Integrated Biological and Behavioral Surveillance (IBBS) Surveys among vulnerable and Key Populations at Higher Risk in Bhutan, 2016

Final Report

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Contents

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EXECUTIVE SUMMARY

INTRODUCTION

Bhutan is one of the few countries in South Asia that continues to experience a low adult (15-49 years) Human immunodeficiency virus (HIV) prevalence of below 0.2 percent (0.1-0.6%).Most of these HIV infections (around 90%) are attributed to unsafe sexual practices. The current national surveillance system for HIV relies on passive case reporting from HIV Testing and Counseling (HTC) services at Health Information Service Centers (HISC) and antenatal care (ANC) clinics. HIV and Sexually transmitted infections (STIs) rates among key populations (KAPs) were not available in Bhutan before this IBBS survey.

This is the first Integrated Bio-Behavioral Surveillance (IBBS) Survey being conducted in Bhutan. Based on the recommendations of the formative assessment on feasibility of IBBS survey in Bhutan conducted in 2014, the IBBS was found to be feasible and acceptable among the High Risk Women (Drayang girls),Transport workers (taxi and truck drivers), armed forces and Drug Users including Injecting Drugs Users, MSM/TG and Migrants workers in Bhutan. The main aim of the survey is to understand the current prevalence of HIV and STI, sexual risk behaviors and vulnerability to HIV infection and the coverage of interventions among the key affected populations (KAPs). The findings from this survey will facilitate in the validation of the current baselines for targeted interventions, established based on assumptions. The findings from this survey will also inform the program planning for targeted HIV/AIDS & STIs intervention package for key affected population groups.

STUDY METHODOLOGY

This survey was carried out among 1120 respondents in six different vulnerable populations groups, who are at perceived risk of HIV infection in Bhutan, this includes High Risk Women (287), Transport Workers (174), Drug users/people who inject drugs (203), Armed forces/uniformed personnel (153), Men who have sex with Men/Transgender (42) and Migrant workers (261). The survey was conducted in six priority districts of Thimphu, Phuntsholing, Samdrup Jongkhar, Gelephu, Wandue Phodrang. The districts were selected based on the population size, number of HIV & STIs cases reported, economic development activities, and high number of foreigners/non Bhutanese nationals. This survey is a cross-sectional descriptive study, and for sampling purpose, the study used two-stage cluster sampling for recruiting transportation workers, armed force and migrant workers, and Respondents Driven Sampling was used for high risk women, MSM/TG and drug users/PWIDs. Face to face interview was used with individual respondents to assess the sexual risk behaviors, information on sexual behavior, condom use with different sexual partner, knowledge on HIV, reported STI symptoms, access to HIV/STIs preventive interventions. Respondents were also offered Voluntary HIV/STIs screening services with provision of comprehensive information on the nature of the study, hence the biological samples were drawn and laboratory testing was performed using venous blood/serum to determine the prevalence of HIV, syphilis, and Hepatitis B in the surveyed populations groups. The tests were performed based on the national testing algorithm developed by Royal Center for Disease Control (National Reference Laboratory) and was amended by the National HIV/AIDS & STIs Control Program. The test results were then linked to the services for those requiring treatment interventions. Data were analyzed using descriptive statistics and bi-variate analysis. Data were entered into the CSPro software and analyzed using SPSS. Strict confidentiality was maintained throughout the study period.

KEY FINDINGS

1. Uniformed Personnel;

Characteristic of the respondents: A total of 153 uniformed personnel were covered in this study. More than half of the respondents had been working as a uniformed personnel for over 10 years. One out of five respondents was youth aged below 25 years with median age of 33 years. Majority of the respondents were married and among them, almost half got married at the age of 20 to 24 years.

HIV, STI and HBV Prevalence: None of the sampled uniformed personnel were HIV positive. The prevalence of syphilis was 2.6 percent and the prevalence of Hepatitis B virus was 2 percent among the uniformed personnel. The prevalence of Syphilis was highest among the Uniformed Personnel residing in Thimpu and Chukha district respectively (4.5%) followed by Samdrup Jongkhar district (4.2%). On the contrary, the prevalence of Syphilis was zero among the respondents residing in Wangdue Phodrang and Trongsa district. In regards to HBV, the prevalence was highest among the Uniformed Personnel residing in Sarpang (4.5%) followed by Samdrup Jongkhar district (4.2%). All the respondents who were infected with HBV were aged 30 years and above and they had been working as a Uniformed Personnel for more than 10years.

Sexual Behavior: Majority (95%) of them had sexual intercourse with a woman at least once in their lifetime. Almost half of the respondents (49%) had first sex before the age of 20 years. The median age at first sex was 20 years. One in six (16%) of the respondents had sex with a high risk women (FSW/bar girls/Drayang girls). Among those who had ever had sex with a high risk woman, almost four fifth (76%) of them had sex involving multiple sexual partners. The average number of sex partners with high risk women was 5.8. Less than one sixth (n=22; 14%) of the uniformed personnel had ever been outside Bhutan. Among them; over three out of four (n=17; 77%) had sex with a female sex worker (FSW) outside Bhutan. The average number of female sex workers the respondents had sex with while being in abroad was 3.6.

Condom use: A slight higher than half of them (52%) had used condom in the last sexual intercourse with their spouse. The consistent use of condom with spouse was only 17 percent. Regarding the sexual practice with the high risk women; 16 percent of the uniformed personnel had sex with high risk women at least once. It is also notable that only less than one third (32%) had used condom consistently while having sex with high risk women. Almost, one third (31%) of the respondents had sexual intercourse with girlfriend (irregular sex partner) in Bhutan during the past one year. Condom use in the last sexual intercourse with girlfriend was high, but only less than one third respondents reported using condoms all the time while having sex with girlfriend in last 12 months. Over three fourths (77%) of the Uniformed Personnel ever had sex with a female sex worker (FSWs) outside Bhutan. The consistent condom use with a female sex worker while being abroad was 88 percent.

Use of Alcohol and Drugs: It is notable that more than half (51%) of the Uniformed Personnel never consumed alcohol or the drinks containing alcohol in the last one month. Very negligible respondent (n=3; 2%) had ever tried different types of drugs in the past one month. However, none of these respondents ever injected drugs using a syringe.

STI and HIV/AIDS Awareness and Treatment Practices: Knowledge on STIs was found to be moderate among uniform personnel. Only about half of the respondents perceived that penis discharge (52%) is type of STIs followed by burning sensation while urinating (46%), swelling in groin area (38%). Almost one in ten (9%) had experienced at least one STI symptoms during the study

period. Among these respondents who had experienced STI symptoms, almost two thirds (n=9; 64%) had gone for medical treatment for these STI symptoms.

Although, all of the respondents had heard of HIV/AIDS, comprehensive knowledge on HIV is low (32%). Comprehensive knowledge on HIV among the Uniformed Personnel varied according to the district of residence, age group, duration of work, level of education, age at first sex and exposure to out-reach program. A higher percentage of the respondents residing in Thimpu district (59%) followed by Samdrup Jongkhar district (54%) had comprehensive knowledge on HIV. On the other hand, the lowest comprehensive knowledge on HIV was found among the uniform personnel's residing in Wangdue Phodrang district (3%). It is notable that more than two-thirds (69%) of them had ever been tested for HIV in their lifetime; and high majority of them (91%) had tested it voluntarily.

Reach by HIV/AIDS & STIs Intervention Program: In last 12 months, 37 percent of the respondents had ever met or interacted with peer educator (PE) or outreach worker (OE) and just over one in ten (12%) of them had ever visited health information service centers (HISC). con

2. TRANSPORT WORKERS

Characteristic of the respondents: A total of 174 transport workers were covered in the study. Three in five of the transport workers had been working in this profession more than 5 years. Less than half of the transport workers were of 25 to 34 years of age with an average age of 33.7 years. A substantial proportion of transport workers were illiterate (37%). Three fourths of the respondents were married**.** The average age at marriage was 22.8 years. Almost half of the transport workers never consumed drinks contacting alcohol.

HIV, STI and HBV Prevalence: None of sampled transport workers had HIV infection. The prevalence of Syphilis was 7.5 percent (n=13) and Hepatitis B was 1.1 percent (n=2). It is found that the prevalence of Syphilis was highest among the Transport Workers residing in Thimpu district (29%) followed by Samdrup Jongkhar district (13%). Among the thirteen respondents who had syphilis, nine belonged to 35 years and above, five had worked for more than 10 years in the same occupation, five were illiterate and two of them had completed below higher secondary and above education. In regards to HBV, the prevalence was highest among the Transport Workers residing in Samdrup Jongkhar (4.3%) followed by Trongsa district (3.3%)**.** Among the two respondents who were infected with HBV one each had been working as a Transport Worker for up to 5 year and for 6-10 years respectively. Out of the two respondents having HBV infection, one was illiterate and one had completed lower-middle secondary education**.** None of the two respondents infected with HBV had ever interacted with PE/OW neither had ever visited to HISC in the last 12 months.

Sexual behavior: Majority (96%) of the transport worker had ever had sexual intercourse with a woman in their lifetime. More than three-fifth (61%) of those who had experienced sexual intercourse, had their first sex before the age of 20 years. It is found that more than one-fourth (26%) of the respondents had sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan. The average number of lifetime high risk sex partners was 5.7. One fourth (25%) of the transport workers had been abroad/outside Bhutan, and the average number of female sex worker with whom the respondents had sex while outside Bhutan was 6.1.

Condom Use: Among those who had sex with their spouses in the past one year, only two in five (39%) had used condom during last sexual intercourse with their spouses. Consistent condom use with spouse over the last one year was only 7 percent. Slightly more than one-fourth (26%) of the respondents had ever had sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan.

Among them seven out of ten (70%) had used a condom during their last sex with a high risk women (FSW). However, the consistent condom use with high risk women (FSW/bar girls/Drayang girls) was only 33%. One-fourth (25%) of the transport workers had sexual intercourse with a girlfriend in Bhutan in the past one year. Above three out of five (63%) of them used a condom during their last sex with their girlfriend and the consistent condom use during sex with their girlfriend was very low (i.e.14%). Among the transport workers who had been abroad/outside Bhutan, almost half (49%) of them had sex with a female sex workers while being in abroad. Among those who had sex with a female sex worker abroad, nine out of ten (90%) of them had used a condom during their last sex. The consistent condom use with a female sex worker abroad was high (81%).

Use of Alcohol and Drugs: Almost half (49%) of the transport workers had never consumed alcohol or drinks containing alcohol in the past one month. Nearly 2 percent (n=3) of the transport workers had ever tried any types of drugs in the past 30 days. None of them had ever injected using syringe.

STI and HIV/AIDS Awareness and Treatment Practices: Just above one third or less of the transport workers knew STI as swellings in groin area (35%), burning pain during urination (28%) and penis discharge (27%) as type of STIs. Almost one in five respondents (17%) had experienced at least one symptom of STIs. Among those respondents who had at least one symptom of STIs, majority of the respondents (73%) had sought medical treatment.

Although most of the transport workers (96%) had heard of HIV/AIDS, the overall comprehensive knowledge on HIV/AIDS among Transport worker was very low (14 %). A higher percentage of the respondents residing in Chukha district (40%) followed by Thimpu district (29%) had comprehensive knowledge on HIV. Comprehensive knowledge on HIV was highest among the Transport Workers aged 35 years and above (18%) followed by age 25-34 years (10%). Comprehensive knowledge on HIV was high among those Transport Workers with lower-middle secondary education and higher secondary and above education (27%) respectively.

Over half (52%) of the transport workers had ever undergone a HIV test; and among them eight out of ten (81%) reported that they had done it voluntarily.

Reach by HIV/AIDS & STIs Intervention Program: Access to HIV/STIs prevention program is low. Over the past 12 months, less than one-fifth of the respondents (19%) had ever met or interacted with Peer Educators (PE) or Outreach workers (OE), only two of the respondents had visited DIC, similarly only 7 percent of them had visited Health Information Service Centers (HISC) during the past 12 months.

3. MIGRANT WORKERS

Characteristic of the respondents: Among 261 migrant workers, two fifths of the respondents were of age between 25 to 34 years with an average age of 30.6 years. More than a fifth of the migrant workers were illiterate and almost a quarter had attended primary level of education only. Over two in three were married with an average age at marriage of 23.7 years.

HIV, STI and HBV Prevalence: None of the sampled migrant workers were found HIV positive. The prevalence of Syphilis was 0.4 percent (N=1) and the prevalence of Hepatitis B was 3 percent (N=8). The prevalence of HBV was highest among the Migrant Workers residing in Samdrup Jongkhar (7.7%) followed by Thimpu district (6%). Among the eight respondents who were infected with HBV four were aged 35 years and six of them had been working as a Migrant Worker for up to 5 years. A higher percentage of them (n=6; 6%) had completed below primary level of education.

Sexual behavior: Majority (86%) of the migrant workers has experience of sexual intercourse. More than two in five of them (44%) had their first sex at the age before 20 years. The average age at first sex was 25.2 years. Less than one in ten (9%) ever had had sex with a high risk women/draying girls in Bhutan. The average number of high risk sex partners over the lifetime was 3.8. Similarly, more than half (56%) of the migrants worker had sex with female sex workers abroad. The average number of female sex workers as sex partners while being abroad was 1.1.

Condom use: Among the married migrant workers, nine out of ten (90%) had sexual intercourse with their spouses in the past one-year. The consistent condom use with their spouse was only 4 percent. Less than one in ten (9%) of the migrant workers had ever had sex with a high risk women (FSW/bar girls/drayang girls) in Bhutan. The consistent condom use with high risk women (FSW/drayang girls) in Bhutan was also low (46%). Among the migrant workers, 5 percent had sexual intercourse with girlfriend in Bhutan during the past one year. Consistent use of condom with girlfriend in the last 12 months was very low (36%). More than half (56%) of the migrant workers had sex with female sex workers during their stay outside Bhutan. The consistent condom use with female sex workers while outside Bhutan was 78 percent.

Use of Alcohol and Drugs: Almost two-fifths (39%) of the migrant workers never consumed alcohol or drinks containing alcohol within the last 30 days. Three percent of the migrant workers had ever tried any form of drugs in the past 30 days, however none of them have ever injected drugs using syringe.

STI and HIV/AIDS Awareness and Treatment Practices: Nearly half (46%) of the migrant workers were unaware of the symptom of STIs. Almost eight percent of migrant workers had any STI symptoms currently. Among these who had any symptoms of STIs, only two in five (n=8; 40%) had sought medical treatment.

One in five migrant workers (20%) was unaware of HIV/AIDS. The overall comprehensive knowledge on HIV/AIDS among Migrant workers was only 9%. A higher percentage of the respondents residing in Chukha district (29%) followed Trongsa district (13%) had comprehensive knowledge on HIV compared to other sampled districts. Comprehensive knowledge on HIV was highest among the Migrant workers aged 35 years and above (13%) and lowest among the respondents aged below 25 years (4%). Comprehensive knowledge on HIV was highest among the migrant workers with higher secondary and above education (18%). One in five (21%) of them had ever undergone an HIV test and among them above six out of ten (62%) had undergone a HIV test voluntarily.

Reach by HIV/AIDS & STIs Intervention Program: In the past 12 months, only 3 percent of the Migrant Worker had ever met Peer educator (PE)/ Outreach educator (OE) and only four of them (1.5%) had ever visited Health Information Service Centers (HISC).

4. HIGH RISK WOMEN

Characteristic of the respondents: A total of 287 high risk women (HRW) were covered in this study. Majority of the HRW were based in Drayang and over one in ten were call girls. Almost two thirds of the HRW were youth aged below 25 with an average age of 23.8 years. Nearly one third of them were illiterate while one out of thirteen respondents had higher secondary level of schooling. Over one third of them were divorced/permanently separated.

HIV, STI and HBV Prevalence: None of the sampled HRW had HIV infection. The prevalence of Syphilis was 2.8 (n=8) and the prevalence of Hepatitis B was 1.4 percent (n=4). The prevalence of

Syphilis was highest among the HRW residing in Trongsa district (8%) followed by Sarpang district (6%). A higher percentage of the respondents who had syphilis belonged to 35 years and above (17%). Similarly, the prevalence of HBV was highest among the HRW residing in Samdrup Jongkhar district (7%)**.** All the respondents who were infected with HBV were of age less than 25 years. Out of the four respondents who had reactive HBV, three had been working as a HRW for less than 2 years and had completed lower-middle secondary education. All of the respondents who had HBV had their first sex at the age between 16-19 years. Only two out of the four respondents infected with HBV had ever interacted with PE/OW and visited the HISC in the last 12 months.

Sexual behavior of respondents: Almost all the HRW respondents (99%) had ever had sexual intercourse. More than half of the HRW (54%) had their first sex by 17 years. The mean age at first sex was 17.1 years.

Family planning and Condom use: Almost nine out of ten (89%) of the respondents had heard of family planning methods and almost two thirds of them (63%) had ever used family planning methods. Nine out of ten (90%) of the HRW ever had sex with a client/sex partner in their lifetime. Among the HRW who ever had sex with a client/sex partner, over six out of ten (62%) used condom during their last sex. The consistent condom use among HRW with their clients/sex partner was only 13 percent. Over half (56%) of the HRW reported that they ever had sex with regular client/sex partners. Only 16 percent of HRW reported using condom always with their regular clients. More than half (51%) of the HRW had sex with their non-paying partners in the last 6 months. Among these HRW, only two in five (42%) used condom in the last sexual intercourse with husband or a male friend staying together. Almost a third (30%) of the HRW had sex with non-regular sex partners in the past one year. The consistent condom use among such partners was also low (16%). with regard to the female condom, only half (50%) of the respondents had ever heard of a female condom. Less than one in six (15%) of the HRW had the practice of carrying condom with them.

Use of alcohol, illicit drugs and injection: Less than a third (29%) HRW never had alcohol or drinks containing alcohol during the last 30 days. One in six (17%) of them had ever tried different types of drugs in the past 30 days and none of them ever-injected drugs using a syringe.

STI and HIV/AIDS Awareness and Treatment Practices: More than two in five (43%) were unaware about the symptoms of STIs. Almost a third (30%) of them had experienced at least one symptom of STI and among them less than two in five (39%) had sought medical attention.

It is notable that almost all (98%) the HRW had heard of HIV/AIDS. However, less than a tenth (9 percent) of the respondents had correct knowledge about HIV transmission. Comprehensive knowledge on HIV was highest among the HRW aged 25-34 years (15%). Nearly a fifth of them who had comprehensive knowledge on HIV (17%) had been working in the particular profession for 2-4 years. Majority of the respondents (90%) had ever undergone an HIV test.

Reach by HIV/AIDS & STIs Intervention Program: In the past 12 months, 54 percent of the HRW had ever met or interacted with Peer Educators (PE) or Outreach workers (OE), less than a tenth (7%) of them had ever visited a DIC and almost half (48%) of them had visited Health Information Service Centers (HISC).

5. Men-having-Sex-with-Men/Transgender

Characteristic of the respondents: A total of 42 respondents were recruited in the survey and among them 30 were MSM and 12 of them were TG. Nearly a half of the respondents were youth aged below 25 years of which two fifths were MSM and two thirds were TGs. The average age was 25.7 years for MSM while 24.8 for the TGs. A third of the respondents had attended higher secondary level of education. A half of the respondents were unmarried**.** Over two fifths of the TGs and a fifth of the MSM never consumed drink containing alcohol during the last 30 days.

HIV, STI and HBV Prevalence: None of the sampled MSM and TGs had HIV and Hepatitis B. However, almost a tenth (10%) of MSM/TG had syphilis. The prevalence of Syphilis among the TGs was much higher (25%) than that of MSM group (3.3 %). All of the four respondents who had been infected with Syphilis were residing in Thimpu district and had completed below primary level of schooling.

Sexual behavior: Nearly a half of the respondents (48%) had their first sex at the age between 15-17 years. Among them 43 percent belonged to MSM and 58 percent belonged to the TG category. The average age of having first sex among the MSM was 17.3 years and among the TGs was 15.3 years. Three fifths of the MSM (60%) and large majority of the TGs (91%) had male as their first sexual partner. More than four fifths (87%) of the MSM and all of the TGs had had anal/oral sex with a male in the last 12 months. Two thirds of the TGs (67%) and a fifth of the MSM (20%) ever had sex with a male for money or kind.

Condom use: Among the MSM/TG, the number of non-paying male sex partners in the past one month ranged from 1 to 20. Consistent condom use while having anal sex with non-paying male sex partner in the last month was much higher among the TGs (70%) than that of the MSM (28%). The average number of female sex partners the MSM had vaginal, anal or oral sex without the involvement of any payment in the past one month was 1.6. None of the TG had sex with any non-paying female sex partners in the past one month. Consistent condom use while having sex with non-paying female sex partners in the last month was low (38%). The average number of regular male clients the MSM and TGs had sex with in the past one month was 2.6 and 2.2 respectively. Among those respondents who had anal sex with a regular male client in the past one month, over a half of the MSM (54%) and two fifths of the TGs (43%) always used a condom (i.e., consistent condom use).
Over a half of the TGs (58%) and two fifths of the MSM (40%) had condom carrying condoms practice. Two thirds of the TGs (67%) and over half of the MSM (57%) had ever used a lubricant while having anal sex.

Experience of physical and sexual violence: Almost a one-fifth of the respondents (19%) had ever experienced physical violence/abuse in the past 12 months. Among them two thirds of the MSM (67%) and a half of the TGs (50%) were abused by their own clients.

Suicide attempt: Over two fifths of the TGs (42%) and over a fifth of the MSM (23%) had ever thought of committing suicide.

Use of alcohol and drugs: Over a quarter of the respondents (29%) consumed alcohol 2-3 times a week during the last month and among them 30 percent were MSM and 25 percent were TGs. None of the respondents had ever injected drugs using a syringe or currently injecting drugs.

STI and HIV/AIDS Awareness and Treatment Practices: The common symptoms of STIs mentioned by MSM were discharge from penis (57%), swelling in groin (40%) and burning pain during urination

(37%). Similarly, the common symptoms of STIs mentioned as STI were discharge from penis (50%), swelling in groin (34%) and burning pain during urination (17%). It is notable that two in ten of the MSM (20%) and a quarter of the TGs (25%) had ever experienced at least one of the symptoms of STIs and among them a half of the MSM (50%) and two thirds of the TGs (67%) had sought medical attention.

A large majority of the respondents had heard of HIV/AIDS and among them 93 percent were MSM and 83 percent were TGs. However, only slightly higher than a tenth (12%) had comprehensive knowledge on HIV. All these five respondents who had comprehensive knowledge on HIV belonged to Thimpu district and had completed below primary level of education.

Two thirds of the TGs (67%) and over a half of the MSM (57%) had ever undergone an HIV test. Among those, who have undergone an HIV test, over four fifths of the respondents (84%) had done it voluntarily and within the last 12 months.

Reach by HIV/AIDS & STIs Intervention Program: In the past 12 months, nearly a half of the MSM/TG (48%) had ever met or interacted with peer educators (PE) or outreach workers (OE). Almost a tenth of them (10%) had ever visited a DIC and two fifths of them (45%) had ever visited Health Information Service Centers (HISC).

6. DRUG USERS/PEOPLE WHO INJECT DRUGS (DUs/IDUs)

Characteristic of the respondents: A total of 203 DU/PWIDs were recruited in the study. Majority of the respondents who participated in the survey were male (94%). Over half of the respondents were youth aged below 25 years with a mean age of 24.3 years. Over two-fifth had attended higher secondary level of education. Majority of the DU/PWIDs were never married with a mean age at marriage of 21.2 years.

HIV, STI and HBV Prevalence: None of the sampled DU/PWIDs had HIV and Hepatitis B whereas the prevalence of syphilis was 0.5 percent (n=1).

Sexual behavior: Majority of the DU/PWIDs (94%) had ever had sexual intercourse. Among them who had ever had sex, over a half (57%) had it in the age between 16-19 years and one in five (20%) had sex in the age less than 15 years. Among the DU/PWIDs who ever had sexual intercourse, nearly a half (48%) had done so with high risk women/men. Over two fifths of the DU/PWIDs (42%) who had ever had sex with a high risk women/men, had paid for sex. The average number of sex workers with whom the DU/PWIDs had sex in his/her lifetime was high (13.3). Almost a fifth of the DU/PWIDs (19%) had had sexual intercourse with their spouse during the past one-year.

Condom use: Consistent condom use was found very low (7%) among the DU/PWIDs while having sex with their spouse. Almost a half of the DU/PWIDs (48%) had ever had sex with high risk women. A third of the DU/PWIDs (34%) used condom all the time (i.e., consistent condom use) while having sex with a high risk women/men. Majority of the DU/PWIDs (81%) had had sexual intercourse with non-casual sex partners in the past one year. The consistent condom use among DU/PWIDs with their non-casual partner was only 21 percent.

Use of alcohol: A large majority of the DU/PWIDs (89%) ever drank alcohol. It is notable that one in five (20%) of the respondents who ever drank, also drank alcohol every day.

Use of Drugs: Three fifths of the DU/PWIDs (61%) took drugs for the first time at teen age between 15-19 years. Majority of the DU/PWIDs (79%) took drugs in the past one month and among them nearly three fourths (72%) took drugs in the past week. Majority of the DU/PWIDs (79%) used drugs in combination. Among them, over two out of five (44%) used combination of 3 drugs and almost two fifths (39%) used two drugs in combination.

Less than a tenth of the DU/PWIDs (7%) had ever injected drugs using syringe. Among them who had ever injected drugs using syringe, 7 percent (n=1) had ever injected drugs in the past 12 months and another 7 percent (n=1) had injected drugs in the past one month. Two fifths of the DU/PWIDs (40%; n=6) who had ever injected drugs using syringe, had used a needle or syringe that had already been used by others during the last injection. Two fifths of the DU/PWIDs (40%; n=6) who had ever injected drugs using syringe, had injected the day before. Similarly, among the DU/PWIDs who had injected the day before, over a half (58%; n=12) used a needle/syringe which he/she had self purchased. Three DU/PWIDs had previously received treatment for drug use and one each had received the treatment one, five and twelve months before the survey.

STI and HIV/AIDS Awareness and Treatment Practices: Nearly a fifth of the DU/PWIDs (18%) were completely unaware of the symptoms of STI. However, three fourth of the respondents (75%) reported that having discharge from penis followed by burning pain during urination (70%), genital sores/ulcers (62%), swelling in the groin area (45%) are symptoms of STIs. A quarter of the DU/PWIDs (26%) had experienced at least one symptom of STI and among them only half (50%) had sought medical attention.

Although almost all of the DU/PWIDs (99%) had heard of HIV/AIDS but only one-fifth (21%) had comprehensive knowledge on HIV. Majority of the respondents residing in Sarpang district (80%) had comprehensive knowledge on HIV followed by Wangdue Phodrang and Trongsa district (58%) each. Comprehensive knowledge on HIV was highest among the PWIDs aged 35 years and above (43%). Similarly, this knowledge was high among the PWIDs completing higher secondary and above education (26%). One-third of the DU/PWIDs (34%) had ever undergone an HIV test and above half of them (56%) who had ever undergone an HIV test, had done it voluntarily.

Reach by HIV/AIDS & STIs Intervention Program : In the past 12 months, only a tenth of the DU/PWIDs (11%) had ever met or interacted with peer educators (PE) or outreach workers (OE), one sixth (17%) of them had ever visited a DIC and one sixth (16%) of them visited Health Information Service Centers (HISC).

CONCLUSION AND RECOMMENDATIONS

Based on the study findings, the following are the conclusion and recommendations.

Uniformed Personnel

- It is notable that none of the uniformed personnel were HIV positive. However, the prevalence of Syphilis and Hepatitis B virus was 2.6 percent and 2 percent respectively. Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was cent percent among uniformed personnel, comprehensive knowledge on HIV was found very low (32%). Therefore, misconceptions on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.

- In general, access to outreach programs was found low (37%) among uniformed personnel. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of uniformed with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- The consistent condom use was found very low. This may increase vulnerability for HIV and STI transmission. The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that nearly a tenth uniformed personnel had experienced STI symptoms and only about two thirds of them (64%) had sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

Transport workers

- None of the sampled transport worker had HIV infection. However, the prevalence of Syphilis was 7.5 percent (n=13) and Hepatitis B was 1.1 percent (n=2). Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was almost cent percent (96%) among transport workers, comprehensive knowledge on HIV was very low (14%). Therefore, misconceptions in the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- Exposure to program on HIV/AIDS was very low. Only less than a fifth transport workers had ever met or interacted with Peer Educators (PE) or Outreach workers (OE) in the last 12 months. There was a poor exposure of transport workers to outreach center (DIC) and Health Information Service Centers (HISC) during the past 12 months. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Inclination of the transport workers to high risk behavior was found prominent such as sexual intercourse with high risk women (FSW/bar girls/Drayang girls) and their involvement with multiple sex partners. The average number of lifetime high risk sex partners was 5.7. However, the consistent condom use was found low. Consistent condom use with high risk women in Bhutan was only 33 percent. The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that almost a fifth (17%) of transport workers had experienced of at least one symptoms of STI and over a quarter of transport workers who had experienced STI symptoms (27%) had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

Migrant workers

- None of the sampled migrant workers were diagnosed as HIV positive. The prevalence of Hepatitis B was 3 percent while of Syphilis was only 0.4 percent. Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was high (80%) among migrant workers, comprehensive knowledge on HIV was very low (9%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- In general, access to outreach programs was found low among all of the key populations. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Consistent use of condom with wife was very low (4%). Among less than one in ten of the migrant workers had ever had sex with high risk women (FSW/bar girls/drayang girls) in Bhutan, nearly a half of them practiced consistent condom use with high risk women. On the other hand, consistent use of condom with girlfriend in the last 12 months was low (36%). However, it is encouraging to note that consistent use of condom with female sex workers while staying outside Bhutan was comparatively higher (78%). The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- It is remarkable that nearly half of the migrant workers were unaware of symptom of STI. The survey found that nearly two thirds of migrant workers who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

High risk women

- None of the sampled HRWs were HIV positive. The prevalence of Syphilis was 2.8 (n=8). Similarly, the prevalence of Hepatitis B was 1.4 percent (n=4). Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was almost cent percent (98%) among HRW, comprehensive knowledge on HIV was very low (9%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- It is encouraging to note that over half of the HRW had ever met/ interacted with PE/OE and visited HISC in the last 12 months. However DIC visit among them was only less than a tenth. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Consistent condom use with different sex partners is low among HRW. This may increase vulnerability for HIV and STI transmission. Consistent condom use with their regular clients was

low (16%). More than half of the HRW had sex with their non paying partners in the last 6 months. Majority of the respondents used condom with client/husband/male friend when having last sexual contact but consistent condom use of only 16 percent. The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.

