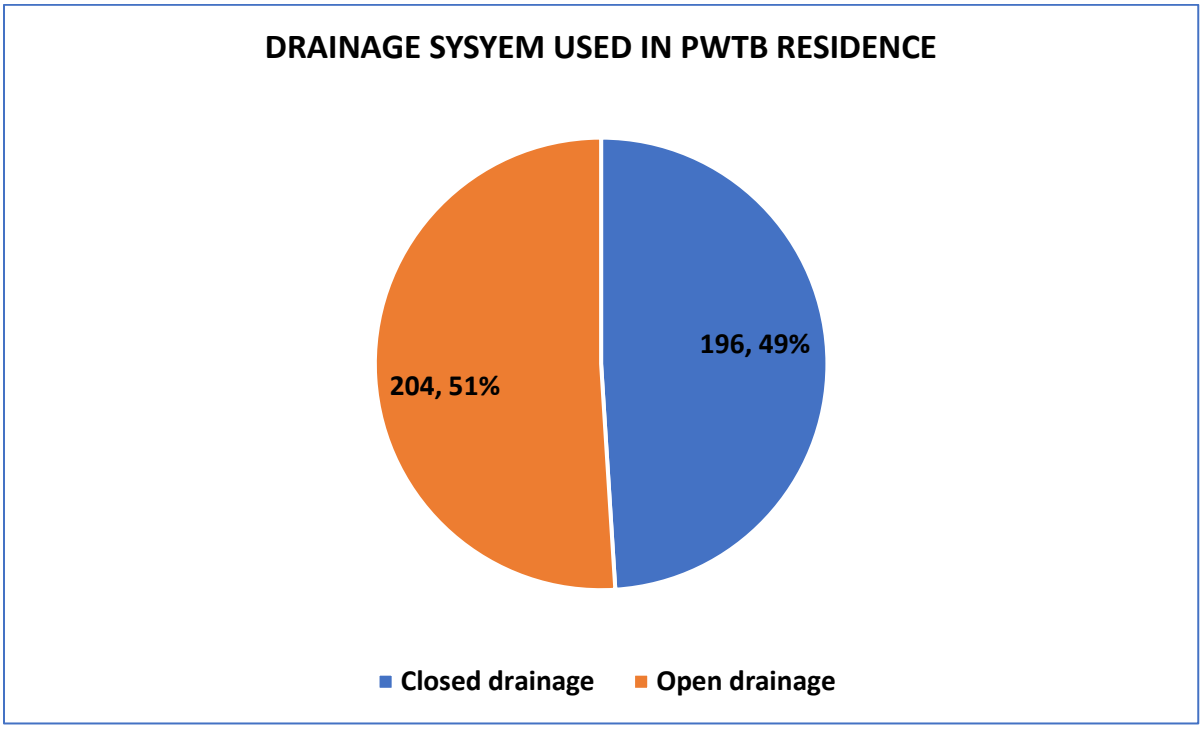


Figure 14. Drainage System Used in PWTB Residence

TYPE OF LIVING APARTMENT OF PWTB

According to the findings, two third of the PWTB (75%) are living in a rent house whereas, 19% of the PWTB are living in their own house. Further analysis also showed that 4% live in a free home. However, only 2% of PWTB are cohabiting with friends and relatives.

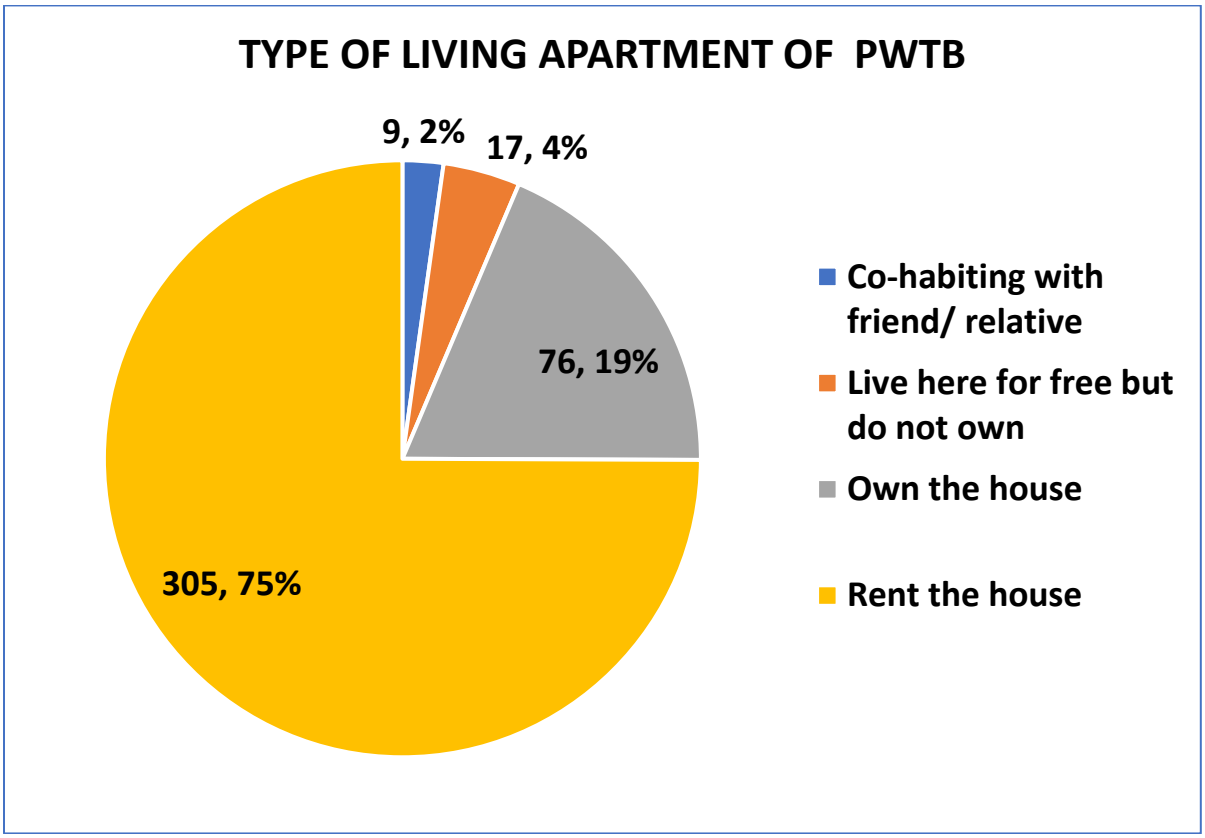


Figure 15. Type of Living Apartment Of PWTB

POWER SUPPLY USED BY PWTB

According to the statistics, 67 percent of the PWTB use PHCN as a source of power, while 18 percent rely on generators. Further analysis indicated that 1% rely on the solar power generated by the sun. However, 13% of respondents refused specify how their home is powered, and 1% do not have access to electricity.

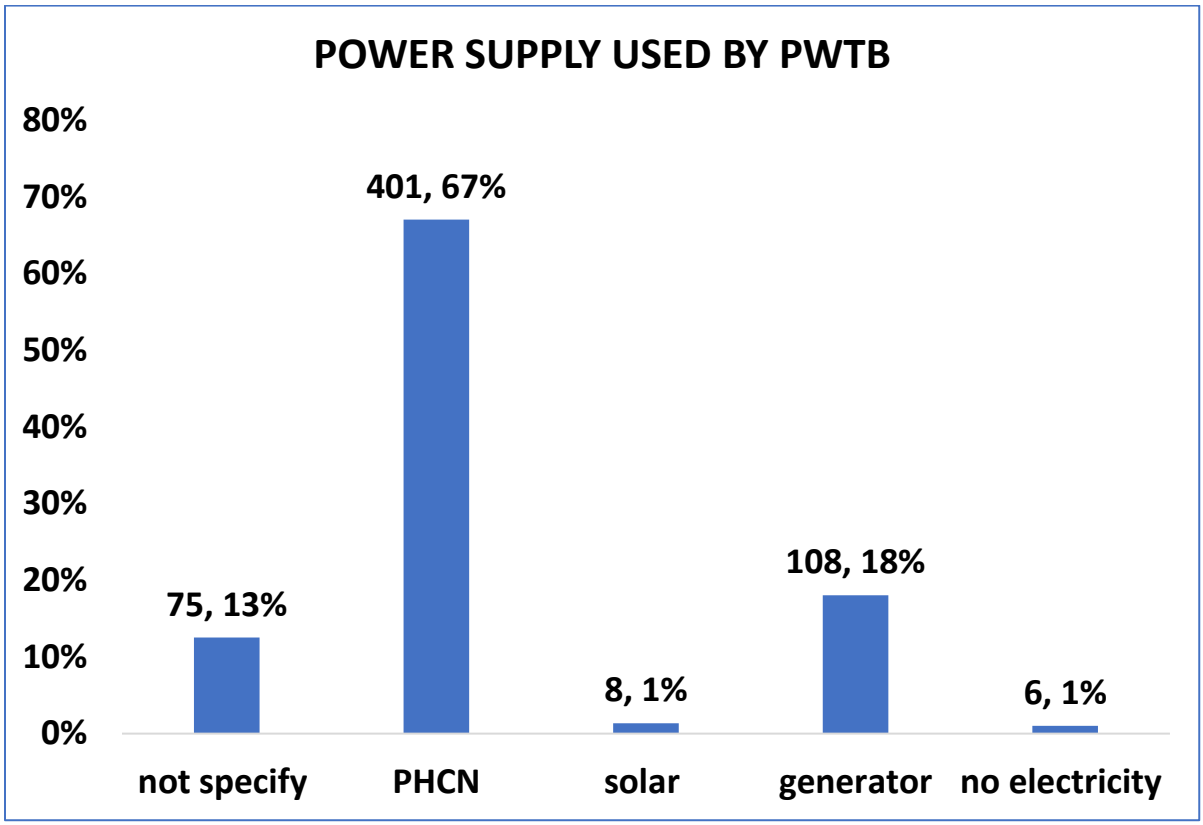


Figure 16. Power Supply Used by PWTB

SECURITY FACILITIES PROVIDED IN THE HOUSE OF PWTB

Facility security is the protection, and the measures taken toward the protection of a building or other physical location. Among the components of facility security are access control, or the protection against entry by unauthorized persons, fire detection and suppression, and emergency-response planning. This study examined the security facilities provided in the house of PWTB, it was observed that majority of the PWTB (32%) uses community security vigilante whereas 26% of PWTB depend on the high fence in their compound securing their properties. Further investigation also revealed 3% of PWTB depends on electricity fence and private petrol guard respectively.

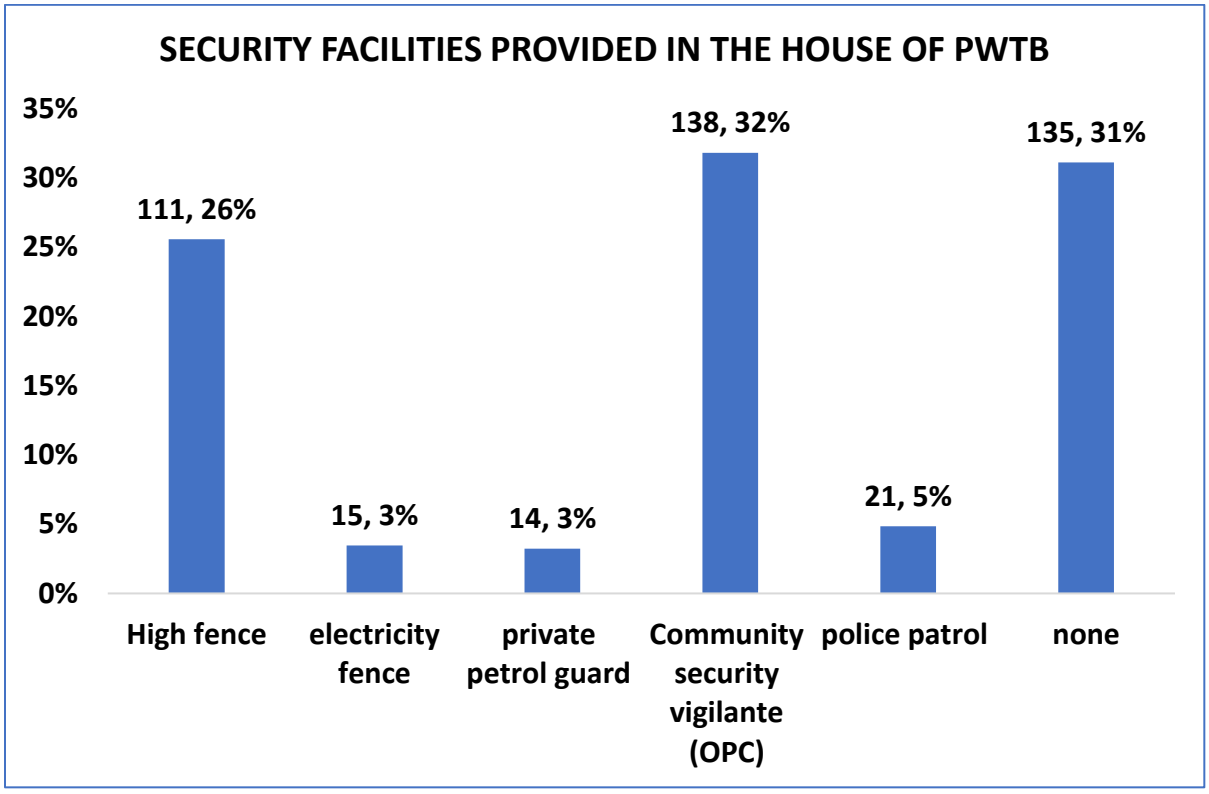


Figure 17. Security Facilities Provided in The House of PWTB

HOW PWTB DISPOSED WASTES

The collection, processing, recycling, or depositing of human society's waste materials is referred to as waste disposal. PWTB's waste disposal method was investigated in this study. It was revealed that 65% of PWTB use the government's waste disposal service, while 13% use a private waste disposal service. Further inquiry revealed that 10% of waste was disposed of by burning (incineration), whereas 11% was disposed of by stream dumping. Only one PWTB, however, disposes of waste by burying it and 11% uses open dumping of waste.

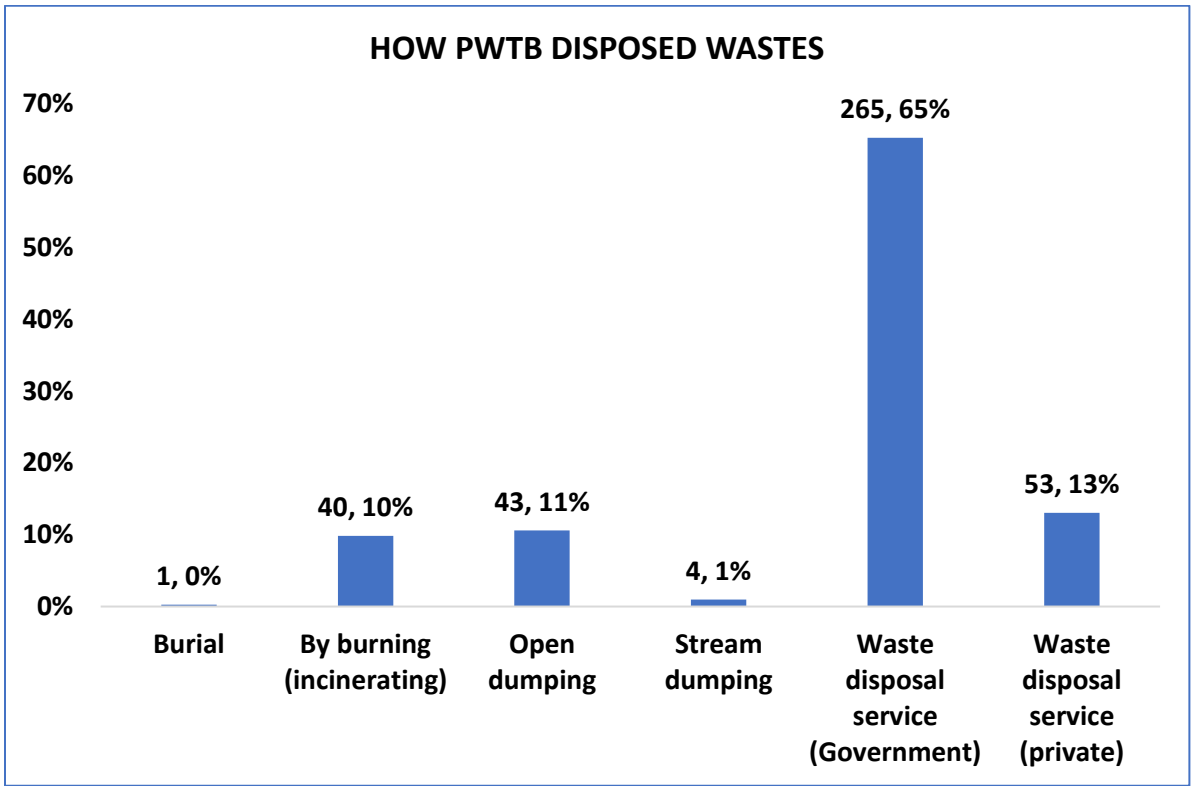


Figure 18. How PWTB Disposed Wastes

SECURITY TENURE WHICH GUARANTEED LEGAL PROTECTION AGAINST FORCED EVICTION

PWTB were asked if security of tenure which guarantees them legal protection against force eviction, harassment and other threats in their apartment, and it was observed that 80% of PWTB do not have legal protection against forced eviction whereas 20% said yes, that there is a legal protection against force eviction.

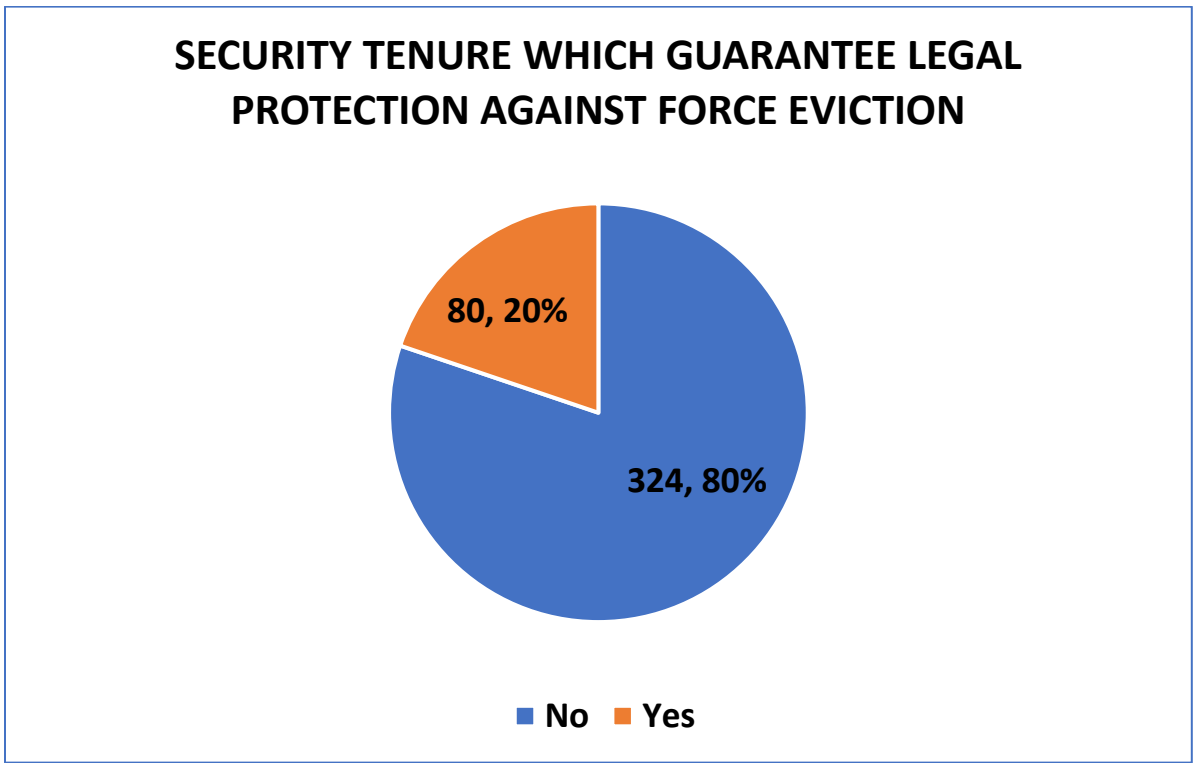


Figure 19. Security Tenure Which Guaranteed Legal Protection Against Forced Eviction

HOUSING EXPENSES COMPROMISE THE ATTAINMENT AND SATISFACTION OF OTHER BASIC NEEDS

PWTB were questioned if their housing costs interfere with their ability to meet other essential needs. According to the study, 62 percent of PWTB claimed that housing expenses occasionally interfere with the attainment and fulfilment of other basic needs, while 27 percent of PWTB said that housing expenses had no impact on their basic needs. However, 11% of PWTB said housing costs jeopardize the achievement and fulfilment of other essential objectives.

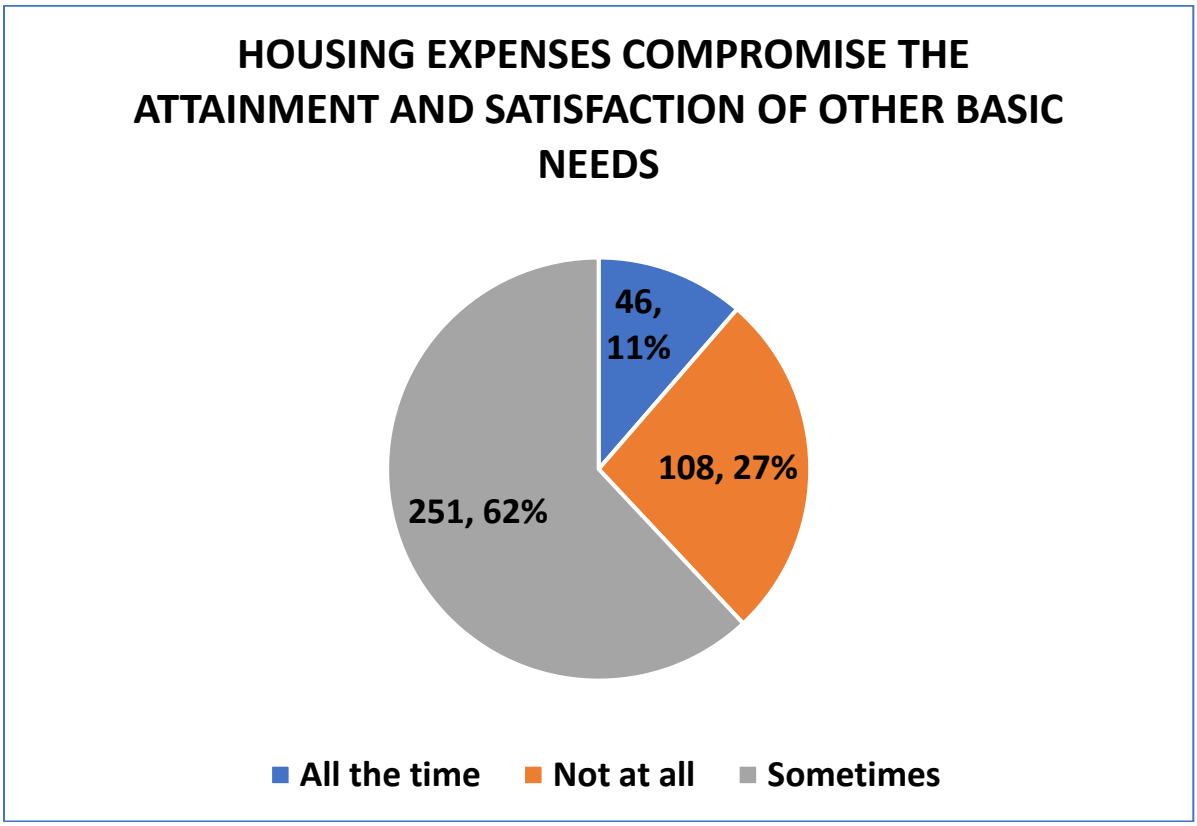


Figure 20. Housing Expenses Compromise the Attainment and Satisfaction of Other Basic Needs

EVER BEEN DECLINED TO HAVE ACCESS TO HOUSING BECAUSE OF TB STATUS

PWTB were asked if they have ever been denied accommodation because of their tuberculosis status. According to the report, 97 percent of PWTB have never had their housing applications denied because to their status. However, because of their TB status, 3 percent of PWTB have been denied housing.

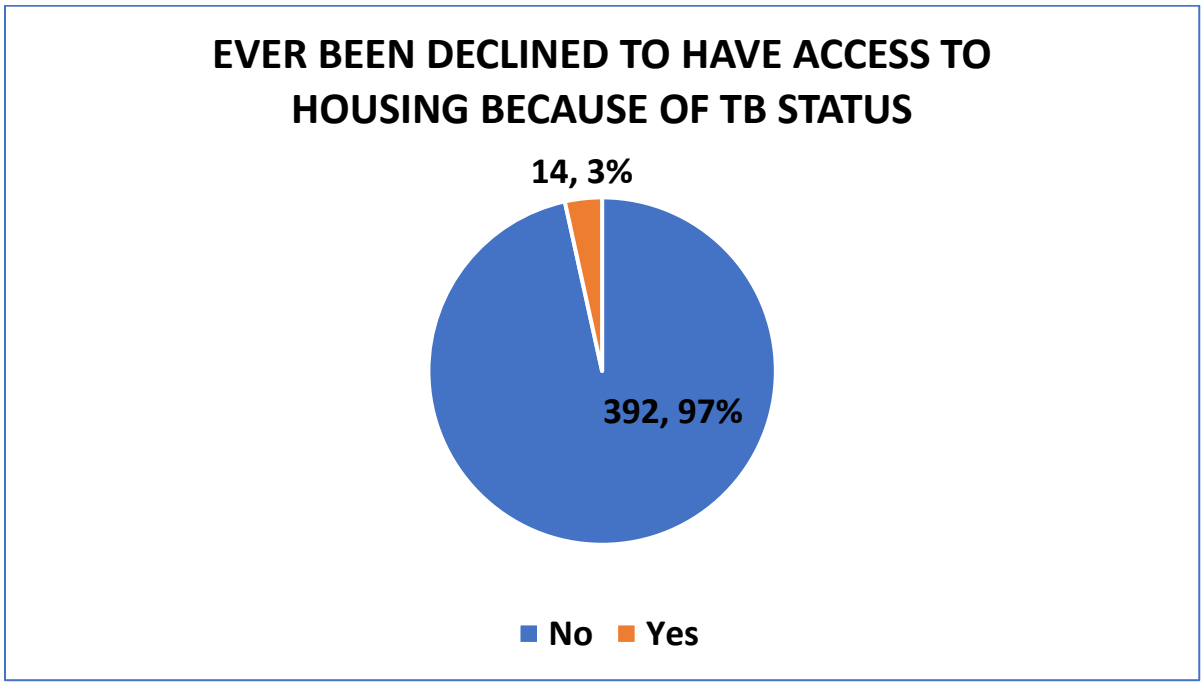


Figure 21. Ever Been Declined to Have Access to Housing Because of TB Status

EVER BEEN EVICTED FROM PLACE OF RESIDENCE BECAUSE OF TB STATUS

PWTB were questioned if they had ever been evicted from their home due of their tuberculosis status. According to the report, 98 percent of PWTB have never been evicted from their home because of their TB status whereas only 2% of PWTB have been evicted from place of residence because of TB status.

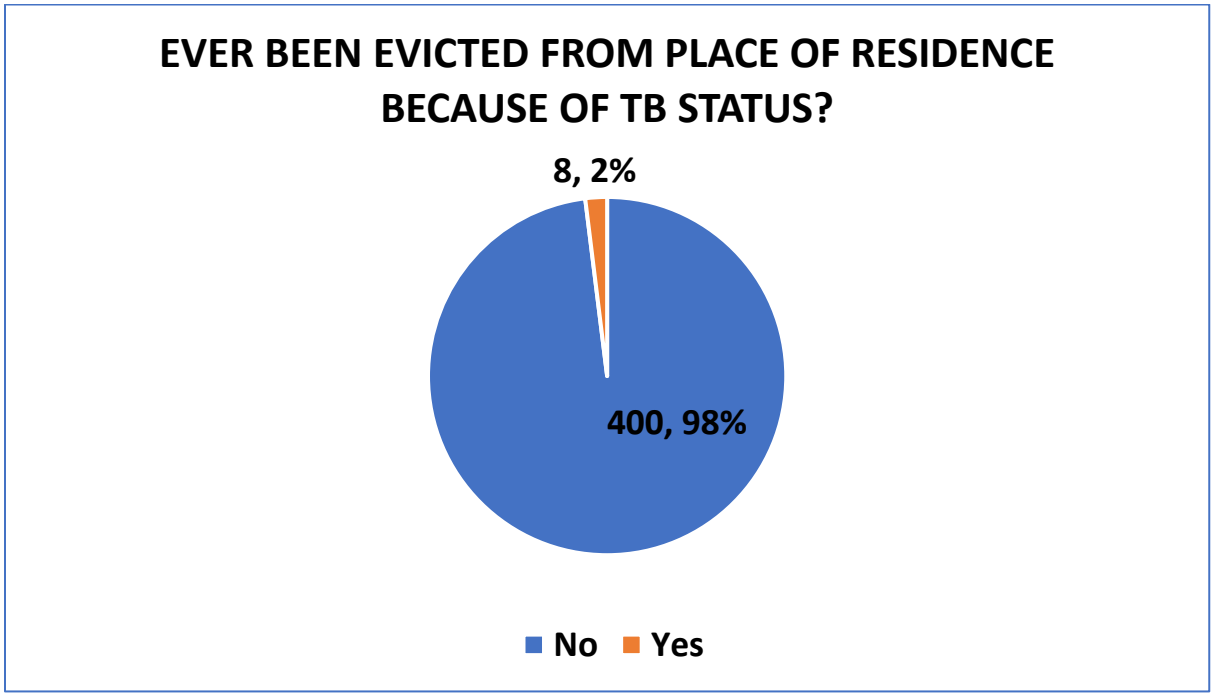


Figure 22. Ever Been Evicted from Place of Residence Because Of TB Status

SECURITY OF TENURE WHICH GUARANTEES LEGAL PROTECTION AGAINST FORCED EVICTION, HARASSMENT AND OTHER THREATS IN APARTMENT OF PWTB

PWTB were asked if their apartment had security of tenure, which provides legal protection against forced eviction, harassment, and other threats. According to the findings, 85% of PWTB said there is no security of tenure in their apartment that guarantees legal protection against forced eviction, harassment, and other threats, while 15% said there is security of tenure in their apartment that guarantees legal protection against forced eviction, harassment, and other threats.

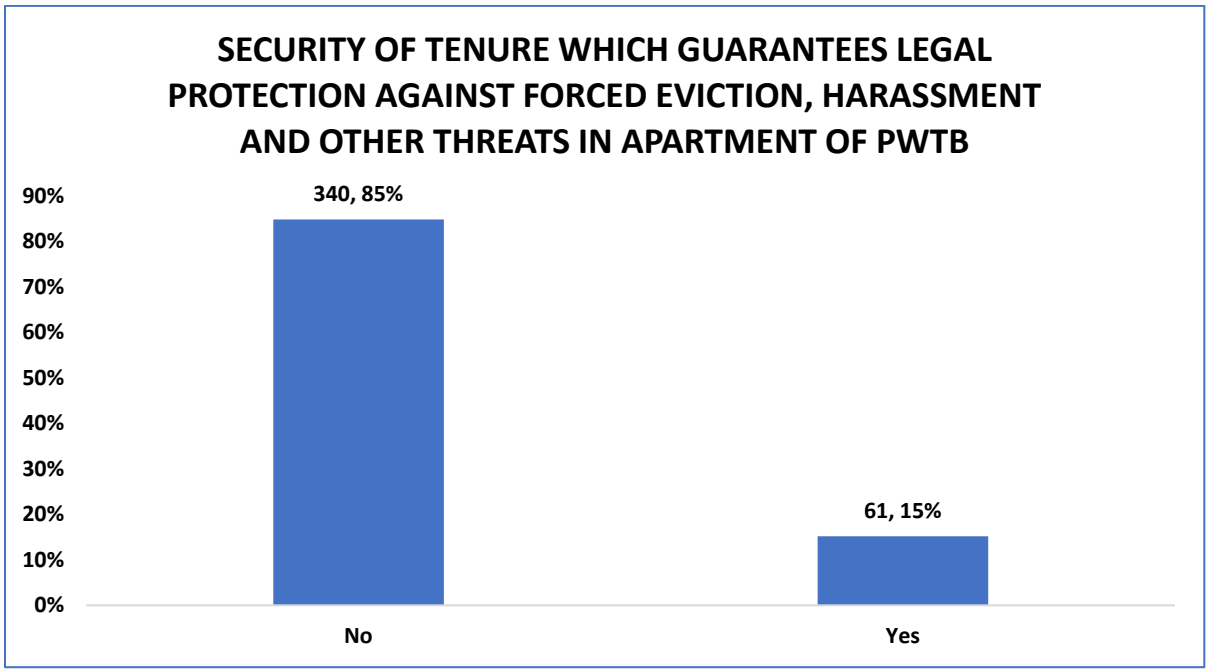


Figure 23. Security of Tenure Which Guarantees Legal Protection Against Forced Eviction, Harassment and Other Threats in Apartment of PWTB

TB TREATMENT STATUS OF PEOPLE WITH OR HAD TB RESPONDENTS

Investigation into TB Treatment Status of People with or Had TB status showed that of the sampled respondents, only 2% never had TB treatment. However, it was established that majority of the respondents (59%) were currently on treatment. This was followed by 30% of the respondents who have completed TB treatment within a year while only 9% completed TB treatment over a year ago.