- The survey found that nearly two thirds of the HRW who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

MSM/TG

- It is notable that none of the sampled MSM and TGs had HIV and Hepatitis B. The prevalence of Syphilis among the TGs was much higher (25%) than that of MSM group (3.3%). Special attention is needed to reduce the transmission of Syphilis through education, improved awareness of risks and access programs.
- Although awareness of HIV was high (MSM=93% and TG=83%), comprehensive knowledge on HIV was very low (MSM=13% and TG=8%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- Nearly a half of the respondents had ever met or interacted with peer educators PE/OE and visited HISC in the last 12 months. However, only a tenth of the respondents had ever visited a DIC in the past 12 months. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Consistent condom use with non-paying male sex partner in the last month was much higher among the TGs (70%) than that of the MSM (28%).However, consistent condom use with non-paying female sex partners among MSM in the last month was found to be low (37%). The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that more than a third of the MSM/TGs who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.
- Over a half of the MSM/TGs reported coming out of their families, because of their sexual orientation. Almost one-fifth of the (19%) had ever experienced physical violence/abuse and one- third of the TGs (33%) and over one-tenth of the MSM (13%) were forced to have sex with someone against their will in the past 12 months. Hence, necessary information related to sexuality and to the rights of sexual minorities should be provided at a larger scale through awareness campaigns like street dramas, radio and TV programs to transform the negative thought of the society.
- Suicidal tendency was more prevalent among the MSM/TGs than other key population. It is notable that the thought of committing suicide is twice higher in TGs than the MSM. Therefore, the factors leading them to suicidal thought like physical violence, mental stress and family

exclusion need to be well explored and psycho-social education should be imparted among them to lead a positive life.

DU/PWIDs

- Although awareness of HIV was almost cent percent among DU/PWIDs, comprehensive knowledge on HIV was low (21%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- The participation of DU/PWIDs in different outreach programs and activities related to HIV such as interaction with peer educators, DIC visit, HISC visit and involvement in their various activities was found very low. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Consistent condom use with spouse was found very low (7%) among the DU/PWIDs. However, a third of them used condom all the time while having sex with a high risk women/men. Similarly, the practice of consistent condom use with non-casual partner was also low (21%). The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that a half of the DU/PWIDs who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.
- Over half of the DU/PWIDs had started using in drugs at very young age. Nearly one-fifth took drugs for the first time at the age below 15 years. Specific program activities that target school children, college students, adolescents and youths should be designed to impart knowledge on possible risk of drug abuse and its consequences in the society.
- Needle sharing was prevalent among those who injected drugs. There is increased need for the Ministry of Health, Bhutan Narcotic Control Agency (BNCA), Youth-Development Fund and partnering NGOs to increasingly focus on educating the drugs users on possible risk of HIV transmission and launch comprehensive awareness programs focusing onto schools and institutions.
- The mean age at first sex was much younger 17.2 years for DU/PWIDs. Therefore, specific program activities that target adolescents and youths should be designed to impart knowledge on HIV/AIDs awareness and sex education.

CHAPTER 1:

INTRODUCTION

1.1 Background

Bhutan is one of the few countries in South East Asia that continues to experience a low adult (15-49 years) Human immunodeficiency virus (HIV), prevalence of below 0.2 percent (0.1-0.6%). Although, the UNAIDS estimates approximately about 1,100 (1000-2700) HIV infection cases by end of 2013, the total case detected since the first detection in 1993 AD stands at 492. Of the 492, 252 of them are males and 240 are females. The HIV infection in Bhutan has spread across all sections of society, thus presenting a generalized epidemic. Furthermore, the Annual Health Bulletin 2013 AD of the Ministry of Health in Bhutan revealed an increase of HIV cases detection from 38 in 2000 AD to 297 in 2012 AD. Most of these HIV infections (around 90%) were attributed to unsafe sexual practices. The current national surveillance system for HIV relies on passive case reporting from HIV Testing and Counseling (HTC) services at Health Information Service Centers (HISC) and antenatal care clinics (ANC) in hospitals. HIV and Sexually transmitted infections (STIs) rates among key populations (KAPs) i.e. men who have sex with men (MSM), transgender (TG) women, female sex workers (FSW), and people who inject drugs (PWIDs) are not available . A study which examined the records of clients from 2009-2012 AD in the HISC in Thimphu and Phuntsholing revealed that out of 7,894 clients, over one-third (38%) were recorded as general population and about two-third (63%) as key affected population. Among clients registered as key affected population at the two HISC, 0.7 percent was found to be HIV positive and 1.2 percent was positive for active syphilis. Among FSWs (N =107), partners of People living with HIV (PLHIV) (N =100), and other KAPs (N=128) including MSM, transgender women and PWIDs; the HIV rates were 1.9 percent, 11 percent and 0.8 percent, respectively.

This is the first Integrated Bio-Behavioral Surveillance (IBBS) Survey being conducted in Bhutan. Based on the recommendations of the formative assessment on feasibility of IBBS survey in Bhutan conducted in 2014, the IBBS was found to be feasible and acceptable among the High Risk Women (Drayang girls),Transport workers (taxi and truck drivers), armed forces and Drug Users including Injecting Drugs Users, MSM/TG and Migrants workers in Bhutan. The main aim of the survey is to understand the current prevalence of HIV and STI, sexual risk behaviors and vulnerability to HIV and STIs infection, and to determine the coverage of prevention interventions among the key affected populations (KAPs). The high risk women, transport workers, armed forces and Drug users (DUs) are being identified as one of the most at risk population because of the nature of their work, and considering their mobile nature. The findings from this IBBS is also expected to validate the current assumptive baseline for key affected population groups, so that the progress of future intervention programs are measured for better program planning and decision making.

1.2 Objectives of the Survey:

The specific objectives of this survey include the following;

The primary objectives are:

- To estimate the prevalence of HIV and selected STIs (Syphilis and HBV) through the collection of behavioral and biological samples from six identified population groups (high risk women, transport workers, armed forces, MSM-TG, migrant worker and IDUs/DUs).

The secondary objectives are:

- To explore the level of knowledge on HIV/STIs prevention among these six population groups,
- To assess level of stigma and discrimination among these population groups,
- To explore sexual risk behavior, risk factors and vulnerability to HIV/STIs infection and
- To assess the coverage and accessibility/uptake of HIV/STIs prevention and treatment services by the study subjects.

The findings of this survey are aimed at informing the national program in developing targeted HIV/STIs preventive interventions programs.

1.3 Rationale of the Survey

IBBS survey helps collecting two distinct types of data (HIV, STI, and HBV biological and behavioral) from a single set of participants and also helps to understand the existing/emerging dynamics of epidemic HIV so that appropriate interventions can be designed to prevent the spread of the virus. By linking biological data with behavioral data, IBBS survey is very effective in helping to understand the emerging trends on HIV and HIV-related risk behaviors among the KAPs very effectively.

IBBS surveys are considered the powerful tools to generate evidence based data. Findings of these surveys are widely used for designing HIV interventions, to monitor HIV programs, for estimation and to project the epidemic of HIV in many countries. Data on key National HIV Indicators are determined using IBBS survey results. Results of these surveys have wider application as these are utilized by different communities, donors, policy makers, program designers and implementers, academicians, and civil society organizations to track the level of HIV epidemic and related risk behaviors among the KAPs.

The main aim of this survey is to understand the national level prevalence, sexual risk behaviors and behavioral vulnerability to HIV and STIs of vulnerable and key affected populations; and the associated service coverage and interventions among the key identified population groups. The high risk women, transport workers, armed forces, People who inject drug (PWID)/Drug Users (DUs), MSM, TG and Migrant workers are being identified as one of the most at risk population because of nature of their work associated risk factors for HIV/STIs in the context of Bhutan. The findings of the IBBS will critically establish the baseline for most of indicators agreed under the Global Fund New Funding Model (NFM) and will also validate the estimated figures that had been used as proxy baseline. Overall the IBBS survey will enable the Ministry of Health to understand the true prevalence and risk of HIV, STIs and HBV among the key affected and vulnerable population groups in Bhutan. Hence, the finding will maximize the benefit of strategically planning the interventions for prevention and control of HIV, STIs and HBV.

To this effect, the National AIDS Control Program (NACP) under the Department of Public Health (DoPH), Ministry of Health (MoH), had planned to carry out IBBS survey among the key affected populations. The findings from the IBBS survey will provide information in establishing the baseline data among these key

affected populations and will ultimately help the program in strategic planning and targeted interventions.

1.4 Variables

Following variables were incorporated in this survey; however these were slightly different to different KAPs.

Socio-Demographic Characteristics: age, marital status, living with, age at first marriage, education, duration of stay in current residence, place of residence,

Sexual behaviors and perceptions and condom use: sexual experience, age at first sex, history of sexual intercourse in the past one year, sex with high risk women, number of sex partners, frequency of sex, number of existing regular/non-regular sex partners, history of sex with male and condom use practice, frequency of sex with male (week/month/year), frequency of sex with regular/non-regular FSWs, condom use during sex with FSWs, amount paid for sex per sexual contact, total number of sex workers visited, sex after drug use by the partners, modes of sexual contacts, types of sexual contacts with regular/non-regular partners, exchange of sex for money, ever heard/used condom; availability and condom carrying practice,

Exposure to HIV/STIs prevention and treatment Services: met with outreach worker/ a peer educator or a staff, knowledge of STI/HIV services, such as DIC, HISC,

Knowledge and practices related STI, HIV and AIDS: Knowledge of HIV and STIs, symptoms experienced, Comprehensive knowledge of HIV prevention methods, knowledge of HIV transmission, prevention and control; misconceptions, source of knowledge about STI, HIV and AIDS, condom promotion activities,

Stigma and Discrimination: Willingness to take care of HIV positive male/female,

Response variable: HIV, HBV and Syphilis prevalence.

CHAPTER 2:

METHODOLOGY

2.1 Implementation of the Survey

The National HIV/AIDS Control Programme under Department of Public Health with technical support from the School of Planning, Monitoring, Evaluation and Research (SPMER) has conducted this survey for the first time in Bhutan. The survey was carried out with financial support from the Global Fund (GFATM). NACP was responsible for overall management of the survey, however the survey implementation including training of the field investigators and enumerators were carried out in close coordination with the technical agency (SPMER). SPMER has been recruited as a technical agency to provide technical services for this survey.

2.2 Survey Populations

This survey was carried out among the six different vulnerable population groups, those who are at perceived risk of HIV & STIs infection. The survey populations with their study definition are as follows;

Table 2.1: Survey population and definitions of the survey population

Survey Populations	Definitions of the Survey Populations
High Risk Women	High risk women include Bhutanese or non-Bhutanese girls/women aged 18 years and above who are female sex workers, those having multiple sex partners, call girls, working in entertainment centers like bars, restaurant, discos, karaoke etc, and informal female sex workers both national and non-national who sell sex for money or in kind for last 6 months.
Transport Workers (Taxi & Truckers)	Transport workers include Bhutanese or non-Bhutanese male workers aged 18 years and above who work in transportation sectors such as truckers (driver and handy boys) and taxi drivers. Only those currently working in that profession at least since last 6 months are eligible for the survey
Drug Users	Bhutanese or non-Bhutanese male or female aged 18 years and above who reported swallowing, snorting, or smoking illicit drug use at least last 6 months is classified as a DU. Illicit drug use included the use of illegal drugs or the misuse of prescription medications or household substances for fun/pleasure or any other non-medical purpose. However, those who reported injecting illicit drugs either as the only route of drug administration or in combination with another route (swallowing, snorting, and smoking) are defined as people who inject drug.
People who Inject Drugs (PWIDs)	Bhutanese or non-Bhutanese male or female aged 18 years and above who reported injecting illicit drug use at least since last six months is classified as PWIDs. Illicit drug use included the use of illegal drugs or the misuse of prescription medications for fun/pleasure or any other non-medical purpose.
Armed Forces/Uniformed Personnel:	The armed forces included Royal Bhutan Army (RBA), the Royal Bhutan Police (RBP) and the Royal Body Guards (RBGs). Only those personnel aged 18 years and above male and currently working in aforementioned profession since at

Survey Populations	Definitions of the Survey Populations
	least last 6 months after completing basic training were eligible for the survey
Men who have Sex with Men (MSM), and Transgender (TG)	**MSM:** Bhutanese or non-Bhutanese male aged 18 and above, who reported anal or oral sex with another male in the past 12 months, regardless their motivation(s), sexual orientation, and gender identity, is classified as MSM. However, those who identified themselves as "transgender" or "women" were defined as transgender women. **Transgender (TG):** Both Bhutanese and non-Bhutanese biological male aged 18 and above who self-identified as a "transgender "or "woman", and reported anal or oral sex with another male in the past 12 months is classified as transgender woman. These transgender women may or not have undergone a sex reassignment, breast augmentation, or facial implants, and may or not be dressed with women's clothes all the time
Migrant workers	Bhutanese (returnee migrants) or non-Bhutanese male migrants aged 18 and above having stayed continuously or with interruption for at least 6 months in outside of country (for Bhutanese)/ in Bhutan (for other nationalities) as a migrant worker within three years prior to the date of the survey

2.3 Survey Area

The following Districts/towns were selected to carry out the IBBS survey, and these locations are selected based on the population size, HIV/STI prevalence, economic activity etc.

- Thimphu,
- Phuntsholing,
- Samdrup Jongkhar,
- Gelephu,
- Wandue Phodrang and
- Trongsa Dzongkhag

2.4 Study Design

This survey was cross-sectional study design. This survey was carried out using Multi-stage cluster sampling and Respondents Driven Sampling (RDS) methods. Individual face to face interviews were organized to assess the sexual risk behaviors of the six different population; and the testing of biological samples using venous blood/serum was performed to determine the prevalence of HIV, syphilis, and Hepatitis B. HIV, Syphilis and Hepatitis B among survey population was determined using the national guideline developed by NACP and the Royal Center for Disease Control (RCDC), the national reference laboratory.

2.5 Sampling

Two stage sampling and RDS sampling technique was used in this study. In the two stage sampling, the first step involved development of the sampling frame. As part of the sampling frame, it was useful to list all the sites where KAPs could be located, and to gather information on the number of possible KAPs associated with each site. This information was useful for selecting clusters with probability-proportional

to size (PPS) to determine the appropriate number of respondents to be sampled from each cluster and to determine how many sample sites should be chosen. Once the sampling frame was developed, a sample sites was chosen by probability proportionate to size (PPS) method.

A two stage sampling process was utilized for three groups (transportation workers, armed force and migrants workers) of survey population. Preliminary mapping exercise was carried out in the first phase of survey to develop a sampling frame. In the preliminary visits to the survey sites, survey team members identified locations and the numbers of survey populations.

To identify sample from other three groups, **respondent-driven sampling (RDS) methods** was utilized. **RDS**, a form of chain-referral, link tracking network sampling method based on social network theory methodology was applied to recruit participants.

2.6 Sample Size:

Sample size was determined using the following equations.

Sample size $n = [DEFF*Np(1-p)]/ [(d^2/Z^2_{1-\alpha/2}*(N-1)+p*(1-p)]$

Where

N=Population size
p=Hypothesized frequency of outcome factor in the population
d=Confidence limits as % of 100 (absolute +/- %)
DEFF=design effect

All the sampled sizes of key population have been met, except for MSM/TG. Researchers tried to cover all the desired sample but could not get the respondents during the field period. The below table presents sample size covered in this study.

Table: 2.1 Sample covered

SN	Group	Sample covered
1	High risk women	287
2	Transport workers (Taxi and truckers)	174
3	People who inject drug(PWID)/ drug users	203
4	Armed Forced/Uniformed personnel	153
5	Men who have sex with men (MSM) and Transgender (TG)	42
6	Migrant workers	261
	Total	1120

2.7 Data Collection Technique

A quantitative research approach was carried out using structured questionnaire to assess knowledge, attitude and practice for risk of HIV and STI in the targeted population. The questionnaire consisted of personal information, information on sexual behavior, condom use with different sexual partner, knowledge on HIV, reported STI symptoms, exposure to different interventions. Strict confidentiality was maintained throughout the study period.

The biological data was collected through blood sample (vein-puncture/finger prick method) for HIV, Syphilis and HBV testing for all study population. Before the collection of biological samples, the respondents were thoroughly counseled on the nature of test, confidentiality policy and result duration and date. Individuals reserved the right to opt-out from the test. Informed consent form was obtained in two languages (English and Dzongkha).

2.8 Identification and Recruitment process of KAPs

As per the **multistage sampling,** field researchers were trained about the study area and methods of survey participants' identification. Map of the survey districts with selected clusters was provided to the researchers for easy access of the survey location including work schedule. Trained field researchers were mobilized for the recruitment of survey population.

As per the **RDS methodology**, the survey team, in consultation with motivators and relevant stakeholders, first recruited a total of six KAPs as 'seeds'. Selected "seeds" were demographically heterogeneous in age, ethnicity and geographical distribution. The "seeds" were informed of the survey protocol and procedures and were encouraged to recruit other eligible individuals from their local social networks in order to participate in the survey. This process was repeated until and unless sample size was not achieved.

All respondents participated voluntarily and consensually in the survey. An inclusion criterion was formatted for participation in the survey. Those who failed to meet the criteria or unwilling to participate were be not enrolled in the survey.

2.9 Recruitment and Refusals

People from local NGOs/GOs and peer group were used as motivators; this helped to establish good relations with the KAPs. This also played a facilitating role in systematic selection of the respondents and to ensure their participation in the survey. Brief information on objectives of study, benefits and risks of participating in the survey was provided to the respondents. Every respondent had the right to participate or refuse in this survey. Survey team welcomed their decision.

2.10 Control of Duplication

To avoid repetition of the respondents, counselors asked various questions before their recruitment. Information pertinent to the experience of undertaking procedure, blood testing for STIs, HCB and HIV, meeting with the peer educators for the blood test were asked before recruiting the respondents. .

2.11 Laboratory Procedures

After pre-test counseling, the lab technician made a brief explanation to the respondents about the HIV testing process and sought consent for drawing blood. The samples were tested for HIV, syphilis and HCB.

So, the reagents which were stored at room temperature were chosen. Blood samples were tested using Determine HIV1/2 as first test to detect antibodies against HIV. If the first test result will positive, a second test will be performed by using Uni-Gold HIV ½. In case of a tie between the first two tests, a third test was performed using STAT PAK as a tie breaker. Syphilis tests (RPR) was done as per the

National HTC guidelines of NACP. HBV Whole Blood/Serum/Plasma Dipstrip (Orgenics, Israel) was used to do HBV test.

2.12 Survey and Laboratory ID Codes

Confidentiality was strictly maintained throughout the survey. Anonyms and non-identifying survey ID codes were used for all data components pertaining to the survey. Each of the respondents was assigned a laboratory code that linked to their ID codes in order to link to the behavioral and biological data.

2.13 HIV Rapid Testing

HIV rapid testing was conducted at the survey site after completion of pre-test counseling by certified personnel. Rapid testing was conducted using a serial testing scheme based on the NACP national guideline algorithm. All participants who consented were tested. All the biological samples were tested at nearest HISC. All participants were provided post-test counseling, with specific messages tailored to their test result. A person with any reactive result, or indeterminate result was referred to HIV care services and for further counseling and testing.

Interpretation of the Test Results

- All samples negative by first test was reported as negative.
- All samples positive by one test only was subjected to be second test.
- All tests positive by tiebreaker test was reported positive
- All tests negative by tiebreaker test was reported as negative.

Figure 2.1: Algorithm of HIV Testing

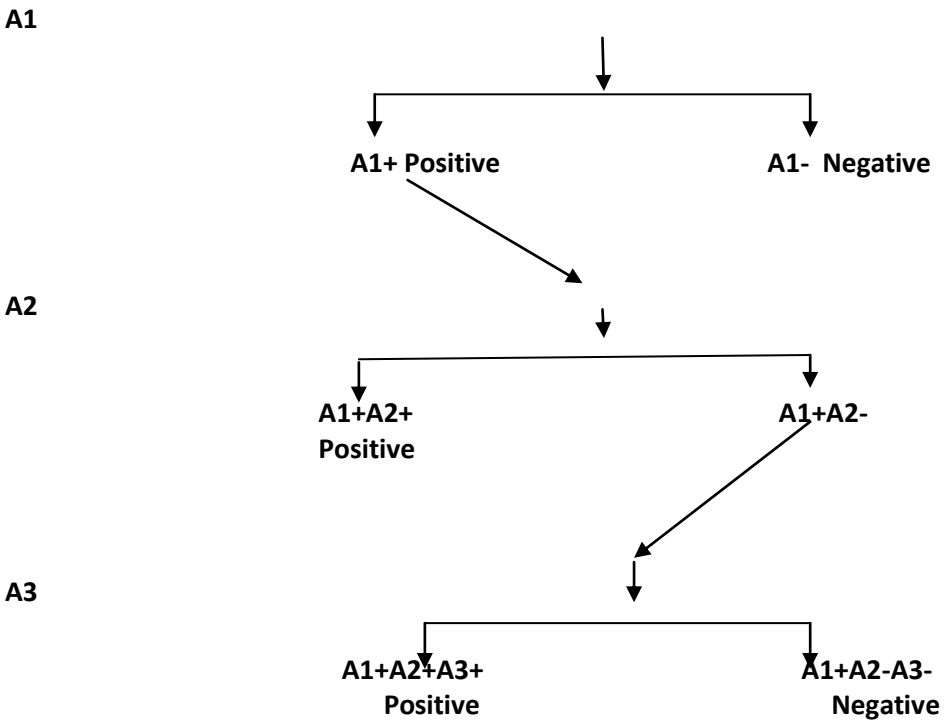


Table 2.2: Symbols used for HIV testing

A1 (First test):	Determine HIV ½
A2 (Second test):	Uni-Gold HIV
A3(Third test):	Stat Pak
"+"	Reactive
"-"	Non-reactive

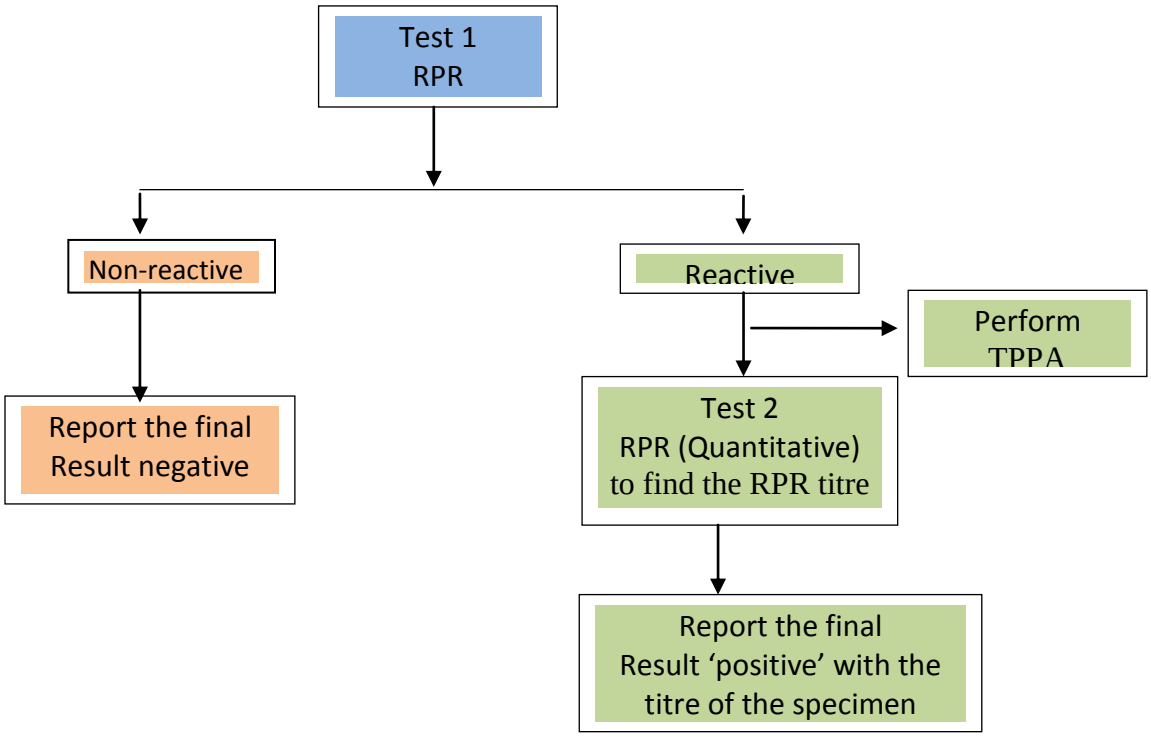
Table 2.3 Sensitivity and Specificity of HIV1/2Kits

Test Kits	Company	Initial	Confirm	Tie Break	Antigen Type	Spec.	Sens.
Determine	Allere	X			Recom HIV-1 and HIV-2	99.4%	100.0%
Uni-Gold	Trinity Biotech		X		HIV-1 and HIV-2	100.0%	100.0%
STAT PAK	CHEM BIO			X	HIV-1 (gp41; p24) -2 (gp36)	99.3%	100.0%

2.14 Syphilis Testing

Rapid Plasma Reagin (RPR) is a blood screening test which detects antibodies that are present if person have syphilis. A reactive syphilis IgG result indicates that a person has been exposed to T. pallidum at some point in his/her life. However, this testing may remain reactive for life in the majority of people who have had syphilis, even if they have been treated properly. Therefore, a positive result does not indicate that the person currently has untreated syphilis and should be confirmed with a non-treponemal test such as RPR to assess disease activity. Recommended Algorithm for Syphilis Serology Testing is shown below.

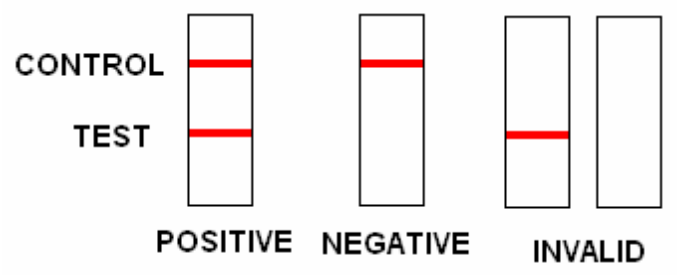
Figure 2.2 Syphilis Testing Strategy II Algorithm



2.15 Hepatitis B Rapid Testing

For the detection of HBV antibody, HBSAg HEPACARD Serum/Plasma Kit (J. Mitra and Company, India) was used. Serum sample was used to diagnose the infection of Hepatitis B. The serum was dropped into the test kit. If two red lines appeared in the control and test region of the kit, the result was labeled as HBV positive. If the red line appeared in the control region only, it was labeled as HBV negative. The absence of the control band indicated that the test was invalid.

Figure 2.3: Hepatitis B Kit with various results



2.16 Sample Transportation

After the samples were collected in site, thermometer was used to record the temperature thrice a day in order to ensure maintenance of the optimal temperature. Cold chain process was maintained throughout the survey. The sample was then transported to National laboratory center in Thimpu in a cold chain box packed with ice packs along with use of thermometer to ensure the maintenance of temperature during transport. In Thimpu, "All Positive and 10% of Negative samples" of HIV/RPR/HBV were handed over to National laboratory center in the cold chain box.

2.17 Internal and External Quality Assurance

Regular monitoring was the integral part of the quality assurance mechanism of School of PMER during the survey period. All test positive samples and 10 percent of all the negative samples were retested at National laboratory center in capital city of Bhutan as an EQA of sample testing. Serum specimens were stored at the laboratory at a temperature below-20°C. All the test kits were provided by the National laboratory center, Thimpu.

2.18 Research Instrument

A quantitative research approach was carried out using printed structured questionnaire to assess knowledge, attitude, behavior and practice (KABP) for risk of HIV and STI in the targeted population. The questionnaire was developed in reference to the existing questionnaire used in the different countries such as Nepal, Bangladesh and Pakistan etc. Categorizing questionnaire content consisted of key socio-demographic characteristic, education, treatment seeking behavior, sexual risk behavior, use of condom, knowledge and awareness of HIV/AIDS/STI, incidence of STI symptoms etc.

2.19 Pre-Testing of Research Tools

The survey tool was pre-tested using 10 interviews with the members of the target group. These interviewees were excluded from the actual study. The Pre-test was used to gather information on the following points; easy or difficulty of statement, comprehension, confidence in response, level of discomfort and social desirability. Informed consent was taken with the respondents before

commencement of the interviews. Tools were finalized after pretest and with the consultation of NACP/MoH, Bhutan.

2.20 Data Management and Analysis

After completion of the data collection, all filled questionnaire were collected and coded for data entry. Data entry programs were developed in CSpro data base program for data entry. A number of quality check mechanisms such as range checks, logical checks and skip instructions were developed which helped to detect the errors during the data entry stage. In case of any inconsistencies in the two data files, it was verified with the data in the actual questionnaires and corrected and saved as a third data file. Data coding and data entry was done by the trained staff of school of PMER. All entered data was kept in password protected computers in the office of SPMER.

Data were analyzed using univariate and bivariate analysis (chi-square test). All the analysis and calculations were carried out upon consultation with NACP. Data analysis was conducted using SPSS software. Descriptive statistics such as percentage, mean, median and range were calculated.

2.21 Monitoring and Supervision

The SPMER made Clear monitoring guideline with the consultation of NACP/GF. This contributed to achieve success of the survey, generation of knowledge and learning and finally create end product quality survey result. Strong mechanism was established for monitoring among survey team and monitoring tools were operationalized to ensure the quality of the survey. Activities of the survey team was supported and monitored by the team leader and the co-team leader including team of NACP.

2.22 Ethical Consideration

Ethical approval was taken from Research Ethics Board of Health (REBH), Bhutan. An oral consent was obtained from the research participants in this survey.

CHAPTER 3: RESULTS

UNIFORMED PERSONNEL

In this study, uniformed personnel include the armed forces from Royal Bhutan Army (RBA), and the Royal Bhutan Police (RBP). Only those personnel aged 18 years and above male and currently working in aforementioned profession since at least last 6 months after completing basic training were eligible for the survey. The respondents were selected using a two-stage cluster sampling procedure.

This chapter describes socio-demographic characteristics, condom use, sex partners and their types, knowledge on HIV and Risk behavior, exposure to the program and biological test result. A total of 153 Uniform Personnel participated in the survey. All the respondents were of Bhutanese nationality.

3.1 Socio-Demographic Characteristics of the Respondents

3.1.1 Sampled Districts:

More than one out of four (26%) of the uniformed personnel were from Thimpu district and one in five (20%) were from Wangdue Phodrang district. Similarly, one in six (16%) were from Samdrup Jongkhar district and less than one in six (14%) were from Chukha and Sarpang districts respectively.

Table 3.1 Sampled Districts for Uniformed Personnel

District of residence	N	%
Thimphu	39	25.5
Chukha	22	14.4
Sarpang	22	14.4
Samdrup Jongkhar	24	15.7
Wangdue Phodrang	31	20.3
Trongsa	15	9.8
Total	153	100.0

3.1.2 Duration of working in this profession:

More than half (53%) of the respondents had been working in this profession for over 10 years and one out of four (25%) had been working in this profession for one to five years, where 6 percent of the respondents were newly recruited (less than 1 year).

Table 3.2 Duration of working in this profession

Duration of working in this occupation	N	%
Less than 1 year	10	6.5
1-5 years	38	24.8
6-10 years	24	15.7
More than 10 years	81	52.9
Total	153	100.0

3.1.3 Demographic characteristics of respondents

One in five respondents (20%) was youth aged below 25 years with median age 33 years. Slightly more than one third (34%) of the respondents were age between 35 to 44 years old and slightly less than one in three (31%) of them were age between 20 to 29 years.

Almost one sixth (15%) of them were illiterate. Over one out of five respondents (22%) had primary level of education, 13 percent and 35 percent of them had lower and middle secondary level of education respectively.

Majority of the respondents (82%) were married and 17 percent were never married. Among married respondents, more than a fifth got married before the age of 20. Similarly, almost half (48%) got married at the age of 20 to 24 years. The median age of marriage was 22 years.

Table 3.3 Background characteristics of respondents

	N	%
Age group		
Less than 20	4	2.6
20-24	27	17.6
25-29	21	13.7
30-34	33	21.6
35-39	29	19.0
40-44	23	15.0
45-49	11	7.2
50 and above	5	3.3
Mean Age	33.5	
Median Age	33	
Level of Education		
Illiterate	23	15.0
Literate only	4	2.6
Primary	33	21.6
Lower secondary	20	13.1
Middle Secondary	53	34.6
Higher secondary	18	11.8
Bachelor	1	0.7
Masters level	1	0.7
Present marital status		
Married	126	82.4
Divorced/Permanently Separated	1	0.7
Never married	26	17.0
Total	153	100.0
Age at marriage		
Less than 20	28	22.2
20-24	61	48.4
25-29	30	23.8
30-34	6	4.8
35-39	1	0.8
Mean Age at marriage	22.6	
Median age at marriage	22	
Total	126	100.0

3.2 Sexual Behavior

Sexual behavior related information was collected with the respondents. Majority (95%) of them had sexual intercourse with a woman at least once. Almost half of the respondents (49%) had first sex before the age of 20 years while more than a tenth had first sex at age 20 or later (12%). The median age at first sex was 20 years. Among those who had sexual experience, over one fifth (28%) of them had had sex with a sex worker.

Table 3.4 Sexual Behavior

	N	%
Ever had sexual intercourse with a woman		
Yes	145	94.8
No	8	5.2
Total	153	100.0
Age at first sex		
Less than 15	14	9.7
16-19	57	39.3
20-24	48	33.1
25-29	15	10.3
30 and above	3	2.1
Don't know	8	5.5
Mean Age at first sex	24.3	
Median age at first sex	20	
Total	145	100.0
Ever had sex with a sex worker		
Yes	40	27.6
No	105	72.4
Total	145	100.0

3.2.1 Sexual behavior with high risk women/drayang girls in Bhutan

One in six (16%) of the uniformed personnel have had sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan. Among those who had ever had sex with a high risk woman, almost four fifths (76%) of them had sex with multiple partners. It is notable that one in five respondents (20%) had five or more sex partners in Bhutan. The average number of sex partners with high risk sex partners was 5.8.

Among those who had ever had sex with a high risk women, over two thirds (n=17; 68%) had sex with them in the past year. Among these, over almost two thirds (n=11; 65%) had multiple sex partners in the past one year. The average number of high risk sex partners within past year was 2.4. Slightly over eight out of ten (n=14; 82%) had sex for five or more times in the past year.

Table 3.5 Sexual behavior with high risk women/drayang girls in Bhutan

	N	%
Ever have sex with a high risk women(FSW/bar girls/Drayang girls) in Bhutan		
Yes	25	16.3
No	128	83.7
Total	153	100.0
Number of sex partners (lifetime) with high risk women in Bhutan		
One	6	24.0
Two	6	24.0
Three	6	24.0
Four	2	8.0
Five or more	5	20.0
Mean number	5.8	
Median number	2.5	
Total	25	100.0
Having had sex with a high risk women (FSW/bar girls/Drayang girls) in the past year		
Yes	17	68.0
No	8	32.0
Total	25	100.0
Number of sex partners (past one year) with high risk women in Bhutan		
One	6	35.3
Two	4	23.5
Three	3	17.6
Four	2	11.8
Five or more	2	11.8
Mean number	2.4	
Median number	2	
Total	17	100.0
Frequency of sex with high risk women in the past 12 months in Bhutan		
One	1	5.9
Two	1	5.9
Three	1	5.9
Four		
Five or more	14	82.4
Total	17	100.0

3.2.2 Sexual behavior with FSW outside Bhutan

Less than one sixth (n=22; 14%) of the Uniformed Personnel had ever been outside Bhutan. Among them; over three out of four (n=17; 77%) had sex with a female sex worker (FSW) outside Bhutan.

More than three out of four (76%) had sex with more than two sex workers The average number of female sex workers the respondents had sex with while being in abroad was 3.6.

Table 3.6 Sexual behavior with FSW outside Bhutan

	N	%
Ever been abroad/outside Bhutan		
Yes	22	14.4
No	131	85.6
Total	153	100.0
Ever had sex with female sex workers abroad		
Yes	17	77.3
No	5	22.7
Total	22	100.0
Number of female sex workers the respondents had sex with while being in abroad		
One	4	23.5
Two	4	23.5
Three	5	29.4
Four	1	5.9
Five or more	3	17.6
Mean number	3.6	
Median number	3	
Total	17	100.0

3.3 Condom use

3.3.1 Condom use with wife (among married respondents)

Among the married Uniformed Personnel, almost all (98%) had sexual intercourse with their wife in the past year. These respondents who had sex in the last one year were asked about the use of condom in the last sexual intercourse with wife. A slight higher than half of them (52%) had used condom in the last sexual intercourse with wife. Consistent use of condom with wife is low. Only less than a fifth (17%) had used condom all of the time while having sex with wife over the last one year.

Table 3.7 Condom use with wife (among married respondents)

	N	%
Having sexual intercourse with wife in the past one-year		
Yes	124	97.6
No	3	2.4
Total	127	100.0
Use of condom in the last sexual intercourse with wife		
Yes	65	52.4
No	59	47.6
Total	124	100.0
Frequency of condom use while having sex with wife over the last one year		
All of the time	21	16.9
Most of the time	61	49.2
Some of the time	30	24.2
Rarely	10	8.1
Never	2	1.6
Total	124	100.0

3.3.2 Condom use with high risk women in Bhutan

Regarding the sexual practice with the high risk women; 16 percent of the Uniformed Personnel had sex with high risk women at least once. Among them; almost a third (n=8; 325) did not use condom in the last sexual intercourse with a high risk women. It is also notable that only less than a third (32%) had used condom consistently with high risk women.

Table 3.8 Condom use with high risk women in Bhutan

	N	%
Ever have sex with a high risk women/FSW/bar girls/Drayang girls in Bhutan		
Yes	25	16.3
No	128	83.7
Total	153	100.0
Use of condom in the last sexual intercourse with a High risk women/FSW/bar girls/Drayang girls in Bhutan		
Yes	17	68.0
No	8	32.0
Total	25	100.0
Frequency of condom use while visiting High risk women/FSW/bar girls/Drayang girls in Bhutan over the last one year		
All of the time	8	32.0
Most of the time	13	52.0
Some of the time	2	8.0
Rarely	2	8.0
Total	25	100.0

3.3.3 Condom use with non-casual sex partners (girlfriend) in Bhutan

Slightly less than a third (31%) of the Uniformed Personnel had sexual intercourse with girlfriend in Bhutan during the past one year. Among them, about two thirds (64%) were unaware about the frequency of having sex with their girlfriend in the past one month while less than one fifth (17%) of them had sex four or more times.

Condom use in the last sexual intercourse with girlfriend in Bhutan is high. Almost four out of five respondents had used condom in the last sexual intercourse with girlfriend in Bhutan (79%). However, consistent use of condom with girl friends over the last 12 months is low. Only less than a third respondents reported that they used condom all of the time while having sex with girlfriend in Bhutan over the last 12 months.

Table 3.9 Condom use with non-casual sex partners (girlfriend) in Bhutan

	N	%
Having had sexual intercourse with girlfriend in Bhutan during the past one year		
Yes	47	30.7
No	85	55.6
Never had girlfriend	21	13.7
Total	153	100.0
Frequency of sex in the past month		
One	2	4.3
Two	3	6.4
Three	4	8.5
Four	2	4.3
5 or More	6	12.8
Don't know	30	63.8
Total	47	100.0
Use of condom in last sexual intercourse with girlfriend in Bhutan		
Yes	37	78.7
No	10	21.3
Total	47	100.0
Frequency of condom use over the last 12 months		
All of the time	14	29.8
Most of the time	19	40.4
Some of the time	7	14.9
Rarely	6	12.8
Never	1	2.1
Total	47	100.0

3.3.4 Condom use with female sex workers in Abroad

Over three fourths (77%) of the Uniformed Personnel ever had sex with a female sex worker (FSWs) outside Bhutan. Among them; almost six out of ten (59%) used condom during their last sex with a female sex worker. The consistent condom use with a female sex worker while being in abroad was high. Majority of the respondents (88%) reported that they used condom while having sex with sex workers abroad over the last year.

Table 3.10 Condom use with female sex workers during respondents stay outside Bhutan

	N	%
Ever had sex with female sex workers abroad		
Yes	17	77.3
No	5	22.7
Total	22	100.0
Use of condom in last sexual intercourse with a sex worker while being in abroad		
Yes	10	58.8
No	7	41.2
Total	17	100.0
Frequency of condom use while visiting sex workers abroad over the last one year		
All of the time	15	88.2
Most of the time	1	5.9
Some of the time	1	5.9
Rarely		
Total	17	100.0

3.3.5 Condom use with male partner

None of the Uniformed Personnel had ever had sex with a male partner.

3.4 Condom accessibility

It is found that more than half of the respondent (57%) had habit of carrying condom with them. More than two thirds (67%) of them knew that they could assess condom from hospital followed by pharmacy (61%) and BHU/Health centers (48%). Less than a fifth also reported that they can get condom from condom box (19%), peer/friends (16%) and health volunteer (13%).

Table 3.11 Condom accessibility

	N	%
Usual condom carrying practice		
Yes	88	57.5
No	65	42.5
Total	153	100.0
Place or persons		
BHU/ Health Center	73	47.7
Pharmacy	93	60.8
General retail store/24X7	13	8.5
Hospital	102	66.7
Peer/Friends	25	16.3
Health Workers/Volunteers	20	13.1
Hotel /Lodge/Bar	10	6.5
Condom Box	29	19.0
Don't know		
Total	153	100.0

Percentage total may exceed 100 due to multiple responses

3.5 Use of Alcohol and Drugs

It is notable that more than half (51%) of the Uniformed Personnel never consumed drinks containing alcohol in the last one month. Around one sixth (16%) consumed it less than a week and a fifth (20%) consumed drinks containing alcohol 2-3 times a week, in the last one month. Very negligible respondent (n=3; 2%) had ever tried different types of drugs in the past one month. However, none of these respondents ever injected drugs using a syringe.

Table 3.12 Use of Alcohol and Drugs

	N	%
Frequency of having drinks containing alcohol during the last one month		
Everyday	2	1.3
2-3 times a week	30	19.6
At least once a week	16	10.5
Less than once in a week	25	16.3
Never	78	51.0
Don't know	2	1.3
Total	153	100.0
Ever tried different types of drugs in the past one month		
Yes	3	2.0
No	150	98.0
Total	153	100.0
Ever-injected drugs using a syringe		
Yes	0	0
No	3	100.0
Total	3	100.0

3.6 Sexually Transmitted Infection

3.6.1 Knowledge about STI

Knowledge about STI is moderate among uniform personnel. Only about half of the respondents reported that penis discharge (52%) as type of STI followed by burning pain during urination (46%), swelling in groin area (38%). Similarly, very few were aware about anal ulcer/sores and anal discharges are types of STIs. It is notable that more than a tenth (11%) replied that they don't aware about STIs.

Table 3.13 Knowledge about STI

Knowledge on STI	N	%
Penis discharge	80	52.3
Burning pain during urination	70	45.8
Genital ulcers/sores	43	28.1
Swellings in groin area	58	37.9
Anal discharge	8	5.2
Anal ulcer/sores	3	2.0
Don't know	16	10.5
No response	1	0.7
Total	153	100.0

Percentage total may exceed 100 due to multiple responses

3.6.2 Symptoms of STI and treatment

It is notable that almost one in ten (9%) had at least one STI symptoms experienced. Six percent of uniformed Personnel currently had burning during urination. Few other respondents have penis discharge (2%) and pain during sex (2%).

Among these respondents who had experienced STI symptoms, almost two thirds (n=9; 64%) had gone for medical treatment for these STI symptoms. On the other hand, more than a third did not go anywhere for the treatment for the symptoms that they experienced.

Table 3.14 Symptoms of STI and treatment

	N	%
Symptoms of STI and treatment		
Penis discharge	3	2.0
Burning pain during urination	10	6.5
Genital ulcers/sores	1	0.7
Pain during sex	3	2.0
Swelling in groin area	2	1.3
Anal discharge	0	0
Anal ulcer/sores	1	0.7
At least one symptoms experienced	14	9.2
Having gone through medical treatment for any of these STI symptom		
Yes	9	64.3
No	5	35.7
Total	14	100.0

3.7 Awareness on HIV/AIDS & STIs

3.7.1 Awareness on HIV/AIDS & STIs

It is encouraging to note that all of the Uniformed Personnel had heard of HIV/AIDS. The major sources of information of HIV/AIDS were television (98%), health workers (91%), friends/relatives (81%), radio (75%) and so on. People from same community were also a major source of knowledge (52%) of HIV.

Table 3.15 Awareness of HIV/AIDS

Awareness of HIV/AIDS	N	%
Ever heard of HIV/AIDS		
Yes	153	100.0
No	0	0
Total	153	100.0
Sources		
Radio	115	75.2
Television	150	98.0
Newspapers/Magazines	101	66.0
Pamphlets/Posters	89	58.2
Health Workers	140	91.5
School/Teachers	69	45.1
Friends/Relatives	124	81.0
Work Place	110	71.9
People from same community	80	52.3
Total	153	100.0

Percentage total may exceed 100 due to multiple responses

3.7.2 Comprehensive Knowledge on HIV

The Uniformed personnel's were asked many questions related to transmission of HIV. Only two thirds of them (67%) knew that People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner. Similarly, three quarters (75%) of them knew that people can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact. Less than two thirds (64%) knew a healthy-looking person can be infected with HIV; while six out of ten (60%) knew that a person cannot get the HIV virus from mosquito bite**.** It is found that nine out of ten (90%) knew that a person doesn't get HIV by sharing a meal with an HIV infected person**.**

Comprehensive knowledge on HIV transmission is defined as knowing that consistent condom use and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV transmission. A composite index was created from these five questions. It is found that only about a third respondent (32%) had comprehensive knowledge on HIV.

Comprehensive knowledge on HIV among the Uniformed Personnel varied according to the district of residence, age group, duration of work, level of education, age at first sex and exposure to out-reach program. A higher percentage of the respondents residing in Thimpu district (59%) followed by Samdrup Jongkhar district (54%) had comprehensive knowledge on HIV. On the other hand, the lowest comprehensive knowledge on HIV was found among the uniform personnel's residing in Wangdue Phodrang district (3%).

Comprehensive knowledge on HIV was highest among the Uniformed Personnel aged 25-34 years (35%) followed by age 35 years and above (34%). Less than half of them who had comprehensive knowledge

on HIV had been working as an Uniformed Personnel for 6-10 years (46%). Comprehensive knowledge on HIV was high among those uniformed personnel with lower-middle secondary education (38%) followed by higher secondary and above education (35%). Over a fifth of the Uniformed Personnel (22%) who had ever met or interacted with PE and OW and less than a tenth of them (7%) who had ever visited HISC in the last 12 months had comprehensive knowledge on HIV. However, place of residence has significant association (P<0.001) with comprehensive knowledge on HIV.

Table 3.16: Comprehensive knowledge on HIV by background characteristics

		Yes		No			
		N	%	N	%	N	p-value
District of residence	Thimphu	23	59.0	16	41.0	39	0.000
	Chukha	8	36.4	14	63.6	22	
	Sarpang	2	9.1	20	90.9	22	
	Samdrup Jongkhar	13	54.2	11	45.8	24	
	Wangdue Phodrang	1	3.2	30	96.8	31	
	Trongsa	2	13.3	13	86.7	15	
Age group	Less than 25	7	22.6	24	77.4	31	0.445
	25-34	19	35.2	35	64.8	54	
	35 and above	23	33.8	45	66.2	68	
Duration of working in this occupation	Upto 5 years	14	29.2	34	70.8	48	
	6-10 years	11	45.8	13	54.2	24	0.287
	More than 10 years	24	29.6	57	70.4	81	
Level of education	Illiterate	6	26.1	17	73.9	23	
	Below primary	8	21.6	29	78.4	37	
	lower-middle secondary	28	38.4	45	61.6	73	0.303
	Higher secondary and above	7	35.0	13	65.0	20	
Age at first sex	Upto 15	7	50.0	7	50.0	14	
	16-19	16	28.1	41	71.9	57	0.283
	20 and above	23	31.1	51	68.9	74	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	22	38.6	35	61.4	57	
	No	27	28.1	69	71.9	96	0.180
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	7	38.9	11	61.1	18	
	No	42	31.1	93	68.9	135	0.506
Total		49	32.0	104	68.0	153	

Table 3.17 Comprehensive knowledge on HIV

Comprehensive knowledge on HIV	N	%
People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner		
Yes	103	67.3
No	44	28.8
Don't know	6	3.9
People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact		
Yes	115	75.2
No	31	20.3
Don't know	7	4.6
A healthy-looking person can be infected with HIV		
Yes	98	64.1
No	47	30.7
Don't know	8	5.2
A person can get the HIV virus from mosquito bite		
Yes	47	30.7
No	92	60.1
Don't know	14	9.2
A person can get HIV by sharing a meal with an HIV infected person		
Yes	13	8.5
No	138	90.2
Don't know	2	1.3
Comprehensive Knowledge in HIV		
Yes	49	32.0
No	104	68.0
Total	153	100.0

3.7.3 Information regarding HIV test

Knowledge on someone can have a confidential HIV test in the community is moderate. More than two thirds (73%) of respondents knew about the possibility to have a confidential HIV test in their community and almost nine out of ten (88%) knew about the place where HIV testing could be done.

It is notable that HIV test among uniform personnel is high. For example, more than two-thirds (69%) of them had ever been tested for HIV; and high majority of them (91%) had tested for HIV voluntarily. Among those who had ever tested for HIV, two thirds (66%) had tested it within last 12 months. Among those who had undergone HIV test within last 12 months, just above three fifths (61%) had undergone the test once and a tenth (10%) had undergone the test thrice.

Table 3.18 Information regarding HIV test

Information regarding HIV test	N	%
Possibility for someone to have a confidential HIV test in your community		
Yes	112	73.2
No	39	25.5
Don't know	2	1.3
Knowledge about the place where HIV testing can be done		
Yes	134	87.6
No	19	12.4
Ever have had an HIV test		
Yes	106	69.3
No	47	30.7
Total	153	100.0
HIV test undergone either voluntarily or because it was required		
Voluntarily	97	91.5
Required	9	8.5
Total	106	100.0
Time of most recent HIV test		
Within last 12 months	70	66.0
Between 1-2 years	23	21.7
Between 2-4 years	6	5.7
More than 4 years ago	7	6.6
Total	106	100.0
Number of times having undergone HIV test within the last 12 months		
1	43	61.4
2	20	28.6
3	7	10.0
Total	70	100.0

3.8 Stigma and discrimination

The Uniformed Personnel's opinion was taken to understand about stigma and discrimination of HIV/AIDS among them. It is encouraging to note that a high majority of uniform personnel do not have stigma and discrimination towards HIV infected person. For instance, above nine out of ten (91%) of them were willing to take care of their relatives if they got HIV. However, almost two thirds (63%) of them would want to keep it a secret if their family members got HIV. It is found that almost four-fifth of them (79%) were ready to buy food from a shopkeeper even if the shopkeeper suffered from HIV. Almost half (49%) of them opined that a HIV infected person needed more health care than someone with any other chronic disease. Eight out of ten (80%) responded that if their colleagues had HIV but was not very sick then they should be allowed to continue working. Similarly, over nine out of ten (93%) of

them had the view that a HIV positive child should be allowed to attend school with children who are HIV negative.

Table 3.19 Stigma and discrimination

Stigma and discrimination	N	%
Respondent's opinion on if his/her relative gets HIV, would they be willing to take care of them in their household		
Yes	139	90.8
No	12	7.8
Don't know	2	1.3
Respondent's opinion on if his/her family member gets HIV, would they want it to remain a secret		
Yes	97	63.4
No	55	35.9
Don't know	1	0.7
Respondent's opinion on if they knew a shopkeeper or food seller had HIV, would they buy food from him/her		
Yes	121	79.1
No	30	19.6
Don't know	2	1.3
No response		
Opinion of the respondent on if a person with HIV should get the same, more or less health care than someone with any other chronic disease		
Same	62	40.5
More	75	49.0
Less	3	2.0
Don’t know	10	6.5
No response	3	2.0
Opinion of the respondent on if one of their colleagues who have HIV but is not very sick should be allowed to continue working		
Yes	123	80.4
No	21	13.7
Don't know	7	4.6
No response	2	1.3
Opinion of the respondent on either children living with HIV should be able to attend school with children who are HIV negative		
Yes	142	92.8
No	10	6.5
Don't know	1	0.7
Total	153	100.0

3.9 Reach by HIV/AIDS prevention intervention program

3.9.1 Peer-education;

Exposure to HIV related program was low among uniform personnel. Only less than two fifths (37%) of them had ever met or interacted with peer educator (PE) or outreach worker (OE) in the past 12 months. Among those who had met with a PE or OE in the past 12 months; all of them had discussed on how HIV is transmitted. Similarly, about two in five (39%) discussed about use of condom while almost a third discussed on how STI is transmitted (32%) and use of condom correctly (32%).

Table 3.20 Met peer educator in the last 12 months

	N	%
Ever met/interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months		
Yes	57	37.3
No	96	62.7
Total	153	100.0
Activities		
Discussion on how HIV/AIDS is/isn't transmitted	57	100.0
Discussion on how STI is/isn't transmitted	18	31.6
Regular/non-regular use of Condom	22	38.6
Use of condom correctly	18	31.6
Total	57	100.0

Percentage total may exceed 100 due to multiple responses

3.9.2 Visited DIC in the last 12 months

Exposure to DIC visit is very low among uniform personnel. Only 5 percent of the uniformed personnel had ever visited any drop in centers (DIC) in the last 12 months. Among those who had visited DIC in the past 12 months, all (100%) had visited there to collect a condom and very few visited DIC to learn about correctly use of condom and collect IEC material.

Table 3.21 Visited DIC in the last 12 months

	N	**%**
Ever visited to any outreach center (DIC,) in the last 12 months		
Yes	8	5.2
No	145	94.8
Total	153	100.0
Activities		
Condom collection	8	100.0
Learn correctly condom use	3	37.5
IEC materials collection	1	12.5
Total	8	100.0

Percentage total may exceed 100 due to multiple responses

3.9.3 Visited Health Information Service Centers (HISC) in the last 12 months

It is found that just over one in ten (12%) of the respondents had ever visited health information service centers (HISC) in the past 12 months. Among these respondents more than three in fourth (78%) visited HISC to receive pre-HIV/AIDS test counseling. Similarly, about three in four respondents visited blood sample taken for HIV/AIDS test (72%) and received HIV/AIDS test result (72%). Similarly three in five (61%) had received post HIV/AIDS test counseling.

Table 3.22 Visited HISC in the last 12 months

	N	%
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months		
Yes	18	11.8
No	135	88.2
Total	153	100.0
Activities		
Received pre-HIV/AIDS test counseling	14	77.8
Blood sample taken for HIV/AIDS test	13	72.2
Received HIV/AIDS test result	13	72.2
Received post HIV/AIDS test counseling	11	61.1
Received counseling on using condom correctly in each sexual intercourse	2	11.1
Took a friend with me	1	5.6
Received information on HIV/AIDS window period		
Total	18	100.0

Percentage total may exceed 100 due to multiple responses

3.10 Prevalence of HIV, Syphilis and Hepatitis B Virus

It is notable that none of the uniformed personnel were HIV positive. The prevalence of syphilis was 2.6 percent and the prevalence of Hepatitis B virus was 2 percent among the uniformed personnel.

Table 3.23 Prevalence of HIV, Syphilis and Hepatitis B Virus

Prevalence	N	%
HIV		
Reactive	0	0
Non-Reactive	153	100.0
Syphilis		
Reactive	4	2.6
Non-Reactive	149	97.4
HBV		
Reactive	3	2.0
Non-Reactive	150	98.0
Total	153	100.0

It is found that 2.6 percent of the Uniformed Personnel (2.6%) had ever experienced symptoms of Syphilis. Prevalence of Syphilis infection slightly varied according to background characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. The prevalence of Syphilis was highest among the Uniformed Personnel residing in Thimpu and Chukha district respectively (4.5%) followed by Samdrup Jongkhar district (4.2%). On the contrary, the prevalence of Syphilis was zero among the respondents residing in Wangdue Phodrang and Trongsa district.

Among the four respondents who had syphilis, three belonged to 35 years and above, two had worked for more than 10 years in the same occupation, two had completed below primary level of education, three of them had ever interacted with PE/OW. On the other hand, three of four respondents never visited to HISC.

Table 3.24: Experience of syphilis by background characteristics

		Reactive		Non-Reactive		
		N	%	N	%	Total N
District of residence	Thimphu	1	2.6	38	97.4	39
	Chukha	1	4.5	21	95.5	22
	Sarpang	1	4.5	21	95.5	22
	Samdrup Jongkhar	1	4.2	23	95.8	24
	Wangdue Phodrang			31	100.0	31
	Trongsa			15	100.0	15
Age group	Less than 25			31	100.0	31
	25-34	1	1.9	53	98.1	54
	35 and above	3	4.4	65	95.6	68
Duration of working in this occupation	Upto 5 years	1	2.1	47	97.9	48
	6-10 years	1	4.2	23	95.8	24
	More than 10 years	2	2.5	79	97.5	81
Level of education	Illiterate	1	4.3	22	95.7	23
	Below primary	2	5.4	35	94.6	37
	lower-middle secondary	1	1.4	72	98.6	73
	Higher secondary and above			20	100.0	20
Age at first sex	Upto 15	1	7.1	13	92.9	14
	16-19	1	1.8	56	98.2	57
	20 and above	2	2.7	72	97.3	74
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	3	5.3	54	94.7	57
	No	1	1.0	95	99.0	96
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	1	5.6	17	94.4	18
	No	3	2.2	132	97.8	135
Total		4	2.6	149	97.4	153

It is found that two percentages of the Uniformed Personnel (2%) were infected with HBV. Prevalence of HBV infection slightly varied according to characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. The prevalence of HBV was highest among the Uniformed Personnel residing in Sarpang (4.5%) followed by Samdrup Jongkhar district (4.2%). On the other hand, the prevalence of HBV was zero among the respondents residing in Trongsa, Thimpu and Chukha district. All the respondents who were infected with HBV were aged 30 years and above and they had been working as a Uniformed Personnel for more than 10 years. A higher percentage of the respondents who had HBV were illiterate (4%) than that of having below primary level of schooling (3%). All three respondents who had reactive HBV had their first

sex at the age of 20 years and above. Only one out of the three respondents infected with HBV had ever interacted with PE/OW in the last 12 months. On the contrary none of them had ever visited to HISC.