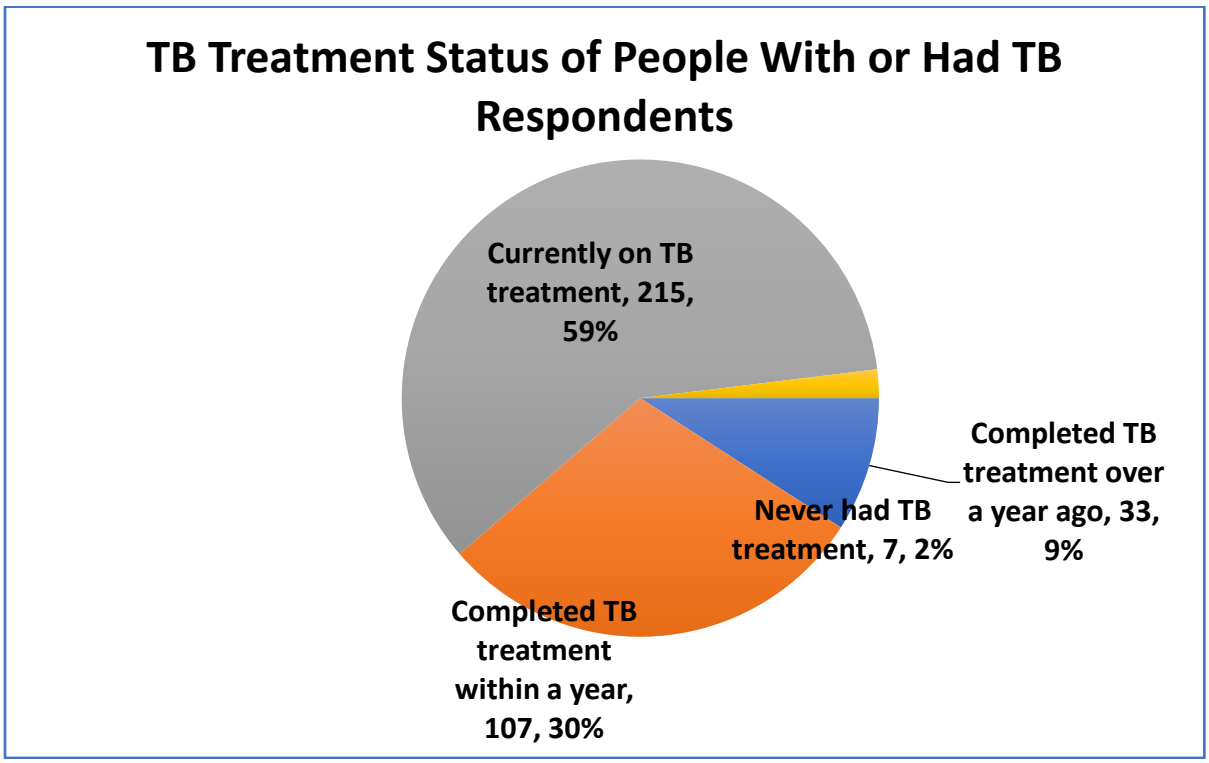


Figure 24. Security of Tenure Which Guarantees Legal Protection Against Forced Eviction, Harassment and Other Threats in Apartment of PWTB

TYPE OF TB PWTB LAST DIAGNOSED WITH

The type of TB at last diagnosed was examined and presented in chart above. It was established that 60% of the respondents said they don't know the type of TB they are diagnosed with while 1% of the respondents said that they are diagnosed with Extra Pulmonary TB. However, 36% claimed that they are last diagnosed with Pulmonary TB while only 3% said they are last diagnosed with Multi Drug Resistant TB.

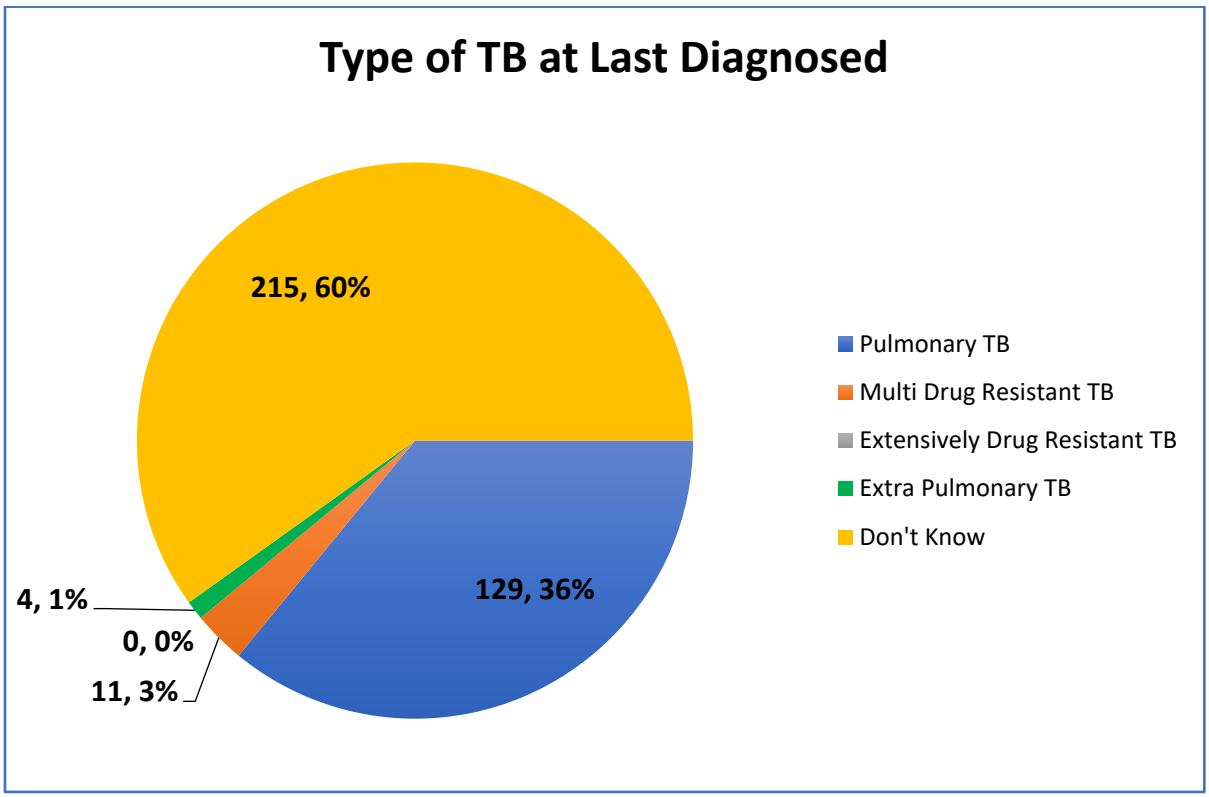


Figure 25. Type of Tb PWTB Last Diagnosed With

SELF-STIGMA IN PEOPLE WHO HAD TB

The level of self-stigma in PWTB was measured by using a set of 12 statements describing the attitude towards TB disclosure, feelings of guilt, social isolation and so on. Practically all of the respondents have clearly expressed their views on the statements and under one percent of the respondents have either refused to answer or could not specifically tell. 75% of the respondents said that they choose carefully who they tell about having TB. 73% also added that they keep a distance from others to avoid spreading TB germs. Further observation also revealed that 47% they are afraid to tell those outside my family that I have TB while they feel guilty because their families have the burden of caring for them.

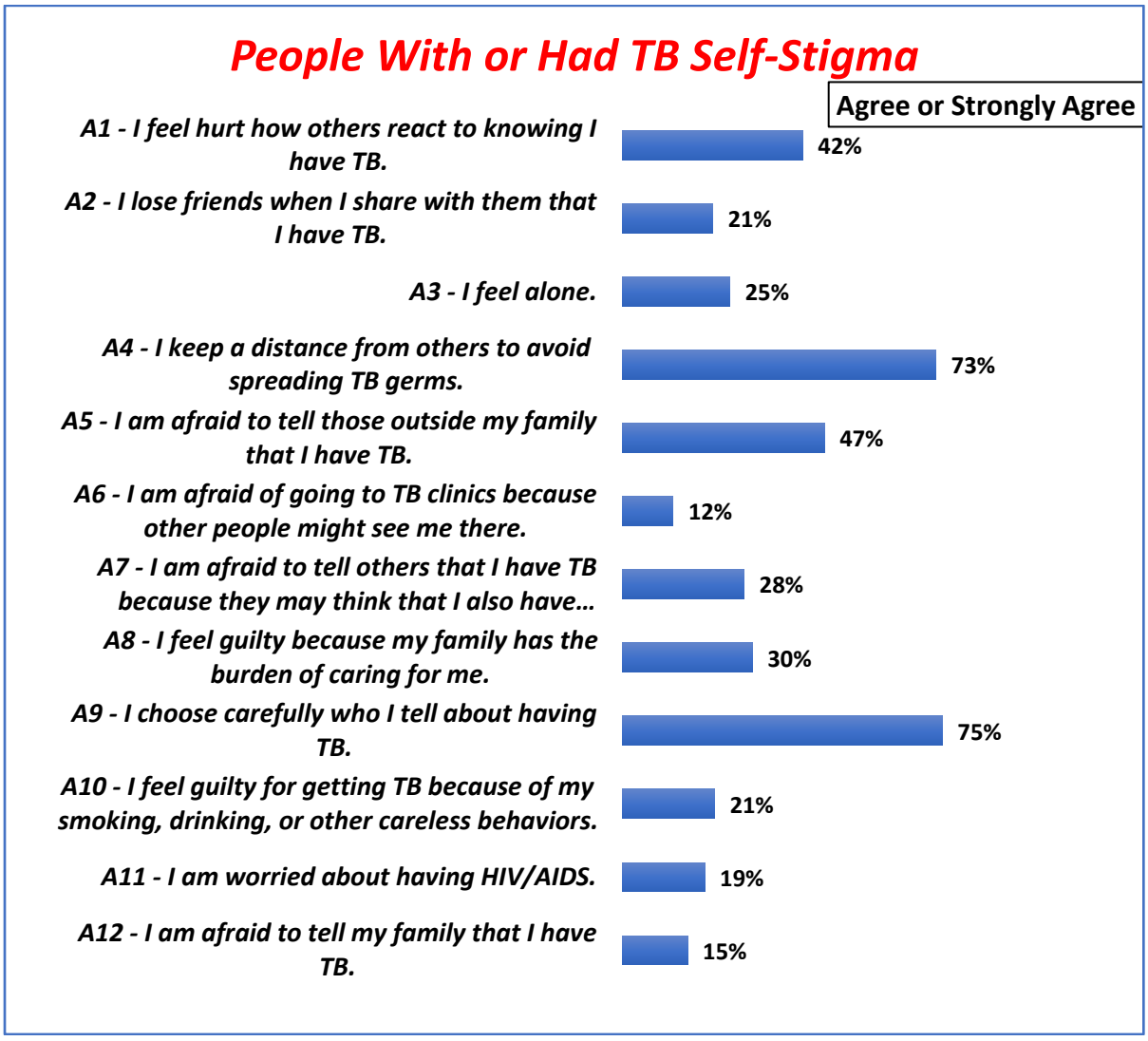


Figure 26. Self-Stigma in People Who Had TB

DO YOU FEEL THAT THE 12-STIGMA SCALE DESCRIBE HOW YOU FEEL ABOUT TB?

Respondents were asked about the 12-stigma scale and how it describes how they feel about TB, and the report shows that 57 percent of respondents believe the 12-stigma scale describes how they feel about TB, while 43 percent believe it does not.

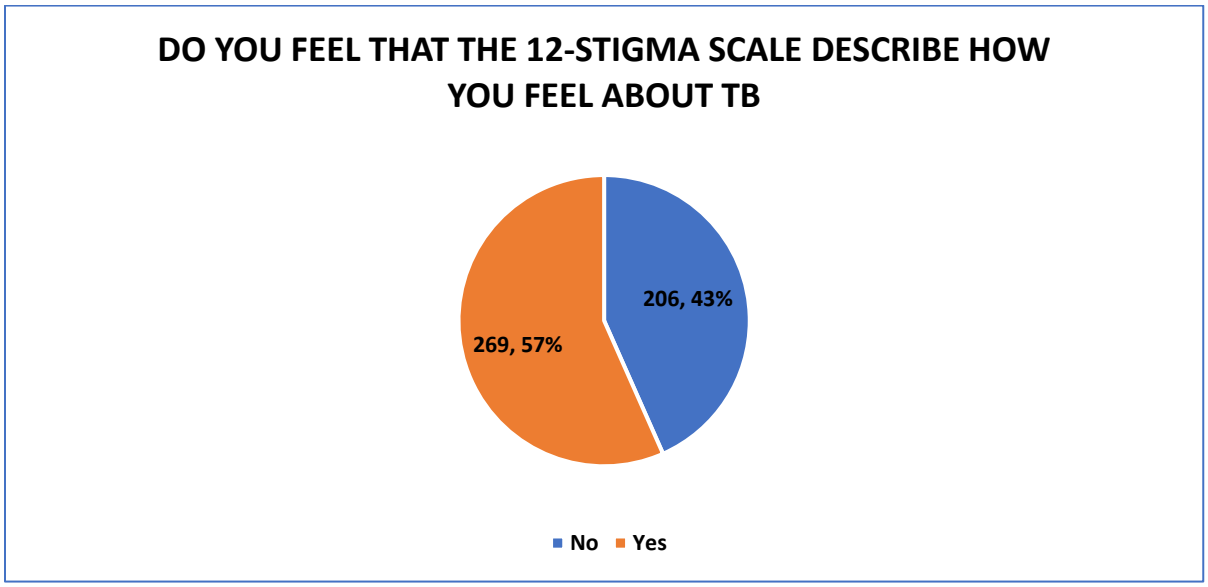


Figure 27. Do You Feel That The 12-Stigma Scale Describe How You Feel About TB?

DID THE FEELINGS ABOU T TB INHIBIT YOU FROM SEEKING AND ACCESSING TB SERVICES?

According to the report, those who answered yes to the question above (figure 27) were asked if their feelings about tuberculosis prevent them from seeking and accessing TB services, and the report found that 78 percent of respondents said their feelings about tuberculosis prevent them from seeking and accessing TB services.

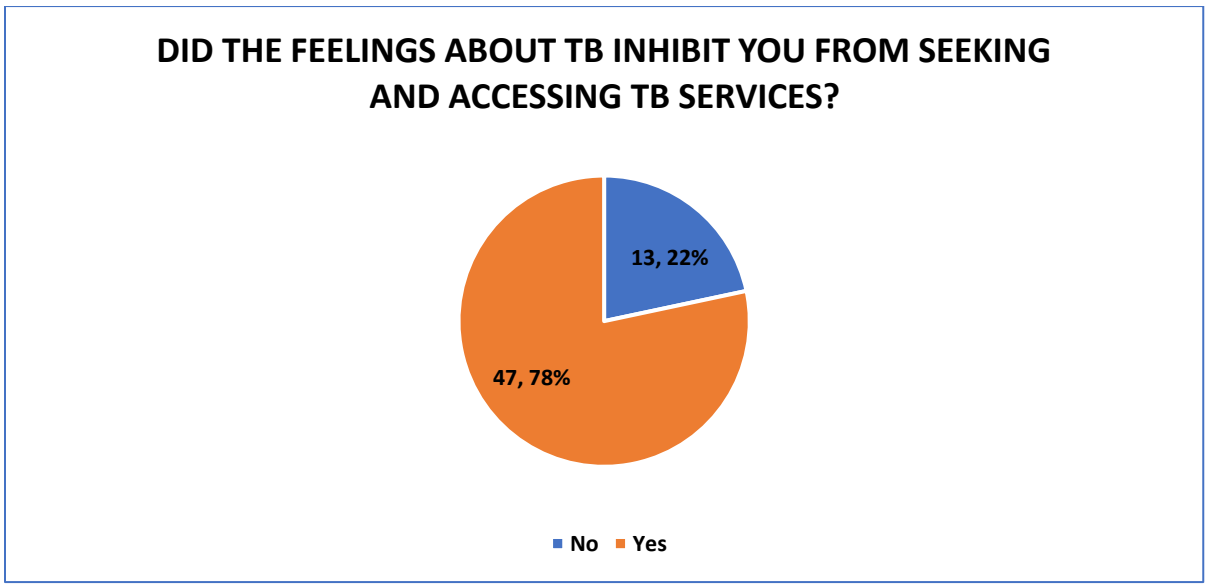


Figure 28. Did the Feelings About TB Inhibit You from Seeking and Accessing TB Services?

Regression of factors associated with self-stigma in PWTB

Regression analysis is a quantitative research method which is used when the study involves modelling and analysing several variables, where the relationship includes a dependent variable and one or more independent variables. In simple terms, regression analysis is a quantitative method used to test the nature of relationships between a dependent variable and one or more independent variables.

- The gender factor does contribute significantly to the model with **(male regression coef. -0.1156913, P>0.016).** The negative weight for this interaction means the slope of relationship between being stigmatize is less positive in male and more positive for the female.
- The TB treatment status contribute immensely to the model with **(currently on TB treatment regression coef. -0.1965713, P> 0.001).** the model shows that those who are currently on TB treatment are less positive to being stigmatize compare to the reference category.
- In the regression report, type of apartment contributes significantly to the model. The report shows that those who are living in 3-bedroom flat **(regression coef. -0.250905, P> 0.048)** and duplex **(regression coef. -1.257465, P> 0.012)** are at low risk of being stigmatize compared to the reference category.
- According to the findings, those who says housing expenses (regression coef. -**0.129486, P>0.048**) are not at all affect their basic needs are at low risk of being stigmatize compare to the reference category.

Factors	Regression Coefficient.	Std. Err.	t	P>t	[95% Conf. Interval]	
Gender						
Male	**-0.1156913**	**0.047713**	**-2.42**	**0.016**	**-0.20949**	**-0.02189**
Female	Ref					
Age						
18-24	-0.0507465	0.086452	-0.59	0.558	-0.2207	0.119205
45-64	-0.0269167	0.057947	-0.46	0.643	-0.14083	0.086998
65 or older	-0.1271051	0.119878	-1.06	0.29	-0.36277	0.108558
25-44	Ref					
TB Treatment Status						
Completed TB treatment over a year ago	-0.1258606	0.101062	-1.25	0.214	-0.32453	0.072813
Currently on TB treatment	**-0.1965713**	**0.060647**	**-3.24**	**0.001**	**-0.31579**	**-0.07735**

Never had TB treatment	0.0145097	0.202732	0.07	0.943	-0.38403	0.413051
Completed TB treatment within a year	Ref					
TB Type						
Don't Know	-0.0617301	0.155672	-0.4	0.692	-0.36776	0.244298
Extra Pulmonary TB	0.2839739	0.289094	0.98	0.327	-0.28434	0.85229
Pulmonary TB	-0.0228843	0.155208	-0.15	0.883	-0.328	0.282233
Multi Drug Resistant TB	Ref					
Marital Status						
Married	0.0387022	0.217143	0.18	0.859	-0.38817	0.465574
Separated/divorced	-0.1098383	0.254682	-0.43	0.666	-0.61051	0.39083
Single	-0.1049675	0.222631	-0.47	0.638	-0.54263	0.332692
Widowed	Ref					
Education Status						
No formal education	-0.166572	0.145005	-1.15	0.251	-0.45163	0.118487
Primary education	-0.1062052	0.101262	-1.05	0.295	-0.30527	0.092861
Secondary education	-0.0917265	0.069611	-1.32	0.188	-0.22857	0.045118
Tertiary education	Ref					
Job Category						
Artisan	0.0452414	0.067897	0.67	0.506	-0.08823	0.178717
Civil servant	-0.0989077	0.103949	-0.95	0.342	-0.30326	0.105441
Not currently working	0.0380262	0.085112	0.45	0.655	-0.12929	0.205344
Student	0.1514413	0.124575	1.22	0.225	-0.09346	0.396338
Trader	Ref					
Type of Apartment						
2 Bedroom flat	-0.1059563	0.083462	-1.27	0.205	-0.27003	0.058118
3 Bedroom flat	**-0.250905**	**0.126777**	**-1.98**	**0.048**	**-0.50013**	**-0.00168**
4 Bedroom flat	-0.3030641	0.246481	-1.23	0.22	-0.78761	0.18148
5 Bedroom flat or more	-0.06841	0.348596	-0.2	0.845	-0.7537	0.616878
Duplex	**-1.257465**	**0.495705**	**-2.54**	**0.012**	**-2.23195**	**-0.28298**

One room	0.0020252	0.070567	0.03	0.977	-0.1367	0.140749
Self-contained	-0.0352876	0.080238	-0.44	0.66	-0.19302	0.122448
Type of Toilet						
Bush/short put	0.4112291	0.252874	1.63	0.105	-0.08588	0.908341
Flush toilet WC	0.109439	0.121501	0.9	0.368	-0.12941	0.348291
No toilet	0.1934846	0.275067	0.7	0.482	-0.34726	0.734226
Pit covered	0.0457364	0.126545	0.36	0.718	-0.20303	0.294505
Pit uncovered	-0.0061361	0.231887	-0.03	0.979	-0.46199	0.44972
Squat toilet WC	0.1559633	0.137416	1.13	0.257	-0.11418	0.426102
Toilet on water	Ref					
Water Facility	-0.2432957	0.926692	-0.26	0.793	-2.06504	1.578445
Borehole water	-0.012927	0.087196	-0.15	0.882	-0.18434	0.158487
None of the above	-0.1068581	0.241794	-0.44	0.659	-0.58219	0.368473
Portable tap water from government	0.0266967	0.126574	0.21	0.833	-0.22213	0.275523
Portable tap water from private s..	-0.1024873	0.10613	-0.97	0.335	-0.31112	0.10615
Stream water	0.4943221	0.479367	1.03	0.303	-0.44804	1.436688
Well water	Ref					
Housing Expenses affect basic needs						
All the time	0.0352428	0.081161	0.43	0.664	-0.12431	0.194794
Not at all	**-0.129486**	**0.065371**	**-1.98**	**0.048**	**-0.258**	**-0.00098**
Sometimes	Ref					

NOTE: Ref is shorthand for reference category.

Table. 2 Regression of factors associated with self-stigma

Note: self-stigma is measured as a total score in the 12-item questionnaire. Each statement was measured on a scale from 0 (totally disagree) to 4 (totally agree). Respectively the total self-stigma score varies from 0 to 48 — higher scores indicate high levels of stigma. Discrepancies between the groups are reflected as linear regressions which simultaneously include all of the indicated factors.

EVER EXPERIENCED STIGMA

Stigmatization is a health-related social factor. Community and institutional norms about undesirable or disvalued actions or qualities produce stigma. When diseases are stigmatized, people may be hesitant to seek and complete medical treatment because they are afraid of the social and economic ramifications of a diagnosis. The study shows the 78% of respondent said they have never experienced stigma while 22% of the respondent said they've experienced stigma from the communities, health workers, family and others.

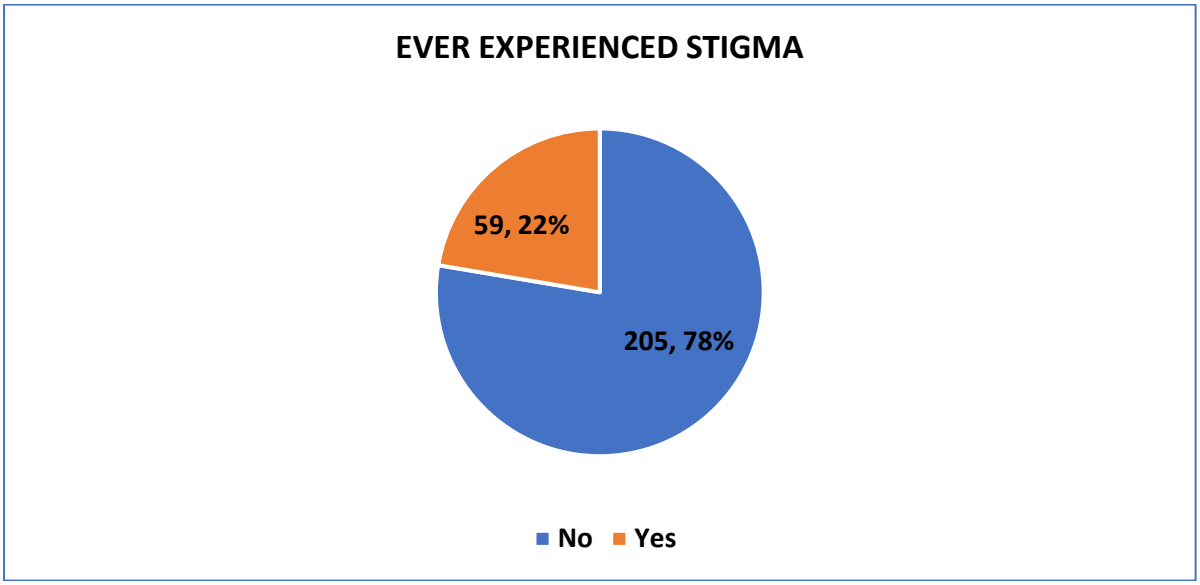


Figure 29. Ever Experienced Stigma

PWTB EXPERIENCED STIGMA

Components of the patient pathway and stigma: proportion of PWTB who responded «yes» to Question: «Have you ever experienced stigma in the following settings which was responsible for delay in? (n=476)

PWTB Experienced Stigma	(1) Recognizing symptoms n(%)	(2) Seeking care n(%)	(3) Getting an accurate diagnosis n(%)	(4) Beginning treatment n(%)	(5) Getting treatment adherence support n(%)	(6) Completing treatment n(%)	(7) Getting post-treatment follow-up services n(%)
Stigma in Hospitals/Clinics	15 (3%)	19 (4%)	4 (1%)	5 (1%)	6 (1%)	7 (1%)	6 (1%)
Stigma in Community/Neighbors	19 (4%)	19 (4%)	6 (1%)	10 (2%)	2 (0%)	2 (0%)	3 (1%)

Stigma in Home/Family	**15 (3%)**	**15 (3%)**	**8 (2%)**	**8 (2%)**	**2 (0%)**	**6 (1%)**	**3 (1%)**
Stigma in Workplace	**13 (3%)**	**18 (4%)**	**2 (0%)**	**8 (2%)**	**4 (1%)**	**1 (0%)**	**3 (1%)**

Table 3a. PWTB Experienced Stigma

PWTB EXPERIENCED STIGMA

Components of the patient pathway and stigma: proportion of PWTB who responded «yes» to Question: «Have you ever experienced stigma in the following settings which was responsible for delay in? (n=59)

PWTB Experienced Stigma	**(1) Recognizing symptoms n(%)**	**(2) Seeking care n(%)**	**(3) Getting an accurate diagnosis n(%)**	**(4) Beginning treatment n(%)**	**(5) Getting treatment adherence support n(%)**	**(6) Completing treatment n(%)**	**(7) Getting post-treatment follow-up services n(%)**
Stigma in Hospitals/Clinics	**15 (25%)**	**19 (32%)**	**4 (7%)**	**5 (8%)**	**6 (10%)**	**7 (12%)**	**6 (10%)**
Stigma in Community/Neighbors	**19 (32%)**	**19 (32%)**	**6 (10%)**	**10 (17%)**	**2 (3%)**	**2 (3%)**	**3 (5%)**
Stigma in Home/Family	**15 (25%)**	**15 (25%)**	**8 (14%)**	**8 (14%)**	**2 (3%)**	**6 (10%)**	**3 (5%)**
Stigma in Workplace	**13 (22%)**	**18 (31%)**	**2 (3%)**	**8 (14%)**	**4 (7%)**	**1 (2%)**	**3 (5%)**

Table 3b. PWTB Experienced Stigma

KNOW OTHER PEOPLE WITH OR HAD TB BEING STIGMATIZED

Components of the patient pathway and stigma: proportion of PWTB who responded «yes» to Question: «Are you aware of any cases of stigma in patients with TB or people who had TB in the following setting which was responsible for delays in …?» (n=476)

PWTB Seen/Heard Others Being Stigmatized	**(1) Recognizing symptoms n(%)**	**(2) Seeking care n(%)**	**(3) Getting an accurate diagnosis n(%)**	**(4) Beginning treatment n(%)**	**(5) Getting treatment adherence support n(%)**	**(6) Completing treatment n(%)**	**(7) Getting post-treatment follow-up**

							service s n(%)
Stigma in Hospitals/Clinics	**3 (1%)**	**4 (1%)**	**0 (0%)**	**0 (0%)**	**0 (0%)**	**0 (0%)**	**0 (0%)**
Stigma in Community/Neighbors	**4 (1%)**	**5 (1%)**	**1 (0%)**	**2 (0%)**	**1 (0%)**	**1 (0%)**	**0 (0%)**
Stigma in Home/Family	**5 (1%)**	**2 (0%)**	**2 (0%)**	**1 (0%)**	**0 (0%)**	**0 (0%)**	**0 (0%)**
Stigma in Workplace	**3 (1%)**	**4 (1%)**	**1 (0%)**	**2 (0%)**	**0 (0%)**	**0 (0%)**	**0 (0%)**

Table 4a. Know Other People With Or Had TB Being Stigmatized

KNOW OTHER PEOPLE WITH OR HAD TB BEING STIGMATIZED

Components of the patient pathway and stigma: proportion of PWTB who responded «yes» to Question: «Are you aware of any cases of stigma in patients with TB or people who had TB in the following setting which was responsible for delays in …?» (n=59)

PWTB Seen/Heard Others Being Stigmatized	**(1) Recognizing symptoms n(%)**	**(2) Seeking care n(%)**	**(3) Getting an accurate diagnosis n(%)**	**(4) Beginning treatment n(%)**	**(5) Getting treatment adherence support n(%)**	**(6) Completing treatment n(%)**	**(7) Getting post-treatment follow-up services n(%)**
Stigma in Hospitals/Clinics	**3 (5%)**	**4 (7%)**	**0 (0%)**	**0 (0%)**	**0 (3%)**	**0 (2%)**	**0 (3%)**
Stigma in Community/Neighbors	**4 (7%)**	**5 (8%)**	**1 (2%)**	**2 (3%)**	**1 (2%)**	**1 (2%)**	**0 (0%)**
Stigma in Home/Family	**5 (8%)**	**2 (3%)**	**2 (3%)**	**1 (2%)**	**0 (0%)**	**0 (0%)**	**0 (0%)**
Stigma in Workplace	**3 (5%)**	**4 (7%)**	**1 (2%)**	**2 (3%)**	**0 (0%)**	**0 (0%)**	**0 (0%)**

Table 4b. Know Other People With Or Had TB Being Stigmatized

PWTB EXPERIENCE ON TB-RELATED STIGMA

The survey respondents with tuberculosis were asked to elaborate on their experiences with stigma. Some of the most frequent words and phrases generated as a result of text analysis show that the respondents mostly described stigma at work and coming from friends and neighbours.

Figure 30. PWTB experience on tb-related stigma
Note: Words in large print were used most often.

Respondents frequently mentioned the stigma they encountered in a health-care setting. People who have had TB have frequently expressed dissatisfaction with the attitude of medical professionals at TB clinics and Primary Care clinics, including a lack of understanding and cases of status disclosure.
In terms of personal experiences with TB-related stigma, these are some of the responses.

"I feel the more I let people know about my situation they move away from me and it hurts but as it is, I'm getting better and beginning to feel part of the community again".
Female (24-44), centre.

"I was stopped from work with immediate effect as soon as I was diagnosed with TB".
Male (45-64), centre.

"I used to work in a school as a teacher a school and when I told them about my TB status, I was told to stop work and go and treat myself and come back when I am Okay but to my surprise, they sent sack letter to me after a month".
Male (25-44), centre.

"So far its only TB I've had and I can tell you it isn't a good experience, especially whenever I remember I almost do shed tears and give glory to God Almighty".
Male (25-44) centre.

"I sell food but since the sickness start people have stop coming which lead to close down of the shop".

Female (25-44) centre.

"My step mother that I was living with completely alienated me from herself and her children. The stigma was so much that I had to relocate to another family member's house while I was receiving treatment."

Female (25-44) centre.

"some shops that I do send my child to get stuffs, when my son gets back, he tells me that, this woman doesn't want to sell for me, and do hear side talks like, she's the one going, and you such things get one pissed off".

Female (45-64) centre

"It started with my family they completely avoided me but you know blood is thicker than water so they accepted me for who I am and helped me to move forward."

Female (45-64) centre

"Family and friends absconded and I was locked out of the world, everything I worked for and my kids are nowhere to be found."

Male (65 or older) centre.