Table 3.25 Experience of HBV by background characteristics

		HBV				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	
District of residence	Thimphu	0	0	39	100.0	39	100.0
	Chukha	0	0	22	100.0	22	100.0
	Sarpang	1	4.5	21	95.5	22	100.0
	Samdrup Jongkhar	1	4.2	23	95.8	24	100.0
	Wangdue Phodrang	1	3.2	30	96.8	31	100.0
	Trongsa	0	0	15	100.0	15	100.0
Age group	Less than 25	0	0	31	100.0	31	100.0
	25-34	0	0	54	100.0	54	100.0
	35 and above	3	4.4	65	95.6	68	100.0
Duration of working in this occupation	Upto 5 years	0	0	48	100.0	48	100.0
	6-10 years	0	0	24	100.0	24	100.0
	More than 10 years	3	3.7	78	96.3	81	100.0
Level of education	Illiterate	1	4.3	22	95.7	23	100.0
	Below primary	1	2.7	36	97.3	37	100.0
	lower-middle secondary	1	1.4	72	98.6	73	100.0
	Higher secondary and above	0	0	20	100.0	20	100.0
Age at first sex	Upto 15	0	0	14	100.0	14	100.0
	16-19	0	0	57	100.0	57	100.0
	20 and above	3	4.1	71	95.9	74	100.0
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	1	1.8	56	98.2	57	100.0
	No	2	2.1	94	97.9	96	100.0
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	0	0	18	100.0	18	100.0
	No	3	2.2	132	97.8	135	100.0
Total		3	2.0	150	98.0	153	100.0

CHAPTER 4: RESULT

TRANSPORT WORKERS

Transport workers include Bhutanese or non-Bhutanese male workers aged 18 years and above who work in transportation sectors such as truckers (driver and handy boys) and taxi drivers. Only those currently working in that profession at least since last 6 months were eligible for the survey. Two stage cluster sampling technique were used to select transport workers. A total of 174 male TW were recruited for the survey.

This chapter describes the result from transport workers. This covers socio-demographic characteristics, condom use, sex partners and their types, knowledge on HIV and risk behavior, exposure to the program and biological test result.

4.1 Socio-Demographic Characteristics of the Respondents

4.1.1 Sampled Districts:

A total of 174 transport workers were covered in the study. Among them just over one fourth (26%) were from Wangdue Phodrang district and others were from Sarpang district (18), Chuka (17%), Trongsa district (17%), Samdrup Jongkhar district (13%) and Thimpu (8%). Majority (98%) of the transport workers were Bhutanese nationals.

Table 4.1 Sampled Districts

	N	%
District of residence		
Thimphu	14	8.0
Chukha	30	17.2
Sarpang	31	17.8
Samdrup Jongkhar	23	13.2
Wangdue Phodrang	46	26.4
Trongsa	30	17.2
Total	174	100.0
Nationality		
Bhutanese	170	97.7
Non-Bhutanese	4	2.3
Total	174	100.0

4.1.2 Duration of working in this profession

Over one third (36%) of the transport worker were engaged in this profession for one to five years. Three in five of the transport workers (60%) had been working in this professor more than 5 years.

Table 4.2 Duration of working in this profession

Duration of working in this occupation	N	%
Less than 1 year	7	4.0
1-5 years	62	35.6
6-10 years	56	32.2
More than 10 years	49	28.2
Total	174	100.0

4.1.3 Demographic characteristics of respondents

One out of seven transport workers were youth aged below 25 years. Over two fifths (44%) of the transport workers were of 25 to 34 years of age and over one fifth (28.2%) were age of 35 to 44 years. The average age of the transport workers was 33.7 years. A substantial proportion of transport workers were illiterate (37%). A third (33%) of them had primary level education while about a fifth (18%) had middle secondary and above education.

Three fourths of the respondents (75%) were married while about one-fifth were unmarried (18%). Among those who are married, more than a fourth respondent (29%) had got married before the age of 20 years. Similarly, over two fifths (43%) had married at the age of 20 to 24 years. The average age at marriage was 22.8 years.

Table 4.3 Background characteristics of respondents

	N	%
Age group		
Less than 20	5	2.9
20-24	20	11.5
25-29	38	21.8
30-34	39	22.4
35-39	32	18.4
40-44	17	9.8
45-49	13	7.5
50 and above	10	5.7
Mean Age	33.7	
Median Age	32	
Level of Education		
Illiterate	65	37.4
Literate only	4	2.3
Primary	57	32.8
Lower secondary	15	8.6
Middle Secondary	22	12.6
Higher secondary	10	5.7
Bachelor	1	0.6
Masters level		
Present marital status		
Married	130	74.7
Divorced/Permanently Separated	13	7.5
Never married	31	17.8
Total	174	100.0
Age at marriage		
Less than 20	42	29.4
20-24	62	43.4
25-29	27	18.9
30-34	8	5.6
35-39	2	1.4
Don't know	2	1.4
Mean Age	22.8	
Median Age	21	
Total	143	100.0

4.2 Sexual behavior

It is notable that almost all (96%) of the transport worker had sexual intercourse with a woman. More than three in five (61%) of those who had experienced of sexual intercourse, had their first sex before the age of 20 years while very few of them had first sex 25 years and later (8%). The average age at first sex was 26 years. Almost two fifths of those who had experience of sexual intercourse (38%) had also sex with sex workers.

Table 4.4 Sexual behavior

	N	%
Ever had sexual intercourse with a woman		
Yes	167	96.0
No	7	4.0
Total	174	100.0
Age at first sex		
Less than 15	21	12.6
16-19	80	47.9
20-24	37	22.2
25-29	11	6.6
30 and above	3	1.8
Don't know	15	9.0
Mean age at first sex	26	
Median age at first sex	19	
Total	167	100.0
Ever had sex with a sex worker		
Yes	64	38.3
No	103	61.7
Total	167	100.0

4.2.1 Sexual behavior with high risk women/drayang girls in Bhutan

It is notable that more than one fourth (26%) of the transport workers had sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan. Among them who had ever had sex with a high risk women in Bhutan; almost two fifths (39%) had five or more sex partners in their lifetime. The average number of lifetime high risk sex partners was 5.7.

Among them who had ever had sex with a high risk women in Bhutan; nearly four out of five (78%) had sex with them in the past year. Fifty percent of them who had sex with high risk women in Bhutan in the past year had five or more sex partners. The average number of high risk sex partners in the past one year was 4.4.

Table 4.5 Sexual behavior with high risk women/drayang girls in Bhutan

	N	%
Ever have sex with a high risk women/FSW/bar girls/Drayang girls in Bhutan		
Yes	46	26.4
No	128	73.6
Total	174	100.0
Number of sex partners (lifetime) with high risk women in Bhutan		
One	5	10.9
Two	7	15.2
Three	9	19.6
Four	7	15.2
Five or more	18	39.1
Mean number	5.7	
Median number	4	
Total	46	100.0
Having had sex with a high risk women/FSW/bar girls/Drayang girls in the past year		
Yes	36	78.3
No	10	21.7
Total	46	100.0
Number of sex partners (past one year) with high risk women in Bhutan		
One	3	8.3
Two	4	11.1
Three	7	19.4
Four	4	11.1
Five or more	18	50.0
Mean number	4.4	
Median number	4	
Total	36	100.0

4.2.2 Sexual behavior with FSW outside Bhutan

It is found that one fourth (25%) of the transport workers had been abroad/outside Bhutan. Among them who had been outside Bhutan, almost half (49%) had sex with female sex workers (FSWs) outside Bhutan. Among the transport workers who had sex with FSWs outside Bhutan; almost two fifths (38%) had sex with five or more female sex workers. The average number of FSW partner of the respondents outside Bhutan was 6.1.

Table 4.6 Sexual behavior with FSW outside Bhutan

	N	%
Ever been abroad/outside Bhutan		
Yes	43	24.7
No	131	75.3
Total	174	100.0
Ever had sex with female sex workers abroad		
Yes	21	48.8
No	22	51.2
Total	43	100.0
Number of female sex workers the respondents had sex with while being in abroad		
One	5	23.8
Two	2	9.5
Three	2	9.5
Four	4	19.0
Five or more	8	38.1
Mean number	6.1	
Median number	4	
Total	21	100.0

4.3 Use of condom

4.3.1 Condom use with wife (among married respondents)

Among the married transport workers, almost nine out of ten (89%) had sexual intercourse with their wife in the past one year. Among those who had sex with their wives in the past one year, only two in five (39%) had used condom in the last sexual intercourse with wife. Consistent condom use with wife over the last one year is very low. Only seven percent (n=9) used condom while having sex with their wife over the last one year.

Table 4.7 Condom use with wife (among married respondents)

	N	%
Having sexual intercourse with wife in the past one-year		
Yes	127	88.8
No	16	11.2
Total	143	100.0
Use of condom in the last sexual intercourse with wife		
Yes	50	39.4
No	77	60.6
Total	127	100.0
Frequency of condom use while having sex with wife over the last one year		
All of the time	9	7.1
Most of the time	80	63
Some of the time	20	15.7
Rarely	12	9.4
Never	6	4.7
Total	127	100.0

4.3.2 Condom use with high risk women in Bhutan

Slightly more than one fourth (26%) of the transport workers had ever had sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan. Among them seven out of ten (70%) had used a condom during their last sex with a high risk women (FSW). However, the consistent condom use with high risk women (FSW/bar girls/Drayang girls) in Bhutan was low (33%)..

Table 4.8 Condom use with high risk women in Bhutan

	N	%
Ever have sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan		
Yes	46	26.4
No	128	73.6
Total	174	100.0
Use of condom in the last sexual intercourse with a High risk women (FSW/bar girls/Drayang girls) in Bhutan		
Yes	32	69.6
No	14	30.4
Total	46	100.0
Frequency of condom use while visiting High risk women (FSW/bar girls/Drayang girls) in Bhutan over the last one year		
All of the time	15	32.6
Most of the time	20	43.5
Some of the time	5	10.9
Rarely	4	8.7
Never	2	4.3
Total	46	100.0

4.3.3 Condom use with non-casual sex partners (girlfriend) in Bhutan

One fourth (25%) of the transport workers had sexual intercourse with a girlfriend in Bhutan in the past one year. Above three out of five (63%) of them used a condom during their last sex with their girlfriend. The consistent condom use during sex with their girlfriend was very low (i.e.14%).

Table 4.9 Condom use with non-casual sex partners (girlfriend) in Bhutan

	N	%
Having had sexual intercourse with girlfriend in Bhutan during the past one year		
Yes	43	24.7
No	103	59.2
Never had girlfriend	28	16.1
Total	174	100.0
Use of condom in last sexual intercourse with girlfriend in Bhutan		
Yes	27	62.8
No	16	37.2
Total	43	100.0
Frequency of condom use over the last 12 months		
All of the time	6	14.0
Most of the time	21	48.8
Some of the time	5	11.6
Rarely	10	23.3
Never	1	2.3
Total	43	100.0

4.3.4 Condom use with female sex workers during respondents stay outside Bhutan (only those who had visited abroad)

Among the transport workers who had been abroad/outside Bhutan, almost half (49%) of them had sex with a female sex workers while being in abroad. Nine out of ten (90%) of the transport workers who had sex with a female sex worker abroad had used a condom during their last sex. The consistent condom use with a female sex worker abroad was high (81%).

Table 4.10 Condom use with female sex workers during respondents stay outside Bhutan

	N	%
Ever had sex with female sex workers abroad		
Yes	21	48.8
No	22	51.2
Total	43	100.0
Use of condom in last sexual intercourse with a sex worker while being in abroad		
Yes	19	90.5
No	2	9.5
Total	21	100.0
Frequency of condom use over the last one year		
All of the time	17	81.0
Most of the time	1	4.8
Some of the time	1	4.8
Rarely	2	9.5
Total	21	100.0

4.3.5 Condom use with male partner

One transport workers reported that he ever had sex with a male partner. However, he did not had anal sex with a male partner during the past one year.

Table 4.11 Condom use with male partner

	N	%
Ever have had sex with a male partner		
Yes	1	0.6
No	173	99.4
Total	174	100.0
Having had anal sex with a male partner during the past one-year		
Yes	0	0
No	1	100.0
Total	1	100.0

4.4 Condom accessibility

Over a half (55%) of the transport workers had usual condom carrying practice. Respondents were asked the place or persons from where condom can be obtained. It is found that over seven out of ten of them knew that condoms were available from hospital (74%) and pharmacy (72%). Similarly, two in five (39%) were aware that condoms were available from BHU/Health post.

Table 4.12 Condom accessibility

	N	%
Usual condom carrying practice		
Yes	96	55.2
No	78	44.8
Total	174	100.0
Place or persons		
Hospital	128	73.6
Pharmacy	126	72.4
BHU/ Health Center	68	39.1
Peer/Friends	38	21.8
Condom Box	24	13.8
Health Workers/Volunteers	19	10.9
General retail store/24X7	7	4.0
Hotel /Lodge/Bar	6	3.4
Don't know	2	1.1
Total	174	100.0

Percentage total may exceed 100 due to multiple responses

4.5 Use of Alcohol and Drugs

Respondents were asked about use of alcohol and drugs. Almost half (49%) of the transport workers reported that they never consumed drinks contacting alcohol. On the other hand, just above one in ten (11%) consumed drinks containing alcohol everyday and over one sixth (17%) did so 2-3 times a week.

Nearly 2 percent (n=3) of the transport workers ever tried any types of drugs in the past 30 days. None of the respondents had ever injected using syringe.

Table 4.13 Use of Alcohol and Drugs

	N	%
Frequency of having drinks containing alcohol during the last 30 days		
Everyday	20	11.5
2-3 times a week	30	17.2
At least once a week	18	10.3
Less than once in a week	20	11.5
Never	86	49.4
Total	174	100.0
Ever tried different types of drugs in the past 30 days		
Yes	3	1.7
No	171	98.3
Total	174	100.0
Ever-injected drugs using a syringe		
Yes	0	0
No	3	100.0
Total	3	100.0

4.6 Sexually Transmitted Infection

4.6.1 Knowledge about STI

Just above one third (35%) of the transport worker knew STI as swellings in groin area. Similarly over one fourth reported that burning pain during urination (28%) and penis discharge (27%) are type of STIs. On the other hand, more than a fifth (21%) reported that they do not have any idea about STIs.

Table 4.14 Knowledge about STI

Knowledge on STI	N	%
Swellings in groin area	60	34.5
Penis discharge	47	27.0
Burning pain during urination	48	27.6
Genital ulcers/sores	24	13.8
Anal discharge	4	2.3
Anal ulcer/sores	2	1.1
Don’t know	37	21.3
No response	7	4.0
Total	174	100.0

Percentage total may exceed 100 due to multiple responses

6.6.2 Symptoms of STI and treatment

It is found that almost one in five respondents (17%) had at least one symptom of STIs. One in ten respondents (10%) had burning pain during urination while six percent had experience of penis discharge. Few respondents reported that they had pain during sex (4%), and genital ulcers/sores (2%). Among those respondents who had at least one symptom of STIs, majority of the respondents (73%) had sought medical treatment.

Table 4.15 Symptoms of STI and treatment

	N	%
Penis discharge	10	5.7
Burning pain during urination	18	10.3
Genital ulcers/sores	4	2.3
Pain during sex	7	4.0
Swelling in groin area	10	5.7
Anal discharge	2	1.1
At least one symptoms experienced	30	17.2
Having gone through medical treatment for any of these STI symptom		
Yes	22	73.3
No	8	26.7
Total	30	100.0

4.7 HIV/AIDS

4.7.1 Awareness on HIV/AIDS

It is notable that almost all transport workers (96%) had heard of HIV/AIDS. Respondents were asked about the sources of information about HIV/AIDS. The commonly mentioned source of information were television (87%) followed by health workers (68%). Almost two thirds respondents also mentioned friends/relatives (65%) and radios (63%) are the sources of HIV/AIDS.

Table 4.16 Awareness on HIV/AIDS

	N	%
Ever heard of HIV/AIDS		
Yes	167	96.0
No	7	4.0
Total	174	100.0
Sources		
Television	151	86.8
Health Workers	119	68.4
Friends/Relatives	113	64.9
Radio	110	63.2
Newspapers/Magazines	66	37.9
Pamphlets/Posters	62	35.6
School/Teachers	35	20.1
Work Place	95	54.6
People from same community	43	24.7
Total	174	100.0

Percentage total may exceed 100 due to multiple responses

4.7.2 Comprehensive knowledge on HIV

The transport workers were asked many questions related to way of transmission of HIV. Only less than three fifths (58%) had knowledge on people can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner. About two-third (64%) of them knew that "People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact". Similarly, more than half (56%) knew that "A healthy-looking person can be infected with HIV" and only one third (33.9%) knew that "A person cannot get the HIV virus from mosquito bite". More than three fourths (79%) of the transport workers knew that a person do not get HIV by sharing a meal with an HIV infected person.

Comprehensive knowledge on HIV transmission is defined as knowing that consistent condom use and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV transmission The overall comprehensive knowledge on HIV/AIDS among Transport worker was very low (14%).

Table 4.17 Comprehensive knowledge on HIV

	N	%
People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner	100	57.5
Yes	52	29.9
No	22	12.6
Don't know		
People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact		
Yes	111	63.8
No	53	30.5
Don't know	10	5.7
A healthy-looking person can be infected with HIV		
Yes	97	55.7
No	60	34.5
Don't know	17	9.8
A person can get the HIV virus from mosquito bite		
Yes	94	54.0
No	59	33.9
Don't know	21	12.1
A person get HIV by sharing a meal with an HIV infected person		
Yes	23	13.2
No	137	78.7
Don't know	14	8.0
Overall Comprehensive Knowledge on HIV/AIDS		
Yes	24	13.8
No	150	86.2
Total	174	100.0

Comprehensive knowledge on HIV among the Transport Workers varied according to the district of residence, age group, duration of work, level of education, age at first sex and exposure to HIV out-reach program. A higher percentage of the respondents residing in Chukha district (40%) followed by Thimpu district (29%) had comprehensive knowledge on HIV. On the other hand, the lowest comprehensive knowledge on HIV was found among the Transport workers residing in Wangdue Phodrang district (4%) and Sarpang district (3%).

Comprehensive knowledge on HIV was highest among the Transport Workers aged 35 years and above (18%) followed by age 25-34 years (10%). More than a quarter of the respondents (26%) who had comprehensive knowledge on HIV had been working in the same profession for more than 10 years. Comprehensive knowledge on HIV was high among those Transport Workers with lower-middle

secondary education and higher secondary and above education (27%) respectively. A higher percentage of the Transport Workers (19%) who had their first sex at the age of 15 years and below were aware on comprehensive knowledge of HIV followed by aged 20 years and above (18%). One-fifth of the Transport Workers (21%) who had ever met or interacted with PE and OW and similar proportion of them (23%) who had ever visited HISC in the last 12 months had comprehensive knowledge on HIV. The survey revealed significant association of place of residence (P<0.001) with comprehensive knowledge on HIV.

Table 4.18 Comprehensive knowledge on HIV by background characteristics

		Comprehensive knowledge on HIV				Total	
		Yes		No			
		N	%	N	%	N	P value
District of residence	Thimphu	4	28.6	10	71.4	14	0.000
	Chukha	12	40.0	18	60.0	30	
	Sarpang	1	3.2	30	96.8	31	
	Samdrup Jongkhar	5	21.7	18	78.3	23	
	Wangdue Phodrang	2	4.3	44	95.7	46	
	Trongsa			30	100.0	30	
Age group	Less than 25	3	12.0	22	88.0	25	0.383
	25-34	8	10.4	69	89.6	77	
	35 and above	13	18.1	59	81.9	72	
Duration of working in this occupation	Upto 5 years	4	5.8	65	94.2	69	0.005
	6-10 years	7	12.5	49	87.5	56	
	More than 10 years	13	26.5	36	73.5	49	
Level of education	Illiterate	7	10.8	58	89.2	65	0.016
	Below primary	4	6.6	57	93.4	61	
	lower-middle secondary	10	27.0	27	73.0	37	
	Higher secondary and above	3	27.3	8	72.7	11	
Age at first sex	Upto 15	4	19.0	17	81.0	21	0.302
	16-19	8	10.0	72	90.0	80	
	20 and above	12	18.2	54	81.8	66	
Ever met/ interacted with PE or OW in the last 12 months	Yes	7	21.2	26	78.8	33	0.170
	No	17	12.1	124	87.9	141	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	3	23.1	10	76.9	13	0.313
	No	21	13.0	140	87.0	161	
Total		24	13.8	150	86.2	174	

4.7.3 Information regarding HIV test

Nearly two thirds (64%) of the transport workers knew about the possibility for someone to have a confidential HIV test done in their community and more than two thirds (68%) knew about the place where HIV testing could be done.

It is found that over a half (52%) of the transport workers had ever undergone a HIV test; and among them just above eight out of ten (81%) had done it voluntarily. Among the transport worker who had ever done a HIV test, almost three in five (57%) had done it within the last 12 months. Among those who had undergone a HIV test within the last 12 months, more than two in five (43%) had tested HIV 2 or more times.

Table 4.19 Information regarding HIV test

	N	%
Possibility for someone to have a confidential HIV test in your community		
Yes	112	64.4
No	58	33.3
Don't know	4	2.3
Knowledge about the place where HIV testing can be done		
Yes	119	68.4
No	55	31.6
Ever have had an HIV test		
Yes	90	51.7
No	84	48.3
Total	174	100.0
HIV test undergone either voluntarily or because it was required		
Voluntarily	73	81.1
Required	17	18.9
Total	90	100.0
Time of most recent HIV test		
Within last 12 months	51	56.7
Between 1-2 years	21	23.3
Between 2-4 years	8	8.9
More than 4 years ago	10	11.1
Total	90	100.0
Number of times having undergone HIV test within the last 12 months		
1	29	56.9
2	16	31.4
3	6	11.8
Total	51	100.0

4.8 Stigma and discrimination

An overwhelming majority of transport workers (87%) reported that they were willing to take care of his/her HIV positive relative. More than two thirds (71%) of them would want it to remain a secret if his/her family member got HIV. It is found that more than a third (35%) of them still do not want to buy food if the shopkeeper or food seller had HIV.

Nearly half of the respondents (48%) opined that a HIV positive person required more care than a person of any other chronic disease. Almost three fourths of the respondents (74%) had a opinion that their HIV positive colleagues should be allowed to work if he/she is not very sick. Similarly, nearly four fifths (79%) were of the view that a HIV positive child should be able to attend school with children who are HIV negative.

Table 4.20 Stigma and discrimination

	N	%
Respondent's opinion on if his/her relative gets HIV, would they be willing to take care of them in their household		
Yes	151	86.8
No	19	10.9
Don't know	4	2.3
Respondent's opinion on if his/her family member gets HIV, would they want it to remain a secret		
Yes	124	71.3
No	45	25.9
Don't know	5	2.9
Respondent's opinion on if they knew a shopkeeper or food seller had HIV, would they buy food from him/her		
Yes	104	59.8
No	61	35.1
Don't know	7	4.0
No response	2	1.1
Opinion of the respondent on if a person with HIV should get the same, more or less health care than someone with any other chronic disease		
Same	70	40.2
More	84	48.3
Less	9	5.2
Don’t know	9	5.2
No response	2	1.1
Opinion of the respondent on if one of their colleagues who have HIV but is not very sick should be allowed to continue working		
Yes	128	73.6
No	39	22.4
Don't know	6	3.4
No response	1	0.6
Opinion of the respondent on either children living with HIV should be able to attend school with children who are HIV negative		
Yes	137	78.7
No	30	17.2
Don't know	7	4.0
No response		
Total	174	100.0

4.9 Reach by HIV/AIDS prevention intervention program

4.9.1 Peer-education (PE) or outreach workers (OE) in the last 12 months

Only less than a fifth transport workers (19%) had ever met or interacted with Peer Educators (PE) or Outreach workers (OE) in the last 12 months. Among those who had met peer educator/outreach workers, almost all of them (94%) discussed on how HIV is transmitted. Similarly almost half (48%) of them had discussion on how STI could be transmitted, use of condom regularly and about the correct use of condom respectively.

Table 4.21 Met peer educator (PE) or outreach workers (OE) in the last 12 months

	N	%
Ever met or interacted with PE or OE in the last 12 months		
Yes	33	19.0
No	141	81.0
Total	174	100.0
Activities		
Discussion on how HIV/AIDS is/isn't transmitted	31	93.9
Discussion on how STI is/isn't transmitted	16	48.5
Regular/non-regular use of Condom	16	48.5
Condom correctly	16	48.5
Total	33	100.0

4.9.2 Visited DIC in the last 12 months

Only two of the transport workers had visited DIC in the last 12 months. Both of them went DIC to collect condom. One each reported that they went there to learn correctly condom use and IEC material collection.

Table 4.22 Visited DIC in the last 12 months

	N	%
Ever visited to any outreach center (DIC) in the last 12 months		
Yes	2	1.1
No	172	98.9
Total	174	100.0
Activities		
Condom collection	2	100.0
Learn correctly condom use	1	50.0
IEC materials collection	1	50.0
Total	2	100.0

4.9.3 Visited Health Information Service Centers (HISC) in the last 12 months

Only 7 percent of the transport worker had visited Health Information Service Centers (HISC) during the past 12 months. Those who visited the HISC in the past 12 months were involved in various activities as; received pre- HIV/AIDS test counseling (77%), received post HIV/AIDS test counseling (69%), blood sample taken for HIV/AIDS test (61%) and received HIV/AIDS test result (31%).

Table 4.23 Visited Health Information Service Centers (HISC) in the last 12 months

	N	%
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months		
Yes	13	7.5
No	161	92.5
Total	174	100.0
Activities		
Received pre-HIV/AIDS test counseling	10	76.9
Received post HIV/AIDS test counseling	9	69.2
Blood sample taken for HIV/AIDS test	8	61.5
Received HIV/AIDS test result	4	30.8
Received counseling on using condom correctly in each sexual intercourse	1	7.7
Took a friend with me		
Received information on HIV/AIDS window period	1	7.7
Total	13	100.0

Percentage total may exceed 100 due to multiple responses

4.10 Prevalence of HIV, Syphilis and Hepatitis B

None of the sampled transport worker had HIV infection. The prevalence of Syphilis was 7.5 percent (n=13) and Hepatitis B was 1.1 percent (n=2).

Table 4.24 Prevalence of HIV, Syphilis and Hepatitis B

	N	%
HIV		
Reactive	0	0
Non-Reactive	174	100.0
Syphilis		
Reactive	13	7.5
Non-Reactive	161	92.5
HBV		
Reactive	2	1.1
Non-Reactive	172	98.9
Total	174	100.0

It is notable that almost a tenth of the Transport Workers (7.5%) had ever experienced symptoms of Syphilis. Prevalence of Syphilis infection slightly varied according to background characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to HIV out-reach programs. The prevalence of Syphilis was highest among the Transport Workers residing in Thimpu district (29%) followed by Samdrup Jongkhar district (13%). On the other hand, the prevalence of Syphilis was lowest among the respondents residing in Chukha district and none of them who lived in Trongsa district had the symptoms of Syphilis.

Among the thirteen respondents who had syphilis, nine belonged to 35 years and above, five had worked for more than 10 years in the same occupation, five were illiterate and two of them had completed below higher secondary and above education. A higher percentage of Syphilis infection (10%) was found among the respondents having their first sex at the age of 16-19 years. Out of thirteen only four of the respondents had ever interacted with PE/OW and a single respondent had ever visited HISC in the last 12 months.

Table 4.25 Experience of Syphilis by background characteristics

		Syphilis				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	
District of residence	Thimphu	4	28.6	10	71.4	14	na
	Chukha	1	3.3	29	96.7	30	
	Sarpang	4	12.9	27	87.1	31	
	Samdrup Jongkhar	1	4.3	22	95.7	23	
	Wangdue Phodrang	3	6.5	43	93.5	46	
	Trongsa	0	0	30	100.0	30	
Age group	Less than 25	2	8.0	23	92.0	25	0.071
	25-34	2	2.6	75	97.4	77	
	35 and above	9	12.5	63	87.5	72	
Duration of working in this occupation	Upto 5 years	5	7.2	64	92.8	69	0.639
	6-10 years	3	5.4	53	94.6	56	
	More than 10 years	5	10.2	44	89.8	49	
Level of education	Illiterate	5	7.7	60	92.3	65	0.545
	Below primary	4	6.6	57	93.4	61	
	lower-middle secondary	2	5.4	35	94.6	37	
	Higher secondary and above	2	18.2	9	81.8	11	
Age at first sex	Upto 15	2	9.5	19	90.5	21	0.243
	16-19	8	10.0	72	90.0	80	
	20 and above	3	3.0	64	97.0	66	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	4	12.1	29	87.9	33	0.259
	No	9	6.4	132	93.6	141	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	1	7.7	12	92.3	13	0.975
	No	12	7.5	149	92.5	161	
Total		13	7.5	161	92.5	174	

It is noteworthy that a negligible percentage of the Transport Workers (1.1%) were infected with HBV. The survey explored the prevalence of HBV infection according to characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. The prevalence of HBV was highest among the Transport Workers residing in Samdrup Jongkhar (4.3%) followed by Trongsa district (3.3%). On the other hand, the prevalence of HBV was zero among the respondents residing in Thimpu, Chukha, Sarpang and Wangdue Phodrang district. Among

the two respondents who were infected with HBV one each had been working as a Transport Worker for up to 5 year and for 6-10 years respectively. Out of the two respondents having HBV infection, one was illiterate and one had completed lower-middle secondary education, both of them had their first sex at the age of 20 years and above. None of the two respondents infected with HBV had ever interacted with PE/OW neither had ever visited to HISC in the last 12 months.

Table 4.26 Experience of HBV by background characteristics

		HBV				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	%
District of residence	Thimphu	0	0	14	100.0	14	100.0
	Chukha	0	0	30	100.0	30	100.0
	Sarpang	0	0	31	100.0	31	100.0
	Samdrup Jongkhar	1	4.3	22	95.7	23	100.0
	Wangdue Phodrang	0	0	46	100.0	46	100.0
	Trongsa	1	3.3	29	96.7	30	100.0
Age group	Less than 25	0	0	25	100.0	25	100.0
	25-34	2	2.6	75	97.4	77	100.0
	35 and above	0	0	72	100.0	72	100.0
Duration of working in this occupation	Upto 5 years	1	1.4	68	98.6	69	100.0
	6-10 years	1	1.8	55	98.2	56	100.0
	More than 10 years	0	0	49	100.0	49	100.0
Level of education	Illiterate	1	1.5	64	98.5	65	100.0
	Below primary	0	0	61	100.0	61	100.0
	lower-middle secondary	1	2.7	36	97.3	37	100.0
	Higher secondary and above	0	0	11	100.0	11	100.0
Age at first sex	Upto 15	0	0	21	100.0	21	100.0
	16-19	0	0	80	100.0	80	100.0
	20 and above	2	3.0	64	97.0	66	100.0
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	0	0	33	100.0	33	100.0
	No	2	1.4	139	98.6	141	100.0
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	0	0	13	100.0	13	100.0
	No	2	1.2	159	98.8	161	100.0
Total		2	1.1	172	98.9	174	100.0

CHAPTER 5: RESULTS

MIGRANT WORKERS

Bhutanese (returnee migrants) or non-Bhutanese male migrants aged 18 and above having stayed continuously or with interruption for at least 6 months in outside of country (for Bhutanese)/ in Bhutan (for other nationalities) as a migrant worker within three years prior to the date of the survey. The migrant workers were selected using a two-stage cluster sampling procedure (PPS). The cluster size of the migrant workers was nine and 30 clusters were selected from the survey districts in Bhutan. Individual participants were selected from the total number of migrants' workers in the site. A total 261 male migrant workers were recruited in survey. Majority (88%) of the migrant workers were Non-Bhutanese nationals and the rest 12 percent were of Bhutanese nationality.

This chapter describes the result from migrant workers. This covers socio-demographic characteristics, condom use, sex partners and their types, knowledge on HIV and risk behavior, exposure to the program and biological test result of the migrant workers.

5.1 Socio-Demographic Characteristic of the Respondents

5.1.1 Sampled Districts

Among 261 respondents, almost a third (31%) was recruited from Wangdue Phodrang district, followed by Trongsa (28%) and Thimphu (25%). Few migrants were from Chukha (5%), Sarpang (5%) and Samdrup Jongkhar (5%).

Table 5.1 Sampled Districts

District of residence	N	%
Thimphu	65	24.9
Chukha	14	5.4
Sarpang	14	5.4
Samdrup Jongkhar	13	5.0
Wangdue Phodrang	81	31.0
Trongsa	74	28.4
Total	261	100.0

5.1.2 Duration of working in this profession

Information regarding duration of the migration was also assessed during the survey. Two fifths (40%) of the migrant workers were migrated for less than a year and another two fifths (40%) were migrated for 1 to 5 years. It is notable that more than a tenth (11%) were working as migrants workers since more than 10 years.

Table 5.2 Duration of working in this profession

Duration of working in this occupation	N	%
Less than 1 year	103	39.5
1-5 years	104	39.8
6-10 years	25	9.6
More than 10 years	29	11.1
Total	261	100.0

5.1.3 Demographic characteristics of respondents

Almost one third respondents (31%) were youth aged below 25 years. Two fifths (39 %) were of age between 25 to 34 years. The average age of the migrant workers was 30.6 years. It is found that more than a fifth (21%) of the migrant workers were illiterate and almost a quarter (24%) had attended primary level of education only.

Over two in three (69%) were married while nearly one in three (30%) were never married. Almost one third of the respondents who got married were married by the age of 20 years. The average age at marriage was 23.7 years.

Table 5.3 Demographic characteristics of respondents

	N	%
Age group		
Less than 20	20	7.7
20-24	60	23.0
25-29	64	24.5
30-34	38	14.6
35-39	30	11.5
40-44	20	7.7
45-49	16	6.1
50 and above	13	5.0
Mean Age	30.6	
Median Age	28	
Total	261	100.0
Level of Education		
Illiterate	54	20.8
Literate only	4	1.5
Primary	62	23.9
Lower secondary	29	11.2
Middle Secondary	52	20.1
Higher secondary	38	14.7
Bachelor	18	6.9

Masters level	2	0.8
Total	259	100.0
Present marital status		
Married	179	68.6
Divorced/Permanently Separated	1	0.4
Widower	1	0.4
Not married but living together	2	0.8
Never married	78	29.9
Total	261	100.0
Age at marriage		
Less than 20	56	31.1
20-24	61	33.9
25-29	48	26.7
30-34	7	3.9
35-39	4	2.2
40-44	1	0.6
45-49	0	0
Don't know	3	1.7
Mean age	23.7	
Median age	22	
Total	180	100.0

5.2 Sexual behavior

Majority (86%) of the migrant workers had experienced of sexual intercourse. More than two in five of them (44%) had their first sex at the age before the age of 20 years. It is notable that above one in ten (11%) had their first sex at the age below 15 years. The average age at first sex was 25.2 years. Nearly one fifth of those who had sexual intercourse (18%) had sex with a sex worker at least once.

Table 5.4 Sexual behavior

	N	%
Ever had sexual intercourse with a woman		
Yes	224	85.8
No	37	14.2
Total	261	100.0
Age at first sex		
Less than 15	24	10.7
16-19	74	33.0
20-24	71	31.7
25-29	31	13.8
30 and above	11	4.9
Don't know	13	5.8
Mean age	25.2	
Median age	20	
Total	224	100.0
Ever had sex with a sex worker		
Yes	41	18.3
No	183	81.7
Total	224	100.0

5.2.1 Sexual behavior with high risk women/drayang girls in Bhutan

Less than one in ten (9%) of the migrant workers had sex with a high risk women/draying girls in Bhutan. Among those who ever had sex with a high risk women/draying girls in Bhutan; more than half had (54%) had four or more sex partners. The average number of high risk sex partners over the lifetime was 3.8.

Among those who had ever had sex with a high risk women/drayang girls in Bhutan, more than four in five (83%) had sex with them in the past one year. Among these who had sex in past one year, half (50%) of the migrant workers had three or more sex partners in the past one year. The average number of high risk women/draying girls as sex partner in the past year was 4.1.

Table 5.5 Sexual behavior with high risk women/drayang girls in Bhutan

	N	%
Ever have sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan		
Yes	24	9.2
No	237	90.8
Total	261	100.0
Number of sex partners (lifetime) with high risk women in Bhutan		
One	2	8.3
Two	2	8.3
Three	7	29.2
Four	6	25.0
Five or more	7	29.2
Mean number	3.8	
Median number	4	
Total	24	100.0
Having had sex with a high risk women (FSW/bar girls/Drayang girls) in the past year		
Yes	20	83.3
No	4	16.7
Total	24	100.0
Number of sex partners (past one year) with high risk women in Bhutan		
One	4	20.0
Two	6	30.0
Three	4	20.0
Four	0	0
Five or more	6	30.0
Mean number	4.1	
Median number	2	
Total	20	100.0

5.2.2 Sexual behavior with FSW outside Bhutan

More than half (56%) of the migrants worked had sex with female sex workers abroad. It is found that almost all (97%) had sex with one female sex worker while being abroad. The average number of female sex workers as sex partners while being abroad was 1.1.

Table 5.6 Sexual behavior with FSW outside Bhutan

	N	%
Ever had sex with female sex workers abroad		
Yes	145	55.6
No	116	44.4
Total	261	100.0
Number of female sex workers the respondents had sex with while being in abroad		
One	140	96.6
Two	2	1.4
Three	1	0.7
Four	1	0.7
Five or more	1	0.7
Mean number	1.1	
Median number	1	
Total	145	100.0

5.3 Condom use

5.3.1 Condom use with wife (among married respondents)

Among the married migrant workers, nine out of ten (90%) had sexual intercourse with their wives in the past one-year. Among those who had sex with their wife in the past one year, more than two fifths (43%) of the migrants had used a condom during the last sexual intercourse with their wife. Consistent use of condom with wife is very low (4%) among migrant workers. The consistent condom use with their wife was only 4 percent.

Table 5.7 Condom use with wife (among married respondents)

	N	%
Having sexual intercourse with wife in the past one-year		
Yes	165	90.2
No	18	9.8
Total	261	100.0
Use of condom in the last sexual intercourse with wife		
Yes	71	43.0
No	94	57.0
Total	165	100.0
Frequency of condom use while having sex with wife over the last one year		
All of the time	7	4.2
Most of the time	49	29.7
Some of the time	79	47.9
Rarely	21	12.7
Never	9	5.5
Total	165	100.0

5.3.2 Condom use with high risk women in Bhutan

It is found that Less than one in ten (9%) of the migrant workers had ever had sex with a high risk women (FSW/bar girls/drayan girls) in Bhutan. More than two thirds (71%) of these migrant workers who had sex with high risk women in Bhutan had used condom in the last sexual intercourse with a high risk women. The consistent condom use with high risk women (FSW/drayang girls) in Bhutan was low (46%).

Table 5.8 Condom use with high risk women in Bhutan

	N	%
Ever have sex with a high risk women (FSW/bar girls/Drayang girls) in Bhutan		
Yes	24	9.2
No	237	90.8
Total	261	100.0
Use of condom in the last sexual intercourse with a High risk women (FSW/bar girls/Drayang girls) in Bhutan		
Yes	17	70.8
No	7	29.2
Total	24	100.0
Frequency of condom use while visiting High risk women (FSW/bar girls/Drayang girls) in Bhutan over the last one year		
All of the time	11	45.8
Most of the time	9	37.5
Some of the time	3	12.5
Rarely		
Never	1	4.2
Total	24	100.0

5.3.3 Condom use with non-casual sex partners (girlfriend) in Bhutan

Among the migrant workers, 5 percent had sexual intercourse with girlfriend in Bhutan during the past one year. Among the migrant workers who had sex with their girlfriend in the past one year in Bhutan; more than two thirds (71%) of them had used condom in the last sexual intercourse with girlfriend in Bhutan. Consistent use of condom with girlfriend in the last 12 months was very low (36%).

Table 5.9 Condom use with non-casual sex partners (girlfriend) in Bhutan

	N	%
Having had sexual intercourse with girlfriend in Bhutan during the past one year		
Yes	14	5.4
No	180	69.0
Never had girlfriend	67	25.7
Total	261	100.0
Use of condom in last sexual intercourse with girlfriend in Bhutan		
Yes	10	71.4
No	4	28.6
Total	14	100.0
Frequency of condom use with girlfriend in Bhutan over the last 12 months		
All of the time	5	35.7
Most of the time	8	57.1
Some of the time	0	0
Rarely	1	7.1
Total	14	100.0

5.3.4 Condom use with female sex workers during respondents stay outside Bhutan (only those who had visited abroad)

More than half (56%) of the migrant workers had sex with female sex workers during their stay outside Bhutan. Among them almost all (98%) of them used a condom during their last sex. The consistent condom use with female sex workers while outside Bhutan was 78 percent.

Table 5.10 Condom use with female sex workers during respondents stay outside Bhutan

	N	%
Ever had sex with female sex workers abroad		
Yes	145	55.6
No	116	44.4
Total	261	100.0
Use of condom in last sexual intercourse with a sex worker while being in abroad		
Yes	142	97.9
No	3	2.1
Total	145	100.0
Frequency of condom use while visiting sex workers abroad over the last one year		
All of the time	113	77.9
Most of the time	28	19.3
Some of the time	2	1.4
Rarely	2	1.4
Total	145	100.0

5.3.5 Condom use with male partner

A single migrant worker had ever had sex with a male partner while he reported of not having anal sex practice with a male partner in the past one year.

Table 5.11 Condom use with male partner

	N	%
Ever have had sex with a male partner		
Yes	1	0.4
No	260	99.6
Total	261	100.0
Having had anal sex with a male partner during the past one-year		
Yes	0	0
No	1	100.0
Total	1	100.0

5.4 Condom accessibility

Thirteen percent of the migrant workers usual carried condom with them. More than three fifths (63%) knew that condom was available in Pharmacy followed by hospital (48%). Nearly one fourth (24%) were aware that condom was available in BHU/Health center.

Table 5.12 Condom accessibility

	N	%
Usual condom carrying practice		
Yes	34	13.0
No	227	87.0
Total	261	100.0
Place or persons		
Pharmacy	164	62.8
Hospital	124	47.5
BHU/ Health Center	62	23.8
General retail store/24X7	12	4.6
Peer/Friends	20	7.7
Health Workers/Volunteers	12	4.6
Hotel /Lodge/Bar	4	1.5
Condom Box	20	7.7
Don't know	49	18.8
Total	261	100.0

5.5 Use of Alcohol and Drugs

Almost two fifths (39%) of the migrant workers never consumed alcohol within the last 30 days and only 3 percent of them consumed alcohol every day. Three percent of the migrant workers ever tried any form of drugs in the past 30 days. However none of them have ever injected drugs using syringe.

Table 5.13 Use of Alcohol and Drugs

	N	%
Frequency of having drinks containing alcohol during the last 30 days		
Everyday	9	3.4
2-3 times a week	62	23.8
At least once a week	39	14.9
Less than once in a week	46	17.6
Never	102	39.1
Don't know	3	1.1
Total	261	100.0
Ever tried different types of drugs in the past 30 days		
Yes	8	3.1
No	248	95.0
Don't know	5	1.9
Total	261	100.0
Ever-injected drugs using a syringe		
Yes	0	0
No	8	100.0
Total	8	100.0

5.6 Sexually Transmitted Infection

5.6.1 Knowledge about STI

It is notable that nearly half (46%) of the migrant workers were unaware of symptom of STI. One out of ten (10%) reported that burning pain during urination (10%) and penis discharge are symptoms of STIs.

Table 5.14 Knowledge about STI

	N	%
Knowledge on STI		
Penis discharge	25	9.6
Burning pain during urination	27	10.3
Genital ulcers/sores	4	1.5
Swellings in groin area	22	8.4
Anal discharge	4	1.5
Anal ulcer/sores	1	0.4
Don’t know	119	45.6
No response	25	9.6
Total	261	100.0

5.6.2 Symptoms of STI and treatment

Almost eight percent of migrant workers had any STI symptoms currently. Almost five percent of respondent were having symptoms of burning pain during urination followed by swelling in groin area (2%). Among these who had any symptoms of STIs, only two in five (n=8; 40%) had sought medical treatment.

Table 5.15 Symptoms of STI and treatment

	N	%
Symptoms		
Penis discharge	5	1.9
Burning pain during urination	12	4.6
Genital ulcers/sores	2	0.8
Pain during sex	4	1.5
Swelling in groin area	6	2.3
Anal discharge	1	0.4
Anal ulcer/sores	3	1.1
At least one symptoms experienced	20	7.7
Having gone through medical treatment for any of these STIs symptom		
Yes	8	40.0
No	12	60.0
Total	20	100.0

5.7 HIV/AIDS

5.7.1 Awareness on HIV/AIDS

It is notable that one in five migrant workers (20%) were unaware of HIV/AIDS. The major sources of information about HIV/AIDS were television (65%), friends/relatives (51%), radio (38%) and health workers (37%).

Table 5.16 Awareness on HIV/AIDS

	N	%
Ever heard of HIV/AIDS		
Yes	208	79.7
No	53	20.3
Sources of information		
Radio	99	37.9
Television	171	65.5
Newspapers/Magazines	84	32.2
Pamphlets/Posters	50	19.2
Health Workers	97	37.2
School/Teachers	62	23.8
Friends/Relatives	134	51.3
Work Place	95	36.4
People from same community	64	24.5
Total	261	100.0

Percentage total may exceed 100 due to multiple responses

5.7.2 Comprehensive knowledge on HIV

Less than two fifths migrant workers (39%) were aware that People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner. Nearly half of them (47%) knew that people can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact. Similarly, more than two fifths (45%) knew that a healthy-looking person could be infected with HIV. More than half (57%) of respondents reported that a person cannot get the HIV virus from mosquito bite. More than two thirds (67%) of the respondents knew that a person does not get HIV by sharing a meal with an HIV infected person. The overall comprehensive knowledge on HIV/AIDS among Migrant workers was below tenth (9%).

Table 5.17 Comprehensive knowledge on HIV

	N	%
People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner		
Yes	101	38.7
No	136	52.1
Don't know	24	9.2
People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact		
Yes	122	46.7
No	123	47.1
Don't know	16	6.1
A healthy-looking person can be infected with HIV		
Yes	117	44.8
No	112	42.9
Don't know	32	12.3
A person can get the HIV virus from mosquito bite		
Yes	86	33.0
No	148	56.7
Don't know	27	10.3
A person get HIV by sharing a meal with an HIV infected person		
Yes	70	26.8
No	176	67.4
Don't know	15	5.7
Overall Comprehensive knowledge on HIV/AIDS		
Yes	23	8.8
No	237	92.2
Total	261	100.0

Percentage total may exceed 100 due to multiple responses

It is notable that a low percentage (9%) of the Migrant workers had comprehensive knowledge on HIV. Comprehensive knowledge on HIV among the Migrant workers varied according to the district of residence, age group, duration of work, level of education, age at first sex and exposure to out-reach program. A higher percentage of the respondents residing in Chukha district (29%) followed Trongsa district (13%) had comprehensive knowledge on HIV compared to other sampled districts. Comprehensive knowledge on HIV was highest among the Migrant workers aged 35 years and above (13%) and lowest among the respondents aged below 25 years (4%). Comprehensive knowledge on HIV was highest among the migrant workers with higher secondary and above education (18%). Comparatively higher percentage of the Migrant Workers (13%) who had their first sex at the age of 20 years and above were aware on comprehensive knowledge of HIV than other age groups. Over a fifth of the Migrant workers who had comprehensive knowledge of HIV (n=2; 22%) had ever met or interacted with PE and OW and a quarter of them (n=1; 25%) had ever visited HISC in the last 12 months.

Table 5.18 Comprehensive knowledge on HIV by background characteristics

		Comprehensive knowledge on HIV				Total	
		Yes		No			
		N	%	N	%	N	P value
District of residence	Thimphu	7	10.8	58	89.2	65	na
	Chukha	4	28.6	10	71.4	14	
	Sarpang	1	7.1	13	92.9	14	
	Samdrup Jongkhar	1	7.7	12	92.3	13	
	Wangdue Phodrang			81	100.0	81	
	Trongsa	10	13.5	64	86.5	74	
Age group	Less than 25	3	3.8	77	96.2	80	
	25-34	10	9.8	92	90.2	102	0.127
	35 and above	10	12.7	69	87.3	79	
Duration of working in this occupation	Upto 5 years	19	9.2	188	90.8	207	
	6-10 years			25	100.0	25	0.188
	More than 10 years	4	13.8	25	86.2	29	
Level of education	Illiterate	1	1.9	53	98.1	54	
	Below primary	4	6.1	62	93.9	66	0.014
	lower-middle secondary	7	8.6	74	91.4	81	
	Higher secondary and above	11	18.3	49	81.7	60	
Age at first sex	Upto 15	1	4.2	23	95.8	24	
	16-19	2	2.7	72	97.3	74	0.036
	20 and above	16	12.7	110	87.3	126	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	2	22.2	7	77.8	9	
	No	21	8.3	231	91.7	252	0.149
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	1	25.0	3	75.0	4	0.250
	No	22	8.6	235	91.4	257	
Total		23	8.8	238	91.2	261	

5.7.3 Information regarding HIV test

More than two in five respondents reported that (41%) knew about the possibility for someone to have a confidential HIV test done in their community and 44 percent knew about the place where HIV test could be done.

It is notable that one in five (21%) of them had ever undergone an HIV test and among them above six out of ten (62%) had undergone a HIV test voluntarily. Among those who had undergone an HIV test, almost two in five (39%) had undergone it within last 12 months. Among these who had HIV test within last 12 months, more than three in five (62%) had one time HIV test within the last 12 months.

Table 5.19 Information regarding HIV test

	N	%
Possibility for someone to have a confidential HIV test in your community		
Yes	107	41.0
No	130	49.8
Don't know	24	9.2
Knowledge about the place where HIV testing can be done		
Yes	116	44.4
No	145	55.6
Ever have had an HIV test		
Yes	54	20.7
No	207	79.3
Total	261	100.0
HIV test undergone either voluntarily or because it was required		
Voluntarily	33	61.1
Required	21	38.9
Total	54	100.0
Time of most recent HIV test		
Within last 12 months	21	38.9
Between 1-2 years	16	29.6
Between 2-4 years	6	11.1
More than 4 years ago	11	20.4
Total	54	100.0
Number of times having undergone HIV test within the last 12 months		
1	13	61.9
2	5	23.8
3	2	9.5
8	1	4.8
Total	21	100.0

5.8 Stigma and discrimination

Slightly more than seven out of ten (71%) of the migrant workers were ready to take care of his/her HIV positive relatives in their household. It is found that above half (51%) would keep it a secret if his/her

relative got HIV. Two fifths (41%) would buy food from a HIV positive shopkeeper and almost two fifths (39%) opined that a HIV positive person required more care than a person with other chronic illness. Almost half (49%) were of the view that their HIV positive colleagues who are not very sick should be allowed to work and over six out of ten (63%) said that a HIV positive child should be able to attend school with other children who are HIV negative.

Table 5.20 Stigma and discrimination

	N	%
Respondent's opinion on if his/her relative gets HIV, would they be willing to take care of them in their household		
Yes	185	70.9
No	48	18.4
Don't know	28	10.7
Respondent's opinion on if his/her family member gets HIV, would they want it to remain a secret		
Yes	134	51.3
No	95	36.4
Don't know	32	12.3
Respondent's opinion on if they knew a shopkeeper or food seller had HIV, would they buy food from him/her		
Yes	107	41.0
No	119	45.6
Don't know	30	11.5
No response	5	1.9
Opinion of the respondent on if a person with HIV should get the same, more or less health care than someone with any other chronic disease		
Same	93	35.6
More	102	39.1
Less	12	4.6
Don't know	44	16.9
No response	10	3.8
Opinion of the respondent on if one of their colleagues who have HIV but is not very sick should be allowed to continue working		
Yes	127	48.7
No	102	39.1
Don't know	28	10.7
No response	4	1.5
Opinion of the respondent on either children living with HIV should be able to attend school with children who are HIV negative		
Yes	165	63.2
No	66	25.3
Don't know	29	11.1
No response	1	0.4
Total	261	100.0

5.9 Reach by HIV/AIDS prevention intervention program

5.9.1 Met Peer educator (PE)/Outreach educator (OE), DIC in the last 12 months

Exposure to program on HIV/AIDS is very low among migrant workers. Only 3 percent of the Migrant Worker had ever met Peer educator (PE)/ Outreach educator (OE) in the last 12 months. The major activities done during their meeting with PE/OE was discussion on how HIV/AIDS is/isn't transmitted (100%). Similarly, other activities discussed were how STI is transmitted, discussion on regular use of condom and discussion about correct use of condom respectively. None of the migrant workers had ever visited outreach centre (DIC) in the past 12 months.

Table 5.21 Met Peer educator (PE)/Outreach educator (OE) in the last 12 months

	N	%
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months		
Yes	9	3.4
No	252	96.6
Total	261	100.0
Activities		
Discussion on how HIV/AIDS is/isn't transmitted	9	100.0
Discussion on how STI is/isn't transmitted	1	11.1
Regular/non-regular use of Condom	1	11.1
Condom correctly	1	11.1
Total	9	100.0

Percentage total may exceed 100 due to multiple responses

5.9.2 Visited HISC in the last 12 months

Among the total participants only four of the migrant workers (1.5%) had ever visited Health Information Service Centers (HISC) in the last 12 months. Among them, half (n=2) received pre-HIV/AIDS test counseling, received post HIV/AIDS test counseling and blood sample taken for HIV/AIDS test.

Table 5.22 Visited HISC in the last 12 months

	N	%
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months		
Yes	4	1.5
No	257	98.5
Total	261	100.0
Activities		
Received pre-HIV/AIDS test counseling	2	50.0
Received post HIV/AIDS test counseling	2	50.0
Blood sample taken for HIV/AIDS test	2	50.0
Total	4	100.0

Percentage total may exceed 100 due to multiple responses

5.10 Prevalence of HIV, Syphilis and Hepatitis B

None of the migrant workers had HIV positive. The prevalence of Syphilis was 0.4 percent. The prevalence of Hepatitis B was 3 percent.

Table 5.23Prevalence of HIV, Syphilis and Hepatitis B

	N	%
HIV		
Reactive	0	0
Non-Reactive	261	100
Total	261	100.0
Syphilis		
Reactive	1	0.4
Non-Reactive	260	99.6
Total	261	100.0
HBV		
Reactive	8	3.1
Non-Reactive	253	96.9
Total	261	100.0

It is encouraging to note that a negligible percent of the Migrants Workers (0.4%) had ever experienced symptoms of Syphilis. The survey tried to explore the prevalence of Syphilis infection according to background characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. A single migrant worker who had Syphilis infection belonged to Samdrup Jongkhar district whereas none of the respondents belonging to Thimpu, Chukha, Sarpang, Wangdue Phodrang and Trongsa district had ever experienced symptoms of Syphilis. The only one Migrant Worker experiencing symptom of Syphilis belonged to 35 years and above. He was illiterate and had been working as a Migrant Workers for up to 5 years. He had

his first sex at the age of 20 years and above. He had neither ever interacted with PE/OW nor had ever visited to HISC. In the past 12 months.

Table 5.24 Experience of syphilis by background characteristics

		Syphilis				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	%
District of residence	Thimphu			65	100.0	65	
	Chukha			14	100.0	14	
	Sarpang			14	100.0	14	
	Samdrup Jongkhar	1	7.7	12	92.3	13	
	Wangdue Phodrang			81	100.0	81	
	Trongsa			74	100.0	74	
Age group	Less than 25			80	100.0	80	
	25-34			102	100.0	102	
	35 and above	1	1.3	78	98.7	79	
Duration of working in this occupation	Upto 5 years	1	.5	206	99.5	207	
	6-10 years			25	100.0	25	
	More than 10 years			29	100.0	29	
Level of education	Illiterate	1	1.9	53	98.1	54	
	Below primary			66	100.0	66	
	lower-middle secondary			81	100.0	81	
	Higher secondary and above			60	100.0	60	
Age at first sex	Upto 15			24	100.0	24	
	16-19			74	100.0	74	
	20 and above	1	0.8	125	99.2	126	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes			9	100.0	9	
	No	1	0.4	251	99.6	252	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	-	-	4	100.0	4	
	No	1	0.4	256	99.6	257	
Total		1	0.4	260	99.6	261	

The prevalence of HBV among the Migrant Workers was 3.1 percent. The survey explored the prevalence of HBV infection according to characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. The

prevalence of HBV was highest among the Migrant Workers residing in Samdrup Jongkhar (7.7%) followed by Thimpu district (6%). On the other hand, the prevalence of HBV was zero among the respondents residing in Chukha and Sarpang district. Among the eight respondents who were infected with HBV four were aged 35 years and six of them had been working as a Migrant Worker for up to 5 years. A higher percentage of them (n=6; 6%) had completed below primary level of education. Out of eight respondents who had reactive HBV, seven had their first sex at the age of 20 years and above. None of the respondents infected with HBV had ever interacted with PE/OW neither had ever visited to HISC in the last 12 months.

Table 5.25 Experience of HBV by background characteristics

		HBV				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	P value
District of residence	Thimphu	4	6.2	61	93.8	65	na
	Chukha	-	-	14	100.0	14	
	Sarpang	-	-	14	100.0	14	
	Samdrup Jongkhar	1	7.7	12	92.3	13	
	Wangdue Phodrang	2	2.5	79	97.5	81	
	Trongsa	1	1.4	73	98.6	74	
Age group	Less than 25	2	2.5	78	97.5	80	0.457
	25-34	2	2.0	100	98.0	102	
	35 and above	4	5.1	75	94.9	79	
Duration of working in this occupation	Upto 5 years	6	2.9	201	97.1	207	0.948
	6-10 years	1	4.0	24	96.0	25	
	More than 10 years	1	3.4	28	96.6	29	
Level of education	Illiterate	2	3.7	52	96.3	54	na
	Below primary	4	6.1	62	93.9	66	
	lower-middle secondary	2	2.5	79	97.5	81	
	Higher secondary and above	-	-	60	100.0	60	
Age at first sex	Upto 15	-	-	24	100.0	24	na
	16-19	1	1.4	73	98.6	74	
	20 and above	7	5.6	119	94.4	126	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	-	-	9	100.0	9	na
	No	8	3.2	244	96.8	252	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	-	-	4	100.0	4	na
	No	8	3.1	249	96.9	257	
Total		8	3.1	253	96.9	261	

CHAPTER 6 RESULT

HIGH RISK WOMEN (HRW)

High risk women include Bhutanese or non-Bhutanese girls/women aged 18 years and above who are female sex workers, those having multiple sex partners, call girls, working in entertainment centers like bars, restaurant, discos, karaoke etc, and informal female sex workers both national and non-national who sell sex for money or in kind for last 6 months. A total of 287 high risk women (HRW) were covered in this study

This chapter describes the result from high risk women. This covers socio-demographic characteristics, condom use, sex partners and their types, knowledge on HIV and risk behavior, exposure to the program and biological test result of the high risk women.

6.1 Socio-Demographic Characteristics of the respondents

6.1.1 Sampled Districts and Nationality

Almost two in five (39%) were from Thimpu district. Similarly over one third (35%) were from Chukha. Just above one in ten (11%) were from Sarpang district and the rest belonged to other districts. An overwhelming majority of the respondents (94%) belonged to Bhutanese nationality.

Table 6.1 Sampled Districts and Nationality

	N	%
District of residence		
Thimphu	113	39.4
Chukha	99	34.5
Sarpang	32	11.1
Samdrup Jongkhar	15	5.2
Wangdue Phodrang	16	5.6
Trongsa	12	4.2
Nationality		
Bhutanese	271	94.4
Non-Bhutanese	16	5.6
Total	**287**	**100.0**

6.1.2 Respondents is based on

Over two thirds of the HRW were based in Drayang (68%) and over one in ten of the respondents were call girls (11%). Similarly, 7 percents HRW were from street based and about six percent were from

hotel/lodged based. Few other respondents were based on dance restaurant, restaurant/tea shops, and house settlement.