FAMILY
GENDER OF FAMILY RESPONDENTS

Gender distribution revealed that majority of the respondents in the study area 47% were male while 53% were female. However, there is no record for transgender or other people

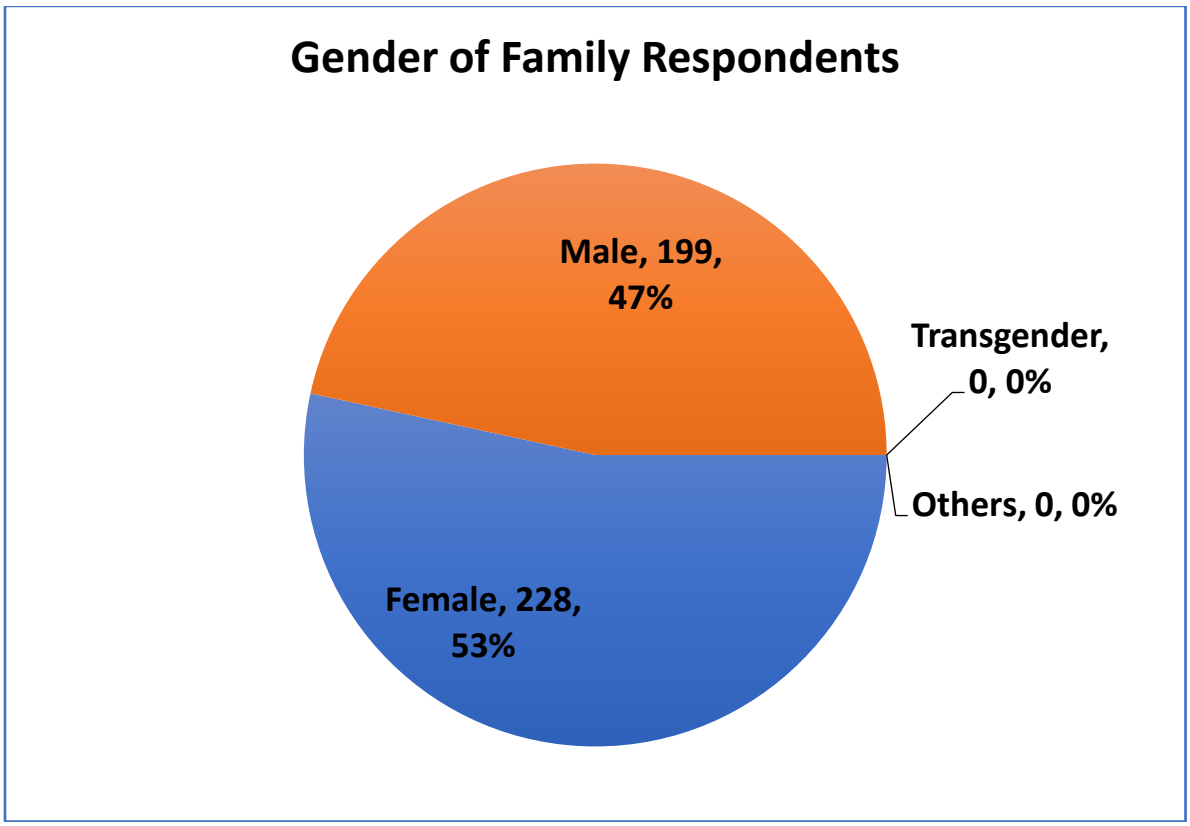


Figure 31. Gender of Family Respondents

.

AGE OF FAMILY RESPONDENTS

The age distribution of respondents in the study also showed that a large majority (62%) of the respondents were between age group 25-44 years. Respondents within age group 45-64 years and 18-24 years accounted for 27% and 10% of the sampled size respectively. However, only 1% of respondents in the study were 65 years and above.

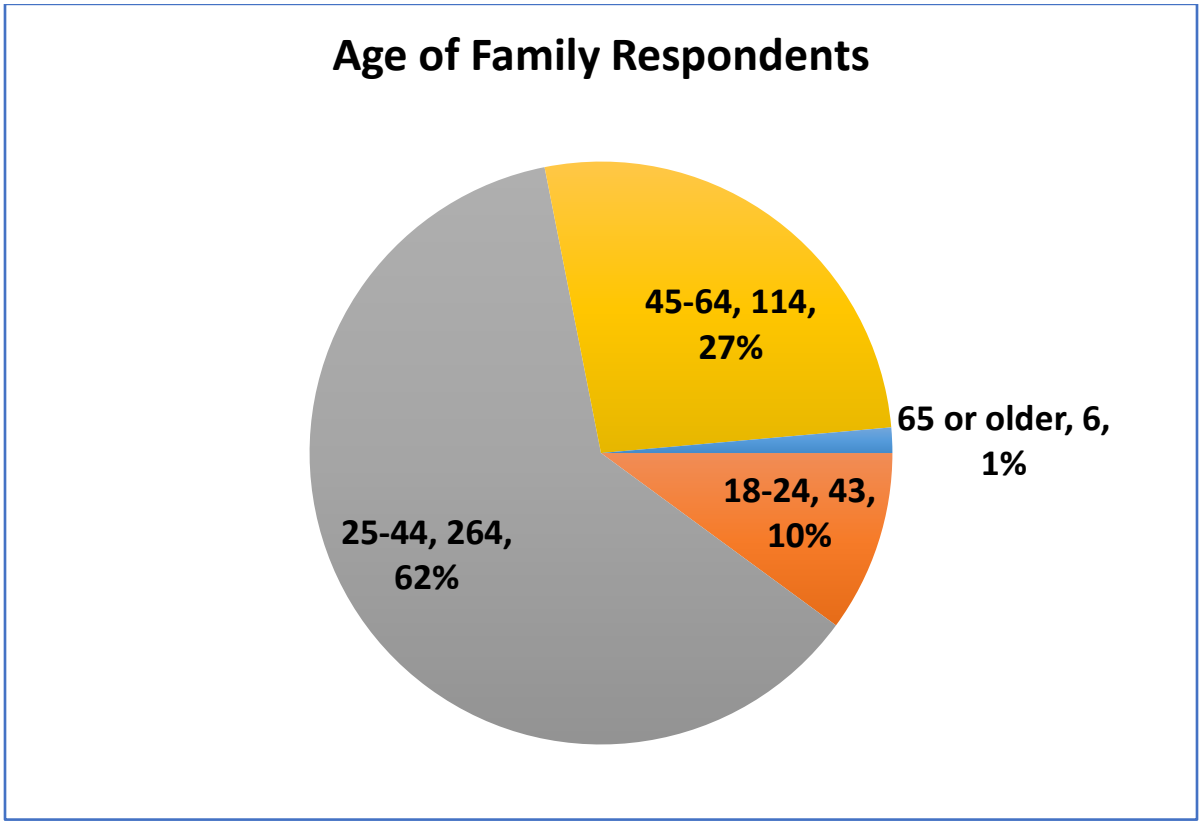
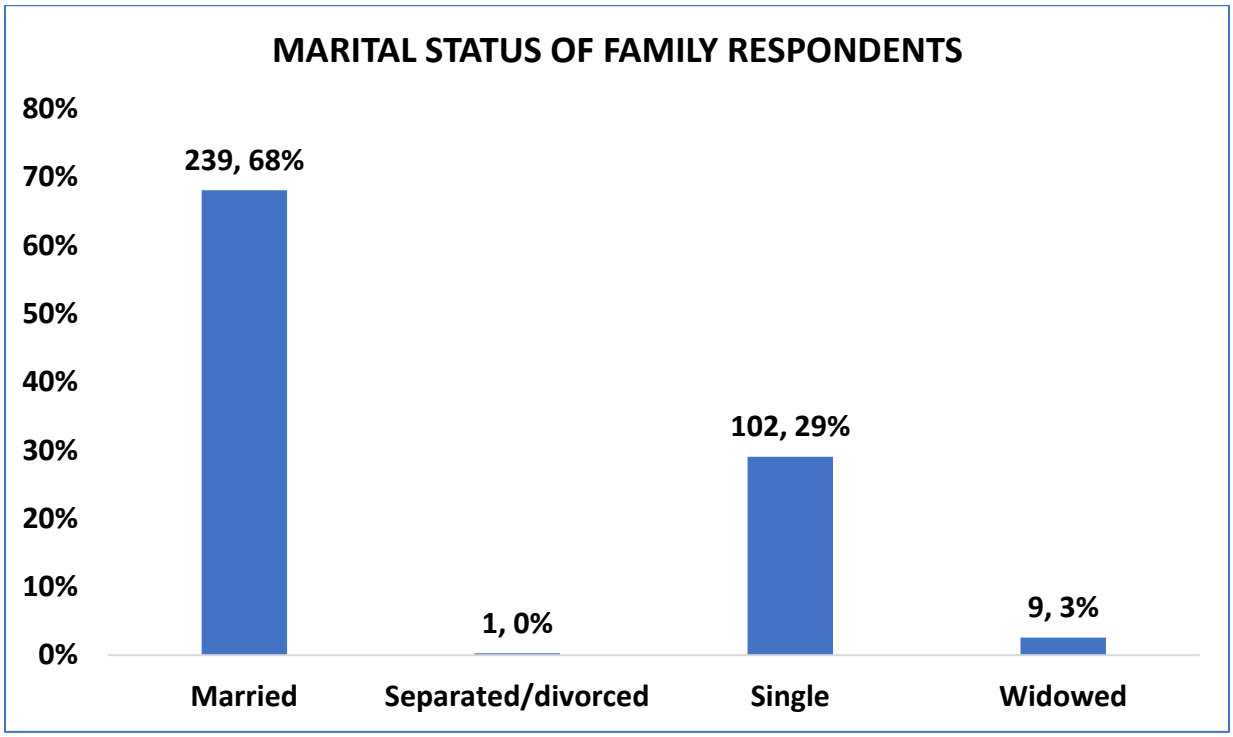


Figure 32. Age of Family Respondents

MARITAL STATUS OF FAMILY RESPONDENTS

The marital status of family respondents was explored in this study. Only 29% of individuals polled are unmarried, while 68 percent are married. Only one family member has been separated from his or her family, and 3% of family members are widows



. Figure 33. Marital Status of Family Respondents

EDUCATION STATUS OF FAMILY RESPONDENTS

The educational status of the respondents was investigated in this study. It was discovered that 57 percent of the families polled had completed secondary school. Only 28% of the population has completed tertiary education. Further analysis indicated that 9 percent of family members have completed primary school, while 5% have never had any formal schooling.

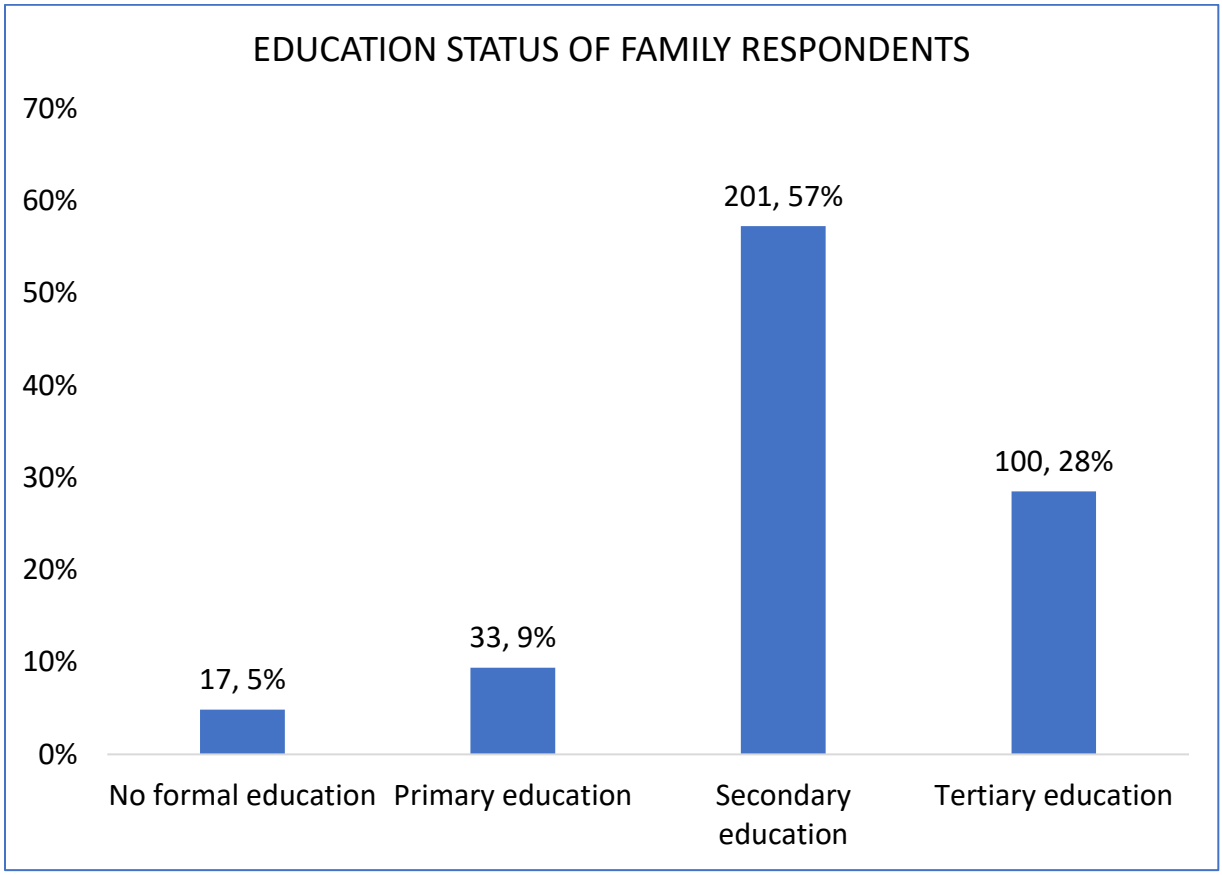


Figure 34. Education Status of Family Respondents

RELIGION OF FAMILY RESPONDENT

Religion is the belief in and worship of a superhuman controlling power, especially a personal God or gods. This study examined the religion of family respondents, it was observed that 63% of family respondents are Christians while 37% of the family respondents are practising Islam. However, only one family respondent practices traditional religion.

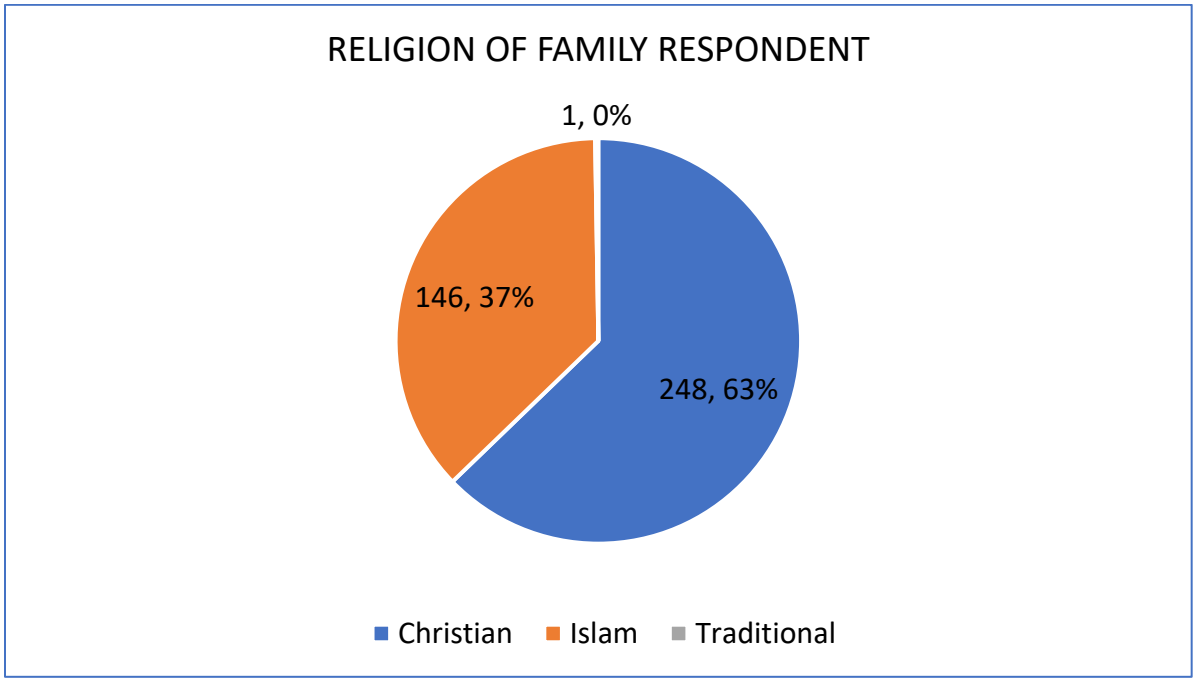


Figure 35. Religion of Family Respondent

JOB CATEGORY OF FAMILY RESPONDENT

Investigation on the job category of family respondents was examined in this research. It was revealed that 40% of the respondents are traders whereas, 25% are artisans. Further investigation also revealed that 12% of the family respondents are not working while 8% are civil servants. However, 7% are students and 8% are private workers.

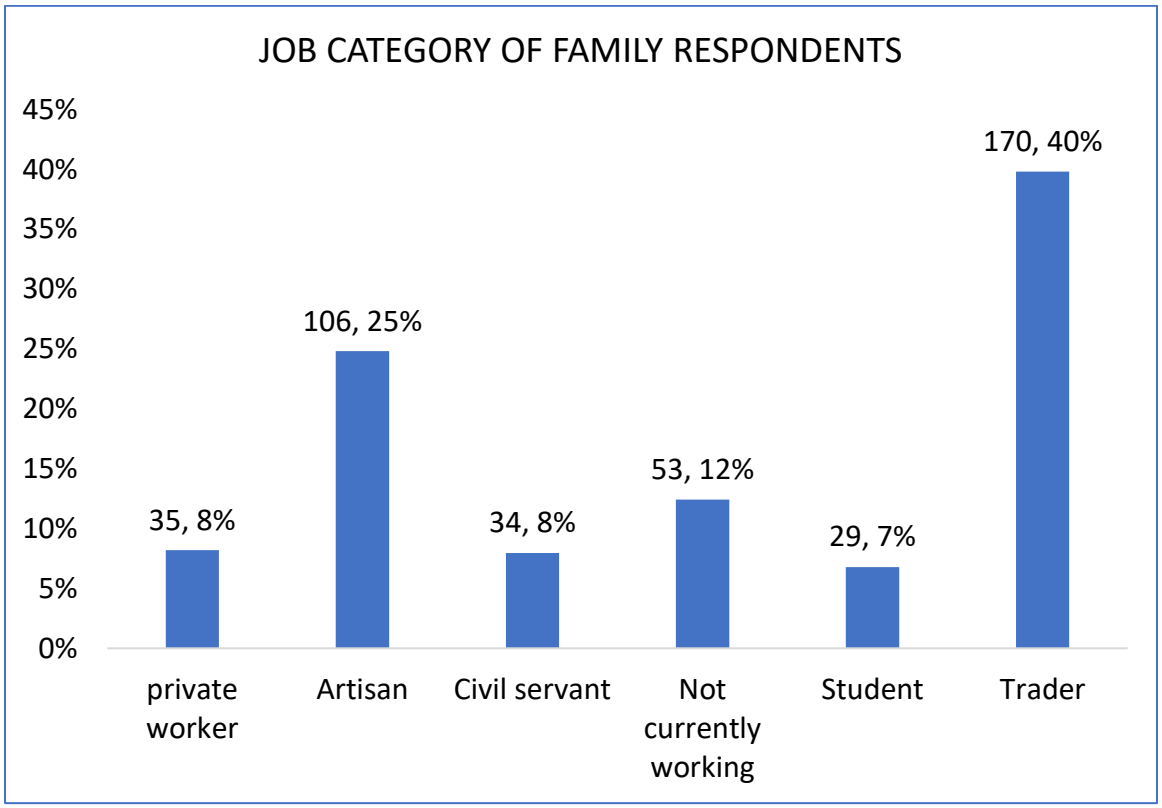


Figure 36. Job Category of Family Respondent

TYPE OF APARTMENT OF FAMILY RESPONDENT

The sort of apartment that family respondents live in was investigated, and the survey revealed that 42 percent of the respondents live in a room and parlour apartment. A self-contained apartment is home to 13% of the population. 25% of people live in a single room apartment, whereas 14% live in a two-bedroom apartment. Further study revealed that 2% of respondents live in a 4-bedroom flat, while one family responder lives in a 5-bedroom flat and one family respondent lives in a duplex.

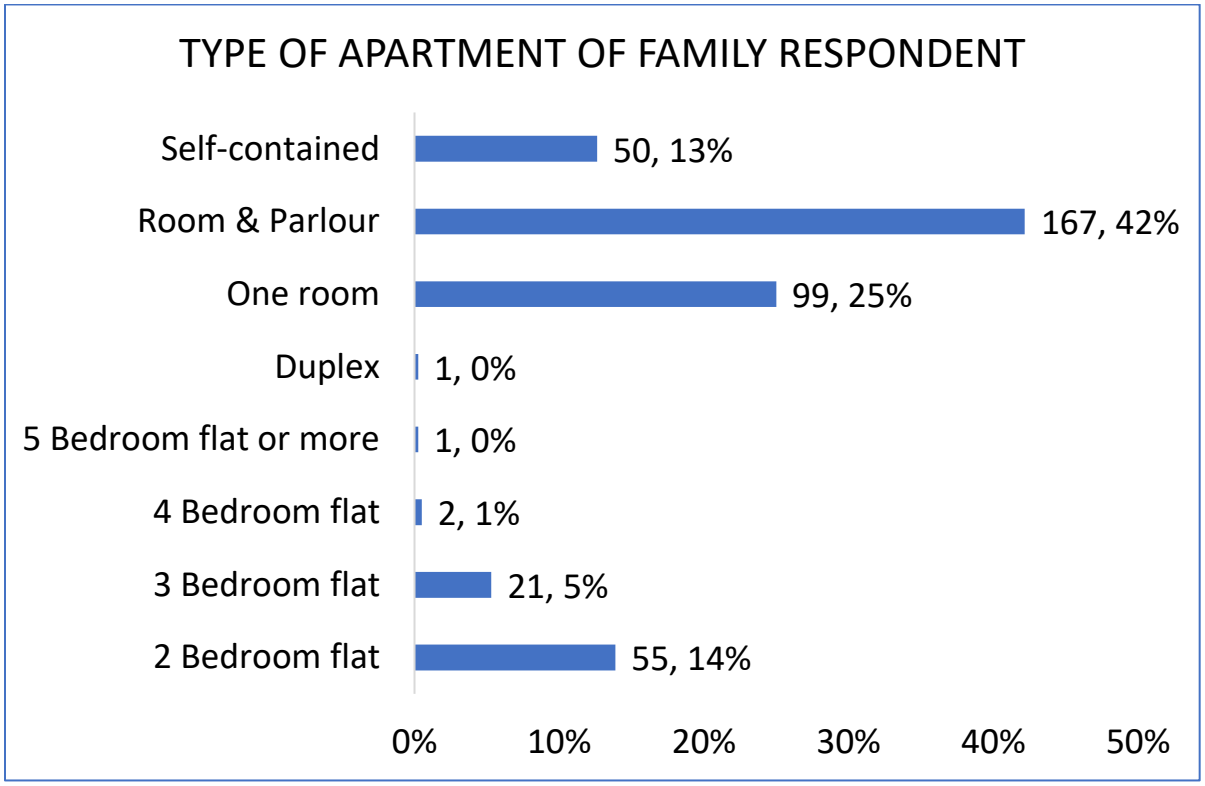


Figure 37. Type of Apartment of Family Respondent

TYPE OF TOILET FACILITY USED BY FAMILY RESPONDENT

The study looks into the types of toilet facilities used by family members, and the results suggest that flush toilet WCs are the most popular, accounting for 64 percent of all respondents. In addition, 19% said that pit covers are used in their homes. 10% of the households defecate in squat toilets, whereas 1% do not have access to a toilet.

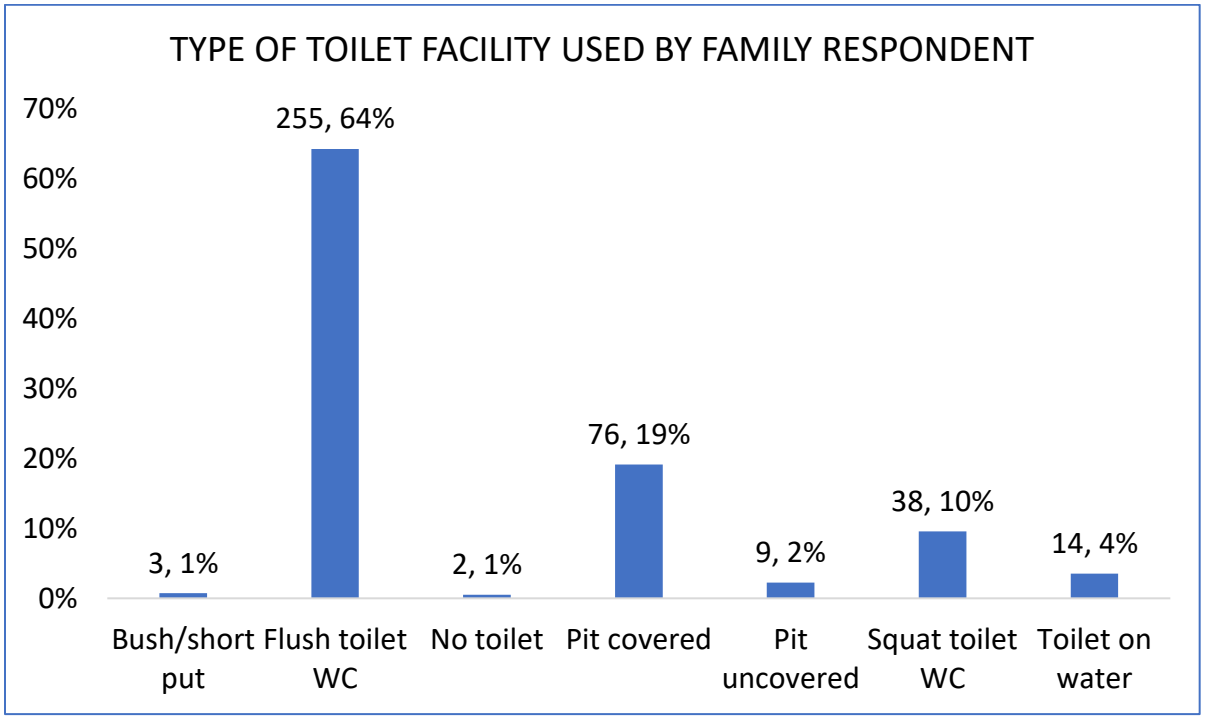


Figure 38. Type of Toilet Facility Used by Family Respondent

WATER FACILITIES PROVIDED IN THE HOUSEHOLD FOR USE

The figure above depicts the water facilities available in the household for use, the result shows that 63 percent of the households use borehole water and 16 percent rely on portable water provided by private organizations. Further inquiry indicated that 11% of the families use well water as a source of water, while one household relies on stream water. Only 5% of respondents, however, do not employ the following methods to provide water to their households.

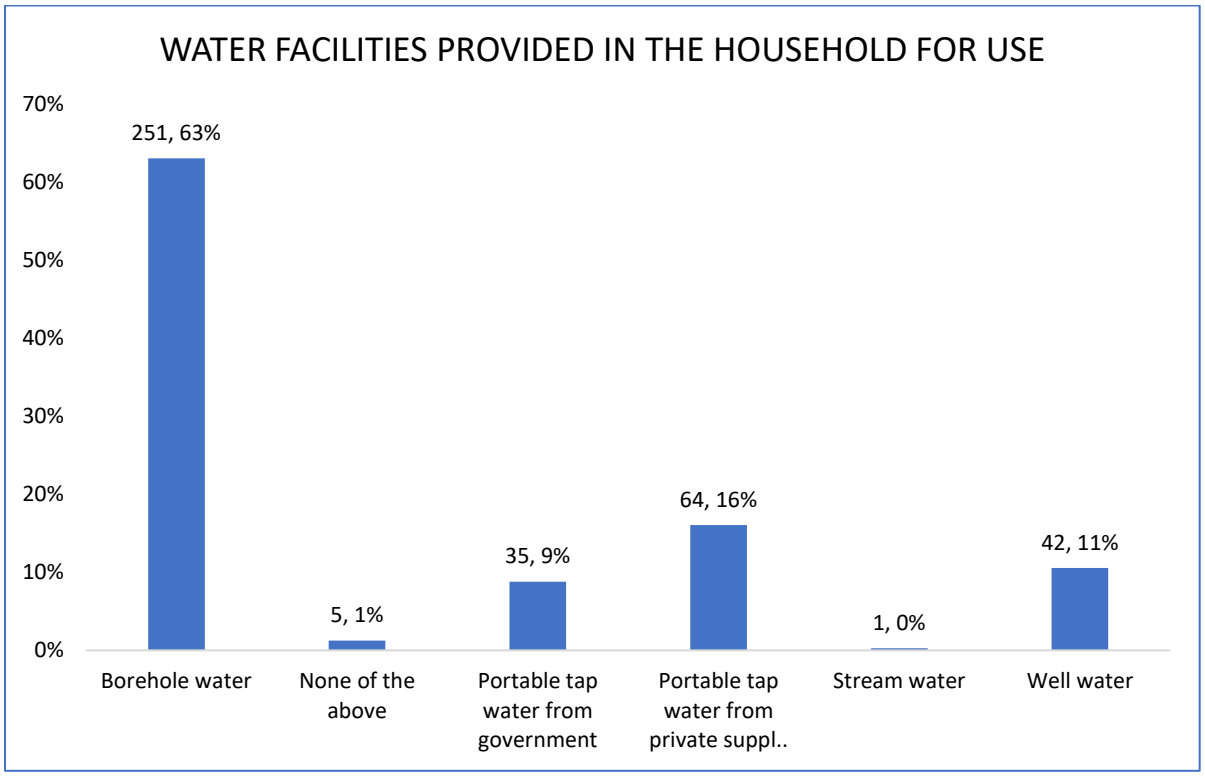


Figure 39. Water Facilities Provided in The Household for Use

SIZE OF BEDROOM (IN FEET) OF FAMILY RESPONDENT

The graph above depicts the sort of bedroom (in square feet) that respondents have. According to the report, 35 percent of respondents live in a 10X10 foot bedroom, while 31 percent live in a 9X9 foot bedroom. Further analysis indicated that 18% of people live in bedrooms measuring 12X12 feet, whereas 15% live in bedrooms measuring 11X11 feet.

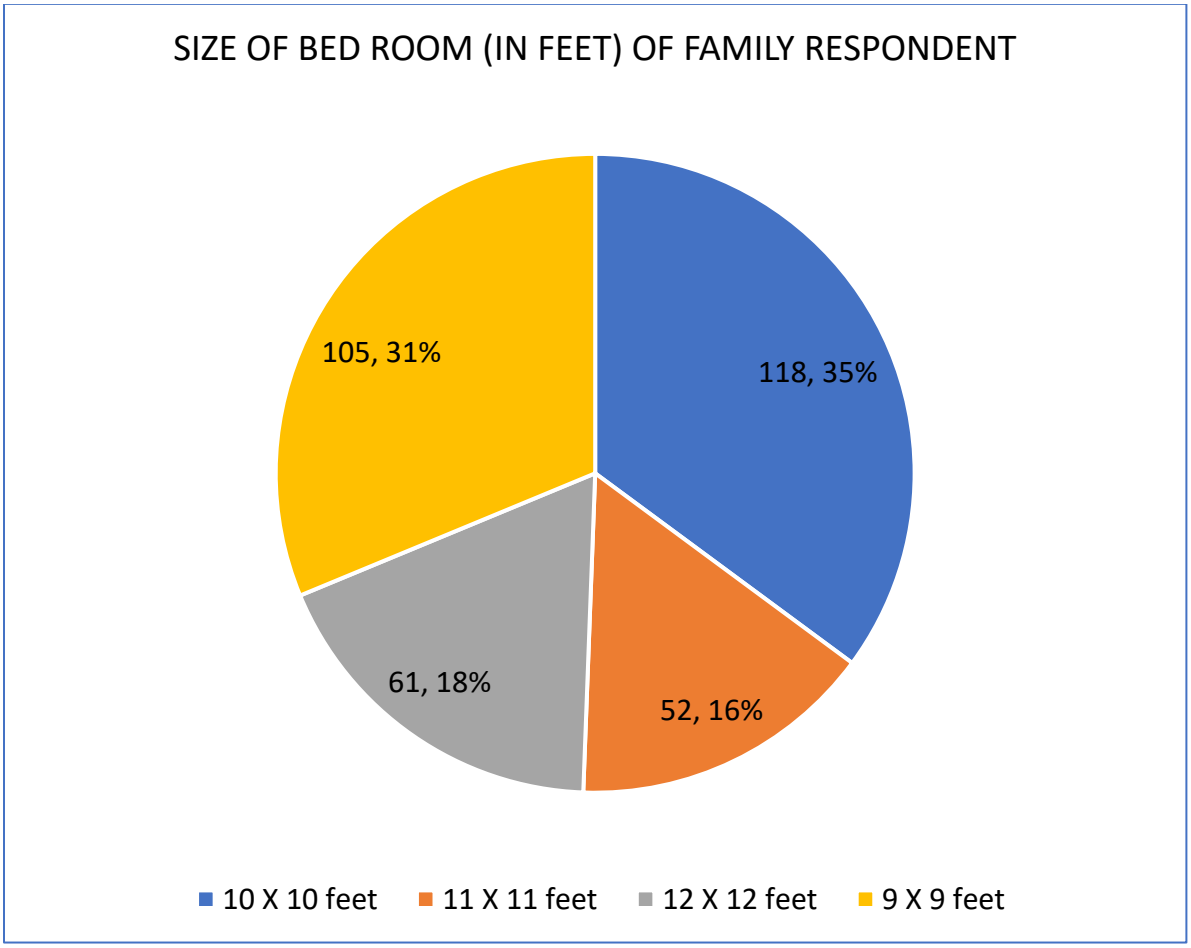


Figure 40. Size of Bedroom (In Feet) Of Family Respondent

SIZE OF LIVING ROOM OF FAMILY RESPONDENT

According to the graph above, 31% of family respondents live in a 10X10 foot room, while 30% live in a 9X9 foot room. Further research indicated that 22% of people live in a 12X12 foot room, while 17% live in an 11X

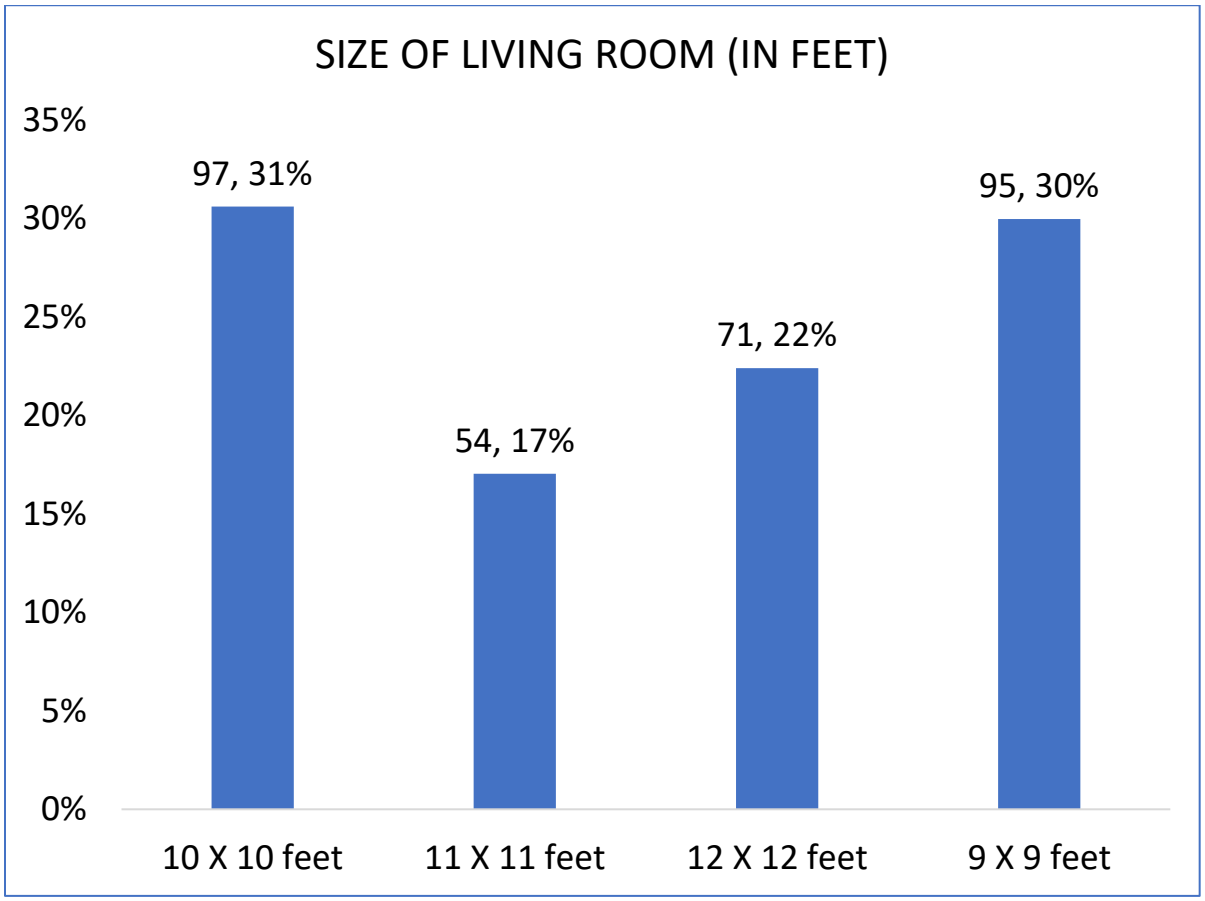


Figure 41. Size of Living Room of Family Respondent

COUNT OF WINDOWS IN THE BEDROOM OF FAMILU RESPONDENT

The count of windows in the bedrooms of family respondents was investigated. According to the survey, 47 percent of respondents had a single window in their bedroom, whilst 43 percent have two windows in their home. Further analysis indicated that 9% of the homes have more than two windows, whereas only 1% have none.

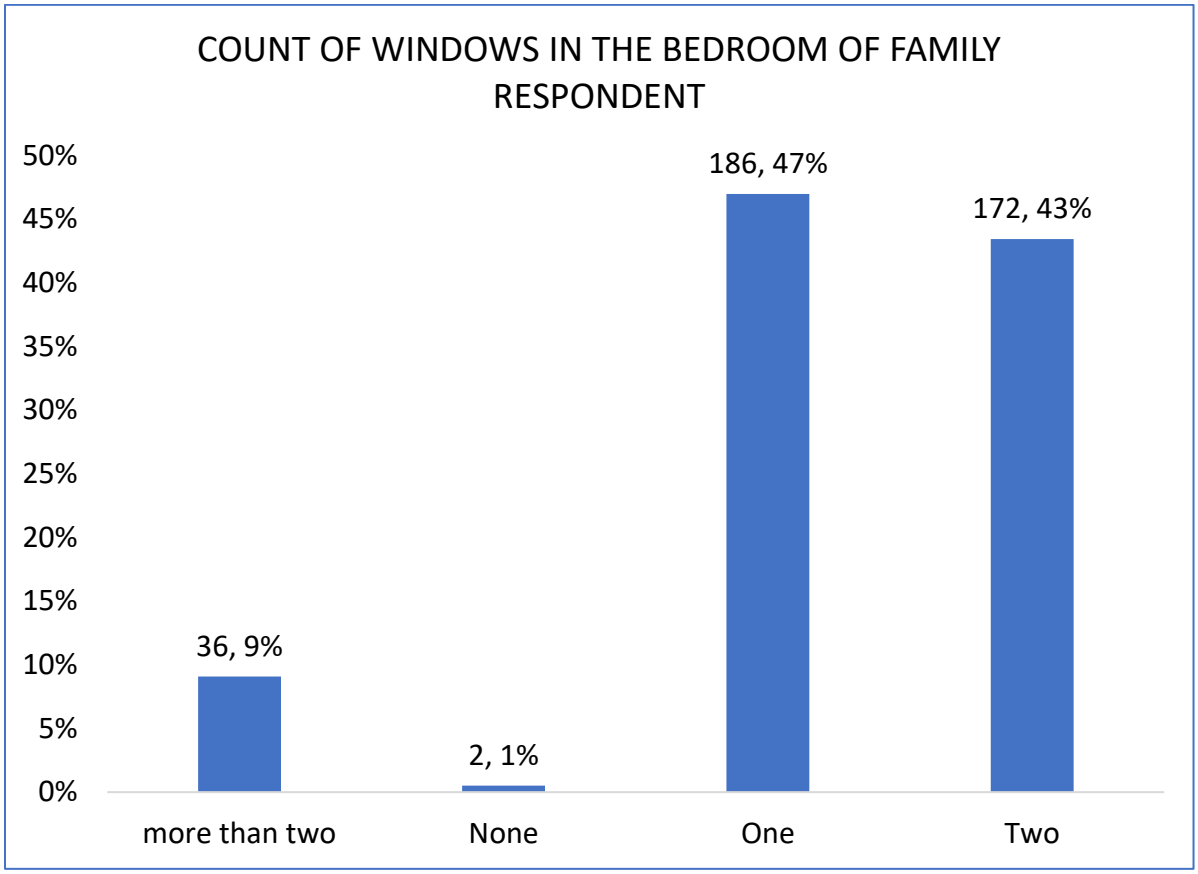


Figure 42. Count of Windows in The Bedroom of Family Respondent

TYPE OF DRAINAGE SYSTEM

Open and closed drainage systems are the two most frequent types of drainage systems utilized by household members. According to the report, open drainage systems are used by 51% of participants, while closed drainage systems are used by 49% of the respondents.

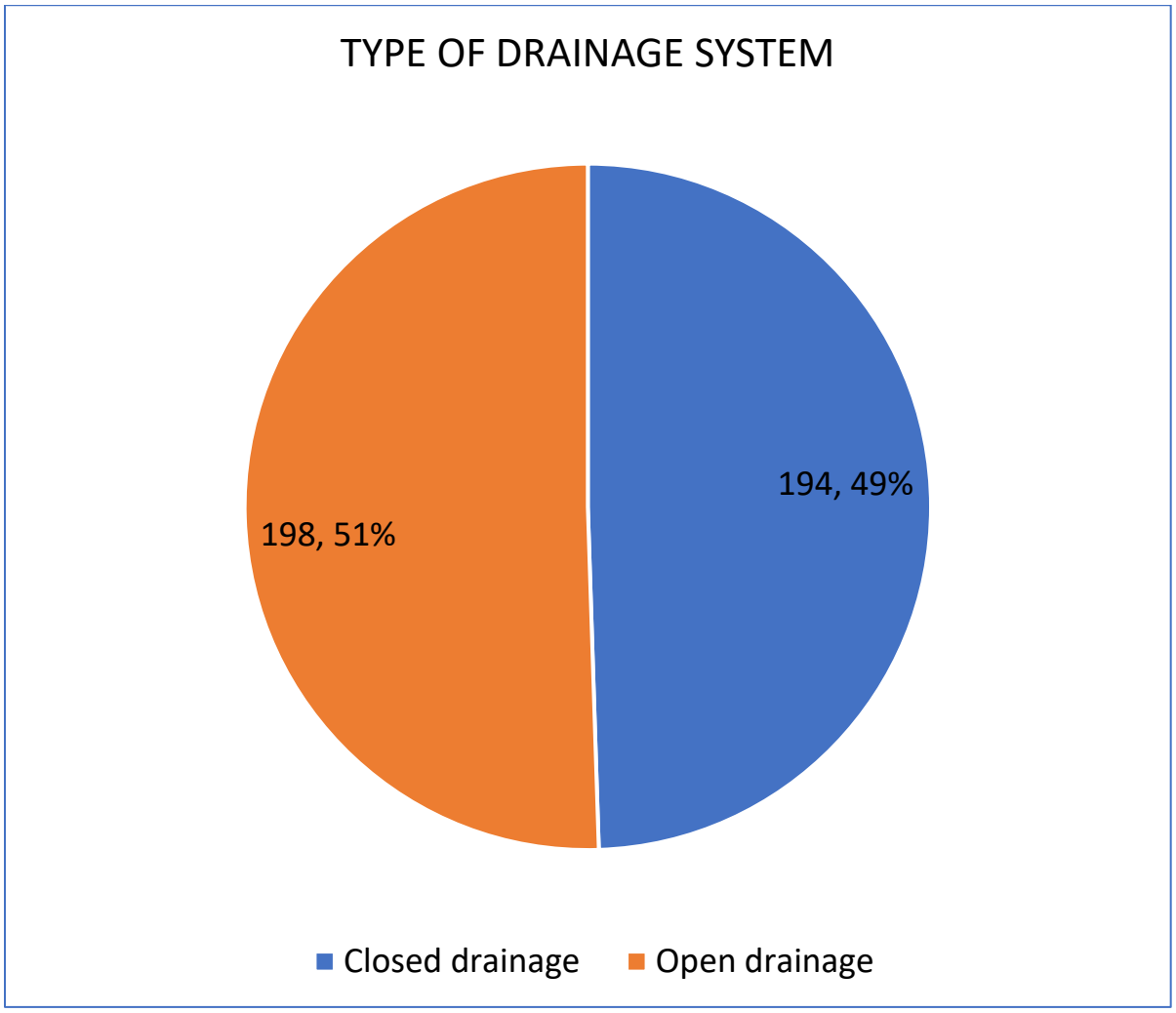


Figure 43. Type of Drainage System

LIVING APARTMENT OF FAMILY RESPONDENT

The living apartment of the family respondents was investigated, and it was discovered that 82 percent of the respondents live in a rented apartment, while 13 percent own the house, they live in. Furthermore, 3% of respondents live in a free apartment, while 2% live in a co-habiting situation with friends or relatives.

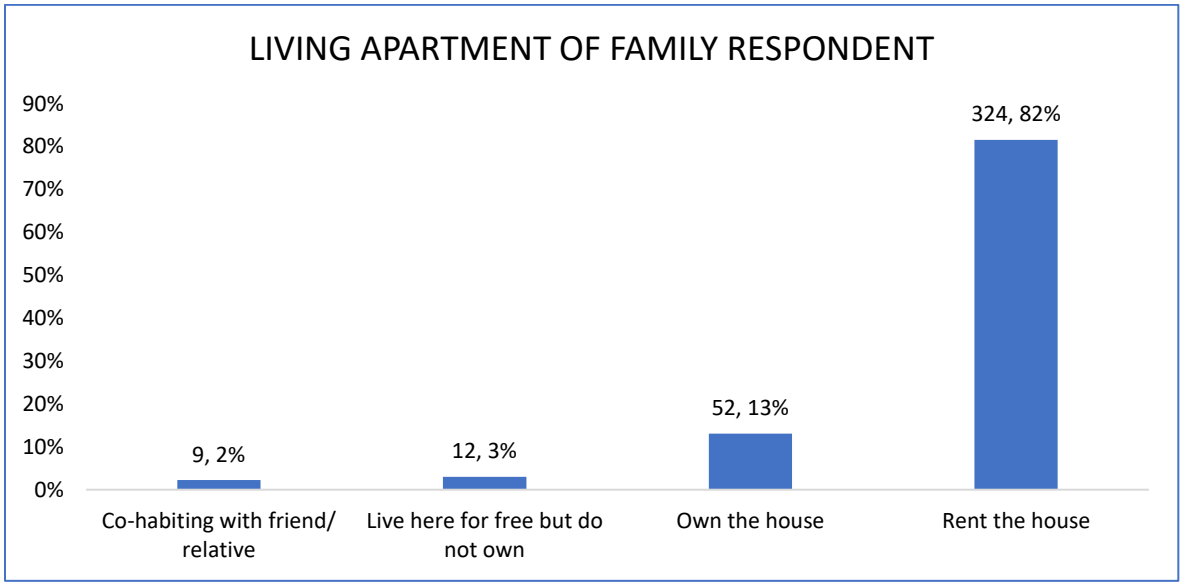


Figure 44. Living Apartment of Family Respondent

ELECTRICITY FACILITY USED BY FAMILY RESPONDENT

According to investigation into the type of electricity facility used by households, 76 percent of respondents rely on PHCN for electricity supply. It was also discovered that 21% use their generator as a means of power supply, while the remaining 21% use solar power. However, only 1% of those polled do not have access to electricity.

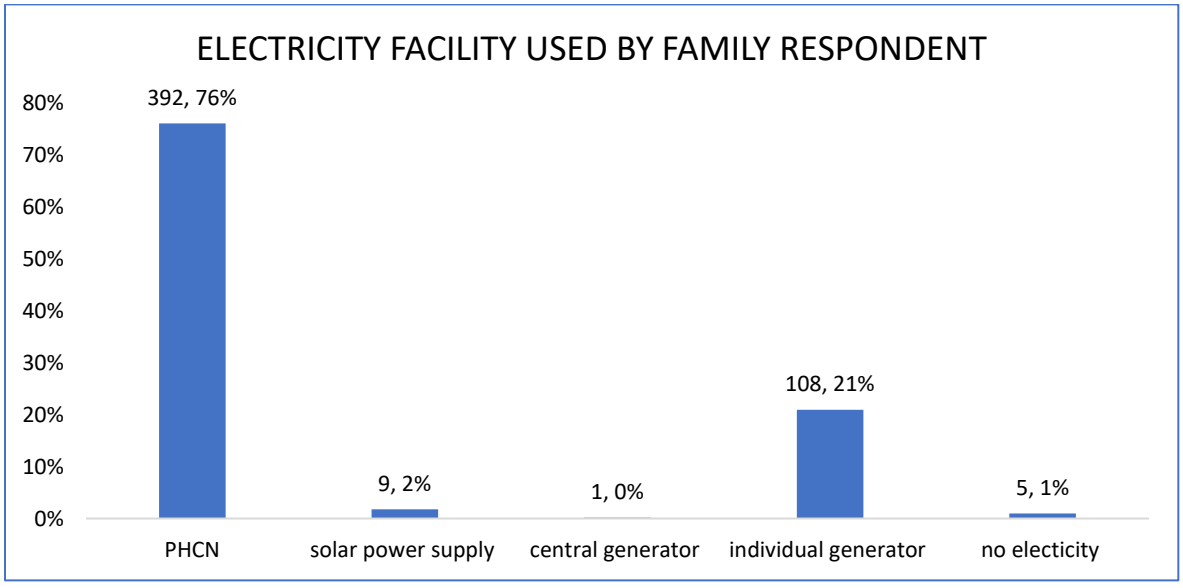


Figure 45. Electricity Facility Used by Family Respondent

SECURITY FACILITIES PROVIDED IN RESPONDENT HOUSEHOLD

According to the survey, the majority of households rely on a high fence in their compound to secure their properties, while 20% rely on police. Further investigation revealed that 4% rely on private security. However, eleven respondents rely on electric fence as a means to secure life and properties.

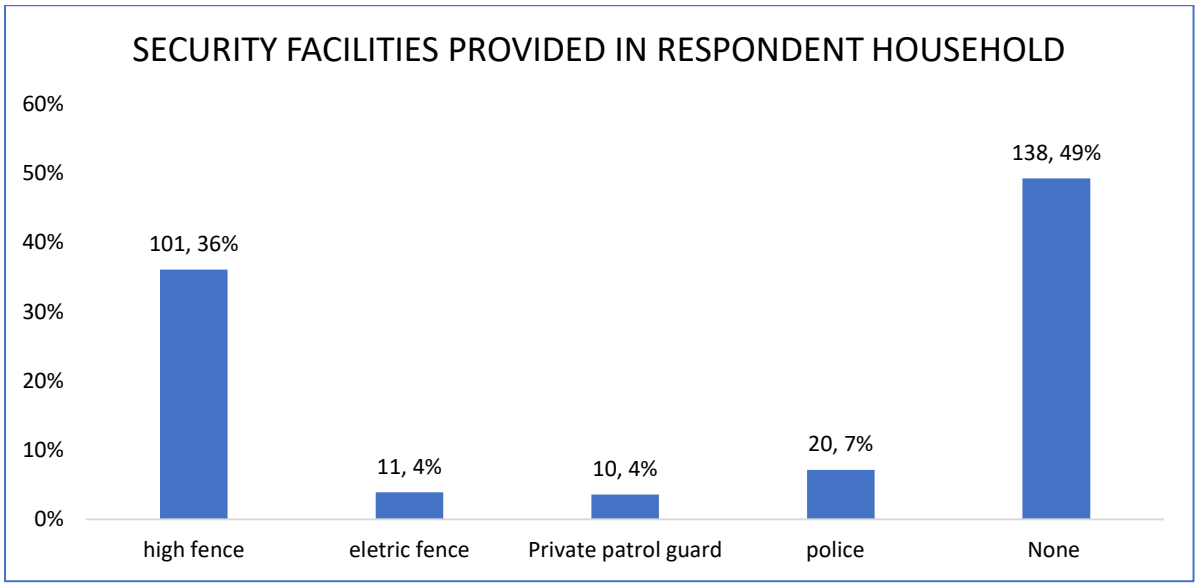


Figure 46. Security Facilities Provided in Respondent Household

PROCESS OF WASTES DISPOSAL

This study looked into the waste disposal process of respondents, and it was discovered that 70% of respondents dispose of waste through government waste disposal services, while 11% dispose of waste through private waste disposal services. Further investigation revealed that 10% of waste is disposed by burning (incineration), while 9 percent is disposed by open dumping.

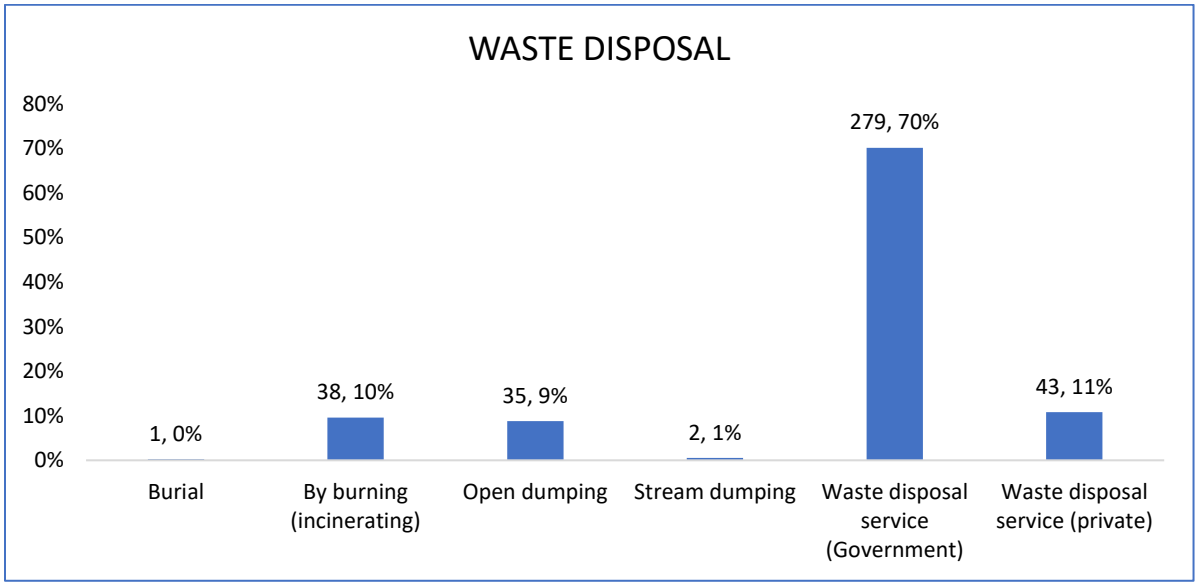


Figure 47. Process of Wastes Disposal

SECURITY TENURE WHICH GUARANTEES PROTECTION AGAINST FORCE EVICTION

Family members were asked if security of tenure guarantees them legal protection against force eviction, harassment and other threat in their apartment, and it was discovered that 84% of the respondents do not have legal protection against force eviction while 16% said there is a legal protection against force eviction.

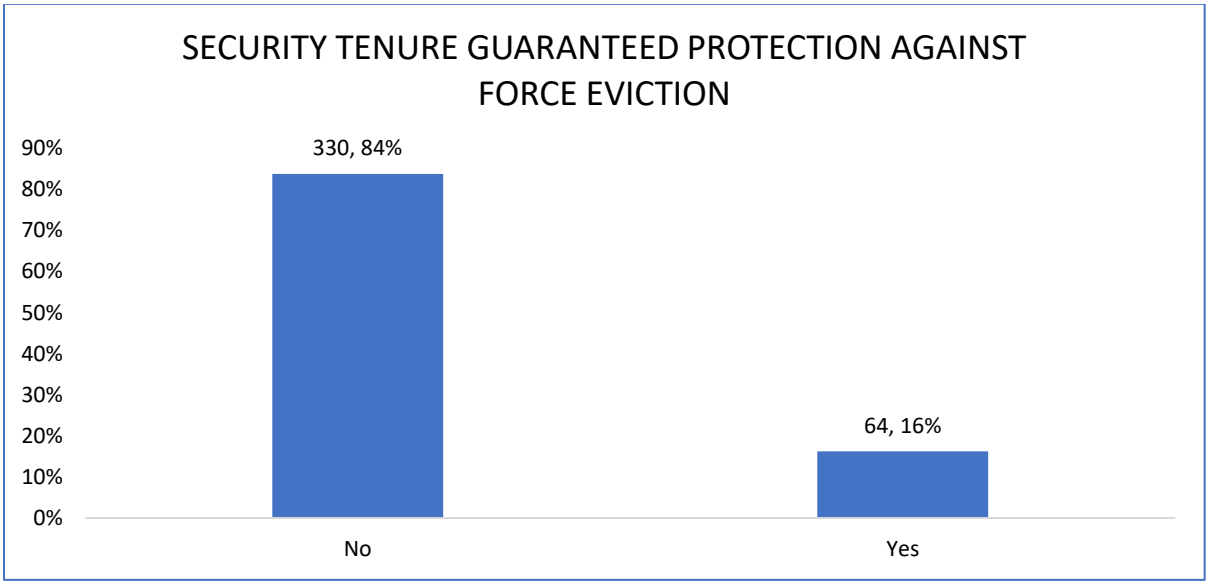


Figure 48. Security Tenure Which Guarantees Protection Against Force Eviction

HOUSING EXPENSES COMPROMISE THE ATTAINMENT AND SATISFACTION OF THE BASIC NEEDS

Respondents were questioned if their housing expenses interfere with their ability to meet other essential needs. According to the study, 67 percent of respondents claimed that housing expenses occasionally interfere with the attainment and fulfilment of other basic needs, while 23 percent said that housing expenses had no impact on their basic needs. However, 10% of respondents said housing costs jeopardize the achievement and fulfilment of other essential objectives.

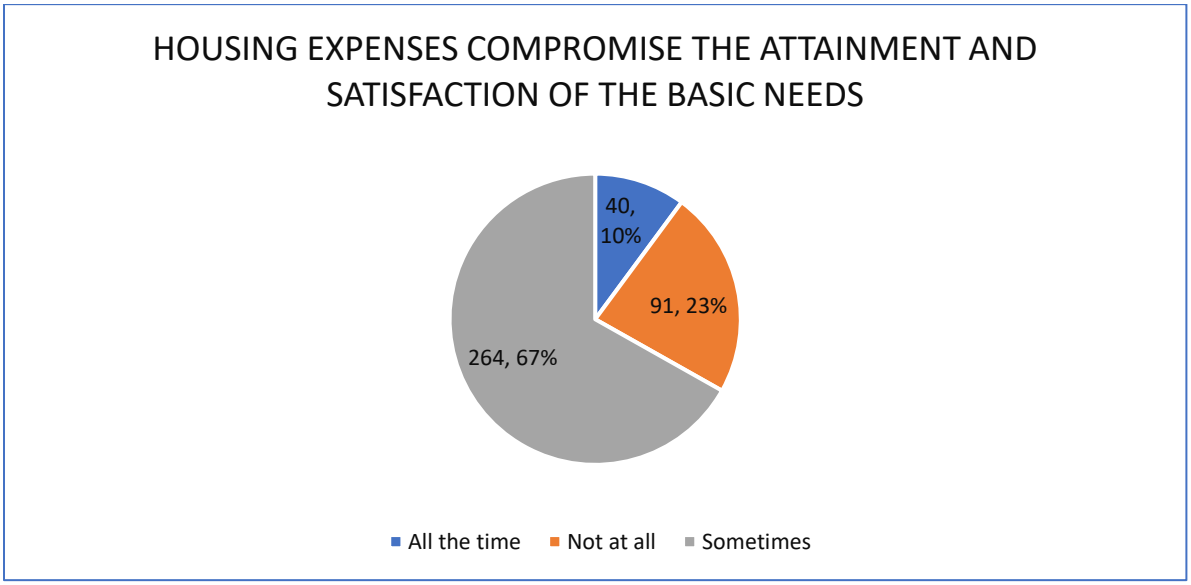


Figure 49. Housing Expenses Compromise the Attainment and Satisfaction of The Basic Needs

EVER BEEN DECLINED ACCESS TO HOUSING BECAUSE OF TB STATUS

Respondents were asked if they had been denied housing due to their tuberculosis status. According to the report, 99 percent of respondents have never had their housing application denied because of their TB status, while 1% have had their applications denied once because of their TB status.

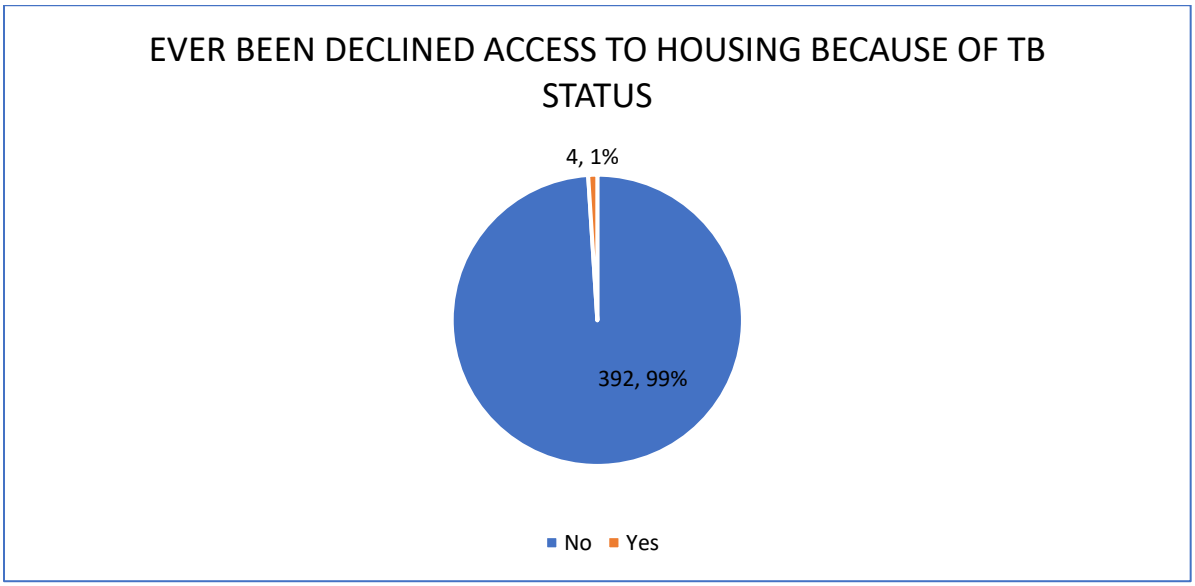


Figure 50. Ever Been Declined Access to Housing Because Of TB Status

EVER BEEN EVICTED FROM PLACE OF RESIDENCE BECAUSE OF TB STATUS

The participants were asked if they had ever been evicted from their home because of their tuberculosis status. According to the report, 99 percent of respondents have never been evicted from their home due to their TB status, while only 1 percent have been evicted from their place of residence due to their TB status.

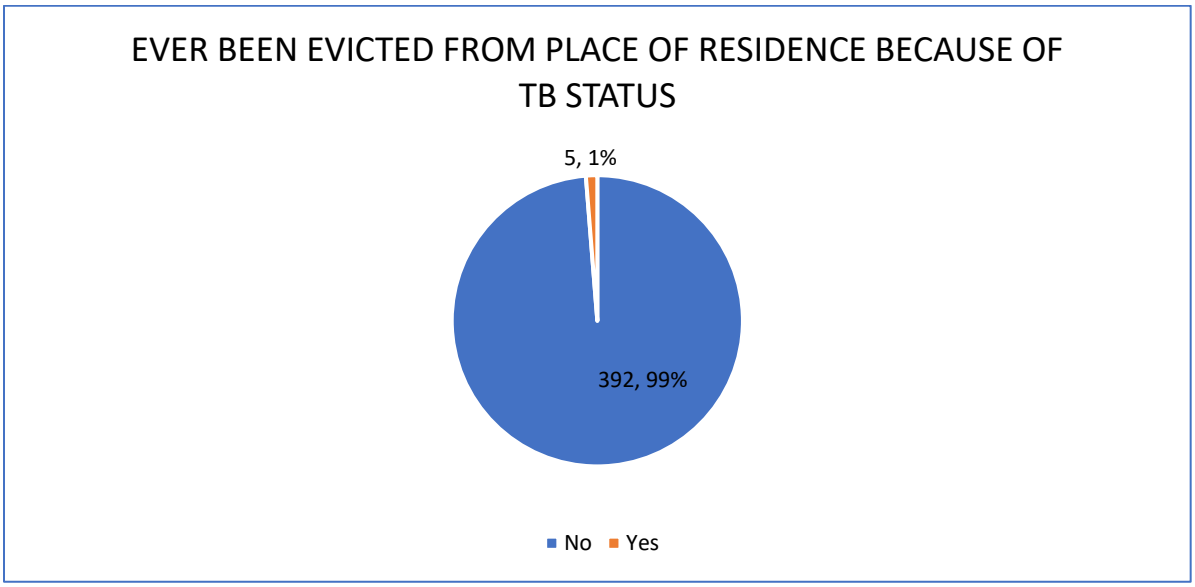


Figure 51. Ever Been Evicted from Place of Residence Because Of TB Status

RELATIONSHIP TO PEOPLE WITH OR HAD TB

Analysis of relationship to people with or had TB revealed that Grandparent with total of 109 and 26% are related with people with TB or had TB while parent accounted for 49% with total respondents of 207. However, only 10% with total respondents of 42 are children to people with TB or had TB.