Table 6.2 Respondents is based on

Place where respondent is based	N	%
Drayang	196	68.3
Call Girl	31	10.8
Street	20	7.0
Hotel/Lodge	16	5.6
Dance Restaurant	12	4.2
House Settlement	4	1.4
Restaurant/Tea shop	4	1.4
24 hr bar	1	0.3
Shop/Sales girl	2	0.7
Police	1	0.3
Total	**287**	**100.0**

6.1.3 Place of birth

Almost one in six (16%) were born in Thimpu and less than one in ten (9%) were born in Chukha and Trashigang district respectively. It is almost found that about 7 percent of HRW born in outside of Bhutan.

Table 6.3 Place of birth and place of residence

Place of birth	N	%
Thimphu	46	16.0
Chukha	26	9.1
Sarpang	15	5.2
Samdrup Jongkhar	15	5.2
Wangdue Phodrang	25	8.7
Trongsa	5	1.7
Bumthang	2	0.7
Dagana	16	5.6
Haa	11	3.8
Lhuentse	8	2.8
Mongar	13	4.5
Paro	16	5.6
Pemagatshel	7	2.4
Punakha	10	3.5
Samtse	6	2.1
Trashigang	26	9.1
Trashiyangtse	12	4.2
Tsirang	5	1.7
Zhemgang	7	2.4
Districts of India	16	5.6
Total	**287**	**100.0**

6.1.4 Duration of living continuously at the location

Less than one in six (15%) were living in the current location since birth. Over one third (35%) were living in the current location less than two years and above half (51%) were living in the current location for more than 2 years.

Table 6.4 Duration of living continuously at the location

Duration	N	%
Since birth	42	14.6
less than 2 years	100	34.8
2-4 years	69	24.0
More than 4 years	76	26.5
Total	**287**	**100.0**

6.1.5 Demographic characteristics of respondents

Almost two thirds of the HRW (64%) were youth aged below 25. One fourth (25%) were between 25-29 years of age. The average age of the HRW was 23.8 years. Nearly one third (30%) of them were illiterate and a similar proportion (29%) of them had attended middle secondary level of education. It is also notable that one out of thirteen (8%) respondents had higher secondary level.

It is notable that a high majority of the HRW respondents were ever married. Over one third (37%) of them were divorced/permanently separated and just below one third (32%) were currently married. Only less than a fifth respondent (17%) were never married.

Almost one fourth (24%) of them were living with their male friend and below one fifth (18%) were living with their husband. Over half (52%) of the HRW had been engaged in this profession in other locations too.

Nearly two fifths (38%) of them were in this profession for less than a year while more than two fifths (43%) were engaged for 1-3 years and one fifth (20%) were working in this profession for more than 3 years.

Table 6.5 Background characteristics of respondents

	N	%
Age group		
Less than 20	46	16.0
20-24	138	48.1
25-29	73	25.4
30-34	18	6.3
35-39	9	3.1
40-44	3	1.0
Mean Age	23.8	
Median Age	28	
Level of Education		
Illiterate	86	30.2
Literate only	9	3.2
Primary	40	14.0
Lower secondary	45	15.8
Middle Secondary	83	29.1
Higher secondary	22	7.7
Present marital status		
Married	91	31.7
Divorced/Permanently Separated	106	36.9
Widower	2	0.7
Not married but living together	39	13.6
Never married	49	17.1

	N	%
People with whom the respondent is living with		
Male friend	68	23.7
Relatives	55	19.2
Other females	51	17.8
Children	17	5.9
Alone	41	14.3
Husband	52	18.1
Parents/Family	3	1.0
Ever been engaged in this profession in other locations too		
Yes	150	52.3
No	137	47.7
Working duration		
Less than 1 year	108	37.6
1-3 years	123	42.9
3-5 years	35	12.2
More than 5 years	21	7.3
Total	**287**	**100.0**

6.2 Sexual behavior of respondents

Almost all the HRW respondents (99%) had ever had sexual intercourse. More than half of the HRW (54%) had their first sex by 17 years. Almost three in ten (30%) had their first sex at the age 18-20 years. The mean age at first sex was 17.1 years.

An overwhelming majority of the HRW (87%) reported that their first sexual intercourse was happened consensual. However, above one in ten (11%) of them had forced sex. Among those who had ever sex, almost all (99%) had sex in a past one year. Majority of HRW (86%) had multiple sex partners. The average number of sex partners in the past one year was 4.9. It is notable that almost one in five respondents (17%) did not remember the number of sex partners in a past one year.

Table 6.6 Sexual behavior of respondents

	N	%
Ever have had sex		
Yes	284	99.0
No	3	1.0
Age at first sex		
Less than 15 years	18	6.4
15-17 years	134	47.9
18-20 years	85	30.4
21-25 years	16	5.7
Don't know /can't recall	27	9.6
Mean Age at first sex	17.1	
Median Age at first sex	17	
First sexual intercourse (vaginal/anal) is either forced or consensual one		
Forced	31	10.9
Consensual	247	87.0
Don't know/can't recall	6	2.1
Sex partners in a past one year		
None	2	0.7
One	39	13.7
Two	36	12.7
Three	44	15.5
Four	26	9.2
Five	19	6.7
Six	17	6.0
Seven	13	4.6
Eight or more	39	13.7
Don't know/don't remember	49	17.3
Mean	4.9	
Median	3	
Total	**284**	**100.0**

6.2.1 Sexual behavior in exchange of money and professional background of last sex partner

Sexual behavior in exchange of money in the past one week were explore from the respondent. It is found that almost four-fifth (78%) had sex in exchange of money in past one week. Almost one in ten (8%) of respondents had sex in exchange of money in the past one week with five or more clients.

Almost one fifth (19%) of the drayang girls reported that their clients were transport workers (19%) followed by businessmen (14%). More than a tenth HRW reported that their last sex partners were

service holder (13%) and contractor (12%). It is found that one in six (16%) of the respondent did not know the professional background of their client.

Table 6.7 Sexual behavior in exchange of money and professional background of last sex partner

	N	%
Sex in exchange of money in past one week		
None/not had sex in exchange of money	63	22.2
One	54	19.0
Two	57	20.1
Three	40	14.1
Four	19	6.7
Five or more	22	7.7
Don't know	29	10.2
Total	**284**	**100.0**
Professional background of last sex partner/client		
Transport (Bus, truck/taxi etc) worker	54	19.0
Businessmen	40	14.1
Service holder	36	12.7
Contractor	33	11.6
Police	7	2.5
Soldier/Army	10	3.5
Student	14	4.9
Migrant worker	27	9.5
Foreigner (Indian and other Nationals)	1	0.4
Farmer	4	1.4
Club	12	4.2
Don't know	46	16.2
Total	**284**	**100.0**

6.2.2 Sexual behavior in exchange of cash or in kind/gift

It is found that over seven out of ten (73%) of the respondents partner sometimes compensated her in cash or kind for exchange of sex while over one fifth (22%) never compensated with client in cash or in kind/gift. More than two thirds (67%) of the respondents sometimes accepted cash or kind in exchange of sex while nearly a third (29%) of the respondents did not accept cash or kind in exchange of sex.

Table 6.8 Sexual behavior in exchange of cash or in kind/gift

	N	%
Respondent's sexual partner ever compensated with him/her in cash or in kind/gift		
Yes, always	14	4.9
Yes, sometimes	207	72.9
No	63	22.2
Total	284	100.0
Frequency of acceptance of cash or kind in exchange of sex		
Always	13	4.6
Sometimes	189	66.5
Not at all	82	28.9
Total	**284**	**100.0**

6.3 Family planning methods

6.3.1 Knowledge on family planning methods

Almost nine out of ten (89%) of the respondents had heard of family planning methods while more than a tenth respondents (11%) never heard about family planning. Among those who had ever heard of family planning methods were asked name the methods. It is found that almost all who heard family planning methods heard condom (99%) followed by pills (92%). More than three in four respondents heard about injection (77%).

Table 6.9 Knowledge on family planning methods

	N	%
Ever heard about family planning		
Yes	253	89.1
No	31	10.9
Total	284	100.0
Methods		
Condom	251	99.2
Pills	232	91.7
IUCD	38	15.0
Implant	22	8.7
Injection	194	76.7
Male sterilization	9	3.6
Female sterilization	15	5.9
Withdrawal/Calendar	1	0.4
Total	**253**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.3.2 Use of family planning method

Almost two thirds of the respondents (63%) had ever used family planning methods and similar percentages (61%) of them were currently using them. The most commonly used methods of the family planning were condom (50%), Pills (36%) and Injection (36%) respectively.

Table 6.10 Use of family planning method

	N	%
Ever used of family planning methods		
Yes	178	62.7
No	106	37.3
Total	**284**	**100.0**
Current used of any Family planning methods		
Yes	109	61.2
No	69	38.8
Total	**178**	**100.0**
Currently using methods		
Condom	54	49.5
Pills	39	35.8
IUCD	4	3.7
Injection	39	35.8
Female sterilization	2	1.8
Total	**109**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.4 Condom use

6.4.1 Condom use with clients/sex partners

Nine out of ten (90%) of the HRW ever had sex with a client/sex partner. Among the HRW who ever had sex with a client/sex partner, over six out of ten (62%) used condom during their last sex; and among them two fifths (40%) of the HRW suggested for condom use by themselves.

Table 6.11 Condom use with clients/sex partners

	N	%
Ever had sex with client/sex partners		
Yes	258	89.9
No	29	10.1
Total	**287**	**100.0**
Use of condom in the last sexual intercourse with client/partner		
Yes	161	62.4
No	97	37.6
Total	258	100.0
Suggestion of condom use at that time		
Myself	65	40.4
My Partner	90	55.9
Don't know	6	3.7
Total	161	100.0

6.4.2 Condom use with clients/sex partners

The main reason of not using condom with clients/sex partners was that the partner opposed (50%). Almost one in ten respondents reported the reason for not using was not available (9%) of condom while almost a third (30%) HRW did not know the reason for not using condom with clients/sex partner.

Table 6.12 Condom use with clients/sex partners

Reasons for not using condom	N	%
Not available	9	9.3
Too expensive	2	2.1
Partner objected	49	50.5
I didn't like to use it	5	5.2
Used other contraceptive	5	5.2
Don't know	28	28.9
Total	**97**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.4.3 Consistent use of Condom with clients/sex partner

The consistent condom use among HRW with their clients/sex partner was only 13 percent. Half of the respondents reported that they used condom sometimes and more than a tenth reported that they never used condom with clients/sex partners.

Table 6.13 Consistent use of Condom with clients/sex partner

Frequency of condom use by the respondent	N	%
All of the time	34	13.2
Most of the time	39	15.1
Some of the time	129	50.0
Rarely	29	11.2
Never	27	10.5
Total	**258**	**100.0**

6.4.4 Condom use with regular clients

Over half (56%) of the HRW reported that they ever had sex with regular client/sex partners. Among them six out of ten (60%) had used condom during the last sex with their regular client.

Only 16 percent of HRW reported using condom always with their regular clients. More than half used sometimes and eight percent used condom rarely.

Table 6.14 Condom use with regular clients

	N	%
Ever had sex with regular client/sex partners		
Yes	161	56.1
No	126	43.9
Total	**287**	**100.0**
Use of condom by regular clients/sex partners in the last sexual contact with the respondent		
Yes	96	59.6
No	65	40.4
Total	**161**	**100.0**
Frequency of condom use by the respondent's regular clients/sex partner with him/her over the past 12 months		
All of the time	26	16.1
Most of the time	40	24.8
Some of the time	82	50.9
Rarely	13	8.1
Total	**161**	**100.0**

6.4.5 Condom use with non paying regular partner (husband or male friend)

More than half (51%) of the HRW had sex with their non paying partners in the last 6 months. Among these HRW, only two in five (42%) used condom in the last sexual intercourse with husband or a male friend staying together.

Table 6.15 Condom use with non paying regular partner (husband or male friend)

	N	%
Having had sexual intercourse with husband or a male friend in past six months		
Yes	147	51.2
No	140	48.8
Total	**287**	**100.0**
Use of condom by the respondent's sex partner in last sexual intercourse with husband or a male friend staying together		
Yes	62	42.2
No	85	57.8
Total	**147**	**100.0**

6.4.6 Condom use with sex partner other than respondents' husbands and male friends living together

Almost a third (30%) of the HRW had sex with a sex partner other than clients, husbands and male friend living together in the past one year. Three in four respondents (75%) used condom with client/husband/male friend when having last sexual contact. The consistent condom use among such partners was 16 percent. Majority of the respondent reported that they used condom most of the time.

Table 6.16 Condom use with sex partner other than respondents' husbands and male friends living together

	N	%
Have had sexual intercourse with a person other than the respondent's client, husband/ male friend during the past one year		
Yes	85	29.6
No	202	70.4
Total	**287**	**100.0**
Use of condom by the respondent's client, husband/ male friend when he had last sexual contact with the respondent		
Yes	64	75.3
No	21	24.7
Total	**85**	**100.0**
Frequency of condom use by other partners with the respondent over the past 12 months		
All of the time	14	16.5
Most of the time	44	51.8
Some of the time	25	29.4
Rarely	2	2.4
Total	**85**	**100.0**

6.4.7 Knowledge and use of female Condom

Only half (50%) of the respondents had ever heard of a female condom. Those respondents who had heard female condom were asked whether they used condom. It is found that seven respondents (2%) had also used female condom.

Table 6.17 Knowledge and use of female Condom

	N	%
Heard about condoms that can be used by women		
Yes	142	49.5
No	145	50.5
Ever use of female condoms		
Yes	7	2.4
No	280	97.6
Total	**287**	**100.0**

6.5 Condom accessibility

Less than one in six (15%) of the HRW had the practice of carrying condom with them. Two thirds of the respondents reported that they can get condom form hospital (66%) followed by pharmacy (47%). A tenth of the respondents (10%) reported that they can get condom from NGOs/health workers/volunteer. It is found that Just above four fifths (81%) of the respondents had not received condoms from any organizations in the past 12 months.

Table 6.18 Condom accessibility

	N	%
Usual condom carrying practice		
Yes	42	14.6
No	245	85.4
Places or person form where/whom respondents can obtain condom		
Health Post/ health center	8	2.8
Pharmacy	135	47.0
General retail store	8	2.8
Hospital	189	65.9
NGOs clinic	1	0.3
Peer/friends	2	0.7
NGO/health workers/volunteers	28	9.8
HISC	1	0.3
Don't know	1	0.3
Respondent been given condoms by any organizations in the last 12 months		
Yes – free	54	18.8
Yes – on cash	1	0.3
No	232	80.8
Total	**287**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.6 Type of sex practices

Less than one in ten (7%) of the HRW had sex other than vaginal in the past year. Among these respondents who had other than vaginal in the past year, more than four in five (86%; n=18) had anal sex while other three respondents reported that they had oral sex. Respondent were asked about the type of sexual acts with last client/sex partners. It is found that more three in four (76%) had vaginal sex while fourteen percent of the respondent had anal sex with last clients.

Table 6.19 Type of sex practices

	N	%
Have had other type of sexual intercourse other than vaginal in the past year		
Yes	21	7.3
No	266	92.7
Total	**287**	**100.0**
Type of sexual acts		
Oral	3	14.3
Anal	18	85.7
Total	**21**	**100.0**
Type of sexual acts with last client/sex partners		
Oral	2	9.5
Anal	3	14.3
Vaginal	16	76.2
Total	**21**	**100.0**

6.7 HIV/AIDS

6.7.1 Awareness on HIV/AIDS

Almost all (98%) the HRW had heard of HIV/AIDS. The major sources of information about HIV were television (89%), health workers (81%), friends/relatives (78%) and workplace (63%).

Table 6.20 Awareness on HIV/AIDS

	N	%
Ever heard of HIV/AIDS		
Yes	281	97.9
No	6	2.1
Total	**287**	**100.0**
Sources		
Radio	125	43.6
Television	252	87.8
Newspapers/Magazines	96	33.4
Pamphlets/Posters	96	33.4
Health Workers	234	81.5
School/Teachers	143	49.8
Friends/Relatives	223	77.7
Work Place	181	63.1
People from same community	22	7.7
Total	**287**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.7.2 Comprehensive Knowledge on HIV

More than half (53%) respondents were aware that people can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner. More than half (55%) of respondents knew that people can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact. Similarly, over half (54%) knew that a healthy-looking person can be infected with HIV. Only less than two in five (37%) knew that a person cannot get the HIV virus from mosquito bite. However, over three fourths (78%) reported that a person do not get HIV by sharing a meal with an HIV infected person.

Table 6.21 Comprehensive Knowledge on HIV

	N	%
People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner		
Yes	153	53.3
No	80	27.9
Don't know	54	18.8
People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact		
Yes	157	54.7
No	107	37.3
Don't know	23	8.0
A healthy-looking person can be infected with HIV		
Yes	154	53.7
No	51	17.8
Don't know	82	28.6
A person can get the HIV virus from mosquito bite		
Yes	143	49.8
No	106	36.9
Don't know	38	13.2
A person get HIV by sharing a meal with an HIV infected person		
Yes	50	17.4
No	223	77.7
Don't know	14	4.9
Comprehensive knowledge on HIV		
Yes	26	9.1
No	261	90.9
Total	287	100.0

Almost a tenth of the HRW (9%) had comprehensive knowledge on HIV. Comprehensive knowledge on HIV among the HRW varied according to the district of residence, age group, duration of work, level of education, age at first sex and exposure to out-reach program. A higher percentage of the respondents

residing in Trongsa district (17%) followed by Chukha district (12%) had comprehensive knowledge on HIV. On the other hand, the lowest comprehensive knowledge on HIV was found among the HRW residing in Sarpang district (6%) while none of the respondent residing in Wangdue Phodrang had such knowledge.

Comprehensive knowledge on HIV was highest among the HRW aged 25-34 years (15%). Nearly a fifth of them who had comprehensive knowledge on HIV (17%) had been working in the particular profession for 2-4 years. Comprehensive knowledge on HIV was slightly higher among those HRW with higher secondary and above education (12%) followed by below primary level of education (10%).

Table 6.22 Comprehensive Knowledge on HIV by background characteristics

		Comprehensive knowledge on HIV				Total	
		Yes		No			
		N	%	N	%	N	P value
District of residence	Thimphu	9	8.0	104	92.0	113	na
	Chukha	12	12.1	87	87.9	99	
	Sarpang	2	6.2	30	93.8	32	
	Samdrup Jongkhar	1	6.7	14	93.3	15	
	Wangdue Phodrang			16	100.0	16	
	Trongsa	2	16.7	10	83.3	12	
Age group	Less than 25	12	6.5	172	93.5	184	na
	25-34	14	15.4	77	84.6	91	
	35 and above			12	100.0	12	
Duration	Since birth	4	9.5	38	90.5	42	0.016
	less than 2 years	3	3.0	97	97.0	100	
	2-4 years	12	17.4	57	82.6	69	
	More than 4 years	7	9.2	69	90.8	76	
Level of education	Illiterate	7	8.1	79	91.9	86	0.909
	Below primary	5	10.2	44	89.8	49	
	lower-middle secondary	11	8.6	117	91.4	128	
	Higher secondary and above	3	12.5	21	87.5	24	
Age at first sex	Upto 15	7	12.1	51	87.9	58	0.209
	16-19	11	6.6	155	93.4	166	
	20 and above	8	13.3	52	86.7	60	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	16	10.3	140	89.7	156	0.441
	No	10	7.6	121	92.4	131	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	12	8.8	125	91.2	137	0.866
	No	14	9.3	136	90.7	150	
Total		26	9.1	261	90.9	287	

6.7.3 Knowledge and practice on HIV Test

Nearly three in five (57%) of HRW knew about the possibility for someone to have a confidential HIV test done in their community and above seven in ten (74%) knew the place where HIV testing could be done. Almost nine out of ten (89%) of the HRW had ever undergone a HIV test. An overwhelming majority of the respondents (90%) who had ever undergone an HIV test had done it voluntarily.

Among the HRW who had ever done an HIV test, nearly nine out of ten (88%) had done it within the last 12 months. More than four in five (83%) among those who had undergone an HIV test within the last 12 months had done it two or more times.

Table 6.23 Knowledge and practice on HIV Test

	N	%
Possibility for someone to have a confidential HIV test in your community		
Yes	165	57.5
No	49	17.1
Don't know	73	25.4
Knowledge about the place where HIV testing can be done		
Yes	212	73.9
No	75	26.1
Total	**287**	**100.0**
Ever have had an HIV test		
Yes	189	89.2
No	23	10.8
Total	**212**	**100.0**
HIV test undergone either voluntarily or because it was required		
Voluntarily	170	89.9
Required	19	10.1
Total	**189**	**100.0**
Time of most recent HIV test		
Within last 12 months	165	87.3
Between 1-2 years	18	9.5
Between 2-4 years	3	1.6
More than 4 years ago	3	1.6
Total	**189**	**100.0**
Number of times having undergone HIV test within the last 12 months		
1	45	27.3
2	51	30.9
3	46	27.9
4	11	6.7
5	12	7.3
Total	**165**	**100.0**

6.8 Sexually Transmitted Infection

6.8.1 Knowledge about STI

The HRW were assessed for their knowledge of STI. More than two in five (43%) were unaware about STIs. The common features they mentioned as STI were syphilis/gonorrhea (23%) followed by white discharge (15%), itching around vagina (13%) and painful urination (6%).

Table 6.24 Knowledge about STI

Knowledge on STI	N	%
Syphilis /gonorrhea	66	23.0
White discharge	43	15.0
Itching around vagina	38	13.2
Lower abdominal pain	9	3.1
Painful urination	17	5.9
Swelling of vagina	6	2.1
Pain in vagina	15	5.2
Unusual bleeding from vagina	1	0.3
Fever	5	1.7
Burning during urination	6	2.1
Weight loss/ get thinner	1	0.3
Other	7	2.4
Don't know	123	42.9
Total	**287**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.8.2 Symptoms of STI and treatment

Respondents reported that they were currently experiencing symptoms of STI like lower abdominal pain (14%), pain during urination (13%), frequent urination, itching in or around the vagina (12%) and vaginal odor or smell (12%). Almost a third (30%) of them had experienced at least one symptom of STI. Among them less than only two in five (39%) had sought medical attention.

Table 6.25 Symptoms of STI and treatment

	N	%
STI Symptoms		
Pain in the lower abdomen	39	13.6
Pain during urination	37	12.9
Frequent urination	28	9.8
Pain during sex	37	12.9
Ulcer or sore in the genital area	9	3.1
Itching in or around the vagina	34	11.8
Vaginal odor or smell	34	11.8
At least one symptoms experienced	85	29.6
Total	**287**	
Having gone through medical treatment for any of these symptoms		
Yes	33	38.8
No	52	61.2
Total	**85**	**100.0**

6.9 Use of alcohol, illicit drugs and injection

It is notable that only less than a third (29%) HRW never had drinks containing alcohol during the last 30 days. On the other hand, half (50%) of the HRW consumed alcohol 2-3 times in a week in the past month. It is notable that almost half (46%) did not drink while having sex with a client in the past 6 months. However seven percent of the respondents reported that they drunk most of the time while having sex with clients in last 6 months.

Information regarding drug use also explore among HRW. It is found that one in six (17%) of them had ever tried different types of drugs in the past 30 days. However none of them ever-injected drugs using a syringe.

Table 6.26 Use of alcohol, illicit drugs and injection

	N	%
Frequency of having drinks containing alcohol during the last 30 days		
Everyday	18	6.3
2-3 times a week	144	50.2
At least once a week	15	5.2
Less than once in a week	28	9.8
Never	82	28.6
Total	**287**	**100.0**
Frequency of getting drunk while having sex (anal/vaginal) with clients in last 6 months		
Always	5	1.7
Most of the time	19	6.6
Sometimes	130	45.3
Never	133	46.3
Total	**287**	**100.0**
Ever tried different types of drugs in the past 30 days		
Yes	48	16.7
No	239	83.3
Total	**287**	**100.0**
Ever-injected drugs using a syringe		
Yes	0	0
No	48	100.0
Total	**48**	**100.0**

6.10 Stigma and discrimination

Over nine out of ten (94%) of the HRW were willing to take care of his/her HIV positive relative. Nearly four-fifths (78%) of them would want it to remain a secret if his/her family member got HIV. Three in five respondents (60%) reported that they were ready to buy food from an HIV positive shop keeper. Similarly, nearly two in five (57%) opined that an HIV positive person required more care than a person of any other chronic disease. A majority of the respondents (80%) had an opinion that their HIV positive colleagues should be allowed to work if he/she is not very sick and exactly same percentage of respondents (80%) were of the view that an HIV positive child should be able to attend school with children who are HIV negative.

Table 6.27 Stigma and discrimination

	N	%
Respondent's opinion on if his/her relative gets HIV, would they be willing to take care of them in their household		
Yes	270	94.1
No	8	2.8
Don't know	9	3.1
Respondent's opinion on if his/her family member gets HIV, would they want it to remain a secret		
Yes	224	78.0
No	58	20.2
Don't know	5	1.7
Respondent's opinion on if they knew a shopkeeper or food seller had HIV, would they buy food from him/her		
Yes	173	60.3
No	88	30.7
Don't know	26	9.1
Opinion of the respondent on if a person with HIV should get the same, more or less health care than someone with any other chronic disease		
Same	164	57.1
More	71	24.7
Less	14	4.9
Don't know	36	12.5
No response	2	.7
Opinion of the respondent on if one of their colleagues who have HIV but is not very sick should be allowed to continue working		
Yes	229	79.8
No	32	11.1
Don't know	26	9.1
Opinion of the respondent on either children living with HIV should be able to attend school with children who are HIV negative		
Yes	231	80.5
No	41	14.3
Don't know	10	3.5
No response	5	1.7
Total	**287**	**100.0**

6.11 Reach by HIV/AIDS prevention intervention Program

6.11.1 Met peer educator in the last 12 months

It is encouraging to note that over half (54%) of the HRW had ever met or interacted with Peer Educators (PE) or Outreach workers (OE) in the last 12 months. The major activities during their meeting/interaction with PE/OE were discussion on how HIV/AIDS could be transmitted (90%) followed by regular use of condom (50%). Similarly, other topics of discussion were about how STI could be transmitted (28%) and about the correct use of condom (26%).

Table 6.28 Met peer educator in the last 12 months

	N	%
Ever met or interacted with PE or OE in the last 12 months		
Yes	156	54.4
No	130	45.3
No response	1	0.3
Total	**287**	**100.0**
Activities		
Discussion on how HIV/AIDS is/isn't transmitted	141	90.4
Discussion on how STI is/isn't transmitted	44	28.2
Regular/non-regular use of Condom	78	50.0
Condom correctly	40	25.6
Total	**156**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.11.2 Visited DIC in the last 12 months

Less than a tenth (7%) of the HRW had ever visited a DIC in the past 12 months. The major activities they were involved during their visit to DIC was counseling/meeting (42%), to collect condom (26%), learn to use condom correctly and advocacy/sensitization (16%).

Table 6.29 Visited DIC in the last 12 months

	N	%
Ever visited to any outreach center (DIC) in the last 12 months		
Yes	19	6.6
No	268	93.4
Total	**287**	**100.0**
Activities		
Condom collection	5	26.3
Learn correctly condom use	3	15.8
Counseling/Meeting	8	42.1
Advocacy/Sensitization	3	15.8
Total	**19**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.11.3 Visited HISC in the last 12 months

Almost half (48%) of the HRW visited Health Information Service Centers (HISC) during the past 12 months. Those who visited the HISC in the past 12 months were involved in various activities as; received pre- HIV/AIDS test counseling (75%), received post HIV/AIDS test counseling (61%), blood sample taken for HIV/AIDS test (76%) and received HIV/AIDS test result (41%).

Table 6.30 Visited HISC in the last 12 months

	N	%
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months		
Yes	137	47.7
No	150	52.3
Total	**287**	**100.0**
Activities		
Received pre-HIV/AIDS test counseling	103	75.2
Received post HIV/AIDS test counseling	83	60.6
Blood sample taken for HIV/AIDS test	104	75.9
Received HIV/AIDS test result	56	40.9
Received counseling on using condom correctly in each sexual intercourse	11	8.0
Took a friend with me	10	7.3
Received information on HIV/AIDS window period	2	1.5
Others	1	0.7
Total	**137**	**100.0**

Percentage total may exceed 100 due to multiple responses

6.12 Information regarding network

Almost three in five (58%) HRW have friends from another districts and among them. Just above six out of ten (61%) had one to four number of other HRW/DG who also knows the respondent well. Similarly, sixteen percentage of HRW reported that they knew 10 or above HRWs very well. The average number of other HRW/DG from another district who knows the respondent was 5.4.

Table 6.31 Information regarding network

	N	%
Having friends (HRW/DG) from other district or cities than this city		
Yes	166	57.8
No	108	37.6
No response	13	4.5
Total	**287**	**100.0**
Number of other HRW/DG known (who also knows the respondent well)		
1-4	101	61
5-9	32	19.2
10 and above	27	16.2
Don't know	4	2.4
No response	2	1.2
Mean	5.4	
Median	3.5	
Total	**166**	**100.0**

6.13 Prevalence of HIV, Syphilis and Hepatitis B

None of the HRW had HIV positive. The prevalence of Syphilis was 2.8 (n=8). Similarly, the prevalence of Hepatitis B was 1.4 percent (n=4).

Table 6.32 Prevalence of HIV, Syphilis and Hepatitis B

	N	%
HIV		
Reactive	0	0
Non-Reactive	287	100.0
Total	287	100.0
Syphilis		
Reactive	8	2.8
Non-Reactive	279	97.2
Total	287	100.0
HBV		
Reactive	4	1.4
Non-Reactive	283	98.6
Total	287	100.0

It is notable that almost 3 percent of the HRW (2.8%) had ever experienced symptoms of Syphilis. Prevalence of Syphilis infection slightly varied according to background characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. The prevalence of Syphilis was highest among the HRW residing in

Trongsa district (8%) followed by Sarpang district (6%). In the meanwhile, the prevalence of Syphilis was zero among the respondents residing in Samdrup Jongkhar and Wangdue Phodrang district .

A higher percentage of the respondents who had syphilis belonged to 35 years and above (17%). Similarly, among the respondents who had reactive Syphilis, higher percentage had completed below primary level of education (6%) and had their first sex at the age of 20 years and above (5%). Out of eight respondents who had syphilis, five each had never interacted with PE/OW and visited HISC in the last 12 months.

Table 6.33 Experience of Syphilis by background characteristics

		Syphilis				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	P value
District of residence	Thimphu	3	2.7	110	97.3	113	na
	Chukha	2	2.0	97	98.0	99	
	Sarpang	2	6.2	30	93.8	32	
	Samdrup Jongkhar			15	100.0	15	
	Wangdue Phodrang			16	100.0	16	
	Trongsa	1	8.3	11	91.7	12	
Age group	Less than 25	2	1.1	182	98.9	184	0.003
	25-34	4	4.4	87	95.6	91	
	35 and above	2	16.7	10	83.3	12	
Duration	Since birth	2	4.8	40	95.2	42	0.781
	less than 2 years	3	3.0	97	97.0	100	
	2-4 years	1	1.4	68	98.6	69	
	More than 4 years	2	2.6	74	97.4	76	
Level of education	Illiterate	3	3.5	83	96.5	86	na
	Below primary	3	6.1	46	93.9	49	
	lower-middle secondary	2	1.6	126	98.4	128	
	Higher secondary and above			24	100.0	24	
Age at first sex	Upto 15	2	3.4	56	96.6	58	0.417
	16-19	3	1.8	163	98.2	166	
	20 and above	3	5.0	57	95.0	60	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	3	1.9	153	98.1	156	0.332
	No	5	3.8	126	96.2	131	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	3	2.2	134	97.8	137	0.557
	No	5	3.3	145	96.7	150	
Total		8	2.8	279	97.2	287	

It is notable that a negligible percentage of the HRW (1.4%) were infected with HBV. Prevalence of HBV infection slightly varied according to characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. The prevalence of HBV was highest among the HRW residing in Samdrup Jongkhar district (7%). On the other

hand, the prevalence of HBV was zero among the respondents residing in Trongsa, Wangdue Phodrang and Sarpang district. All the respondents who were infected with HBV were of age less than 25 years. Out of the four respondents who had reactive HBV, three had been working as a HRW for less than 2 years and had completed lower-middle secondary education. All of the respondents who had HBV had their first sex at the age between 16-19 years. Only two out of the four respondents infected with HBV had ever interacted with PE/OW and visited the HISC in the last 12 months.

Table 6.34 Experience of HBV by background characteristics

		HBV				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	P value
District of residence	Thimphu	1	0.9	112	99.1	113	na
	Chukha	2	2.0	97	98.0	99	
	Sarpang	0	0	32	100.0	32	
	Samdrup Jongkhar	1	6.7	14	93.3	15	
	Wangdue Phodrang	0	0	16	100.0	16	
	Trongsa	0	0	12	100.0	12	
Age group	Less than 25	4	2.2	180	97.8	184	na
	25-34	0	0	91	100.0	91	
	35 and above	0	0	12	100.0	12	
Duration	Since birth	0	0	42	100.0	42	na
	less than 2 years	3	3.0	97	97.0	100	
	2-4 years	1	1.4	68	98.6	69	
	More than 4 years	0	0	76	100.0	76	
Level of education	Illiterate	1	1.2	85	98.8	86	na
	Below primary	0	0	49	100.0	49	
	lower-middle secondary	3	2.3	125	97.7	128	
	Higher secondary and above	0	0	24	100.0	24	
Age at first sex	Upto 15	0	0	58	100.0	58	na
	16-19	4	2.4	162	97.6	166	
	20 and above	0	0	60	100.0	60	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	2	1.3	154	98.7	156	0.592
	No	2	1.5	129	98.5	131	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	2	1.5	135	98.5	137	0.860
	No	2	1.3	148	98.7	150	
Total		4	1.4	283	98.6	287	

CHAPTER 7: RESULT

MSM/TG

Bhutanese or non-Bhutanese male aged 18 and above, who reported anal or oral sex with another male in the past 12 months, regardless their motivation(s), sexual orientation, and gender identity, is classified as MSM. Similarly, Both Bhutanese and non-Bhutanese biological male aged 18 and above who self-identified as a "transgender "or "woman", and reported anal or oral sex with another male in the past 12 months is classified as transgender woman. These transgender women may or not have undergone a sex reassignment, breast augmentation, or facial implants, and may or not be dressed with women's clothes all the time. Only 42 respondents (30 MSM and 12 TG) could reach during the survey period.

This chapter describes socio-demographic characteristics, sexual orientation, sexual behavior, condom use, sex partners and their types, knowledge on HIV and Risk behavior, stigma and discrimination, exposure to the program and biological test result.

7.1 Socio-Demographic and Behavioral Characteristics of Respondents

7.1.1 Sampled districts:

A total of 42 respondents were recruited in the survey and among them 30 were MSM and 12 of them were TG. Nearly two thirds (62%) of the respondents were from Thimpu district. Almost three in five MSM (57%) and three-fourth (75%) TGs were from Thimpu. More than a tenth (14%) of the respondents were form Chukha and Sarpang districts respectively.

Table 7.1 Sampled districts:

District of residence	MSM		TG		Total	
	N	%	N	%	N	%
Thimphu	17	56.7	9	75.0	26	61.9
Chukha	6	20.0	0	0	6	14.3
Sarpang	4	13.3	2	16.7	6	14.3
Wangdue Phodrang	2	6.7	1	8.3	3	7.1
Punakha	1	3.3	0	0	1	2.4
Total	30	100.0	12	100.0	42	100.0

7.1.2 Socio-demographic characteristics

Nearly a half of the respondents (48%) were youth aged below 25 years of which two fifths (40%) were MSM and two thirds (67%) were TGs. Two fifths were in between the age 25-29 years of which more

than a half (53%) belonged to MSM group and nearly a tenth (8%) belonged to TG group. Over one in ten (12%) of the respondents were of age 30 years and above. The average age was 25.7 years for MSM while 24.8 for the TGs.

A third of the respondents (N=12; 33%) had attended higher secondary level of education. Among them over two fifths (42%) were MSM and one in ten (10%) were of TG category. Exactly a half (50%) of the respondents was unmarried of which 47 percent belonged to MSM and slightly a higher percentage (58%) belonged to TG category. Three fifths of the MSM (60%) were married to a female and two fifths were married to a male while none of the TGs were currently married. The major profession of the respondents participating in the survey was private company staff, businessman and civil servant (14%) respectively. Above a tenth (n=5; 12%) were unemployed and a negligible percentage of them were engaged as a sex worker, health worker, monk, and chef (n=1; 2%).

Table 7.2 Socio-demographic characteristics

	MSM		TG		Total	
	N	%	N	%	N	%
Age group						
Less than 20	1	3.3	2	16.7	3	7.1
20-24	11	36.7	6	50.0	17	40.5
25-29	16	53.3	1	8.3	17	40.5
30-34	0	0	2	16.7	2	4.8
35 and above	2	6.7	1	8.3	3	7.1
Mean Age	25.7		24.8		25.5	
Median Age	26		23.5		25.4	
Total	30	100.0	12	100.0	42	100.0
Level of Education						
Primary	2	7.7	3	30.0	5	13.9
Lower secondary	3	11.5	3	30.0	6	16.7
Middle Secondary	7	26.9	3	30.0	10	27.8
Higher secondary	11	42.3	1	10.0	12	33.3
Bachelor	3	11.5	0	0	3	8.3
Currently married						
Yes	5	16.7	0	0	5	11.9
Not married but living together	10	33.3	5	41.7	15	35.7
No	14	46.7	7	58.3	21	50.0
No response	1	3.3	0	0	1	2.4
Married sex partner						
Male	2	40.0	0	0	2	40.0
Female	3	60.0	0	0	3	60.0
TG	1	20.0	0	0	1	20.0

	MSM		TG		Total	
	N	%	N	%	N	%
Main profession						
Businessman	4	13.3	2	16.7	6	14.3
Private company staff	5	16.7	1	8.3	6	14.3
Other civil servant	5	16.7	1	8.3	6	14.3
Unemployed	4	13.3	1	8.3	5	11.9
Drayang Dance	0	0	4	33.3	4	9.5
Student	3	10.0	0	0	3	7.1
Driver	2	6.7	0	0	2	4.8
Laborer/wage labor	1	3.3	1	8.3	2	4.8
Sex worker	1	3.3	0	0	1	2.4
Health Worker	1	3.3	0	0	1	2.4
Monk	1	3.3	0	0	1	2.4
Chef	1	3.3	0	0	1	2.4
Other	2	6.7	1	8.3	3	7.1
Don't know	0	0	1	8.3	1	2.4
Total	30	100.0	12	100.0	42	100.0

Total percentages may exceed 100 due to multiple responses

7.1.3 General Information

Nearly a third of the respondents (31%) were born in Thimpu and almost similar among MSM and TG. Over a tenth (14%) of the respondent's birth district was Sarpang and Trashigang respectively. Over two thirds of the respondents (62%) currently lived in Thimpu. Almost three in five (57%) MSM and three-fourth (75%) of TGs were in Thimpu based. Over one third of the respondents (36%) had been living in the current district for 13-24 months and nearly one fourth (24%) had been living in the current district for less than 6 months. A fifth of the MSM (20%) were living in the current district since birth.

Table 7.3 General Information

	MSM		TG		Total	
	N	%	N	%	N	%
Place of birth						
Thimphu	9	30.0	4	33.3	13	31.0
Chukha	3	10.0	0	0	3	7.1
Sarpang	3	10.0	3	25.0	6	14.3
Wangdue Phodrang	1	3.3	1	8.3	2	4.8
Trongsa	1	3.3	0	0	1	2.4
Bumthang	1	3.3	0	0	1	2.4
Mongar	0	0	1	8.3	1	2.4
Paro	1	3.3	0	0	1	2.4
Pemagatshel	1	3.3	0	0	1	2.4
Punakha	4	13.3	0	0	4	9.5
Trashigang	4	13.3	2	16.7	6	14.3
Tsirang	1	3.3	0	0	1	2.4
Zhemgang	1	3.3	1	8.3	2	4.8
Total	30	100.0	12	100.0	42	100.0
Current place of residence						
Thimphu	17	56.7	9	75.0	26	61.9
Chukha	6	20.0	0	0	6	14.3
Sarpang	4	13.3	2	16.7	6	14.3
Wangdue Phodrang	2	6.7	1	8.3	3	7.1
Punakha	1	3.3	0	0	1	2.4
Total	30	100.0	12	100.0	42	100.0
Length of time been living in this district						
Less than 6 months	7	23.3	3	25.0	10	23.8
6-12 months	6	20.0	1	8.3	7	16.7
13-24 months	8	26.7	7	58.3	15	35.7
25 months and above	3	10.0	1	8.3	4	9.5
Since birth	6	20.0	0	0	6	14.3
Total	30	100.0	12	100.0	42	100.0

7.1.4 Orientation/Behavior

Identification of the respondents (MSM and TGs) on the basis of to whom they are attracted to, their sexual orientation and gender identity was assessed in the survey. In this regards, majority of the respondents (86%) were attracted to a man. Among them 87 percent were MSM and 83 percent were TGs. It was found that none of the TGs participating in the survey were attracted towards a woman.

Based on sexual orientation three fifths of the MSM (60%) were gay while one sixth (17%) identified themselves as straight. On the other hands the identification of majority of the TGs (83%) was straight. Similarly in terms of gender identity, majority of the MSM (90%) were of male gender. Over four fifths of the TGs (84%) identified themselves as a trans-woman.

Table 7.4 Orientation/Behavior

	MSM		TG		Total	
	N	%	N	%	N	%
Type of person the respondent get attracted to						
Man	26	86.7	10	83.3	36	85.7
Trans-woman	4	13.3	2	16.7	6	14.3
Woman	6	20.0	0	0	6	14.3
Total	30	100.0	12	100.0	42	100.0
Identification of the respondent on the basis of his/her sexual orientation/ behavior						
Gay	18	60.0	0	0	18	42.9
Lesbian	1	3.3	0	0	1	2.4
Straight	5	16.7	10	83.3	15	35.7
Bi-sexual	3	10.0	0	0	3	7.1
Don't know	0	0	1	8.3	1	2.4
Others	3	10.0	1	8.3	4	9.5
Total	30	100.0	12	100.0	42	100.0
Identification of the respondent on the basis of his/her gender identity						
Man	27	90.0	2	16.7	29	69.0
Trans-man	1	3.3	0	0	1	2.4
Trans-woman	0	0	10	83.3	10	23.8
Woman	2	6.7	0	0	2	4.8
Total	30	100.0	12	100.0	42	100.0

Total percentages may exceed 100 due to multiple responses

7.1.5 Physically harm/abuse because of sexual orientation/behaviors

Over a half of the respondents (52%) reported of coming out of their families because of their sexual orientation. Among them cent percent (100%) belonged to TG category and one-third (33%) belonged to MSM. Among those who were forced to live outside of home by their families 60 percent were MSM and 42 percent were TGs. However, an overwhelming majority of the respondents (93%) reported of not facing any physical abuse by their family because of their sexual orientation.

Table 7.5 Physical harm/abuse because of sexual orientation/behaviors

	MSM		TG		Total	
	N	%	N	%	N	%
Respondent coming out of his/her family						
Yes	10	33.3	12	100.0	22	52.4
No	20	66.7	0	0	20	47.6
Total	30	100.0	12	100.0	42	100.0
Family forcing the respondent to live outside of home because of his/her sexual orientation						
Yes	6	60.0	5	41.7	11	50.0
No	4	40.0	7	58.3	11	50.0
Total	10	100.0	12	100.0	22	100.0
Family abusing the respondent physically because of his/her sexual orientation						
No	27	90.0	12	100.0	39	92.9
No response	3	10.0	0	0	3	7.1
Total	30	100.0	12	100.0	42	100.0

7.2 Sexual behavior

It is notable that almost a fifth of the respondents (19%) had first sex before 15 years. Nearly a half of the respondents (48%) had their first sex at the age between 15-17 years. Among them 43 percent belonged to MSM and 58 percent belonged to the TG category. The average age of having first sex among the MSM was 17.3 years while among the TGs was 15.3 years. In average the TGs were two years younger at having first sex than the MSM. Three fifths of the MSM (60%) and large majority of the TGs (91%) had male as their first sexual partner. More than four fifths (87%) of the MSM and all of the TGs had had anal/oral sex with a male in the last 12 months. Majority of the respondents (83%) had anal sex in the last six months with a male partner and among them 80 percent were MSM and 92 percent were TGs. Three-fourth of the respondents (76%) had used a condom themselves or by their partner during their last anal sex in the last six months.

Table 7.6 Sexual behavior

	MSM		TG		Total	
	N	%	N	%	N	%
Age at first sexual intercourse						
Less than 15 years	4	13.3	4	33.3	8	19.0
15-17	13	43.3	7	58.3	20	47.6
18-20	8	26.7	0	0	8	19.0
More than 20 years	5	16.7	1	8.3	6	14.3
Mean age at first sex	17.8		15.3		17.1	
Median age at first sex	17		15		17	
Total	30	100.0	12	100.0	42	100.0
Sex of the first sexual partner						
Male	18	60.0	11	91.7	29	69.0
Female	9	30.0	1	8.3	10	23.8
No response	3	10.0	0	0	3	7.1
Total	30	100.0	12	100.0	42	100.0
Have had anal/oral sex with a male in the last 12 months						
Yes	26	86.7	12	100.0	38	90.5
No	1	3.3	0	0	1	2.4
No response	3	10.0	0	0	3	7.1
Total	30	100.0	12	100.0	42	100.0
Have had anal (receptive, insertive or both) sex in the last six months with a male partner						
Yes	24	80.0	11	91.7	35	83.3
No	3	10.0	1	8.3	4	9.5
Don't remember	2	6.7	0	0	2	4.8
No response	1	3.3	0	0	1	2.4
Total	30	100.0	12	100.0	42	100.0
Use of condom by the respondent or his/her partner at the last time he/she had anal sex (in the last six months)						
Yes	23	76.7	9	75.0	32	76.2
No	5	16.7	2	16.7	7	16.7
Don't remember	1	3.3	0	0	1	2.4
No response	1	3.3	1	8.3	2	4.8
Total	30	100.0	12	100.0	42	100.0

7.2.1 Ever had sex with a male for money or kind

Two thirds of the TGs (67%) and a fifth of the MSM (20%) ever had sex with a male for money or kind. Among those who had ever had sex with a male for money or kind, two thirds of the MSM (67%) were of age between 15 to 19 years and a half of the TGs (50%) were below 16 years. The average age of having sex with a male for money or kind was lower for TG (16.2 years) than MSM (18.8 years).

Table 7.7 Ever had sex with a male for money or kind

	MSM		TG		Total	
	N	%	N	%	N	%
Ever have had sex with a male for money or kind						
Yes	6	20.0	8	66.7	14	33.3
No	22	73.3	4	33.3	26	61.9
No response	2	6.7	0	0	2	4.8
Total	30	100.0	12	100.0	42	100.0
Age at having sex with a male for money/kind for the first time						
<15	0	0	3	37.5	3	21.4
15	1	16.7	0	0	1	7.1
16	0	0	1	12.5	1	7.1
17	1	16.7	1	12.5	2	14.3
18	1	16.7	1	12.5	2	14.3
19	1	16.7	1	12.5	2	14.3
20 and above	1	16.7	1	12.5	1	14.1
Don't know/Can't recall	1	16.7	0	0	1	7.1
Mean age	18.8		16.2		17.2	
Median age	18		16.5		17	
Total	6	100.0	8	100.0	14	100.0

7.3 Condom use

7.3.1 Condom use with non-paying male sex partners

It is notable that non paying male sex partners in the past one month ranged from 0 to 20. Almost a third of the respondents (31%) did not have non-paying male sex partners in the past one month. However, more than a tenth MSM (13%) and few TG (5%) had five and more non paying male sex partners in the past one month. Average number of non paying male sex partners was more than twice among the TG (4.8) than MSM (2).

Consistent condom use while having anal sex with non-paying male sex partner in the last month was higher among the TGs (70%) than that of the MSM (28%). Four fifths (80%) of the TG and over half of the MSM (56%) used a condom at the last time they had anal sex with a non-paying male partner.

Table 7.8 Condom use with non-paying male sex partners

	MSM		TG		Total	
	N	%	N	%	N	%
Number of non paying male sex partners in the past one month						
No one	11	36.7	2	16.7	13	31.0
1	8	26.7	1	8.3	9	21.4
2	4	13.3	1	8.3	5	11.9
3	1	3.3	3	25.0	4	9.5
4	1	3.3	1	8.3	2	4.8
5 and more	4	13.3	1	8.3	2	4.8
Don't remember	1	3.3	0	0	1	2.4
Mean number	2		4.8		2.8	
Median number	1		3		1	
Total	30	100.0	12	100.0	42	100.0
Frequency of condom use while the respondent had anal sex with non-paying male sex partner in the last month						
Always	5	27.8	7	70.0	12	42.9
Most of the time	2	11.1	0	0	2	7.1
Sometimes	8	44.4	1	10.0	9	32.1
Never	1	5.6	1	10.0	2	7.1
Don't remember	1	5.6	0	0	1	3.6
No response	1	5.6	1	10.0	2	7.1
Total	18	100.0	10	100.0	28	100.0
Use of condom at the last time sex						
Yes	10	55.6	8	80.0	18	64.3
No	6	33.3	2	20.0	8	28.6
No response	2	11.1	0	0	2	7.1
Total	18	100.0	10	100.0	28	100.0

7.3.2 Condom use with non-paying/causal female sex partners

It is found that all TG (100%) and majority of MSM (63%) did not have sex with any non-paying female sex partners in the past one month. One-fifth (20%) of the MSM had sex with 1-4 female sex partners in the past one month. The average number of female sex partners the MSM had vaginal, anal or oral sex without the involvement of any payment in the past one month was 1.6.

Consistent condom use while having sex with non-paying female sex partners in the last month was low. For instance, less than two in five MSM (n=3; 38%) used condom always while having sex with non-paying female sex workers. Among these, half of the MSM (n=4; 50%) used condom only sometimes.

However, more than four-fifth (88%) MSM used condom at the last sex with a non-paying female sex partner.

Table 7.9 Condom use with non-paying/causal female sex partners

	MSM		TG		Total	
	N	%	N	%	N	%
Number of non-paying female sex partners the respondent had vaginal, anal or oral sex with in the past one month						
No one	19	63.3	12	100	30	73.8
1	1	3.3	0	0	1	2.4
2	2	6.7	1	0	3	4.8
3	2	6.7	0	0	2	4.8
4	1	3.3	0	0	1	2.4
5 and more	2	6.6	0	0	2	4.8
Don't remember	3	10.0	0	0	3	7.1
Mean number	1.6		0		1.1	
Total	30	100.0	12	100.0	42	100.0
Frequency of condom use while the respondent had vaginal, oral or anal sex with non-paying female sex partner in the last month						
Always	3	37.5	0	0	3	37.5
Most of the time	1	12.5	0	0	1	12.5
Sometimes	4	50.0	0	0	4	50.0
Never	0	0	0	0	0	0
Total	8	100.0	0	100.0	8	100.0
Use of condom by the respondent at the last time he/she had vaginal, anal or oral sex with a non-paying female sex partner						
Yes	7	87.5	0	0	7	87.5
No	1	12.5	0	0	1	12.2
Total	8	100.0	0	0	8	100.0

7.3.3 Condom use with regular male clients/sex partners

Over a half of the MSM (53%) and more than two fifths of the TGs (42%) did not have sex with a regular male client in the past one month. One sixth of the TGs (17%) and over a tenth of the MSM (13%) had sex with one regular male client in the past one month. The average number of regular male clients the MSM and TGs had sex with in the past one month was 2.6 and 2.2 respectively. Among those respondents who had anal sex with a regular male client in the past one month, over a half of the MSM (55%) and two fifths of the TGs (43%) always used a condom (i.e., consistent condom use). Nearly one-fifth of the regular male clients of the MSM (18%) were student, police/military, civil servant and

businessman each. Similarly, the most common clients of TGs were students and businessman (29%) respectively.

Table 7.10 Condom use with regular male clients/sex partners

	MSM		TG		Total	
	N	%	N	%	N	%
Number of regular male clients the respondent had sex with in the past one month						
No one	16	53.3	5	41.7	21	50.0
1	4	13.3	2	16.7	6	14.3
2	1	3.3	1	8.3	2	4.8
3	3	10.0	0	0	3	7.1
4	0	0	2	16.7	2	4.8
5 or more	4	13.3	2	16.7	6	14.4
Don't remember	2	6.7	0	0	2	4.8
Mean number	2.6		2.2		2.5	
Median number	0		1		0	
Total	30	100.0	12	100.0	42	100.0
Number of regular male clients the respondent had anal sex with in the last month						
No one	1	8.3	0	0	1	5.3
1	4	33.3	2	28.6	6	31.6
2	2	16.7	1	14.3	3	15.8
3	2	16.7	2	28.6	4	21.1
4	1	8.3	2	28.6	3	15.8
5 or more	2	16.6	0	0	2	10.3
Mean number	2.9		2.6		2.8	
Median number	2		3		2	
Total	12	100.0	7	100.0	19	100.0
Frequency of condom use while the respondent had anal sex with regular male client in the last month						
Always	6	54.5	3	42.9	9	50.0
Most of the time	1	9.1	1	14.3	2	11.1
Sometimes	3	27.3	2	28.6	5	27.8
Never	1	9.1	0	0	1	5.6
No response	0	0	1	14.3	1	5.6
Total	11	100.0	7	100.0	18	100.0
Most common occupations among the respondent's clients						
Student	2	18.2	2	28.6	4	22.2

	MSM		TG		Total	
	N	%	N	%	N	%
Police/Military	2	18.2	0	0	2	11.1
Civil servant	2	18.2	1	14.3	3	16.7
Businessman	2	18.2	2	28.6	4	22.2
Driver	1	9.1	1	14.3	2	11.1
Private office staff	1	9.1	0	0	1	5.6
Others	1	9.1	0	0	1	5.6
No response	0	0	1	14.3	1	5.6
Total	11	100.0	7	100.0	18	100.0

7.3.4 Condom use with female clients/sex partners

A high majority of the respondents (93%) did not have sex with women who paid or gave them other commodities for having sex with them in the past one month. Only two MSM reported that women had paid or gave other commodities to him for sexual services in the past one month. The average number of women who had paid or gave other commodities to the MSM for sexual services in the past one month was 0.1. Among those respondents who had sex with women who paid or gave them other commodities for having sex with them in the past one month, only one MSM used condom sometimes and he had also used condom during his last vaginal or anal sex.

Table 7.11 Condom use with female clients/sex partners

	MSM		TG		Total	
	N	%		%	N	%
Number of women who had paid or gave other commodities to the respondent for sexual services in the past one month						
No one	27	90.0	12	100	39	92.9
1	2	6.7	0	0	2	4.8
Don't remember	1	3.3	0	0	1	2.4
Mean number	0.1		0		0.1	
Total	30	100.0	12	100.0	42	100.0
Frequency of condom use while the respondent had vaginal or anal sex with female clients in the last month						
Sometimes	1	50.0	0	0	1	50.0
No response	1	50.0	0	0	1	50.0
Total	2	100.0	0	0	3	100.0
Use of condom by the respondent at the last time he/she had vaginal or anal sex with a female client						
Yes	1	50.0	0	0	1	50.0
No	1	50.0	0	0	1	50.0
Total	2	100.0	0	0	2	100.0

7.4 Experience of physical and sexual violence

Almost a fifth of the respondents (19%, n=8) had ever experienced physical violence/abuse in the past 12 months. Among them two thirds of the MSM (67%, n=4) and a half of the TGs (50%, n=1) were abused by their own clients. A half of the TGs (50%; n=1) were abused by the police whereas a third of the MSM (33%, n=2) were abused by their own friends. Both TG (N=2) reported that they were violated/abused by their regular partners.

A third of the TGs (33%, n=8) and over a tenth of the MSM (13%; n=4) were forced to have sex with someone against their will in the past 12 months. Among them who were forced to have sex against their will, three MSM (75%; n=3) were forced to do so by the police and a 2 (50%, n=2) were abused by military. Similarly, 1 each TG were abused by their own clients, friends, hooligans group and by the driver respectively.

Table 7.12 Experience of physical and sexual violence

	MSM		TG		Total	
	N	%	N	%	N	%
Ever experienced physical violence/abuse in the past 12 months						
Yes	6	20.0	2	16.7	8	19.0
No	22	73.3	10	83.3	32	76.2
Don't remember	2	6.7	0	0	2	4.8
Total	30	100.0	12	100.0	42	100.0
People who violated/abused						
Client	4	66.7	1	50.0	5	62.5
Friends	2	33.3	0	0	2	25.0
Police	1	16.7	1	50.0	2	25.0
Regular Partner	1	16.7	2	100.0	2	37.5
Military	1	16.7	0	0	1	12.5
Friends and Family	1	16.7	0	0	1	12.5
Total	6	100.0	2	100.0	8	100.0
Respondent being forced to have sex with someone against wish in the past 12 months						
Yes	4	13.3	4	33.3	8	19.0
No	25	83.3	8	66.7	33	78.6
Don't remember	1	3.3	0	0	1	2.4
Total	30	100.0	12	100.0	42	100.0
People who violated						
Police	3	75.0	0	0	3	37.5
Military	2	50.0	0	0	2	25.0
Client	1	25.0	1	25.0	2	25.0

	MSM		TG		Total	
	N	%	N	%	N	%
Hooligans group/Gang	1	25.0	1	25.0	2	25.0
Friends	1	25.0	1	25.0	2	25.0
Driver	0	0	1	25.0	1	12.5
Total	4	100.0	4	100.0	8	100.0

7.5 Thought of committing suicide

Over two fifths of the TGs (42%, n=5) and over a fifth of the MSM (23%, n=7) had ever thought of committing suicide. It is notable that the thought of committing suicide by TG is twice higher than the MSM. Among those who had ever thought of committing a suicide, majority of the TGs (80%) had thought of that many times while over two fifths (43%) of the MSM had such feeling about ending own life once or twice in the last 12 months. Similarly, among those who had such thought, three-fifth of the TGs (60%, n=6) had ever made a plan to commit suicide and the same percentage had attempted suicide. In case of MSM, over two fifths (43%) had ever made a plan to commit suicide and the over half (57%) had attempted to commit suicide.

Table 7.13 Thoughts of committing suicide

	MSM		TG		Total	
	N	%	N	%	N	%
Ever felt so low that the respondent thought a lot about committing suicide						
Yes	7	23.3	5	41.7	12	28.6
No	23	76.7	7	58.3	30	71.4
Total	30	100.0	12	100.0	42	100.0
Frequency of having any thoughts about ending own life in last 12 months						
Many times	1	14.3	4	80.0	5	41.7
A few times	2	28.6	1	20.0	3	25.0
Once or twice	3	42.9	0	0	3	25.0
No response	1	14.3	0	0	1	8.3
Total	7	100.0	5	100.0	12	100.0
Ever made a plan to commit suicide						
Yes	3	42.9	3	60.0	6	50.0
No	4	57.1	2	40.0	6	50.0
Total	7	100.0	5	100.0	12	100.0
Ever attempted suicide						
Yes	4	57.1	3	60.0	7	58.3
No	3	42.9	2	40.0	5	41.7
Total	7	100.0	5	100.0	12	100.0

7.6 Accessibility of condom

Condom carrying practice and accessibility of condom among the MSM/TGs was assessed in the survey. Over a half of the TGs (58%) and two fifths of the MSM (40%) were found to be carrying condoms at the moment of the survey. It is notable that three-fourth of the TGs (75%) and a half of the MSM (50%) were given free condom through an outreach service, drop-in centre or HISC in the last 12 months. The respondents were asked about the place from where they got condom last time. Two fifths of the MSM (40%) got condom from a shop the last time while a quarter of the TGs (25%) accessed the condom from a pharmacy and a health facility respectively. Three-fourth of the respondents (76%) could access condom every time in need. Regarding the preferred and convenient place to buy condom, three out of four of the TGs (75%) and nearly a third of the MSM (63%) preferred a medical shop/store.