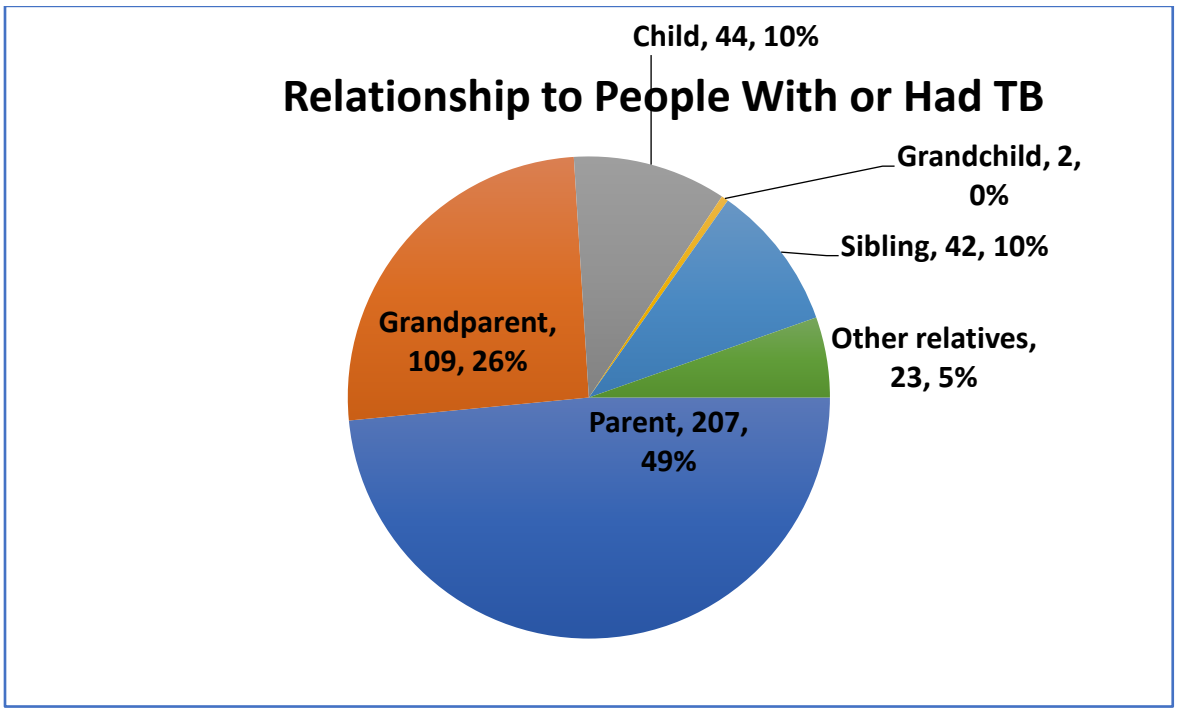


Figure 52. Relationship to People with Or Had TB

SELF-STIGMA IN FAMILY SECONDARY STIGMA

The level of self-stigma in PWTB was measured by using a set of 12 statements describing the attitude towards TB disclosure, feelings of guilt, social isolation and so on. Practically all of the respondents have clearly expressed their views on the statements and under one percent of the respondents have either refused to answer or could not specifically tell. 75% of the respondents said that they choose carefully who they tell about having TB. 73% also added that they keep a distance from others to avoid spreading TB germs. Further observation also revealed that 47% they are afraid to tell those outside my family that I have TB while they feel guilty because their families have the burden of caring for them.

Secondary stigmatisation is mostly marked by the fear of being infected and status disclosure. Out of the overall number of families surveyed 44% disclosed that their family member hides his/her TB diagnosis from the community. 40% of the PWTB family members in the survey chose not to disclose their family member's status. More so, 37% of the PWTB family members said they avoid talking about TB in the presence of other family members or neighbours. 34% of the PWTB family members also added that they are worried about becoming infected.

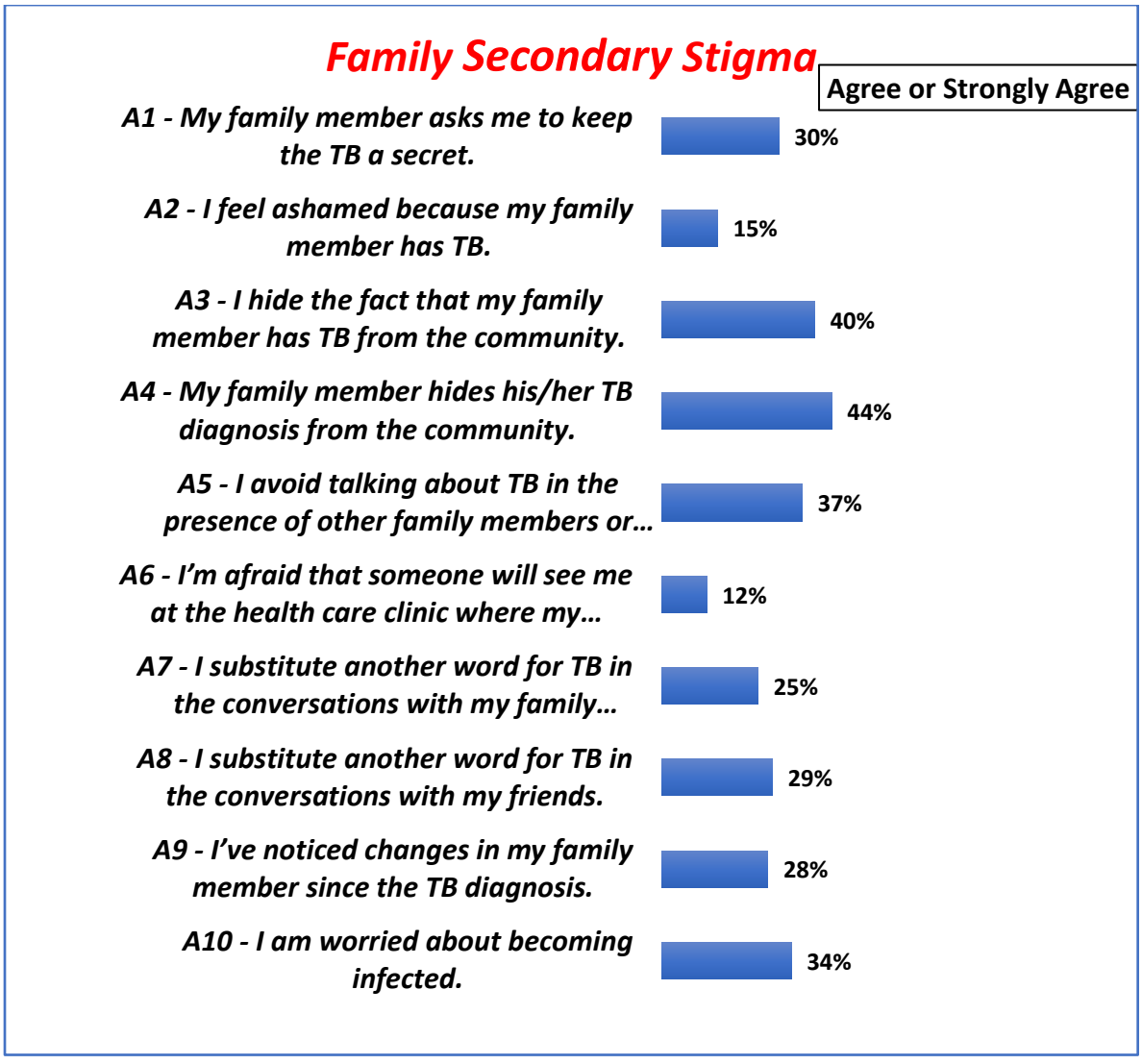


Figure 53. Self-Stigma in Family Secondary Stigma

Regression of factors associated with self-stigma in Family

The Regression table shows the regression of factors associate with self-stigma in family setting. Disparities between the groups are represented by linear probability regressions that include all of the stated components at the same time and the regression coef. and P-values of each factors are display in the table below.

Factors	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Gender						
Male	-0.01272	0.017754	-0.72	0.474	-0.04763	0.022189
Female	Ref					
Age						
18-24	0.006869	0.046491	0.15	0.883	-0.08454	0.098283
45-64	-0.05809	0.045153	-1.29	0.199	-0.14688	0.03069
65 or older	-0.06669	0.087065	-0.77	0.444	-0.23788	0.104507
25-44	Ref					
Relationship to TB Patient						
Child	-0.01637	0.063142	-0.26	0.796	-0.14052	0.107784
Grandchild	-0.03725	0.128227	-0.29	0.772	-0.28938	0.214874
Other relatives	-0.0466	0.058217	-0.8	0.424	-0.16107	0.067873
Parent	-0.01501	0.045	-0.33	0.739	-0.1035	0.073467
Sibling	0.007902	0.05387	0.15	0.883	-0.09802	0.113825
Widowed						
Marital Status						
Married	0.047331	0.024333	1.95	0.052	-0.00051	0.095176
Separated/divorced	-0.02275	0.166134	-0.14	0.891	-0.34941	0.303913
Widowed	0.036964	0.064999	0.57	0.57	-0.09084	0.16477
Single	Ref					
Education Level						
No formal education	0.030332	0.047437	0.64	0.523	-0.06294	0.123605
Primary education	0.00452	0.03857	0.12	0.907	-0.07132	0.080358
Secondary education	-0.00441	0.023758	-0.19	0.853	-0.05112	0.042305
Type of Apartment						
2 Bedroom flat	0.032434	0.167003	0.19	0.846	-0.29594	0.360805
3 Bedroom flat	0.047509	0.169428	0.28	0.779	-0.28563	0.380648
4 Bedroom flat	0.032415	0.20141	0.16	0.872	-0.36361	0.42844
5 Bedroom flat or more	0.008829	0.235776	0.04	0.97	-0.45477	0.472425
One room	-0.00698	0.167865	-0.04	0.967	-0.33704	0.323091

Room & Parlour	-0.00849	0.166732	-0.05	0.959	-0.33632	0.319353
Self-contained	0.029919	0.167229	0.18	0.858	-0.2989	0.358734
Job Category						
Artisan	0.007779	0.022313	0.35	0.728	-0.03609	0.051651
Civil servant	-0.00214	0.034089	-0.06	0.95	-0.06916	0.064891
Not currently working	0.002382	0.02754	0.09	0.931	-0.05177	0.056534
Student	0.032396	0.03844	0.84	0.4	-0.04319	0.107978
Trader	Ref					
Type of Toilet						
Bush/short put	-0.01497	0.109511	-0.14	0.891	-0.2303	0.200359
Flush toilet WC	-0.01199	0.047748	-0.25	0.802	-0.10588	0.081895
No toilet	0.02171	0.123819	0.18	0.861	-0.22175	0.26517
Pit covered	0.006538	0.050167	0.13	0.896	-0.0921	0.105179
Pit uncovered	-0.10602	0.077663	-1.37	0.173	-0.25872	0.046688
Squat toilet WC	-0.01577	0.05294	-0.3	0.766	-0.11986	0.088329
Type of Drainage						
Closed drainage	0.019706	0.01858	1.06	0.29	-0.01683	0.056239
Open drainage	Ref					
Housing Expenses affect basic needs						
	-0.00817	0.122694	-0.07	0.947	-0.24941	0.233082
All the time	-0.04022	0.028815	-1.4	0.164	-0.09688	0.016437
Not at all	-0.02172	0.020912	-1.04	0.3	-0.06284	0.019397
Sometimes	Ref					

NOTE: Ref is shorthand for reference category.

Table 5. Regression of factors associated with self-stigma in Family

EVER EXPERIENCE STIGMA IN FAMILY SETTING

The issue of stigma is critical in the fight against tuberculosis because it can affect patient attendance at healthcare facilities for medication and regular medical check-ups. Stigmatization fosters an unneeded culture of secrecy and silence based on ignorance and the fear of victimization. Respondents were asked if they had ever experienced stigma, and the report revealed that 97 percent of family respondents had not experienced stigma, while 3 percent had.

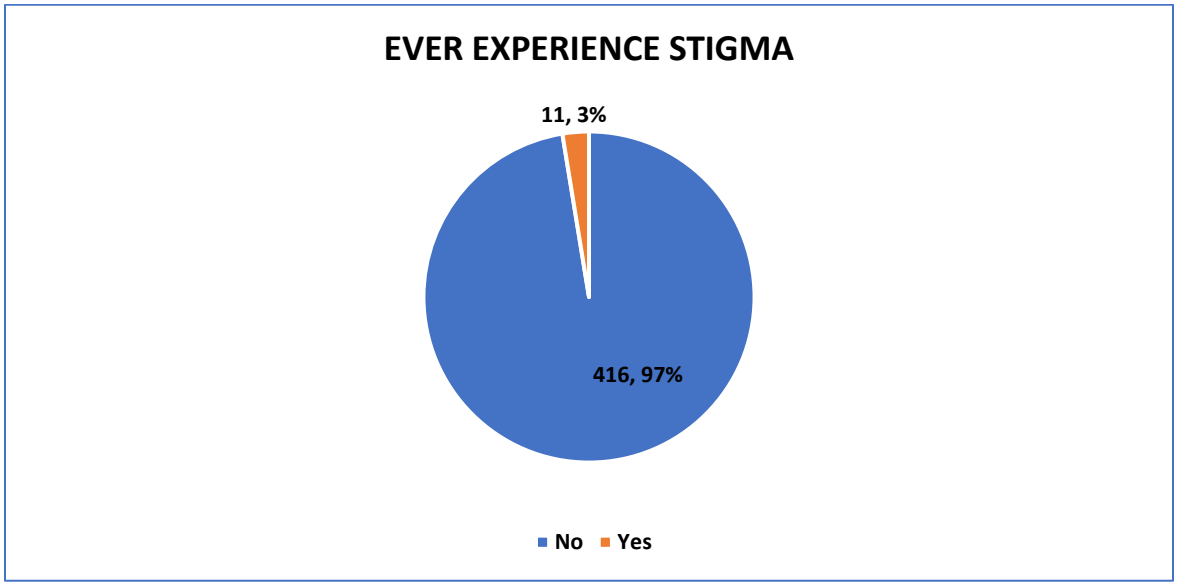


Figure 54. Ever Experience Stigma in Family Setting

FAMILY EXPERIENCED STIGMA

Share of families who responded «yes» to Question: «Have you ever experienced stigma which hindered you from supporting your family member with TB when visiting a site which provides direct observed treatment at the start of treatment, during the treatment maintenance stage and at treatment completion? (n=427)

Family Experienced Stigma	(1) Recognizing symptoms n(%)	(2) Seeking care n(%)	(3) Getting an accurate diagnosis n(%)	(4) Beginning treatment n(%)	(5) Getting treatment adherence support n(%)	(6) Completing treatment n(%)	(7) Getting post-treatment follow-up services n(%)
Stigma in Hospitals/Clinics	5 (1%)	3 (1%)	1 (0%)	0 (0%)	1 (0%)	2 (0%)	0 (0%)

Stigma in Community/Neighbours	4 (1%)	3 (1%)	1 (0%)	1 (0%)	1 (0%)	2 (0%)	1 (0%)
Stigma in Family/Relatives	5 (1%)	5 (1%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)
Stigma in Workplace	4 (1%)	4 (1%)	1 (0%)	1 (0%)	1 (0%)	1 (0%)	1 (0%)

Table 6a. Stigma in a family/home setting

FAMILY EXPERIENCED STIGMA

Share of families who responded «yes» to Question: «Have you ever experienced stigma which hindered you from supporting your family member with TB when visiting a site which provides direct observed treatment at the start of treatment, during the treatment maintenance stage and at treatment completion? (n=11)

Family Experienced Stigma	(1) Recognizing symptoms n(%)	(2) Seeking care n(%)	(3) Getting an accurate diagnosis n(%)	(4) Beginning treatment n(%)	(5) Getting treatment adherence support n(%)	(6) Completing treatment n(%)	(7) Getting post-treatment follow-up services n(%)
Stigma in Hospitals/Clinics	5 (45%)	3 (27%)	1 (9%)	0 (0%)	1 (9%)	2 (18%)	0 (0%)
Stigma in Community/Neighbors	4 (36%)	3 (27%)	1 (9%)	1 (9%)	1 (9%)	2 (18%)	1 (9%)
Stigma in Family/Relatives	5 (45%)	5 (45%)	0 (0%)	0 (0%)	1 (9%)	1 (9%)	0 (0%)
Stigma in Workplace	4 (36%)	4 (36%)	1 (9%)	1 (9%)	1 (9%)	1 (9%)	1 (9%)

Table 6b. Stigma in a family/home setting

KNOW OTHER FAMILY WITH OR HAD TB BEING STIGMATIZED

Share of families who responded «yes» to Question: «Are you aware of any cases in which other families were stigmatised and which hindered them from supporting their family member with TB when visiting a site which provides direct observed treatment at the start of treatment, during the treatment maintenance stage and at treatment completion? (n=427)

Family Seen/Heard Others Being Stigmatized	(1) Recognizing symptoms n(%)	(2) Seeking care n(%)	(3) Getting an accurate diagnosis n(%)	(4) Beginning treatment n(%)	(5) Getting treatment adherence support n(%)	(6) Completing treatment n(%)	(7) Getting post-treatment follow-up services n(%)
Stigma in Hospitals/Clinics	9 (2%)	5 (1%)	2 (0%)	7 (2%)	0 (0%)	0 (0%)	0 (0%)
Stigma in Community/Neighbors	12 (3%)	8 (2%)	4 (1%0	4 (1%)	1 (0%)	0 (0%)	0 (0%)
Stigma in Family/Relatives	10 (2%)	4 (1%)	2 (0%)	3 (1%)	1 (0%)	0 (0%)	0 (0%)
Stigma in Workplace	7 (2%)	7 (2%)	1 (0%)	3 (1%)	4 (1%)	0 (0%)	0 (0%)

Table 7a. Know Other Family With Or Had TB Being Stigmatized

KNOW OTHER FAMILY WITH OR HAD TB BEING STIGMATIZED

Share of families who responded «yes» to Question: «Are you aware of any cases in which other families were stigmatised and which hindered them from supporting their family member with TB when visiting a site which provides direct observed treatment at the start of treatment, during the treatment maintenance stage and at treatment completion? (n=11)

Family Seen/Heard Others Being Stigmatized	(1) Recognizing symptoms n(%)	(2) Seeking care n(%)	(3) Getting an accurate diagnosis n(%)	(4) Beginning treatment n(%)	(5) Getting treatment adherence support n(%)	(6) Completing treatment n(%)	(7) Getting post-treatment follow-up services n(%)
Stigma in Hospitals/Clinics	9 (82%)	545(1%)	2 (18%)	7 (64%)	0 (0%)	0 (0%)	0 (0%)
Stigma in Community/Neighbours	12 (109%)	8 (73%)	4 (36%0	4 (36%)	1 (9%)	0 (0%)	0 (0%)

Stigma in Family/Relatives	10 (91%)	4 (36%)	2 (18%)	3 (27%)	1 (9%)	0 (0%)	0 (0%)
Stigma in Workplace	7 (64%)	7 (64%)	1 (9%)	3 (27%)	4 (36%)	0 (0%)	0 (0%)

Table 7b. Know Other Family With Or Had TB Being Stigmatized

COMMUNITY

GENDER OF COMMUNITY RESPONDENTS

Gender of the community members was accessed and the result revealed that 52% of the community respondents were Female while 48% are Male. However, no transgender or other gender among the community respondents.

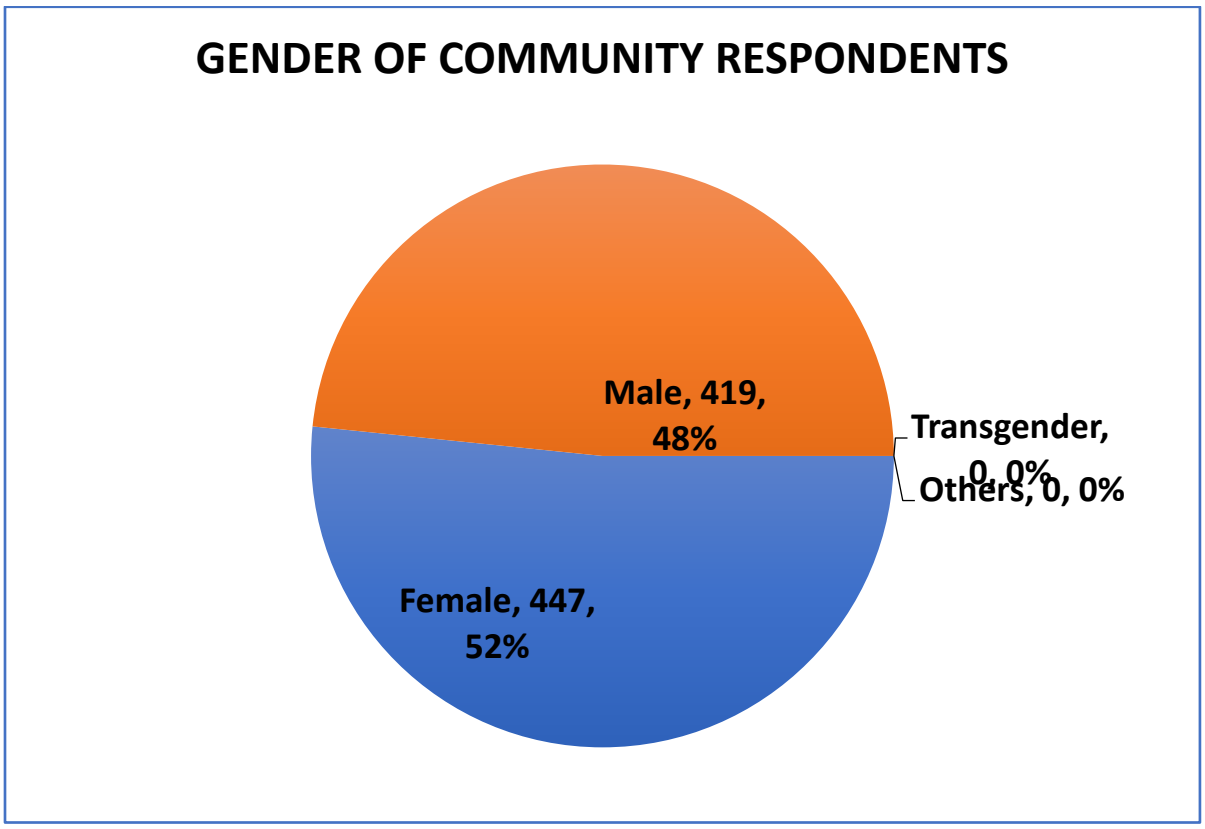


Figure 55. Gender of Community Respondents

AGE OF COMMUNITY RESPONDENTS

Information was obtained on the age of the community respondents and the result revealed that 64% of the community respondents are between the age of 25 – 44 years while 17% each accounted for 18 – 24 years and 45 – 64 respectively. However, only 2% accounted for 65 years or older.

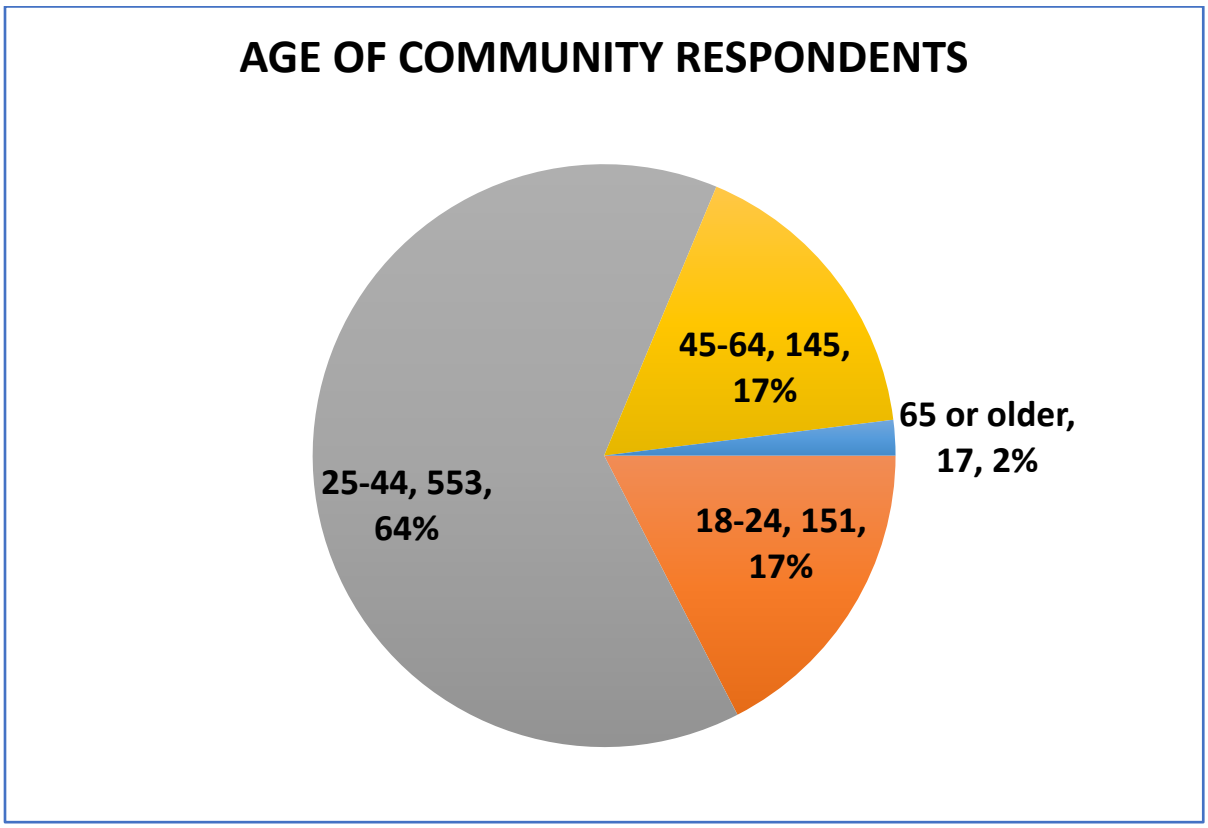


Figure 56. Age of Community Respondents

MARITAL STATUS OF COMMUNITY MEMBER

According to the analysis, the majority of community members who participated in this study (55 percent) are married, while 2 percent are separated. Further investigation revealed that 3% are widows.

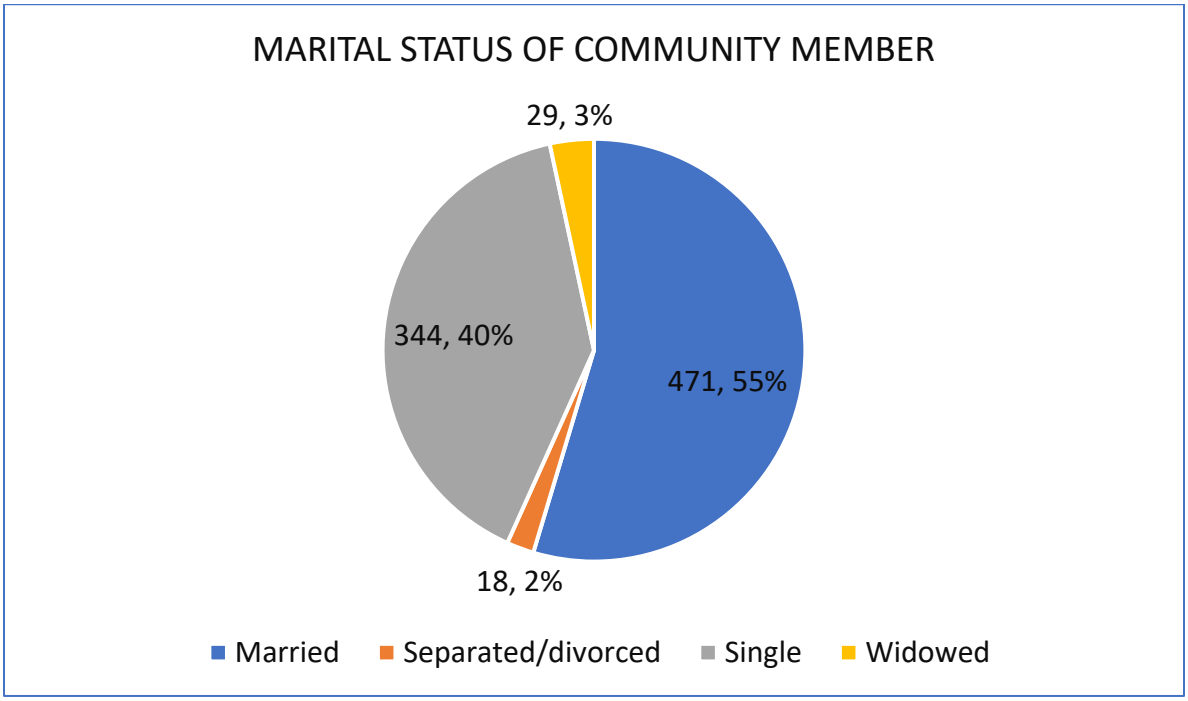


Figure 57. Marital Status of Community Member

EDUCATION STATUS OF RESPONDENT

According to the study of respondent education status, the majority of respondents (48 percent) have a secondary education, while 37 percent have a tertiary education. However, 9 percent have only a primary education, while 6 percent have no formal education.

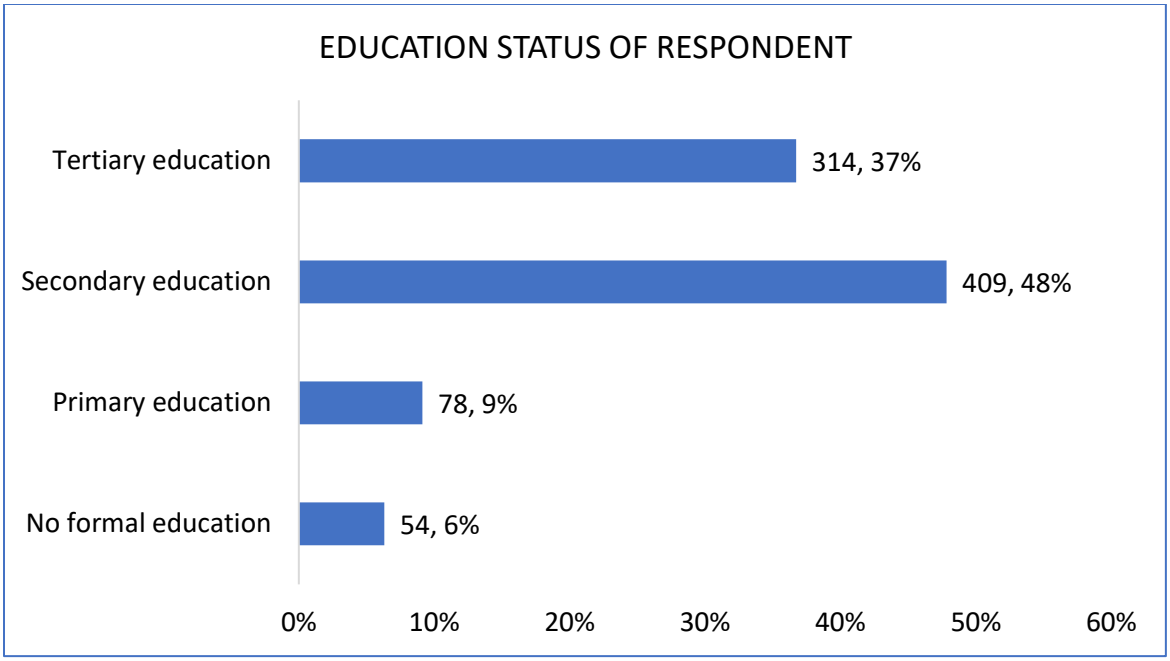


Figure 58. Education Status of Respondent

RELIGION OF COMMUNITY MEMBER

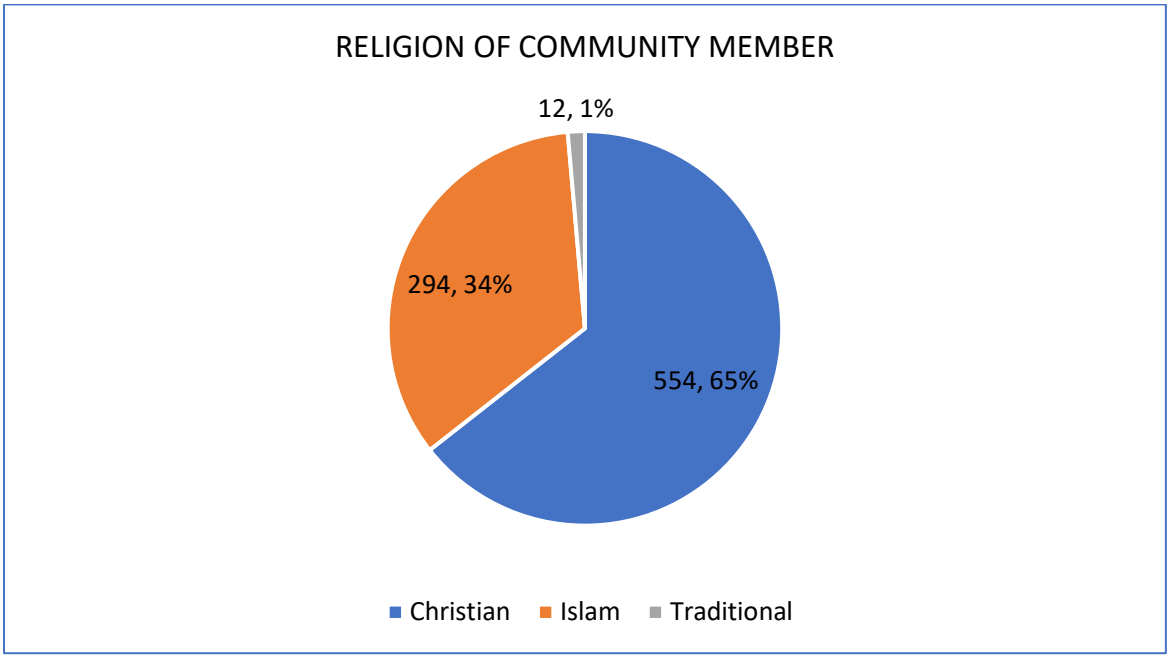


Figure 59. Religion of Community Member

In this study, respondents' beliefs were examined, and it was discovered that 65 percent of respondents are Christians, while 34 percent practice Islam. However, only 1% adheres to tradition.

JOB CATEGORY OF RESPONDENT

Investigation on the job category of respondent was examined, it was revealed that 35% are traders while 28% are artisans. Further investigation also revealed that 13% are students whereas, 10% are government workers. However, only 1% are private workers.

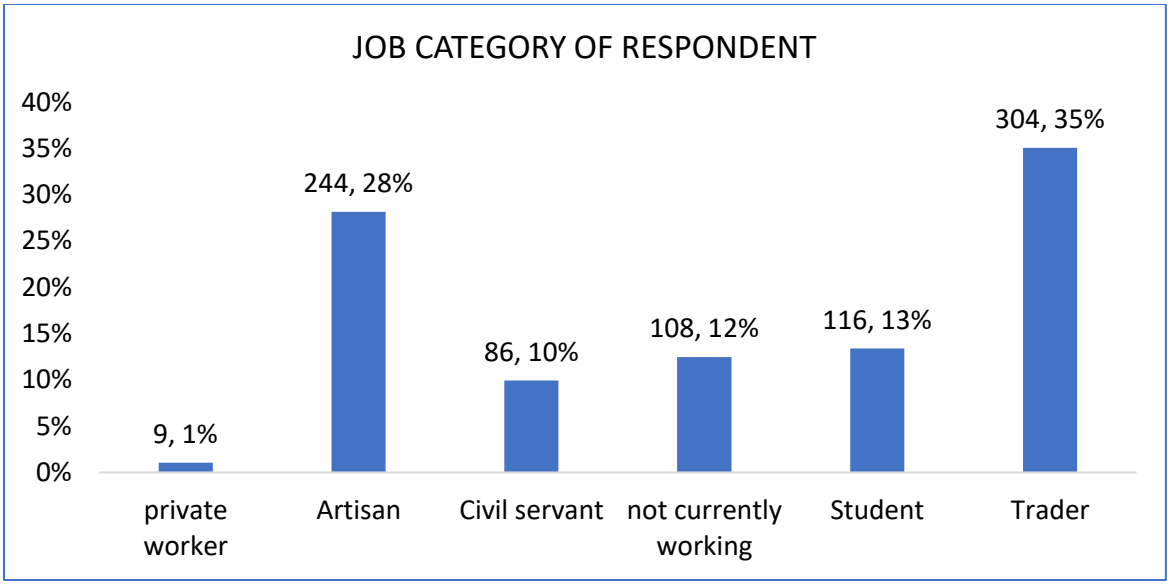


Figure 60. Job Category of Respondent

TYPE OF APARTMENT OF RESPONDENT

This study looked into the type of apartment that respondents lived in. It was discovered that 35% of respondents live in a room and parlour apartment, while 29% live in a single room apartment. It was also discovered that 13% live in a 2-bedroom flat, while 4% live in a 3-bedroom flat. However, only 1% of people live in a four-bedroom house.

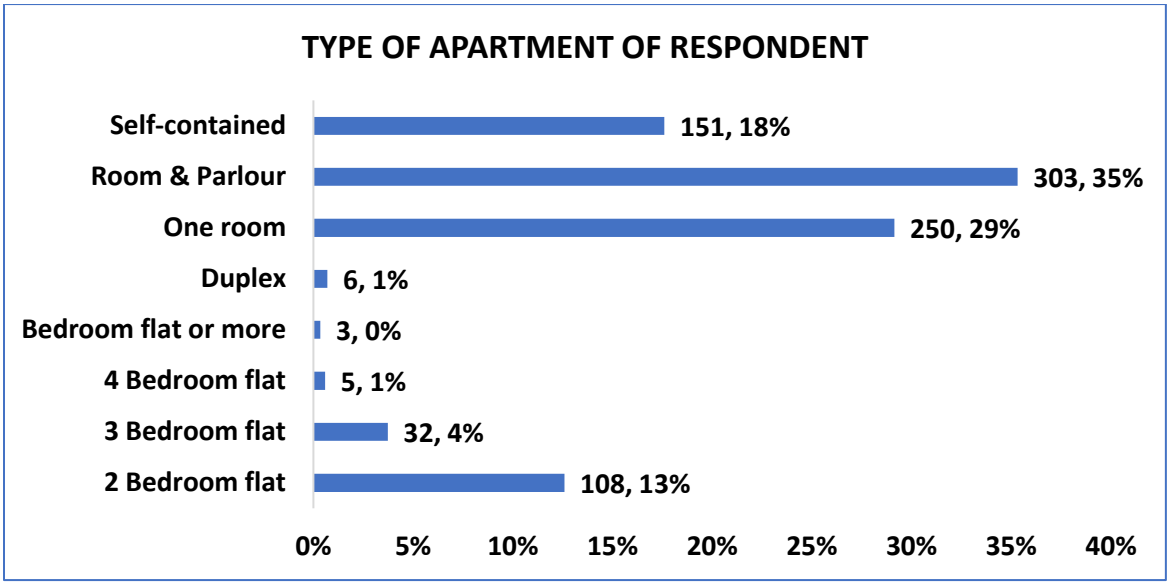


Figure 61. Type of Apartment of Respondent

TOILET FACILITY OF COMMUNITY MEMBERS

The majority of respondents in the community use flush toilet WC, while 17% use pit covered toilet. It was also discovered that 11% of community respondents use a squat toilet WC, while 4% use a toilet on water.

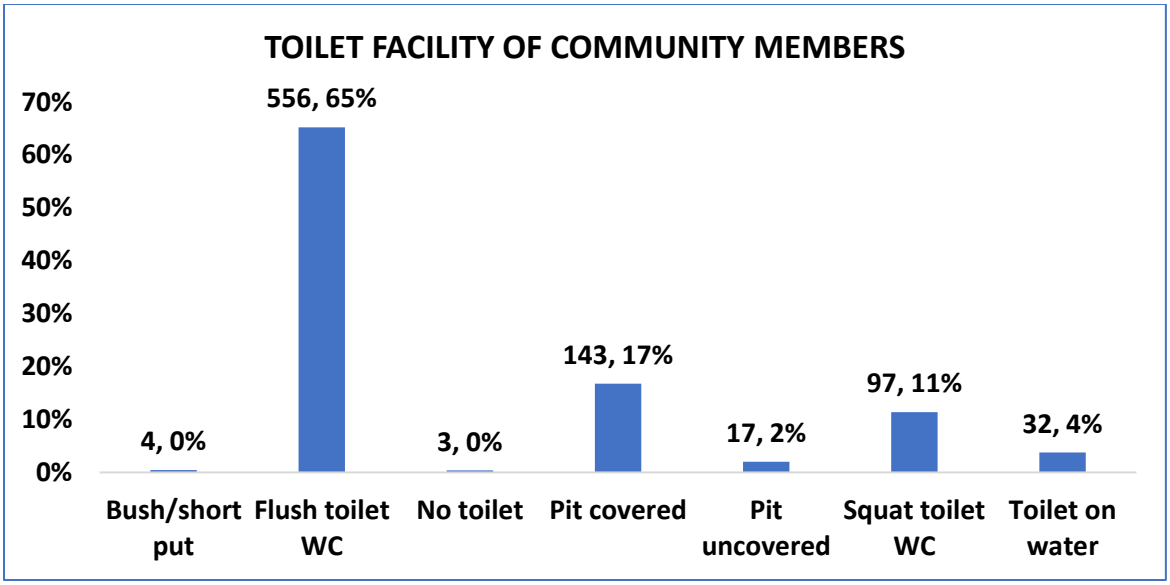


Figure 62. Toilet Facility of Community Members

WATER FACILITY PROVIDED TO THE HOUSEHOLD OF RESPONDENT

Borehole water is used by 61 percent of respondents, while 16 percent rely on private organizations for portable water supply. Further investigation revealed that 8% of community respondents rely on portable tap water from the government, while one community respondent in the study relies on stream water. However, only 1% of those polled do not use the methods listed below to get water into their homes.

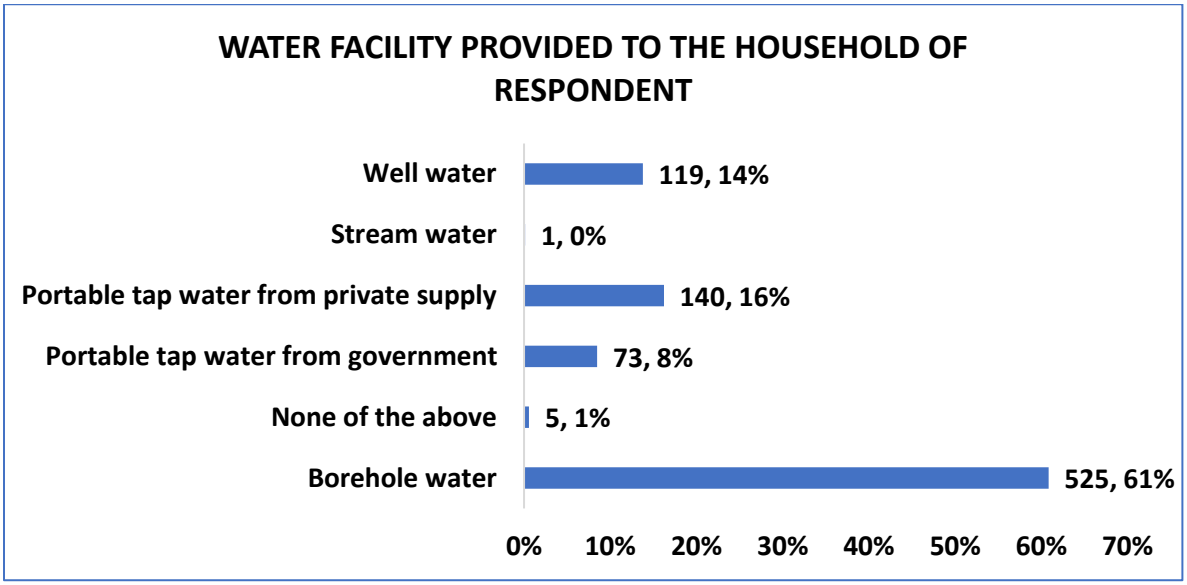


Figure 63. Water Facility Provided to The Household of Respondent

SIZE OF BEDROOM OF RESPONDENT

A thorough investigation was conducted on the size of bedrooms used by community respondents in the study, and the results show that 31% of community respondents sleep on

9X9 feet of bedroom space, while 33% sleep on 10x10 feet of bed room space. However, 20% of respondents sleep on 12X12 bedroom, while 16% sleep on 11X11 bedroom.

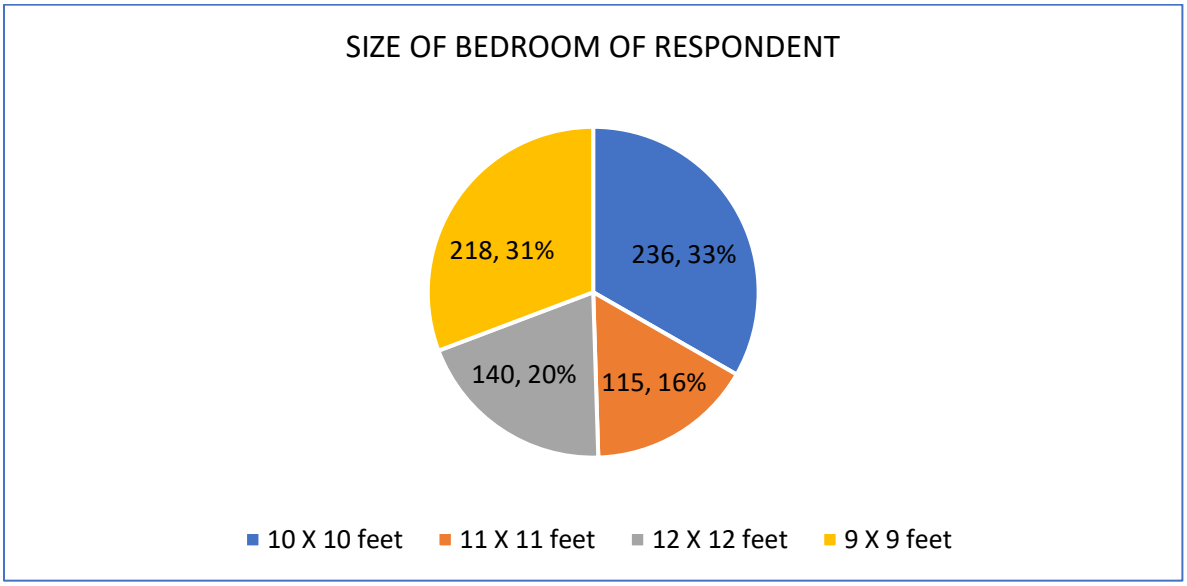


Figure 64. Size of Bedroom of Respondent

SIZE OF LIVING ROOM USE BY THE COMMUNITY RESPONDENT

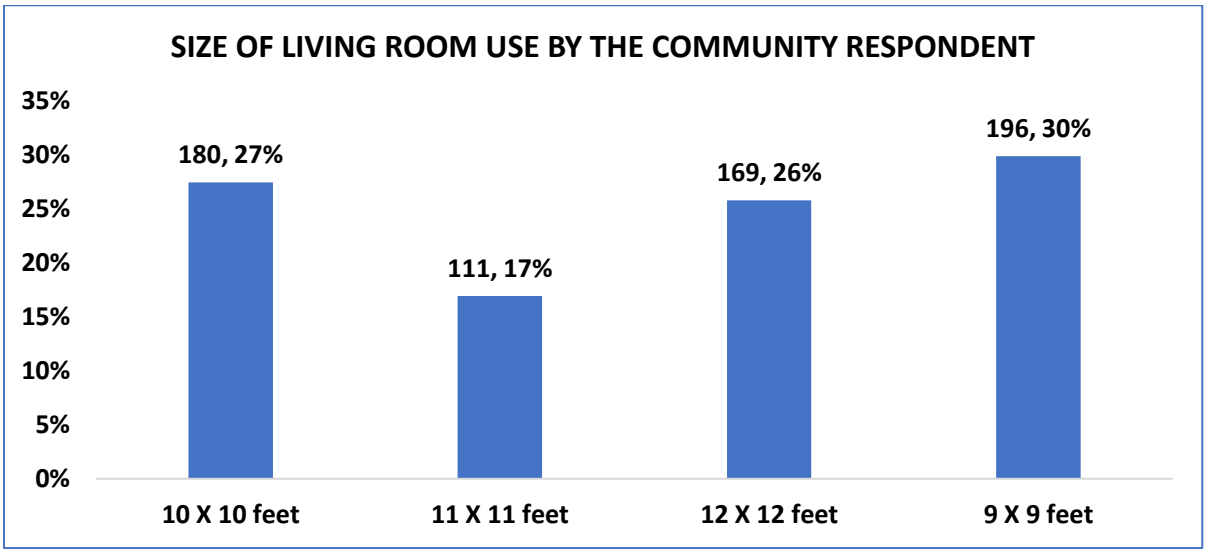


Figure 65. Size of Living Room Use by The Community Respondent

The study looked into the size of living room of the community respondent and it was observed that 30% of the community respondents are living in 9X9 feet of living room while 26% are living in 12X12 feet of living room. Further investigation revealed that 27% of the community respondents are living in a 10X10 feet room whereas, only 17% sleep in 11X11 feet living room.

WINDOW PER ROOM OF COMMUNITY RESPONDENT

The importance of windows cannot be overstated. Windows facilitate the entry of natural light indoors. They enable the occupants of a house to enjoy the views of the neighbourhood

or locality. In addition, they serve to keep the house cross-ventilated. According to the study, 50 percent of respondents have two windows per room in their apartment, while 42 percent have a single window. Further investigation revealed that 7% of respondents have more than two windows in their living rooms, while only two community respondents have no windows at all.

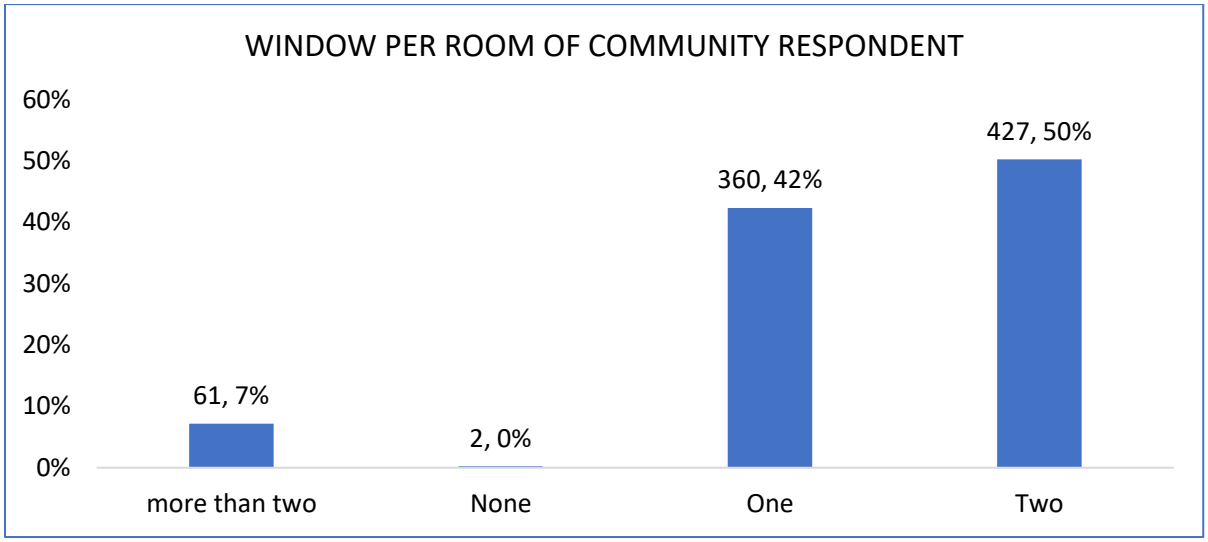


Figure 66. Window Per Room of Community Respondent

TYPE OF DRAINAGE SYSTEM

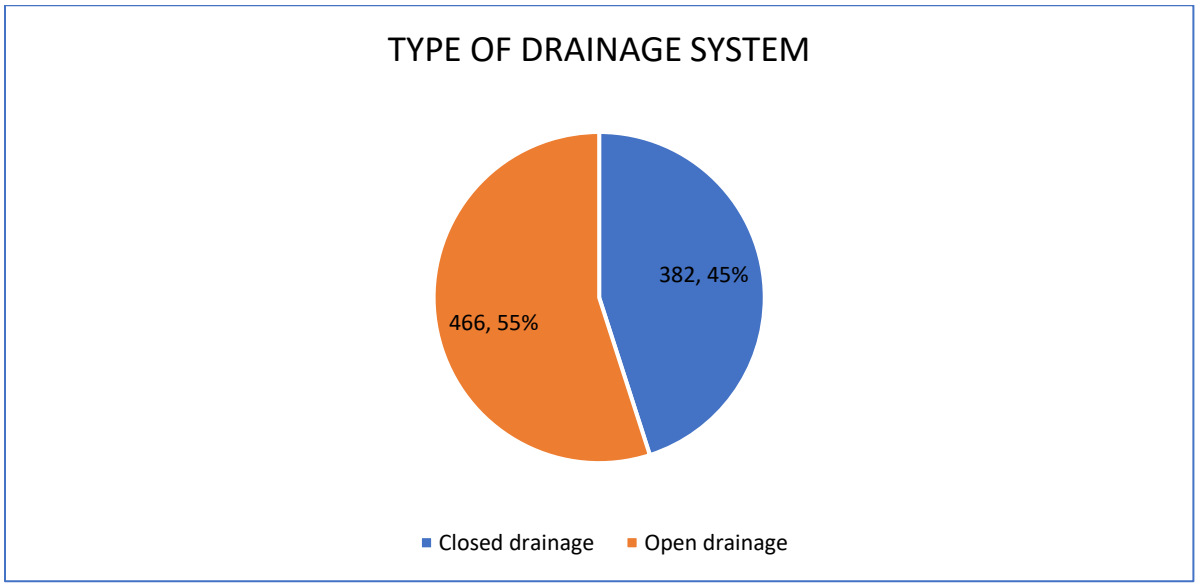


Figure 67. Type of Drainage System

The result shows that the 55% of the community respondents depend on open drainage system constructed by government to dispose wastewater from residential areas while 45% depend on closed drainage system.

TYPE OF LIVING APARTMENT

According to the findings, most respondents (82%) are living in a rented apartment while 12% own the house they are living in. further investigation revealed that 4% are living in a free home whereas, only 3% cohabit with friends and relatives.

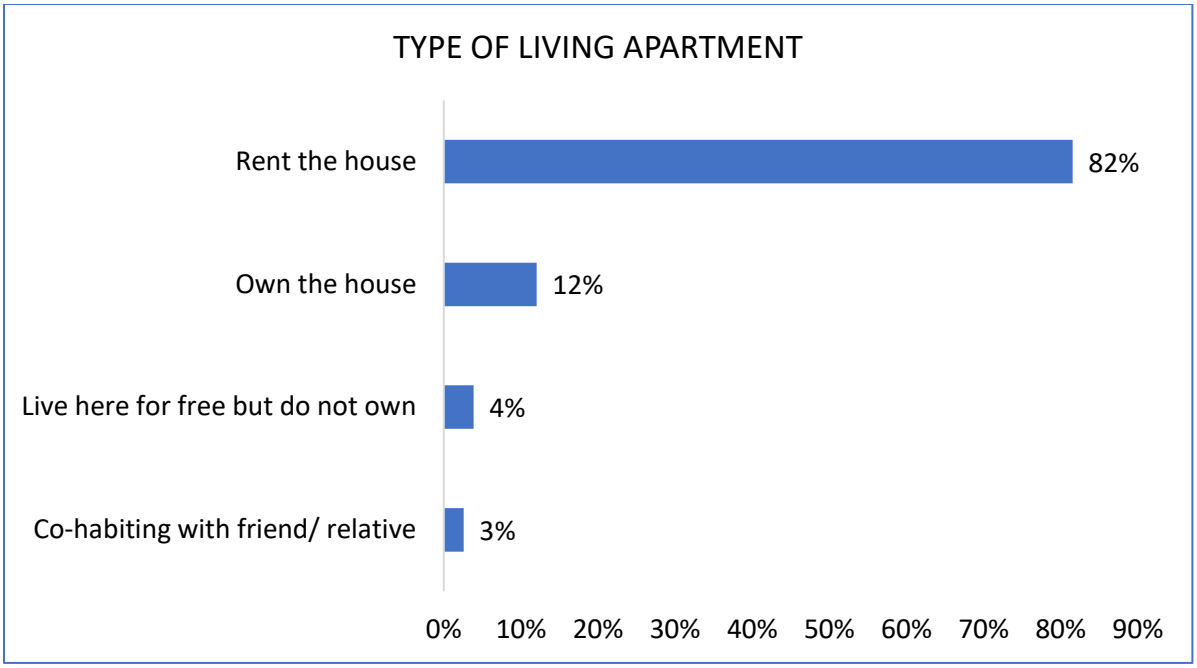


Figure 68. Type of Living Apartment

POWER SUPPLY USED BY COMMUNITY RESPONDENT

According to the report, 77% of the respondents use PHCN as a source of power, while 21% rely on generators. Further analysis indicated that 1% rely on solar power.

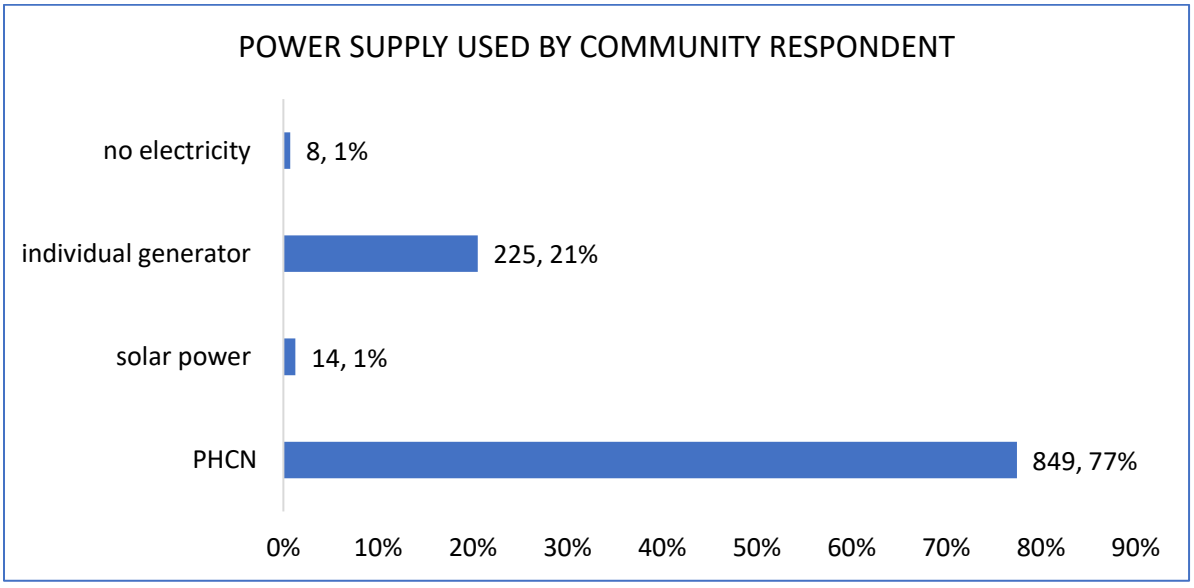


Figure 69. Power Supply Used by Community Respondent

SECURITY FACILITIES PROTECTING THE HOUSEHOLD

This study looks into the security measures in place to protect the community. According to the findings, 86 percent of the community relies on high fences, while 80 percent relies on community security (OPC). Further investigation revealed that 15% of the community relies

on police to protect property, prevent crime, and reduce fear of crime. However, only 8% rely on private security while 7% depends on electric fences.

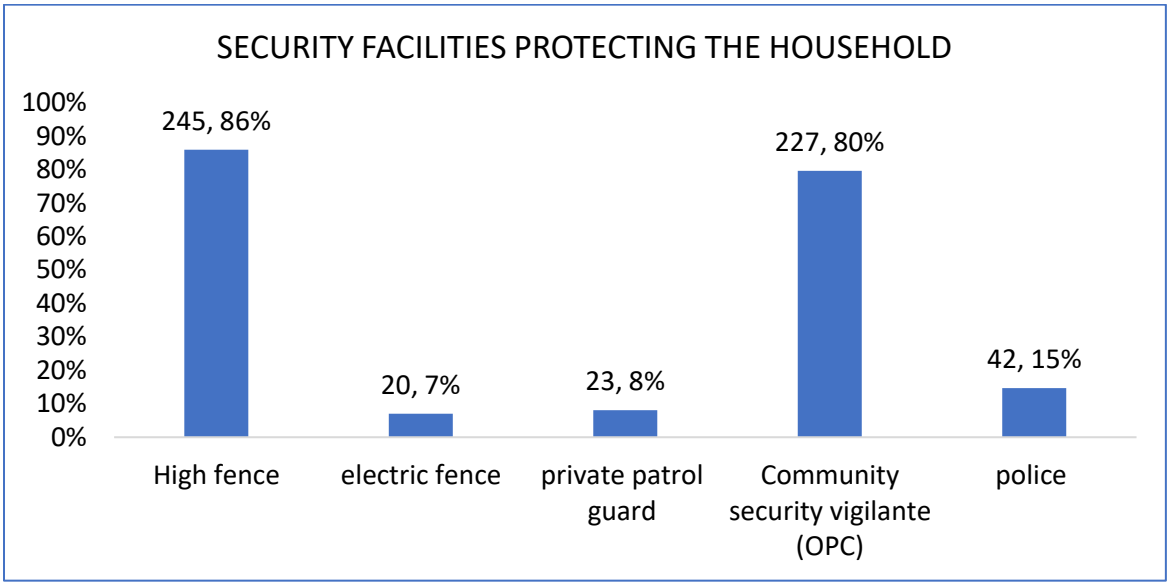


Figure 70. Security Facilities Protecting the Household

HOW COMMUNITY RESPONDENT DISPOSES WASTE

The waste disposal methods of community respondents were investigated. According to the report, three-quarter (75%) of respondents use government waste disposal services, while 13% dispose of waste by burning (incineration). However, only 12% of those polled in the community uses private waste disposal service.

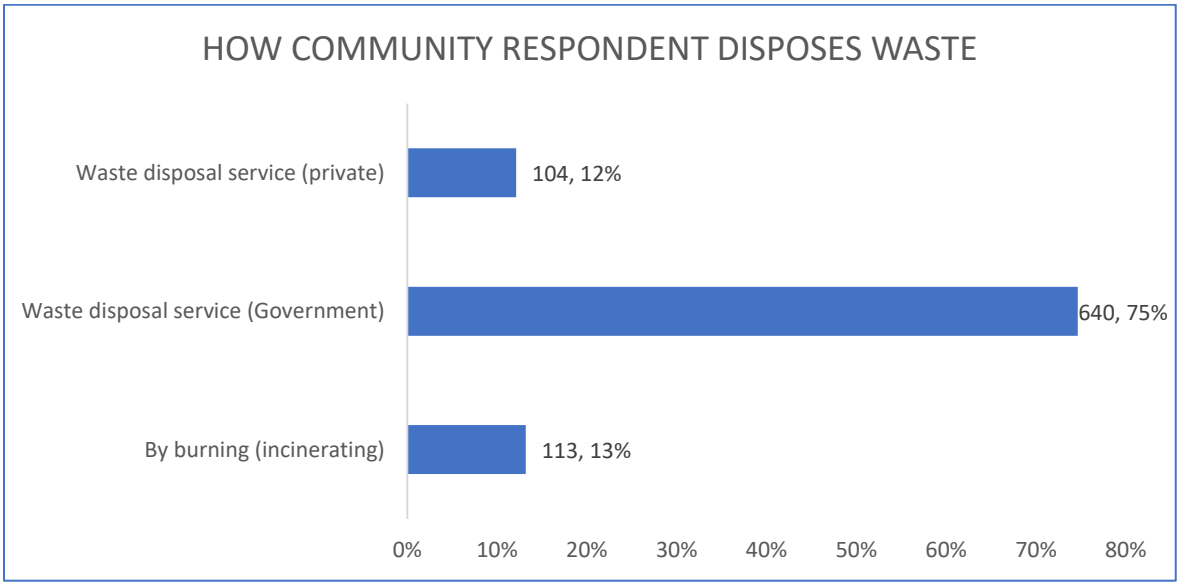


Figure 71. How Community Respondent Disposes Waste

SECURITY TENURE GUARANTEED LEGAL PROTECTION AGAINST FORCE EVICTION

The community were asked if security tenure guarantees them legal protection against force eviction, harassment and other threat in their apartment, and it was observed that 83% of the community respondents do not have legal protection against force eviction whereas, 17% said yes, that there is a legal protection against force eviction.

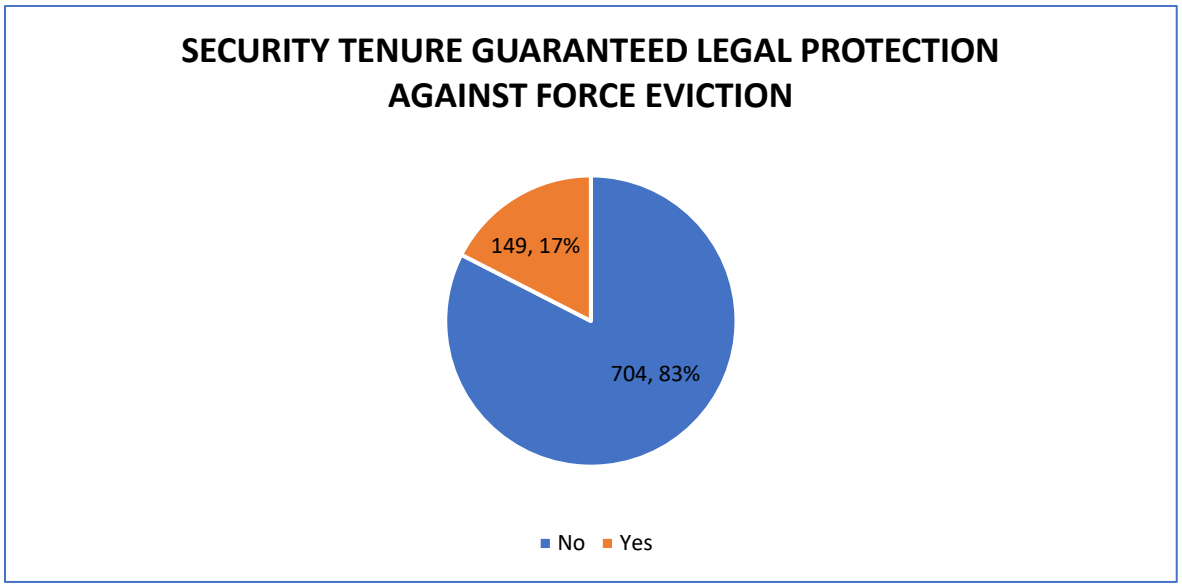


Figure 72. Security Tenure Guaranteed Legal Protection Against Force Eviction

HOUSING EXPENSES COMPROMISE THE ATTAINMENT AND SATISFACTION OF OTHER BASIC NEEDS

The residents of the community were asked if their housing costs interfered with their ability to meet other essential needs. According to the study, 60% of community respondents stated that housing costs occasionally interfere with the attainment and fulfilment of other basic needs, while 29% stated that housing expenses had no impact on their basic needs. However, 11% of community respondents stated that housing costs jeopardize the achievement and fulfilment of other critical goals.

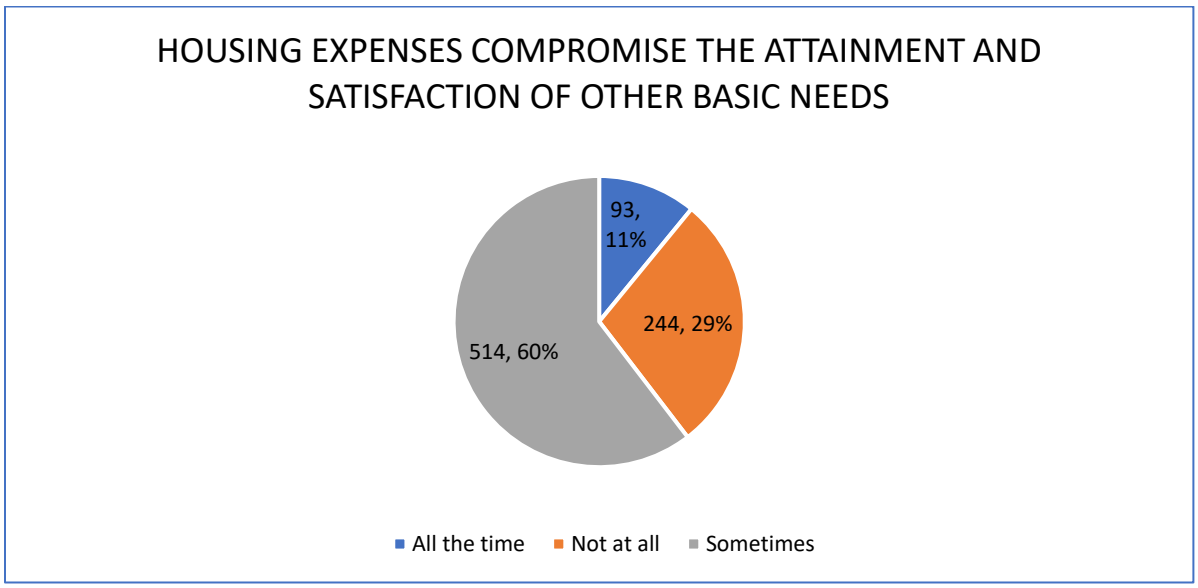


Figure 73. Housing Expenses Compromise the Attainment and Satisfaction of Other Basic Needs

NUMBER OF PEOPLE WITH OR HAD TB KNOW PERSONNALLY IN THE COMMUNITY

Representatives from the community compiled a large list of examples of stigma and discrimination that they have either experienced or heard about in their neighbourhoods. Many responses mentioned incidents of PWTB being shunned by friends and neighbours, being dismissed and handled unfairly, status disclosure was also mentioned, bullying, and so forth. 31% of the community representatives disclosed to have known only one person with or had TB while 29% revealed that they've witness two or more people who had TB. 21% of the community representatives admitted to not knowing anyone who had TB. A somewhat lesser share of community representatives (19%) doesn't know anyone who had TB.

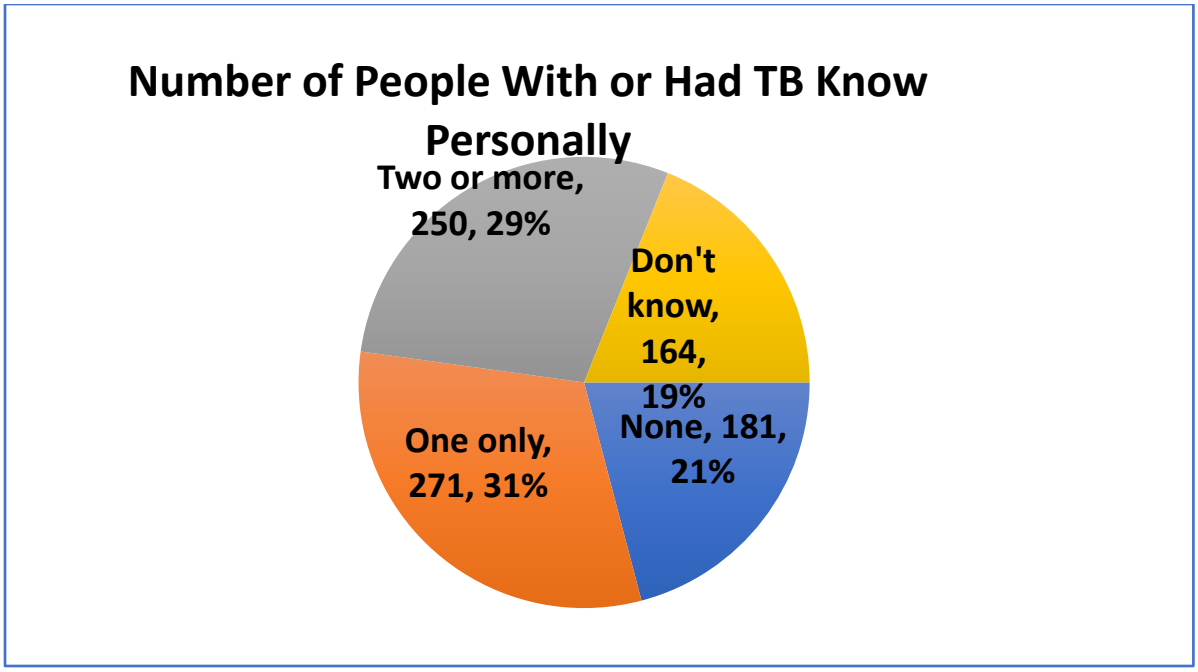


Figure 74. Number of People with Or Had Tb Know Personally in The Community

STIGMA TOWARDS PEOPLE WITH OR HAD TB BY COMMUNITY

Thorough investigation on stigma towards people with or Had TB by Community revealed that 70% of the community respondents are of the opinion that some people do not want those with TB playing with their children. Also, 70% of the respondents said some people keep their distance from the people with TB. Further investigation revealed that 67% of some people feel uncomfortable being near to those who had TB while 50% some people think that those people with TB are disgusting. 51% of some people prefer not to have those with TB living in their community. 66% also said some people may not want to eat or drink with relatives who have TB.

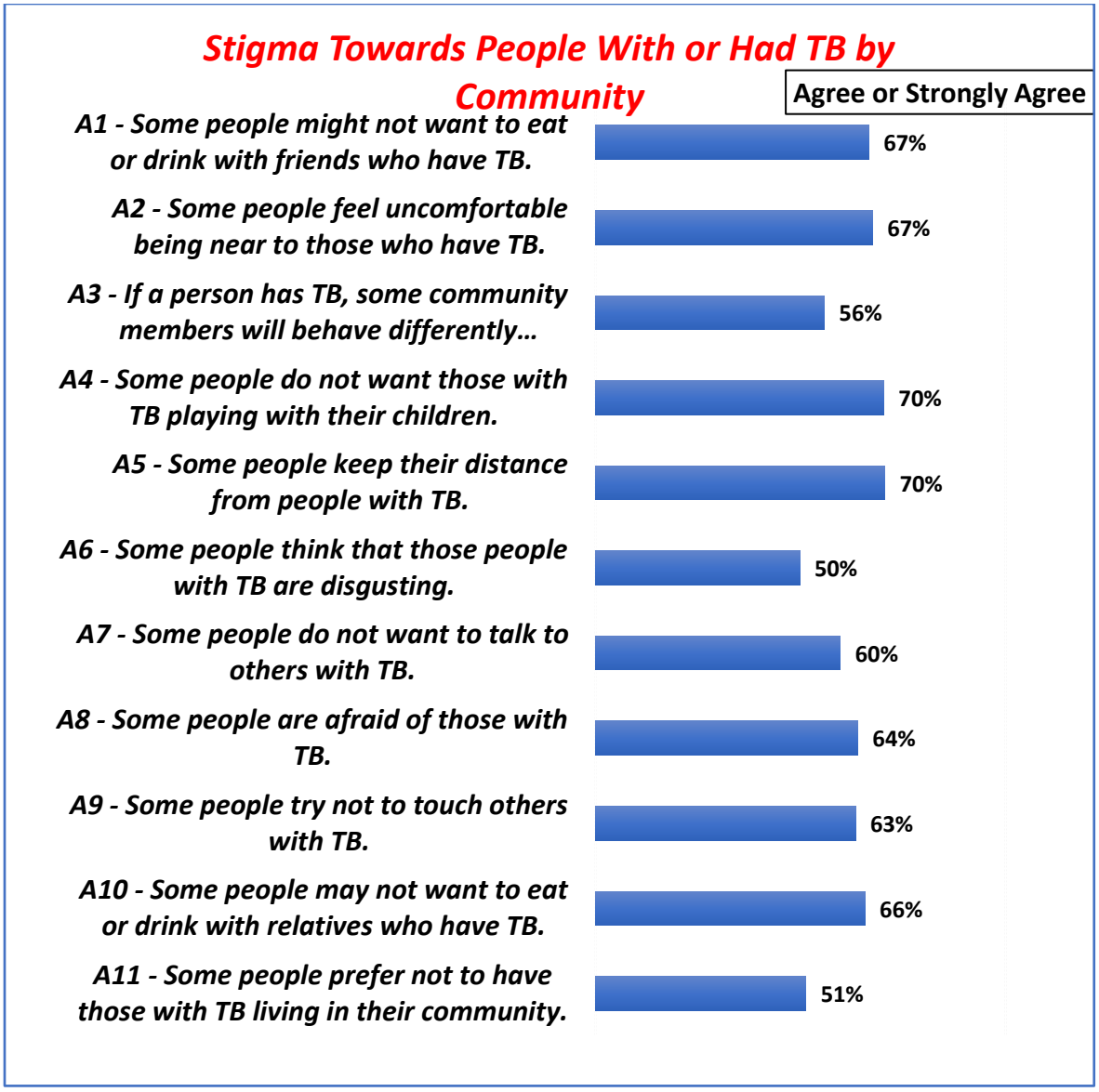


Figure 75. Stigma Towards People with Or Had TB By Community

EVER EXPERIENCE STIGMA IN COMMUNITY SETTING

The importance of stigmatization cannot be overstated, particularly among TB patients. Community members were asked if they had ever been stigmatized, 83 percent said they had never been stigmatized, while 17 percent said they had.

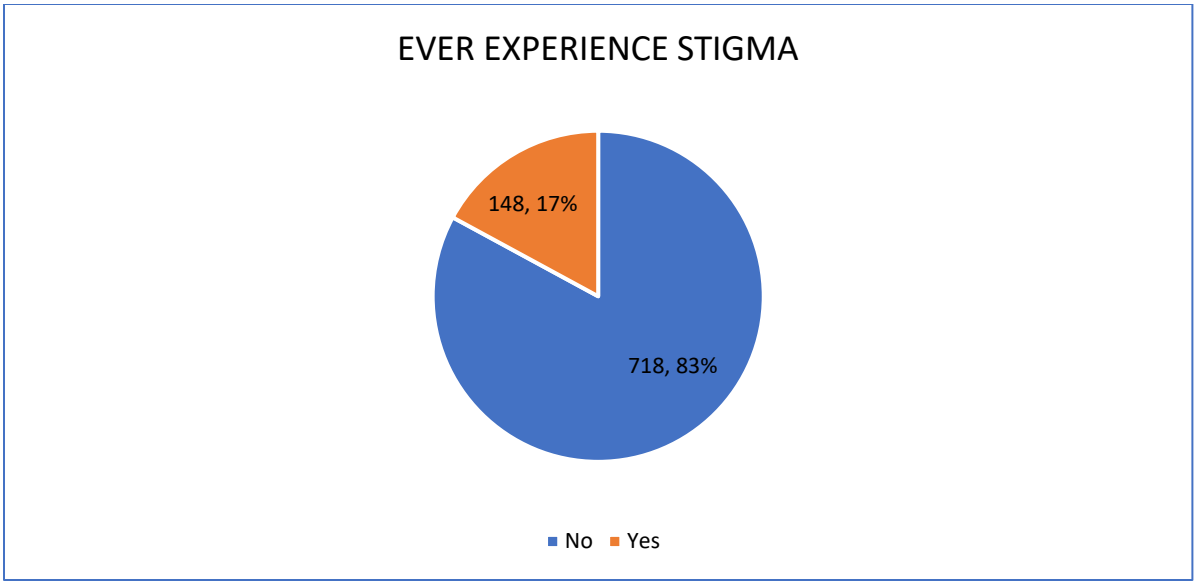


Figure 76. Ever Experience Stigma in Community Setting

Regression on Stigma in a community/neighbourhood setting

- According to the regression result, Education contributes significantly to the model with tertiary education **(regression coef. 2.229872, P>0.009).**
- Toilet facility also contribute significantly to the model with Flush Toilet WC (regression coef. -4.03083, P> 0.003). Also, pit covered **(regression coef. -4.33428, P>** 0.002).
- Water facility does contribute to the model with portable tap water from government (regression coef. 3.656162, P> 0.027)
- According to the regression report, hosing expenses contributes significantly to the model. Those who are affected by housing expenses are at greater risk of being stigmatize compare to the reference category.

Factor	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Gender						
Female	Ref					
Male	-5.48708	11.86338	-0.46	0.644	-28.7741	17.79994
Age						
25-44	0.259965	1.105892	0.24	0.814	-1.91083	2.430757
45-64	-2.50931	1.393032	-1.8	0.072	-5.24374	0.225114
65 or older	4.728878	2.983035	1.59	0.113	-1.12662	10.58438
18-24	Ref					
Education						
No formal education	-2.55083	1.674188	-1.52	0.128	-5.83715	0.735488
Primary education	-0.89184	1.332228	-0.67	0.503	-3.50692	1.723231
Tertiary education	**2.229872**	**0.848973**	**2.63**	**0.009**	**0.563394**	**3.89635**
Secondary Education	Ref					

Job Category						
Artisan	-2.11646	1.326896	-1.6	0.111	-4.72107	0.488148
Civil servant	-1.9318	1.586715	-1.22	0.224	-5.04642	1.182814
Not currently working	0.086119	1.519152	0.06	0.955	-2.89588	3.068114
Trader	-0.76737	1.334184	-0.58	0.565	-3.38628	1.851549
Student	Ref					
Toilet Type						
	-3.38783	3.942208	-0.86	0.39	-11.1261	4.350461
Bush/short put	-6.05723	5.398887	-1.12	0.262	-16.6549	4.540434
Flush toilet WC	**-4.03083**	**1.339439**	**-3.01**	**0.003**	**-6.66006**	**-1.4016**
No toilet	0.847676	6.026919	0.14	0.888	-10.9828	12.67812
Pit covered	**-4.33428**	**1.389802**	**-3.12**	**0.002**	**-7.06237**	**-1.60619**
Pit uncovered	-2.49591	2.972351	-0.84	0.401	-8.33043	3.338622
Toilet on water	-2.78824	2.194345	-1.27	0.204	-7.09559	1.519114
Squat toilet WC	Ref					
Water Facility						
	-0.42133	6.025016	-0.07	0.944	-12.248	11.40538
Borehole water	-0.5344	1.217973	-0.44	0.661	-2.9252	1.856406
None of the above	-3.67078	4.62942	-0.79	0.428	-12.758	5.416466
Portable tap water from government	**3.656162**	**1.645726**	**2.22**	**0.027**	**0.425711**	**6.886614**
Portable tap water from private suppliers	-5.64037	1.454403	-3.88	0	-8.49527	-2.78547
Stream water	-8.05508	10.65463	-0.76	0.45	-28.9694	12.85926
Well water	Ref					
House Expenses						
	7.332045	4.480808	1.64	0.102	-1.46348	16.12757
All the time	**3.77254**	**1.174839**	**3.21**	**0.001**	**1.46641**	**6.07867**
Not at all	0.623119	0.862437	0.72	0.47	-1.06979	2.316026
Sometimes	Ref					

Table 8. Regression on Stigma in a community/neighbourhood setting

KNOW COMMUNITY MEMBERS WITH TB BEING STIGMATIZED

Share of community representatives who responded «yes» to Question: «Do you know any community members with TB who were stigmatised in different settings, e.g., community/neighbourhood, hospitals/clinics, at work which became a barrier to visiting a site which provides direct observed treatment at the start of treatment, during the treatment maintenance stage and at treatment completion? (n=866)

Seen/Heard PWTB Being Stigmatized	(1) Recognizing symptoms n(%)	(2) Seeking care n(%)	(3) Getting an accurate diagnosis n(%)	(4) Beginning treatment n(%)	(5) Getting treatment adherence support n(%)	(6) Completing treatment n(%)	(7) Getting post-treatment follow-up services n(%)
Stigma in Community/Neighbours	84 (10%)	74 (9%)	21 (2%)	32 (4%)	15 (2%)	23 (3%)	0 (0%)
Stigma in Hospitals/Clinics	55 (6%)	65 (7%)	17 (2%)	16 (2%)	13 (1%)	16 (2%)	0 (0%)
Stigma in Workplace	58 (7%)	71 (8%)	9 (1%)	24 (3%)	10 (1%)	21 (2%)	0 (0%)

Table 9a. Know Community Members with TB Being Stigmatized

KNOW COMMUNITY MEMBERS WITH TB BEING STIGMATIZED

Share of community representatives who responded «yes» to Question: «Do you know any community members with TB who were stigmatised in different settings, e.g., community/neighbourhood, hospitals/clinics, at work which became a barrier to visiting a site which provides direct observed treatment at the start of treatment, during the treatment maintenance stage and at treatment completion? (n=148)

Seen/Heard PWTB Being Stigmatized	(1) Recognizing symptoms n(%)	(2) Seeking care n(%)	(3) Getting an accurate diagnosis n(%)	(4) Beginning treatment n(%)	(5) Getting treatment adherence support n(%)	(6) Completing treatment n(%)	(7) Getting post-treatment follow-up services n(%)
Stigma in Community/Neighbours	84 (57%)	74 (50%)	21 (14%)	32 (22%)	15 (10%)	23 (16%)	0 (0%)
Stigma in Hospitals/Clinics	55 (37%)	65 (44%)	17 (11%)	16 (11%)	13 (9%)	16 (11%)	0 (0%)
Stigma in Workplace	58 (49%)	71 (48%)	9 (6%)	24 (16%)	10 (7%)	21 (14%)	0 (0%)

Table 9b. Know Community Members with TB Being Stigmatized

COMMUNITY RESPONDENTS EXPERIENCE ON TB-RELATED STIGMA

Figure 77. Community Respondents Experience on Tb-Related Stigma

Note: Words in large print were used most often.

These are some of the community's responses to personal experiences with TB-related stigma.

"I used to know someone in my neighbourhood who had tuberculosis, but he died from it. People despised him back then because he had tuberculosis, while others felt sorry for him but avoided him. I would even walk past his house as fast as I can in order to avoid contracting tuberculosis".

Male (45-64), Community Responder

"I know of someone in my community who was later laid off due to tuberculosis"

Female (25-44), Community Responder.

"I know a lady whose marriage was called off because one of her siblings had tuberculosis. Those who were supposed to be her in-law claimed tuberculosis is hereditary and ran in her family".

Male (25-44), Community Responder.

"At a football viewing area, a man who had TB coughed loudly, and everyone stood up and left him".

Female (25-44), Community Responder.

"I witnessed a man being divorced by his wife due to tuberculosis, and he was unemployed, which made him depressed".

Female (18-24), Community Responder.

"I knew a man whose wife divorced him because he had tuberculosis. She and the kids left the house".

Female (25-44), Community Responder.

"When I used to work in a factory that made packs and packages, one of my co-workers developed a severe cough that was later diagnosed as tuberculosis. Later after that day, many of the employees left the company for fear of being contacted by TB".

Male (25-44), Community Responder.

"The community stigmatized a young girl whose father had tuberculosis, and her friends stopped playing with her".

Male (25-44), Community Responder.

"I know of Somebody who was refused access to a lot of things due to her TB status"
Male (25-44), Community Responder.

"I used to know a girl in my class who coughed a lot, and everyone avoided her, and we all referred to her as a tuberculosis carrier. I was inexperienced, and I'm not happy about of it".

Female (25-44), Community Responder.

"A neighbor around me had TB and his wife just put to bed. The wife didn't allow the father to touch or carry the baby. It became a serious quarrel that almost ruined the marriage".
Female (25-44), Community Responder.

"A community being evicted from his apartment because of TB."
Male (25-44), Community Responder.

"A man in my neighbourhood was fired from his job because he was losing weight and coughing up blood".

Female (45-64), Community Responder

"Community leaders remove a man from the position he previously held in the community. The majority of people avoided him because he coughed up blood. Because of the stigma, he became depressed and was unable to take his drugs on a regular basis, ultimately leading to his death".

Male (45-64), Community Responder

"I know a woman who worked in a restaurant, and when she was diagnosed with tuberculosis and her manager found out, she was fired".

Female (25-44), Community Responder.

"When I was a kid, my uncle who had tuberculosis drank Pepsi and only drank half of it, and he wanted me to drink it as well. My mother picked up the bottle and poured it down the drain as soon as he left the house, telling me never to take anything from my uncle".

Female (18-24), Community Responder.

"My sister had tuberculosis, which she did not realize at the time, and when she did, she was treated indifferently at work and was later fired, with no compassion shown by her co-workers".

Female (25-44), Community Responder.

HEALTH WORKER

GENDER OF HEALTH CARE WORKER

Result from this analysis revealed that majority of the health workers who participated in this research (88%) are female while 12% are male.

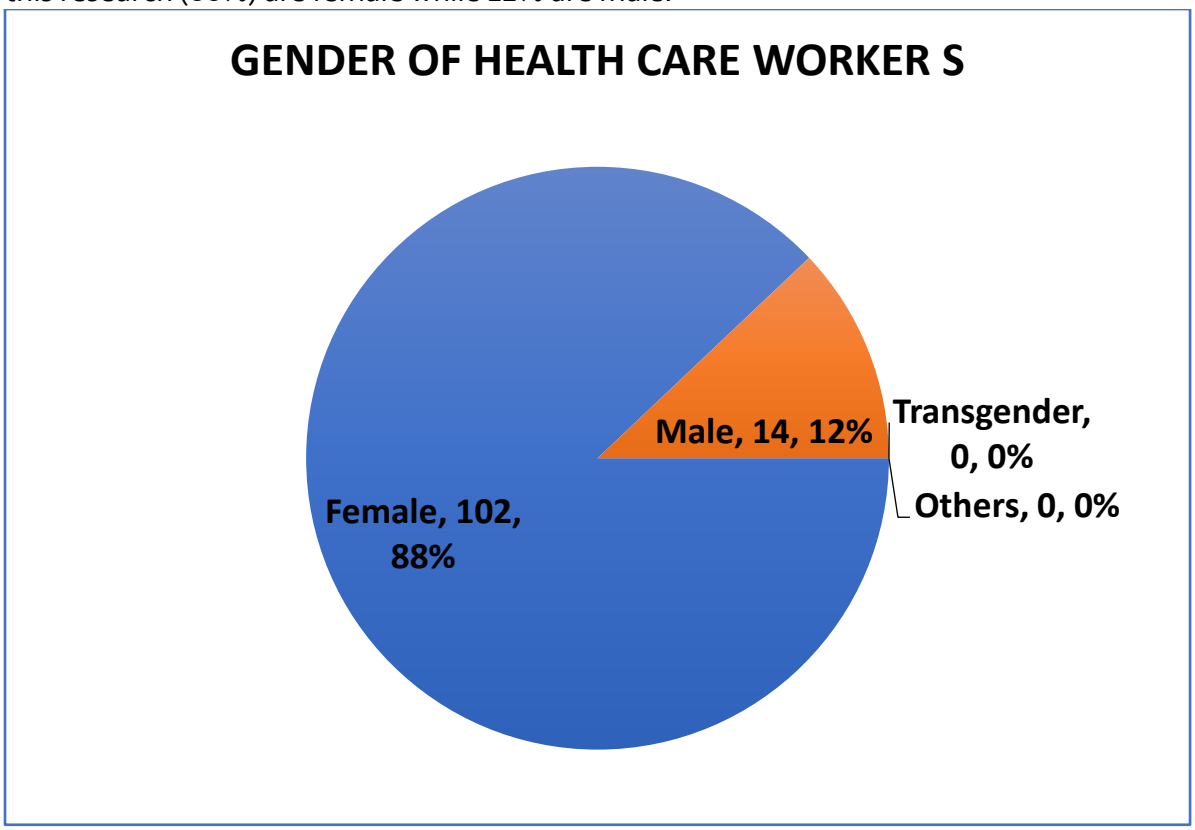


Figure 78. Gender of Health Care Worker

AGE OF HEALTH CARE WORKER

Information was obtained on the age of the health care workers who participated in this study and the result showed that 67% of the health care workers are between the age of 25-44. Furthermore, 28% of the respondents are between the age of 45-64 while 4% are between the age of 18-24 years. However, only 1% are 65 years or older.

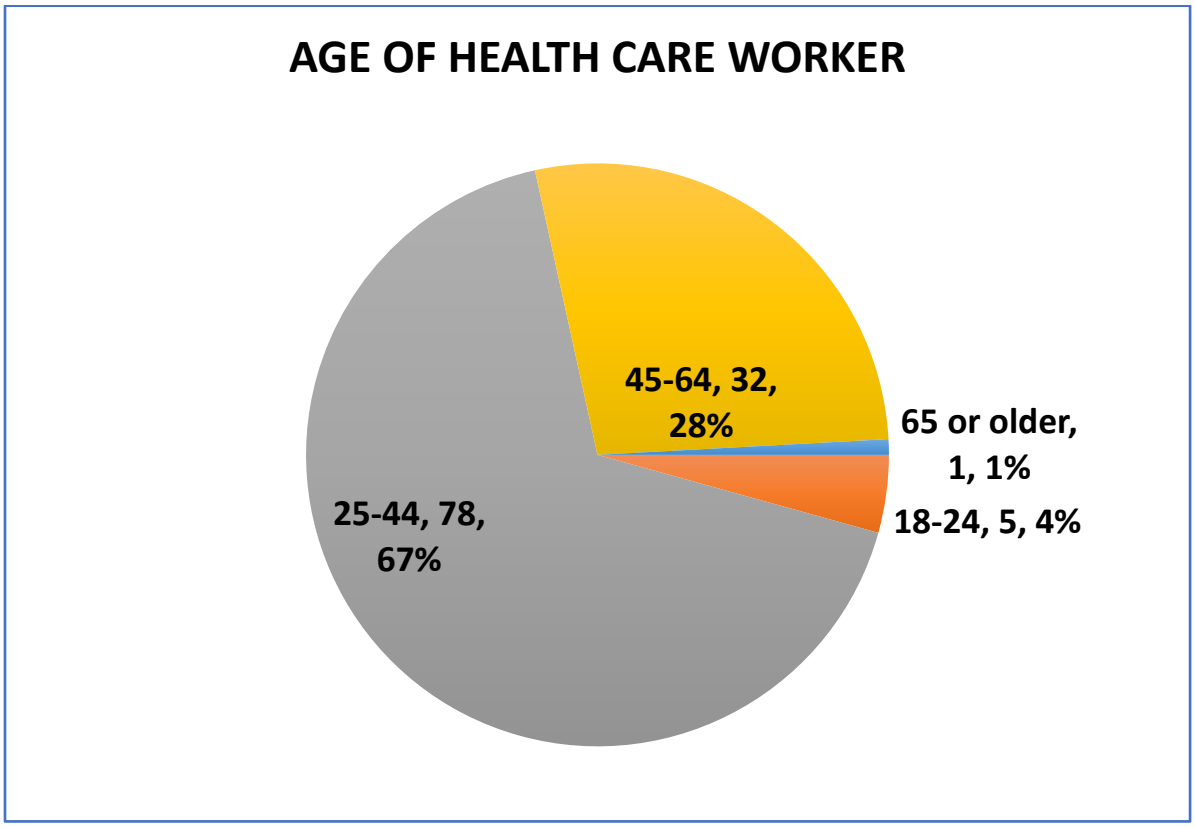


Figure 79. Age of Health Care Worker

DESIGNATION OF HEALTH CARE WORKER IN THE HOSPITAL CLINIC

This study looks at the role of health care workers in hospitals and clinics. Nurses account for 45% of all health-care workers, while other health-care workers (excluding nurses and doctors) account for 47%. However, only 8% of the health care workers are 8%.

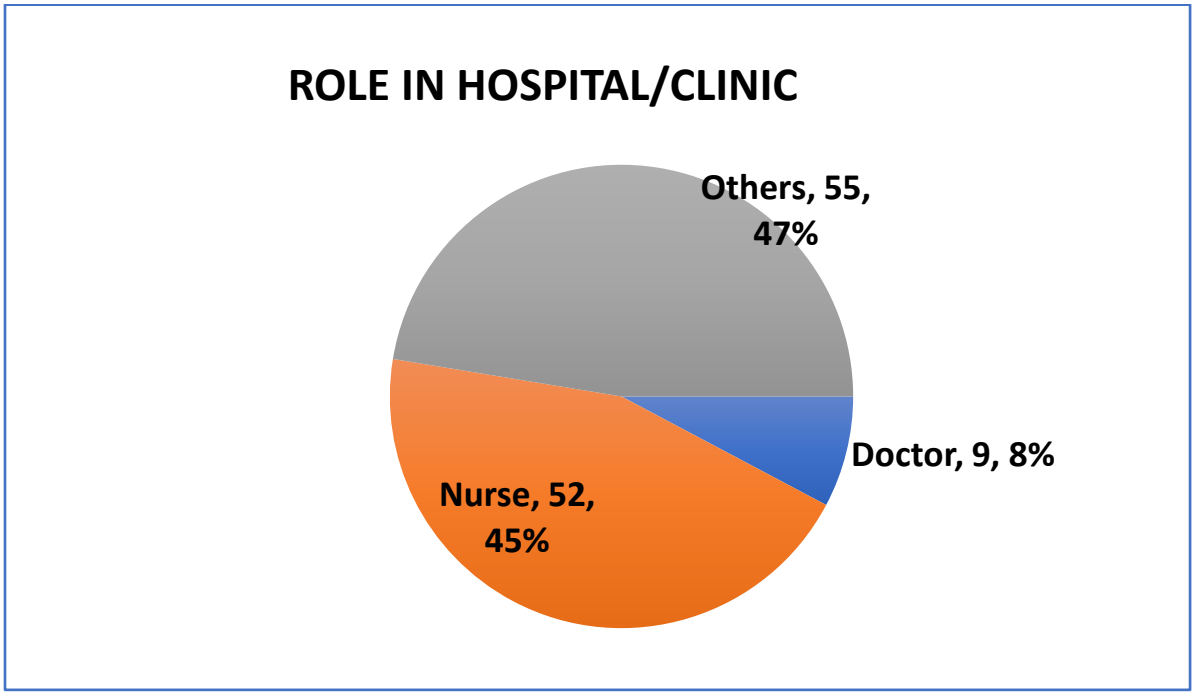


Figure 8o. Designation of Health Care Worker in The Hospital Clinic

HAVE EXPERIENCE PROVIDING SERVICE TO PEOPLE WITH OR HAD TB

Further investigation on health care workers providing service to people with or had TB was examined and it was discovered that 95% of the health care workers have experience while only 5% do not have experience in providing services to the people who had TB.

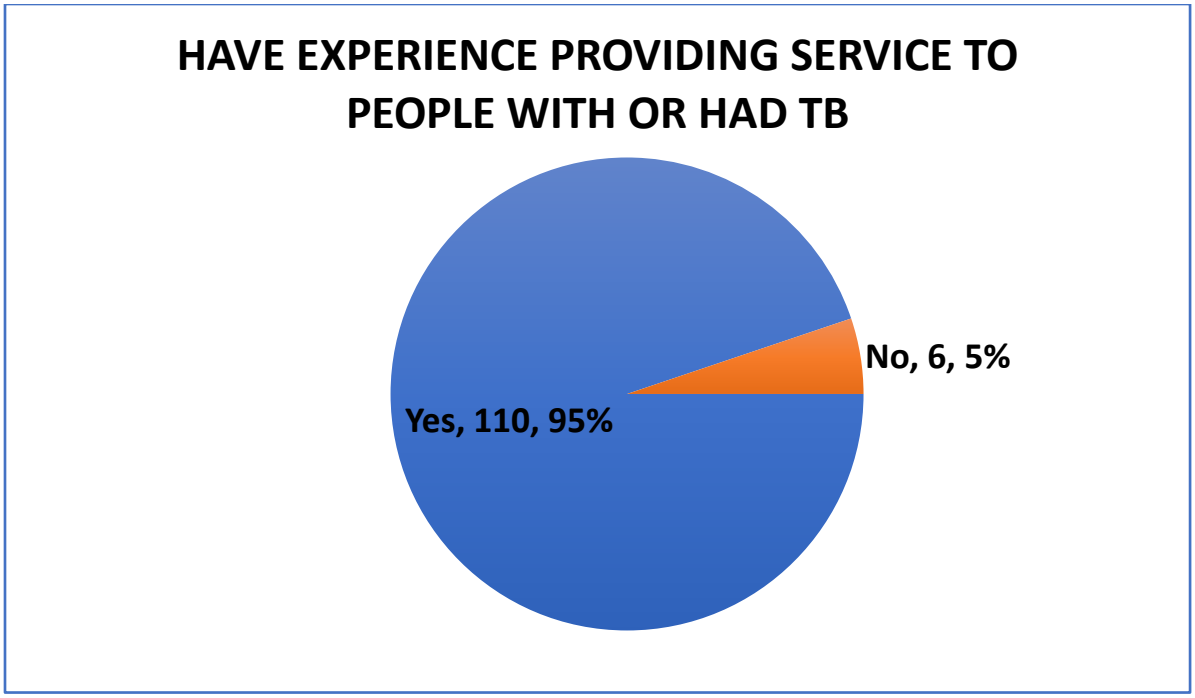


Figure 81. Have Experience Providing Service to People with or Had TB

STIGMA TOWARDS PEOPLE WITH OR HAD TB BY HEALTH CARE WORKERS

Analysis on stigma towards people with or had TB by health care workers showed that 87% of medical providers feel pity for TB patients. 70% of some health workers also think that it would be best for TB patients to be isolated during the intensive phase of treatment. It was also discovered that 70% of some health care workers think taking TB treatment should be forced if necessary while 46% are nervous about treatment of TB patients. Further investigation also revealed that 42% of medical providers stay away from TB patient. 41% of health care providers also feel TB patients are dangerous. 26% of medical providers are of the opinion that developing TB is a person's fault while 24% of medical providers said some health care providers feel angry towards TB patients. However, only 18% of medical providers in this study said they don't like helping TB patients.

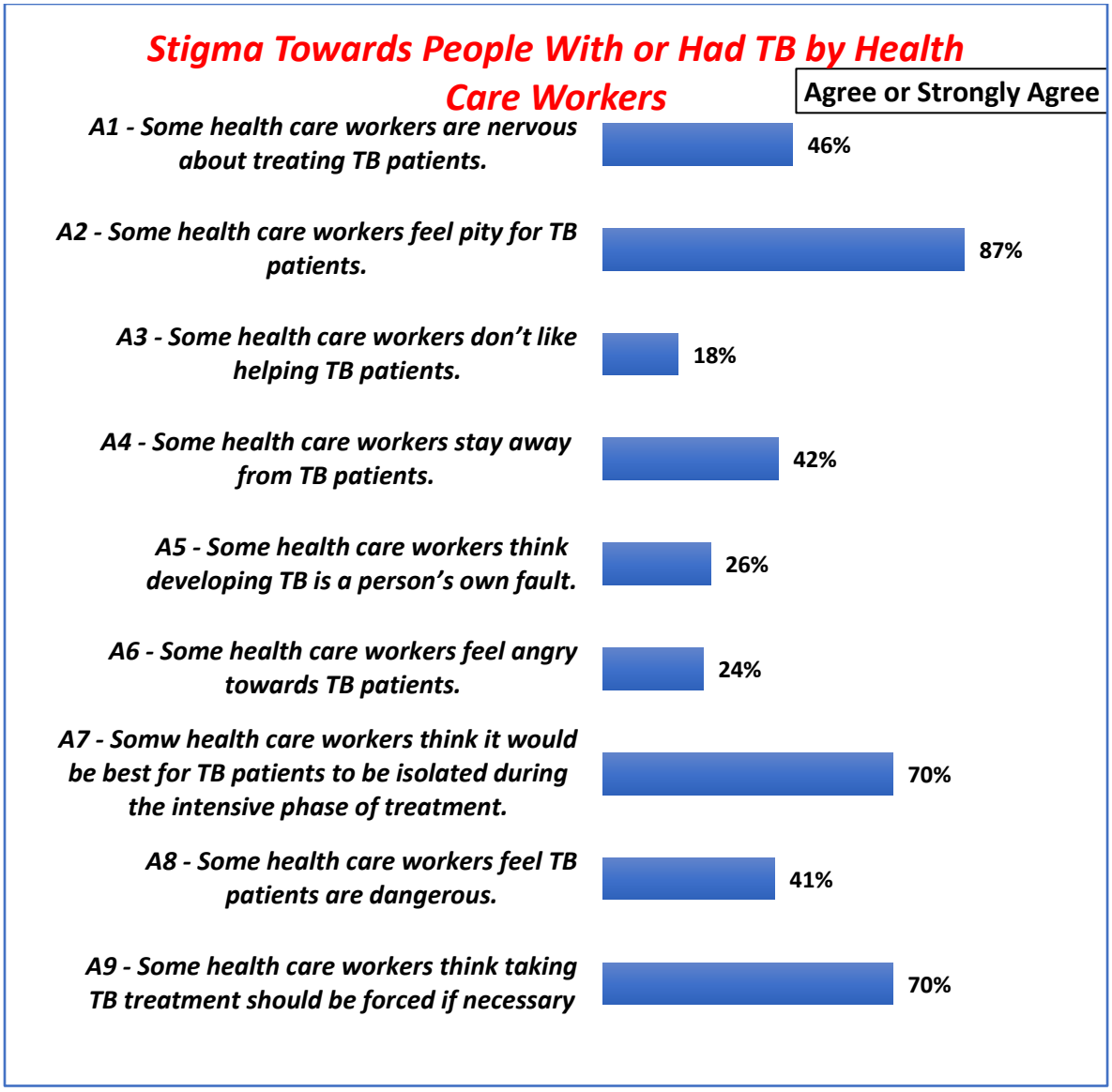


Figure 82. Stigma Towards People with Or Had Tb By Health Care Workers

HCW EXPERIENCED STIGMA

The result showed that 14% of the Health Providers were stigmatised at work by their colleagues while 12% of medical providers have experience stigma in the community/neighbours. Furthermore, only 3% of the medical providers stated that there were being stigmatised.

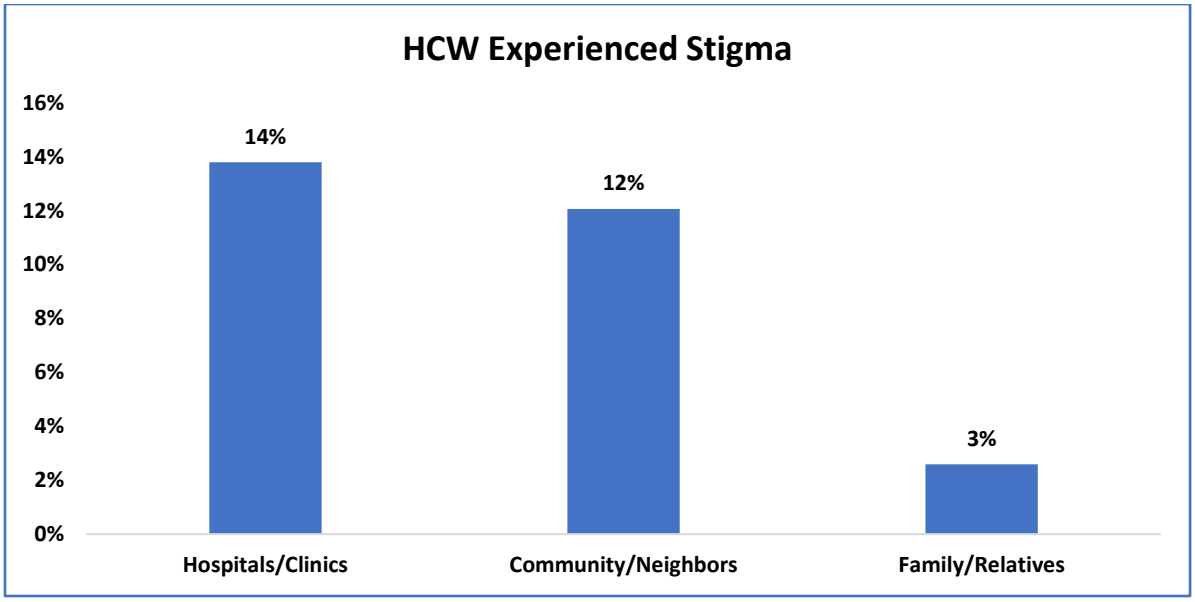


Figure 83. HCW Experienced Stigma

ANTICIPATED TB STIGMA AGAINST MEDICAL PROVIDERS

The rectangles represent 50% of the most frequent values with the median value indicated by the thick crossline. For example, in the group of primary care nurses a quarter have scored 12 points out of 30, one half scored from 12 to 21 points, and another quarter over 21 points. Mean — 16.90 points

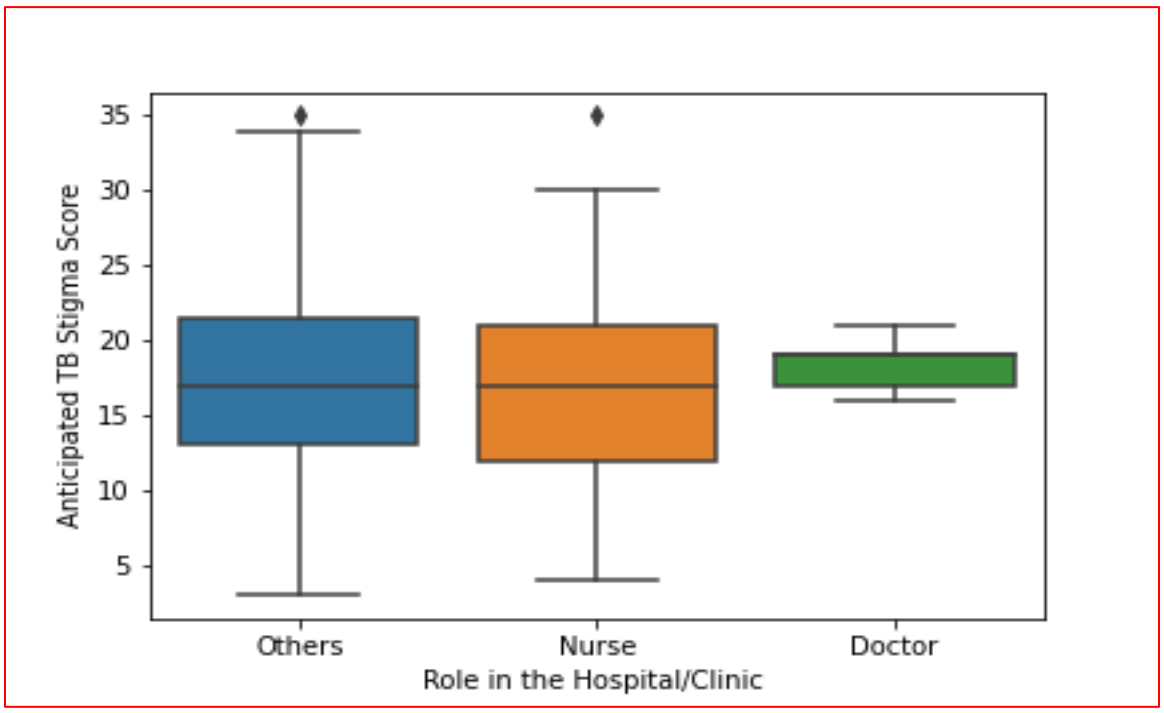


Figure 84. Anticipated TB Stigma Against Medical Providers

SEEN/HEARD OTHER HCWS BEING STIGMATIZED

Further investigation on the chart above revealed that 12% of the medical procviders said they have seen or heard another family being stigmatised in the hospital/clinics. 10% of the medical provciders revealed that they have seen another family being stigmatised in the

community. Furthermore, only 3% of the medical providers said they have seen another family being stigmatised in family/relatives.

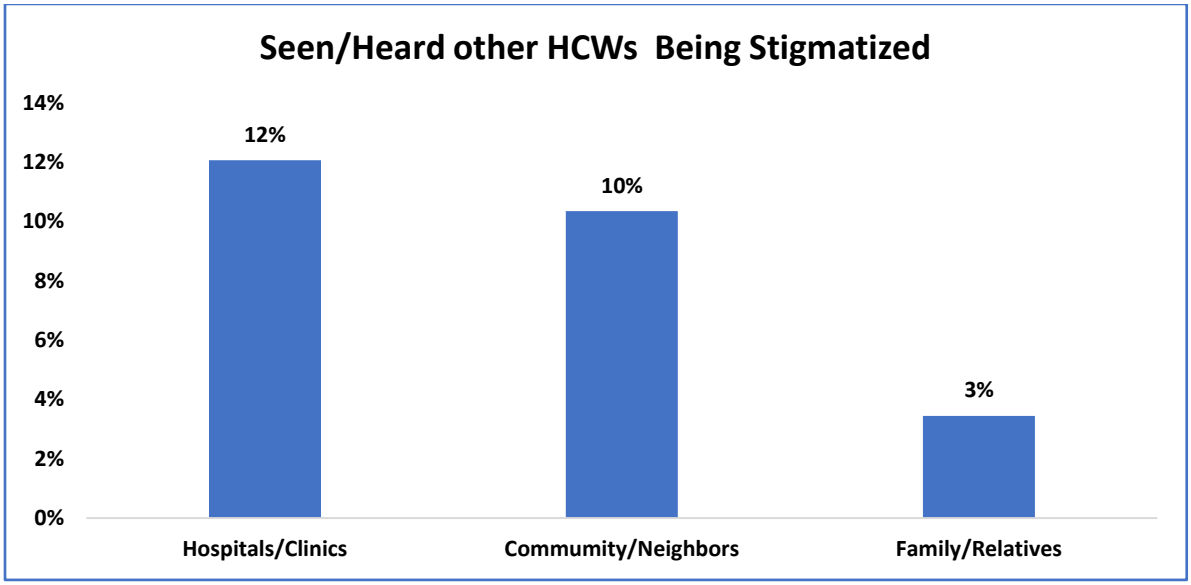


Figure 85. Seen/Heard Other HCWs Being Stigmatized

Regression of factors associated with self-stigma in Healthcare setting

The regression result shows that gender does contribute to the model with (male regression coef. 5.149438, P> 0.006). this shows that men are at greater risk of being stigmatize compare to the reference category.

Factor	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Designation						
Doctor	2.317537	2.313053	1	0.319	-2.26734	6.90241
Nurse	-0.09936	1.231839	-0.08	0.936	-2.54108	2.342357
Other Designation	Ref					
Gender						
Male	**5.149438**	**1.82313**	**2.82**	**0.006**	**1.535679**	**8.763198**
Female	Ref					
Age						
25-44	-4.13719	2.928573	-1.41	0.161	-9.94213	1.66775
45-64	-5.4127	3.065158	-1.77	0.08	-11.4884	0.662981
65 or older	-7.76224	6.88691	-1.13	0.262	-21.4133	5.888811
18-24	Ref					

Table 10. Regression of factors associated with self-stigma in Healthcare setting

MEDICAL PROVIDERS EXPERIENCE ON TB-RELATED STIGMA

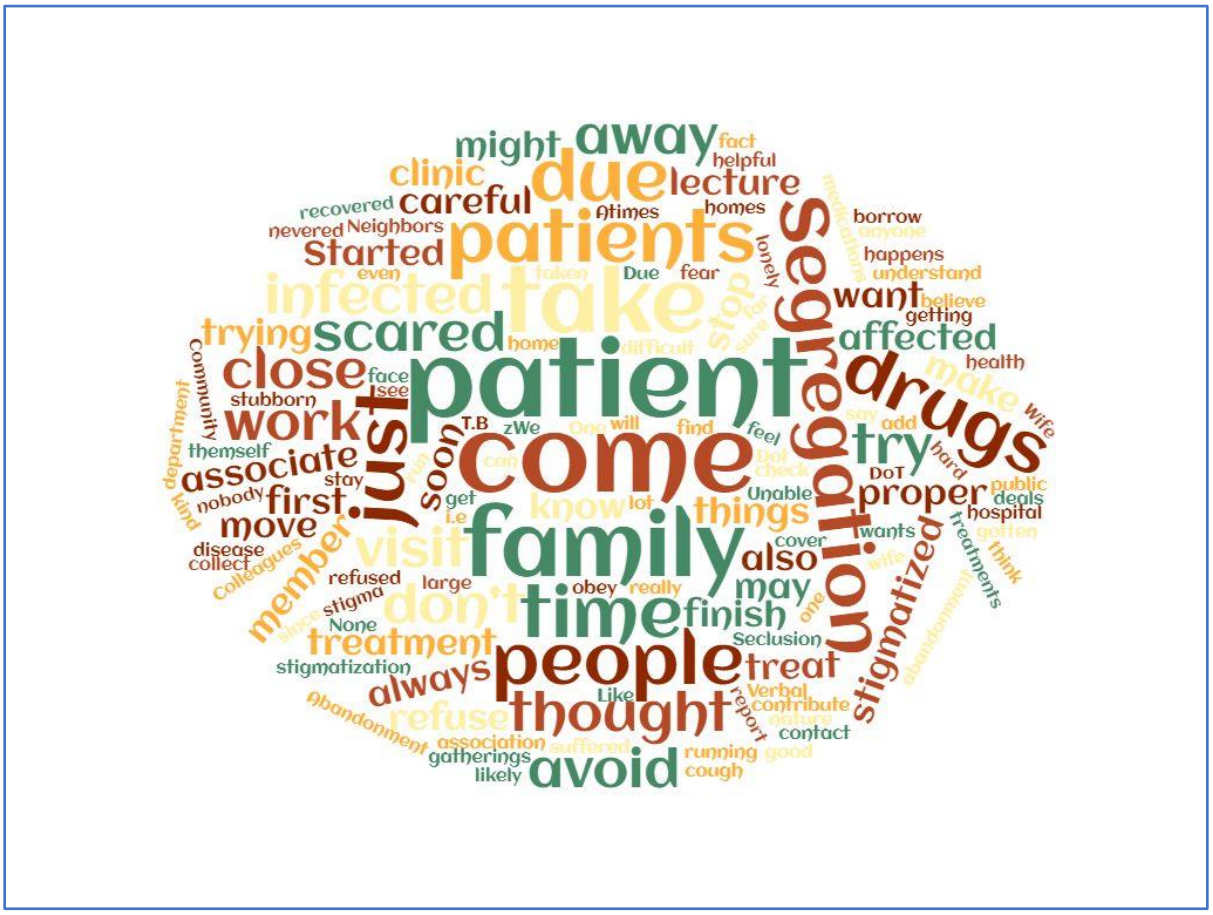


Figure 86. Medical Providers Experience on TB-Related Stigma

"Some patients refuse to come for appointments due to stigma, but we make every effort to see them at home in order to treat them".

Medical Provider, Nurse.

"People take numerous precautions before approaching me".

Other Medical Provider.

"Some non-DoT clinic health workers avoid close contact with anyone working in the DoT clinic because they believe some of the medical officers may have become infected".

Other Medical Provider.

"When I first started, I had to be cautious around my family members because they assumed I would become infected with tuberculosis (TB) soon, but with time and a proper lecture, I was no longer stigmatized"

Medical Provider, Doctor

LAW AND POLICY ENVIRONMENT SCORING MATRICES

Right to Freedom from Discrimination (enacted stigma)

All persons are equal before the law. Legal frameworks should exist that prohibit unequal treatment against someone with TB in both public and private settings, including, but not limited to, health care, employment, education, and access to social services.

For example, Persons with TB are refused medical treatment or given a lower standard of care also, persons with TB are denied or fired from jobs based on their TB status or TB history.

In reference to the policies, the focus group participants both government and non-governmental organization shared their opinions that there must be proper awareness at both state and national level to help people with TB to avoid stigmatization. Policies also need to be instituted.

Right to Access Information

People with TB shall have access to information about the nature of the disease, its transmission and contagiousness, effective preventive measures, and treatment availability and options, including the duration of treatment, the names and kinds of medicines involved, the nature of side effects, and the risks of treatment non-adherence.

Policy issues

The focus group believed that one of the main issues is inadequate information. Therefore, there should be social media optimization to support coverage of all available options.

Right to Access Services

People with TB have the right to available, accessible and acceptable good-quality diagnostics and treatment on a non-discriminatory basis.

Policy issues

It was also made known by the focus group that despite services are provided, but no sufficient awareness at the state level and national. It was also added that there should be more DOTs centers in Local Government.

Right to Privacy

Information related to an individual's TB status and treatment must be kept private and shall not be disclosed to any party, unless approved by appropriate medical professionals under narrowly and expressly tailored circumstances enumerated in law, including to protect third parties who are at serious and imminent risk of infection and to share essential health information with medical professionals providing care to the person with TB.

For example, information about a person's TB status is disclosed through provider breach of confidentiality, flawed contact investigations, or poor data protections in surveillance systems.

Policy issues

The focus group stated that Information exposed by TB patients including all written or electronic records of these encounters, should be protected by health-care professionals. Access to private information should be limited to those who are directly involved in the patient's treatment. In the gathering, management, and exchange of data, health care providers must be conscious of the patient's right to privacy. Furthermore, there must be proper awareness at both state and national level to help people with TB to avoid stigmatization.

Right to Informed Consent

People with TB shall have the right to informed consent prior to treatment for TB and the right to be free from non-consensual, compulsory treatment under all circumstances. People with TB are involuntarily tested for HIV. Unapproved medication regimens are used to treat people with TB without informing them.

The focus group agreed that health care employees should be reminded of their ethical obligations.

Right to Freedom from Arbitrary Arrest/Detention and Involuntary Isolation

People with TB shall have the right to liberty and to freedom from arbitrary detention, including involuntary detention or isolation of contagious persons, except in exceptional circumstances enumerated in law and proportional to what is strictly necessary, using the least restrictive and intrusive means available to achieve legitimate public health aims (e.g., when a person is known to be contagious and is likely to transmit the disease, but refuses treatment, and all reasonable measures to ensure adherence have been attempted and proven unsuccessful). People with TB should not be detained or imprisoned in non-medical facilities for failure to adhere to treatment. Before any TB patient is arrested, the focus group believes that information should be provided. Furthermore, public awareness should be raised to prevent TB patients from being harassed.

Right to a Safe Workplace

Workers have the right to operate in an environment that does not pose undue hazards to health, and employers have the responsibility to implement measures that decrease the occupational risk of TB.

Right to Housing

People with TB have right to housing. Adequate housing, as a component of an adequate standard of living, is fundamental to the enjoyment of all economic, social and cultural rights. It should not be understood as being limited only to basic shelter. Instead, States should advance appropriate national frameworks to realise this right, including addressing immediate threats to housing, developing policies and practices to respond to the long-term housing needs of changing populations, and regulating housing provision.

A matrix for assessing TB-related stigma in the legislative and policy environment was established via focus group discussions with stakeholders. The focus group noted deficiencies in legislation and

policies aimed at protecting people with tuberculosis, as well as concerns with implementation and media coverage.

	Policy 1	Policy 2	Policy 3
RIGHT TO FREEDOM FROM DISCRIMINATION	2	2	2
RIGHTS TO ACCESS INFORMATION	3	2	4
RIGHTS TO ACCESS SERVICES	3	3	3
RIGHTS TO PRIVACY	3	2	3
RIGHTS TO INFORMED CONSENT	3	3	2
RIGHTS TO FREEDOM FROM ARBITARY ARREST/DETENTION AND INVOLUNTARY ISOLATION P1	3	2	2
RIGHTS TO SAFE WORKPLACE	2	2	2
RIGHTS TO HOUSING	2	2	2

Table 11. Policy Environment Scoring Matrices

	Legislative 1	Legislative 1	Legislative 1
RIGHT TO FREEDOM FROM DISCRIMINATION	3	2	2
RIGHTS TO ACCESS INFORMATION	2	2	3
RIGHTS TO ACCESS SERVICES	3	4	4
RIGHTS TO PRIVACY	2	2	2
RIGHTS TO INFORMED CONSENT	1	3	2
RIGHTS TO FREEDOM FROM ARBITARY ARREST/DETENTION AND INVOLUNTARY ISOLATION P1	3	2	2

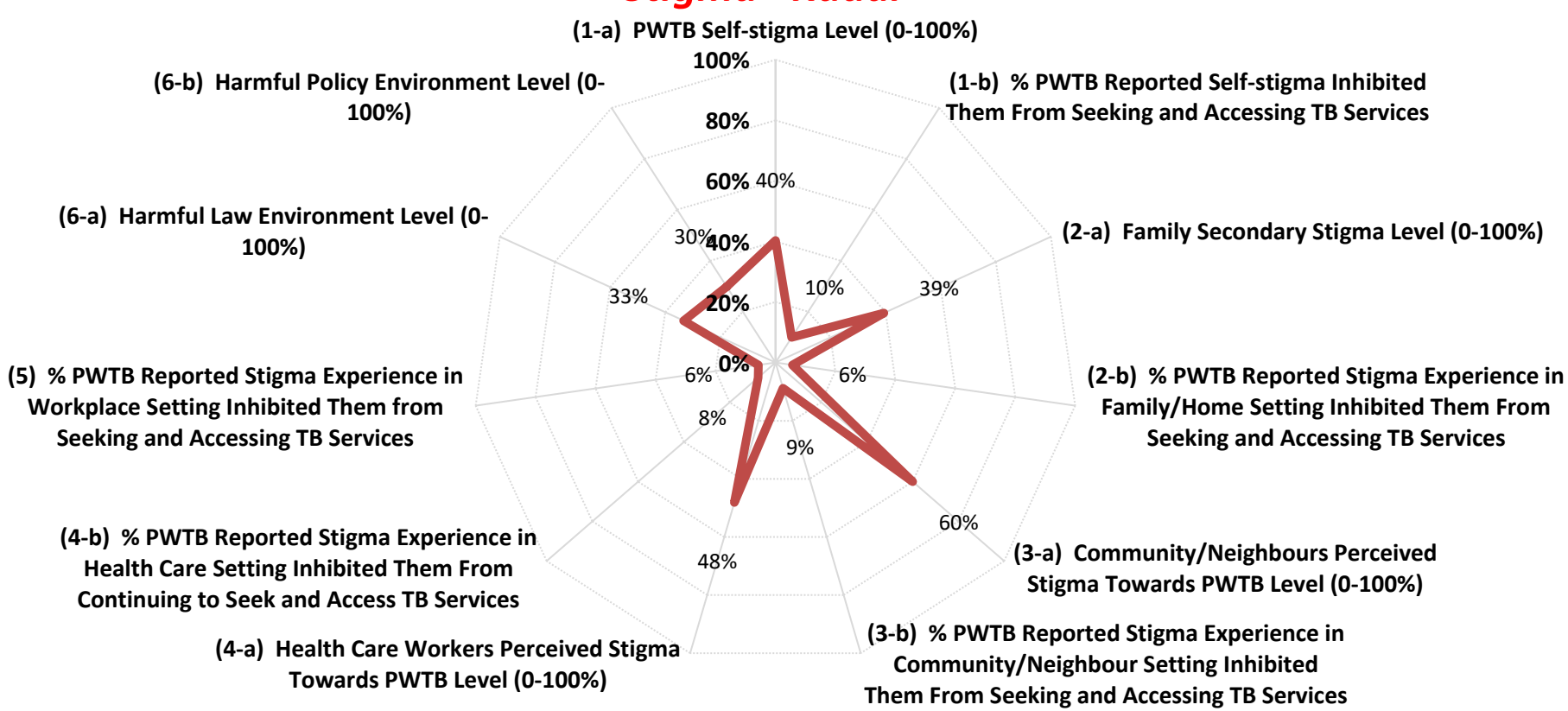
RIGHTS TO SAFE WORKPLACE	2	2	2
RIGHTS TO HOUSING	2	2	2

Table 12. Legislative Environment Scoring Matrices

Note: a right is assessed using a following scale:
(1) 0 — national legislation/policies which could harm people with TB; 1 — legislation/policies which could harm people with TB exist at the regional level only, 2 — no existing legislation/policies on people with TB, 3 — legislation/policies which protect people with TB exist at the regional level only, 4 — national legislation/policies which could protect people with TB.
(2) 0 — legislation/policies which could harm people with TB are implemented at the national level; 1 — legislation/policies which could harm people with TB are implemented at the regional level only, 2 — no existing legislation/policies on people with TB, 3 — legislation/policies which protect people with TB are implemented at the regional level only, 4 –legislation/policies which could protect people with TB are implemented at the national level.
(3) 0 — legislation/policies which could harm people with TB are covered by the national media; 1 — legislation/policies which could harm people with TB are covered by the regional media only, 2 — no media coverage of legislation/policies on people with TB, 3 — legislation/policies which protect people with TB are covered by the regional media only, 4 – legislation/policies which could protect people with TB are covered by the national media.

THE STIGMA RADAR

The stigma radar is a comprehensive standardized assessment of TB-associated stigma which includes internalized stigma, the impact of stigma on accessing services, stigma in the family, community and in health care workers, as well as the stigma's legislative and political environment. The larger the radar web, the bigger the problem.



Note: An indicator is assessed on a scale from 0 to 100%. The larger the radar web, the more likely PWTB will face barriers in seeking and accessing TB services due to stigma and discrimination.

** Including Discrimination (enacted stigma)*

Figure 87. Stigma Radar

Description of indicators in the TB stigma radar			
Radar Diagram	Description	Method	Result
(1-a) PWTB Self-stigma Level (0-100%)	12 item questionnaires with a scale from 0 to 4, where the higher score indicate higher stigma; the tool adapted from Van Rie TB Patient Stigma Scale, Tropical Medicine and International Health 2008;13(1):20–30	Numerator: total score in the 12-item questionnaire within the general sample; denominator: number of respondents x 4 (points) x 12 (number of questions)	40%
(1-b) % PWTB Reported Self-stigma Inhibited Them from Seeking and Accessing TB Services	Based on response to the following question: «Have you experienced any of these feeling [12 self-stigma questions] when seeking TB treatment services and accessing the services?	Numerator: number of respondents who answered «yes» to a question; denominator: number of respondents	10%
(2-a) Family Secondary Stigma Level (0-100%)	10 item questionnaires with a scale from 0 to 4, where the higher score indicate higher stigma; secondary stigma experienced by the family of PWTB at the time of diagnosis — tool Arcencio TB Stigma Scale, Public Health Action 2014;4(3):195–200)	Numerator: total score in the 10-item questionnaire within the general sample; denominator: number of respondents x 4 (points) x 10 (number of questions)	39%
(2-b) % PWTB Reported Stigma Experience in Family/Home Setting Inhibited Them from Seeking and Accessing TB Services	Based on response to the following question: "Have experienced stigma in a home/family setting which has prevented you from seeking and receiving services on diagnosing and managing TB?"	Numerator: number of respondents who answered «yes» to a question; denominator: number of respondents	6%
(3-a) Community/Neighbours Perceived Stigma Towards PWTB Level (0-100%)	11 item questionnaires with a scale from 0 to 4, where the higher score indicate higher stigma; tool adapted from Van Rie TB Community Stigma Scale, Tropical Medicine and International Health 2008;13(1):20–30	Numerator: total score in the 11-item questionnaire within the general sample; denominator: number of respondents x 4 (points) x 11 (number of questions)	60%

(3-b) % PWTB Reported Stigma Experience in Community/Neighbour Setting Inhibited Them from Seeking and Accessing TB Services	Based on response to the following question: "Have you ever experienced stigma (i.e., prejudiced attitude) in a neighbourhood setting which has prevented you from seeking and receiving services on diagnosing and managing TB?"	Numerator: number of respondents who answered «yes» to a question; denominator: number of respondents	9%
(4-a) Health Care Workers Perceived Stigma Towards PWTB Level (0-100%)	9 item questionnaires with a scale from 0 to 4, where the higher score indicate higher stigma; tool adapted from Corrigan 9 Stigma Domains (AQ-9), KNCV Stigma Measurement Guidance Chapter 5 Table 3 (2018), Psychiatry Research 2014;215:466–70), Community Mental Health Journal 2004;40(4): 297–307, Journal of Family Psychology 2006;20(2):239–46	Numerator: total score in the 9-item questionnaire within the general sample; denominator: number of respondents x 4 (points) x 9 (number of questions)	48%
(4-b) % PWTB Reported Stigma Experience in Health Care Setting Inhibited Them from Continuing to Seek and Access TB Services	Based on response to the following question: "Have you ever experienced stigma (i.e., prejudiced attitude) in a health care setting (hospitals/clinics) which has left you feeling uncomfortable and prevented you from seeking and receiving services on diagnosing and managing TB?"	Numerator: number of respondents who answered «yes» to a question; denominator: number of respondents	8%
(5) % PWTB Reported Stigma Experience in Workplace Setting Inhibited Them from Seeking and Accessing TB Services	Based on response to the following question: " Have you ever experienced stigma in a work setting which has prevented you from seeking and receiving services on diagnosing and managing TB?"	Numerator: number of respondents who answered «yes» to a question; denominator: number of respondents	6%

(6-a) Harmful Law Environment Level (0-100%)	The current laws on the seven TB-related rights: Right to Freedom from Discrimination, Right to Access Information, Right to Access Services, Right to Privacy, Right to Informed Consent, Right to Freedom from Arbitrary Arrest/Detention and Involuntary Isolation, Right to a Safe Workplace. Each right is assessed on a scale from 0 (extreme harm) to 4 (no harm) based on the following criteria: existing laws/bylaws, execution of laws, coverage of the execution of laws in the media	Numerator: 1 — (total score from 7 (rights) by 3 (parameters) in the matrix; denominator: 7 (rights) x 3 (parameters) x 4 (maximum score))	33%
(6-b) Harmful Policy Environment Level (0-100%)	The current policies on the seven TB-related rights: Right to Freedom from Discrimination, Right to Access Information, Right to Access Services, Right to Privacy, Right to Informed Consent, Right to Freedom from Arbitrary Arrest/Detention and Involuntary Isolation, Right to a Safe Workplace. Each right is assessed on a scale from 0 (extreme harm) to 4 (no harm) based on the following criteria: existing policies, execution of policies, coverage of policies in the media	Numerator: 1 — (total score from 7 (rights) by 3 (parameters) in the matrix; denominator: 7 (rights) x 3 (parameters) x 4 (maximum score))	30%

Table 13. Description of Indicators in The TB Stigma Radar