Table 7.14 Accessibility of condom

	MSM		TG		Total	
	N	%	N	%	N	%
Respondent carrying condoms along at the moment						
Yes	12	40.0	7	58.3	19	45.2
No	18	60.0	5	41.7	23	54.8
Having been given condoms in the last 12 months (e.g. through an outreach service, drop-in centre or HISC)						
Yes	15	50.0	9	75.0	24	57.1
No	12	40.0	3	25.0	15	35.7
Don't remember	1	3.3	0	0	1	2.4
No response	2	6.7	0	0	2	4.8
Place from where the respondent got condom last time						
Shop	12	40.0	2	16.7	14	33.3
Health facility	6	20.0	3	25.0	9	21.4
Pharmacy	4	13.3	3	25.0	7	16.7
Friends/Peer	5	16.7	1	8.3	6	14.3
Bar/Guest House/Hotel	1	3.3	0	0	1	2.4
Peer educator/outreach workers	1	3.3	0	0	1	2.4
Never received condom	1	3.3	0	0	1	2.4
Condom box	0	0	1	8.3	1	2.4
Don't remember	0	0	1	8.3	1	2.4
No response	0	0	1	8.3	1	2.4
Condom access to the respondent every time in need						
Yes	23	76.7	9	75.0	32	76.2
No	6	20.0	3	25.0	9	21.4
Don't remember	1	3.3	0	0	1	2.4
Convenient/preferred place to buy/get condom						
Medical shop/store	19	63.3	9	75.0	28	66.7
Health center (BHU, Hospital)	14	46.7	5	41.7	19	45.2
HISC	11	36.7	6	50.0	17	40.5
Shop	13	43.3	4	33.3	17	40.5
Friends	9	30.0	5	41.7	14	33.3
NGOs	6	20.0	2	16.7	8	19.0
Bar/Guest House/Hotel	1	3.3	0	0	1	2.4
Field Workers	2	6.7	1	8.3	3	7.1
Don't know	2	6.7	1	8.3	3	7.1
Total	30	100.0	12	100.0	42	100.0

Total percentages may exceed 100 due to multiple responses

7.7 Accessibility of Lubricants

Two thirds of the TGs (67%) and over half of the MSM (57%) had ever used a lubricant while having anal sex. Over half of the MSM (59%) used saliva and water based lube as lubricant while having anal sex. Similarly the most common lubricants used by the TGs was water based lube (87%) and vaseline (37%). Over a third of the respondents (36%) preferred to get lubricants from HISC and among them 67 percent was TGs and 23 percent were MSM. Over a fifth of the MSM (23%) reported shop as the convenient place to buy the lubricants while one sixth of the TGs (17%) preferred to get the lubricants from their friends and NGOs.

Table 7.15 Accessibility of Lubricants

	MSM		TG		Total	
	N	%	N	%	N	%
Ever use of lubricant when having anal sex						
Yes	17	56.7	8	66.7	25	59.5
No	13	43.3	3	25.0	16	38.1
Don't remember	0	0	1	8.3	1	2.4
Total	30	100.0	12	100.0	42	100.0
Type of lubricant used						
Water based lube	10	58.8	7	87.5	17	68.0
Saliva	10	58.8	2	25.0	12	48.0
Vaseline	4	23.5	3	37.5	7	28.0
Cream/lotion	6	35.3	0	0	6	24.0
Oil	2	11.8	1	12.5	3	12.0
Oil based lube	3	17.6	0	0	3	12.0
Soap			1	12.5	1	4.0
Total	17	100.0	8	100.0	25	100.0
Convenient/preferred place to buy/get Lubricants						
HISC	7	23.3	8	66.7	15	35.7
Shop	7	23.3	0	0	7	16.7
Medical shop/store	6	20.0	0	0	6	14.3
NGOs	4	13.3	2	16.7	6	14.3
Health center (BHU, Hospital)	4	13.3	0	0	4	9.5
Friends	2	6.7	2	16.7	4	9.5
Field Workers	2	6.7	1	8.3	3	7.1
Other (Specify)	1	3.3	0	0	1	2.4
Don't know	13	43.3	3	25.0	16	38.1
No response	3	10.0	1	8.3	4	9.5
Total	30	100.0	12	100.0	42	100.0

Total percentages may exceed 100 due to multiple responses

7.8 Use of alcohol and drugs

Alcohol and drug consumption behavior among the MSM/TGs was assessed in the survey. Over a quarter of the respondents (29%) consumed alcohol 2-3 times a week during the last month and among them 30 percent were MSM and 25 percent were TGs. However over two fifths of the TGs (42%) and a fifth of the MSM (20%) never consumed drink containing alcohol during the last 30 days. Over a fifth of the respondents (24%) had ever tried different types of drugs in the past 30 days. It is notable that none of the respondents had ever injected drugs using a syringe or currently injecting drugs.

Table 7.16 Use of alcohol and drugs

	MSM		TG		Total	
	N	%	N	%	N	%
Frequency of having drinks containing alcohol during the last 30 days						
Everyday	7	23.3	3	25.0	10	23.8
2-3 times a week	9	30.0	3	25.0	12	28.6
At least once a week	0	0	1	8.3	1	2.4
Less than once in a week	6	20.0	0	0	6	14.3
Never	6	20.0	5	41.7	11	26.2
Don't know	2	6.7	0	0	2	4.8
Total	30	100.0	12	100.0	42	100.0
Ever tried different types of drugs in the past 30 days						
Yes	7	23.3	3	25.0	10	23.8
No	23	76.7	9	75.0	32	76.2
Total	30	100.0	12	100.0	42	100.0
Ever-injected drugs using a syringe						
Yes	0	0	0	0	0	0
No	30	100.0	12	100.0	42	100.0
Total	30	100.0	12	100.0	42	100.0
Currently injecting drugs						
Yes	0	0	0	0	0	0
No	30	100.0	12	100.0	42	100.0
Total	30	100.0	12	100.0	42	100.0

7.9 HIV/AIDS

7.9.1 Awareness on HIV/AIDS

A large majority of the respondents had heard of HIV/AIDS and among them 93 percent were MSM and 83 percent were TGs. However, seventeen percent of TGs and seven percent of MSM never heard of HIV. The most common source of information regarding HIV and AIDs among them were television

(86%), friend/relatives (69%), radio (59%), health workers (55%), newspapers/magazines (52%), work place and people from the same community (50%) and so on.

Table 7.17 Awareness on HIV/AIDS

	MSM		TG		Total	
	N	%	N	%	N	%
Ever heard of HIV/AIDS						
Yes	28	93.3	10	83.3	38	90.5
No	2	6.7	2	16.7	4	9.5
Total	30	100.0	12	100.0	42	100.0
Sources						
Television	27	90.0	9	75.0	36	85.7
Friends/Relatives	21	70.0	8	66.7	29	69.0
Radio	18	60.0	7	58.3	25	59.5
Health Workers	16	53.3	7	58.3	23	54.8
Newspapers/Magazines	20	66.7	2	16.7	22	52.4
Work Place	15	50.0	6	50.0	21	50.0
People from same community	14	46.7	7	58.3	21	50.0
Pamphlets/Posters	15	50.0	4	33.3	19	45.2
School/Teachers	17	56.7	2	16.7	19	45.2
Total	30		12		42	

7.9.2 Comprehensive knowledge on HIV

Less than three in five (57%) respondents were aware that People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner. Nearly a half of the respondents (47%) knew that people can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact. Similarly, two thirds of the TGs (67%) and three fifths of the MSM (60%) knew that a healthy-looking person can be infected with HIV. Nearly two thirds of the MSM (63%) and a half of the TGs (50%) knew that a person cannot get the HIV virus from mosquito bite. Majority of the TGs (83%) and nearly over two thirds of the MSM (70%) had knowledge that a person does not get HIV by sharing a meal with an HIV infected person.

Comprehensive knowledge on HIV among the MSM/TGs was examined based on the above five indicators (2 misconceptions and 3 correct knowledge). Although a large majority of the respondents were aware about HIV, comprehensive knowledge was very low. Only one tenth (12%) respondents had comprehensive knowledge on HIV. It is also found that comprehensive knowledge on HIV is lower among TG (8%) than MSMS (13%).

Table 7.18 Comprehensive knowledge on HIV

	MSM		TG		Total	
	N	%	N	%	N	%
People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact						
Yes	17	56.7	7	58.3	24	57.1
No	13	43.3	5	41.7	18	42.9
People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact						
Yes	15	50.0	5	41.7	20	47.6
No	12	40.0	7	58.3	19	45.2
Don't know	3	10.0	0	0	3	7.1
A healthy-looking person can be infected with HIV						
Yes	18	60.0	8	66.7	26	61.9
No	11	36.7	4	33.3	15	35.7
Don't know	1	3.3	0	0	1	2.4
A person can get the HIV virus from mosquito bite						
Yes	11	36.7	6	50.0	17	40.5
No	19	63.3	6	50.0	25	59.5
A person get HIV by sharing a meal with an HIV infected person						
Yes	8	26.7	2	16.7	10	23.8
No	21	70.0	10	83.3	31	73.8
Don't know	1	3.3	0	0	1	2.4
Total	30	100.0	12	100.0	42	100.0
Comprehensive knowledge on HIV						
Yes	4	13.3	1	8.3	5	11.9
No	26	86.7	11	91.7	37	88.1
Total	30	100.0	12	100.0	42	100.0

Over a tenth of the MSM/TGs (12%) had comprehensive knowledge on HIV. Comprehensive knowledge on HIV among the MSM/TGs slightly varied according to the district of residence, age group, duration of work, level of education, age at first sex and exposure to out-reach program. All five respondents who had comprehensive knowledge on HIV belonged to Thimpu district and had completed below primary level of education. Three out of five of the respondents having comprehensive knowledge on HIV were below 25 years. Comparatively higher percentage of the respondents who were aware on comprehensive knowledge on HIV (17%) had their first sex at the age of 15 years or below than other age groups. A fifth of the respondents who had comprehensive knowledge on HIV had ever met or interacted with PE and OW and above a quarter of them (26%) had ever visited HISC in the last 12 months.

Table 7.19 Comprehensive knowledge on HIV by background characteristics

		Comprehensive knowledge on HIV				Total	
		Yes		No			
		N	%	N	%	N	%
District of residence	Thimphu	5	19.2	21	80.8	26	100.0
	Chukha	0	0	6	100.0	6	100.0
	Sarpang	0	0	6	100.0	6	100.0
	Wangdue Phodrang	0	0	3	100.0	3	100.0
	Punakha	0	0	1	100.0	1	100.0
Age group	Less than 25	3	15.8	16	84.2	19	100.0
	25-34	2	10.5	17	89.5	19	100.0
	35 and above	0	0	3	100.0	3	100.0
Level of education	Below primary	5	12.8	34	87.2	39	100.0
	lower-middle secondary	0	0	3	100.0	3	100.0
Age at first sex	Upto 15	2	16.7	10	83.3	12	100.0
	16-19	2	9.5	19	90.5	21	100.0
	20 and above	1	11.1	8	88.9	9	100.0
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	4	20.0	16	80.0	20	100.0
	No	1	4.5	21	95.5	22	100.0
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	5	26.3	14	73.7	19	100.0
	No	0	0	23	100.0	23	100.0
Total		5	11.9	37	88.1	42	100.0

7.9.3 Information regarding HIV test

The survey explored the availability, accessibility and utilization of HIV test among the respondents. Three-fourth of the respondents (76%) knew about the possibility for someone to have a confidential HIV test done in their community. Among them 83 percent were TGs and 73 percent were MSMs. Majority of the respondents (81%) knew about the place where HIV testing could be done. Two thirds of the TGs (67%) and over a half of the MSM (57%) had ever undergone an HIV test. Among those, who have undergone an HIV test, over four fifths of the respondents (84%) had done it voluntarily and within the last 12 months. A large majority of the MSM (87%) and two thirds of the TGs (67%) had undergone an HIV test within the last 12 months.

Table 7.20 Information regarding HIV test

	MSM		TG		Total	
	N	%	N	%	N	%
Possibility for someone to have a confidential HIV test in your community						
Yes	22	73.3	10	83.3	32	76.2
No	8	26.7	2	16.7	10	23.8
Total	30	100.0	12	100.0	42	100.0
Knowledge about the place where HIV testing can be done						
Yes	25	83.3	9	75.0	34	81.0
No	5	16.7	3	25.0	8	19.0
Total	30	100.0	12	100.0	42	100.0
Ever have had an HIV test						
Yes	17	56.7	8	66.7	25	59.5
No	13	43.3	4	33.3	17	40.5
Total	30	100.0	12	100.0	42	100.0
HIV test undergone either voluntarily or because it was required						
Voluntarily	14	82.4	7	87.5	21	84.0
Required	3	17.6	1	12.5	4	16.0
Total	17	100.0	8	100.0	25	100.0
Time of most recent HIV test						
Within last 12 months	15	88.2	6	75.0	21	84.0
Between 1-2 years	1	5.9	2	25.0	3	12.0
More than 4 years ago	1	5.9	0	0	1	4.0
Total	17	100.0	8	100.0	25	100.0
Number of times having undergone HIV test within the last 12 months						
1	13	86.7	4	66.7	17	81.0
2	1	6.7	1	16.7	2	9.5
3	1	6.7	1	16.7	2	9.5
Total	15	100.0	6	100.0	21	100.0

7.10 Sexually Transmitted Infection

7.10.1 Knowledge about STI

The survey assessed the knowledge about STI among the MSM/TGs. The common features the MSM regarded as STI were discharge from penis (57%), swelling in groin (40%) and burning pain during urination (37%). Over half of MSM (57%) regarded HIV/AIDS as STI. Similarly, the common features the

TGs regarded as STI were discharge from penis (50%), swelling in groin (34%) and burning pain during urination (17%).

Table 7.21 Knowledge about STI

	MSM		TG		Total	
	N	%	N	%	N	%
Knowledge on STI						
Penis discharge	17	56.7	6	50.0	23	54.8
Burning pain during urination	11	36.7	2	16.7	13	31.0
Genital ulcers/sores	6	20.0	1	8.3	7	16.7
Swellings in groin area	12	40.0	4	33.3	16	38.1
Anal discharge	3	10.0	2	16.7	5	11.9
Anal ulcer/sores	2	6.7	2	16.7	4	9.5
UTI	1	3.3	1	8.3	2	4.8
Cough	0	0	1	8.3	1	2.4
Don't know	3	10.0	2	16.7	5	11.9
No response	0	0	1	8.3	1	2.4
Total	30	100.0	12	100.0	42	100.0

Percentage total may exceed 100 due to multiple responses

7.10.2 Symptoms of STI and treatment

Respondents were assessed to know whether they were currently having symptoms of STI or not. Two in ten of the MSM (20%) and a quarter of the TGs (25%) had ever experienced at least one of the symptoms of STI. One in ten of the MSM (10%) were currently experiencing symptoms as burning during urination and anal discharge. However, one-sixth of the TGs (17%) were currently having STI symptoms like burning pain during urination and pain during sex. Among those who had STI symptoms, only a slightly more than half of the MSM (50%) and two thirds of the TGs (67%) had sought medical attention.

Table 7.22 Symptoms of STI and treatment

Currently having symptoms	MSM		TG		Total	
	N	%	N	%	N	%
Penis discharge	2	6.7	0	0	2	4.8
Burning pain during urination	3	10.0	2	16.7	5	11.9
Genital ulcers/sores	1	3.3	0	0	1	2.4
Pain during sex	2	6.7	2	16.7	4	9.5
Pain during sex	1	3.3	0	0	1	2.4
Anal discharge	3	10.0	1	8.3	4	9.5
Anal discharge	1	3.3	1	8.3	2	4.8
At least one symptoms experienced	6	20.0	3	25.0	9	21.4
Total	30	100.0	12	100.0	42	100.0
Having gone for medical treatment						
Yes	3	50.0	2	66.7	5	55.6
No	3	50.0	1	33.3	4	44.4
Total	6	100.0	3	100.0	9	100.0

7.11 Stigma and discrimination

The survey tried to explore the status of stigma and discrimination regarding HIV among the MSM/TGs. A large majority of the respondents (86%) were willing to take care of his/her HIV positive relative while over a half of the MSM (53%) and two fifths of the TGs (42%) would want it to remain a secret if his/her family member got an HIV. Two thirds of the TGs (67%) and two-fifth of the MSM (40%) were ready to buy food from an HIV positive shop keeper. Two out of five of the respondents (40%) opined that an HIV positive person required same care as that of a person of any other chronic disease and among them 43 percent were MSM and 33 percent were TGs. Over three-fourth of the MSM (77%) and two thirds of the TGs (67%) had an opinion that their HIV positive colleagues should be allowed to work if he/she is not very sick. Similarly, opinion of the respondent on either children living with HIV should be able to attend school with children who are HIV negative was sought in the survey. In this regards, two thirds of the TGs (67%) and three fifths of the MSM (60%) reported that an HIV positive child should be able to attend school with children who are HIV negative.

Table 7.23 Stigma and discrimination

	MSM		TG		Total	
	N	%	N	%	N	%
Respondent's opinion on if his/her relative gets HIV, would they be willing to take care of them in their household						
Yes	26	86.7	10	83.3	36	85.7
No	3	10.0	1	8.3	4	9.5
Don't know	1	3.3	1	8.3	2	4.8
Respondent's opinion on if his/her family member gets HIV, would they want it to remain a secret						
Yes	16	53.3	5	41.7	21	50.0
No	14	46.7	7	58.3	21	50.0
Respondent's opinion on if they knew a shopkeeper or food seller had HIV, would they buy food from him/her						
Yes	12	40.0	8	66.7	20	47.6
No	18	60.0	4	33.3	22	52.4
Opinion of the respondent on if a person with HIV should get the same, more or less health care than someone with any other chronic disease						
Same	13	43.3	4	33.3	17	40.5
More	7	23.3	2	16.7	9	21.4
Don't know	9	30.0	4	33.3	13	31.0
No response	1	3.3	2	16.7	3	7.1
Opinion of the respondent on if one of their colleagues who have HIV but is not very sick should be allowed to continue working						
Yes	23	76.7	8	66.7	31	73.8
No	6	20.0	2	16.7	8	19.0
Don't know	1	3.3	2	16.7	3	7.1
Opinion of the respondent on either children living with HIV should be able to attend school with children who are HIV negative						
Yes	18	60.0	8	66.7	26	61.9
No	9	30.0	2	16.7	11	26.2
Don't know	1	3.3	1	8.3	2	4.8
No response	2	6.7	1	8.3	3	7.1
Total	30	100.0	12	100.0	42	100.0

7.12 Reach by HIV/AIDS prevention intervention program

7.12.1 Met peer educator in the last 12 months

The exposure of key population (MSM/TGs) to the HIV/AIDS program was assessed in the survey. Nearly a half of the respondents (48%) had ever met or interacted with peer educators (PE) or outreach workers (OE) in the last 12 months. Among them 58 percent were TGs and 43 percent were MSM which shows TGs group's exposure to OE/PE is more than that of the MSM. Those who interacted with peer educators (PE) or outreach workers (OE) in the last 12 months had involved in various activities. Majority of them (80%) were found to have discussion on the regular/non-regular use of the condom during their interaction with OE/PE. More the three fourths of the MSM (77%) and over two fifths of the TGs (43%) had discussion on how HIV/AIDS is/isn't transmitted. Similarly, three fifths of the respondents (60%) had discussion on how STI is/isn't transmitted during their meeting with the OE/PE.

Table 7.24 Met peer educator in the last 12 months

	MSM		TG		Total	
	N	%	N	%	N	%
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months						
Yes	13	43.3	7	58.3	20	47.6
No	17	56.7	5	41.7	22	52.4
Total	30	100.0	12	100.0	42	100.0
Activities						
Discussion on how HIV/AIDS is/isn't transmitted	10	76.9	3	42.9	13	65.0
Discussion on how STI is/isn't transmitted	8	61.5	4	57.1	12	60.0
Regular/non-regular use of Condom	10	76.9	6	85.7	16	80.0
Condom correctly	5	38.5	2	28.6	7	35.0
Voluntary Testing	0	0	1	14.3	1	5.0
Hepatitis	1	7.7	0	0	1	5.0
Total	13	100.0	7	100.0	20	100.0

Percentage total may exceed 100 due to multiple responses

7.12.2 Visited DIC in the last 12 months

Percentage of respondents visited in DIC is low. Almost a tenth of the respondents (10%) had ever visited a DIC in the past 12 months and among them 10 percent were MSM and 17% were TGs. Those respondents who had visited an outreach center (DIC) in the past 12 months were involved in various activities. A third of the MSM (33%) and a half of the TGs (50%) had visited the DIC to collect condom and to learn about the correct condom use respectively.

Table 7.25 Visited DIC in the last 12 months

	MSM		TG		Total	
	N	%	N	%	N	%
Ever visited to any outreach center (DIC) in the last 12 months						
Yes	3	10.0	2	16.7	5	11.9
No	27	90.0	10	83.3	37	88.1
Total	30	100.0	12	100.0	42	100.0
Activities						
Condom collection	1	33.3	1	50.0	2	40.0
Learn correctly condom use	1	33.3	1	50.0	2	40.0
Other	1	33.3	0	0	1	20.0
Total	3	100.0	2	100.0	5	100.0

Percentage total may exceed 100 due to multiple responses

7.12.3 Visited HISC in the last 12 months

Nearly half of the respondents (45%) had ever visited Health Information Service Centers (HISC) during the past 12 months. Among them 58 percent belonged to TG category while 40 percent belonged to MSM group. Those who visited the HISC in the past 12 months were involved in various activities such as received pre HIV/AIDS test counseling (86% by the TGs and 58% by the MSM) , received post HIV/AIDS test counseling (50% by the MSM and 43% by the TGs), given blood sample for HIV/AIDS test (86% by the TGs and 75% by the MSM) and received HIV/AIDS test result (42% by the MSM and 29% by the TGs).

Table 7.26 Visited HISC in the last 12 months

	MSM		TG		Total	
	N	%	N	%	N	%
Ever visited any HISC in the last 12 months						
Yes	12	40.0	7	58.3	19	45.2
No	18	60.0	5	41.7	23	54.8
Total	30	100.0	12	100.0	42	100.0
Activities						
Received pre-HIV/AIDS test counseling	7	58.3	6	85.7	13	68.4
Received post HIV/AIDS test counseling	6	50.0	3	42.9	9	47.4
Blood sample taken for HIV/AIDS test	9	75.0	6	85.7	15	78.9
Received HIV/AIDS test result	5	41.7	2	28.6	7	36.8
Received counseling on using condom correctly in each sexual intercourse	3	25.0	2	28.6	5	26.3
Took a friend with me	1	8.3	2	28.6	3	15.8
Received information on HIV/AIDS window period	2	16.7	0	0	2	10.5
Counseling	1	8.3	0	0	1	5.3
Total	12	100.0	7	100.0	19	100.0

Percentage total may exceed 100 due to multiple responses

7.13 Information on MSM/TG Network

The survey collected the information about the MSM/TGs network in Bhutan. In this regards, over half of the respondents (52%) had friends who had sexual relationship with males in other district than the city they lived of which 57 percent were MSM and 42 percent were TGs. Among those who had friends having sexual relationship with males in other district, over two fifths of the MSM (42%) knew 2 to 3 other MSM who also knew them well. Similarly, three out of five of the TGs (60%) knew more than 10 other trans-genders. The average number of other MSM known by the MSM who also knows them well was higher among TG (14.6) than that of the MSM (6.8).

Table 7.27 Information on MSM/TG Network

	MSM		TG		Total	
	N	%	N	%	N	%
Respondents having friends who have also sexual relationship with males from other district than this city						
Yes	17	56.7	5	41.7	22	52.4
No	13	43.3	7	58.3	20	47.6
Total	30	100.0	12	100.0	42	100.0
Number of other MSM known by the respondent						
2	3	17.6	0	0	3	13.6
3	4	23.5	0	0	4	18.2
5	1	5.9	0	0	1	4.5
6	1	5.9	0	0	1	4.5
7	1	5.9	0	0	1	4.5
8	2	11.8	1	20.0	3	13.6
10	2	11.8	1	20.0	3	13.6
More than 10	3	10.7	3	60	6	27.1
Mean number	6.8		14.6		8.5	
Median number	6		15		8	
Total	17	100.0	5	100.0	22	100.0

7.14 Prevalence HIV, Syphilis and HBV

It is notable that none of the sampled MSM and TGs had HIV and Hepatitis B. almost a tenth (9.5%) MSM-TG had syphilis reactive. It is notable that the prevalence of Syphilis among the TGs was much higher (25%) than that of MSM group (3.3 %).

Table 7.28 Prevalence of HIV, Syphilis and HBV

	MSM		TG		Total	
	N	%	N	%	N	%
HIV						
Reactive	0	0	0	0	0	0
Non-Reactive	30	100.0	12	100.0	42	100.0
Total	30	100.0	12	100.0	42	100.0
Syphilis						
Reactive	1	3.3	3	25.0	4	9.5
Non-Reactive	29	96.7	9	75.0	38	90.5
Total	30	100.0	12	100.0	42	100.0
HBV						
Reactive	0	0	0	0	0	0
Non-Reactive	30	100.0	12	100.0	42	100.0
Total	30	100.0	12	100.0	42	100.0

The survey explored the prevalence of Syphilis infection on the basis background characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. All of the four respondents who had been infected with Syphilis were residing in Thimpu district and had completed below primary level of schooling. Three out of four of them were in between the age of 25-34 years and had their first sex at the age of 15 years or below. Similarly, three of them who had reactive Syphilis ever interacted with PE/OW and visited the HISC in the last 12 months.

Table 7.29 Experience of Syphilis by background characteristics

		Syphilis				Total	
		Reactive		Non-Reactive			
		N	%	N	%	N	%
District of residence	Thimphu	4	15.4	22	84.6	26	100.0
	Chukha	0	0	6	100.0	6	100.0
	Sarpang	0	0	6	100.0	6	100.0
	Wangdue Phodrang	0	0	3	100.0	3	100.0
	Punakha	0	0	1	100.0	1	100.0
Age group	Less than 25	1	5.3	18	94.7	19	100.0
	25-34	3	15.8	16	84.2	19	100.0
	35 and above	0	0	3	100.0	3	100.0
Level of education	Below primary	4	10.3	35	89.7	39	100.0
	lower-middle secondary	0	0	3	100.0	3	100.0
Age at first sex	Upto 15	3	25.0	9	75.0	12	100.0
	16-19	1	4.8	20	95.2	21	100.0
	20 and above	0	0	9	100.0	9	100.0
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	3	15.0	17	85.0	20	100.0
	No	1	4.5	21	95.5	22	100.0
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	3	15.8	16	84.2	19	100.0
	No	1	4.3	22	95.7	23	100.0
Total		4	9.5	38	90.5	42	100.0

CHAPTER 8: RESULT

DRUG USERS/PWIDs

Bhutanese or non-Bhutanese male or female aged 18 years and above who reported swallowing, snorting, or smoking illicit drug use at least last 6 months is classified as a DU. Illicit drug use included the use of illegal drugs or the misuse of prescription medications or household substances for fun/pleasure or any other non-medical purpose. However, those who reported injecting illicit drugs either as the only route of drug administration or in combination with another route (swallowing, snorting, and smoking) are defined as people who inject drug.

This chapter describes socio-demographic characteristics, sexual behavior, use of drugs, injective behavior, condom use, sex partners and their types, knowledge on HIV and Risk behavior, stigma and discrimination, exposure to the program and biological test result of drug users/PWID.

8.1 Socio-Demographic Characteristics of the respondents

8.1.1 District and sex of the respondents

A total of 203 DUs/PWIDs were recruited in the study. Among them half (49%) were from Thimpu and one fourth (25%) were from Chukha district. Majority of the respondents (94%) who participated in the survey were male and the rest 6 percent were female.

Table 8.1 District and sex of the respondents

	N	%
District		
Thimphu	100	49.3
Chukha	50	24.6
Sarpang	19	9.4
Samdrup Jongkhar	10	4.9
Wangdue Phodrang	12	5.9
Trongsa	12	5.9
Total	203	100.0
Sex		
Male	191	94.1
Female	12	5.9
Total	203	100.0

8.1.2 Background characteristics of respondents

Over half of the respondents (57%) were youth aged below 25 years. Almost a third of them (29%) were of age between 25-29 years. A negligible percent of them (2%) were aged 40 years and above. Over two-fifth (42%) had attended higher secondary level of education and one third (33%) had attended middle secondary level of schooling. Regarding the marital status, over two thirds of the DU/PWIDs (70%) were never married while one sixth of them (16%) were married and less than a tenth (9%) were divorced/permanently separated. Among those who are married, two fifths of them (41%) had married at young age between 20-24 years. Nearly a third (31%) were married at the age less than 20 years and a quarters (26%) were married in the age between 25-29 years.

Table 8.2 Background characteristics of respondents

	N	%
Age group		
Less than 20	36	17.7
20-24	79	38.9
25-29	59	29.1
30-34	22	10.8
35-39	4	2.0
40-44	2	1.0
45-49	1	0.5
Mean age (years)	24.3	
Level of Education		
Illiterate	9	4.4
Literate only	2	1.0
Primary	22	10.8
Lower secondary	12	5.9
Middle Secondary	67	33.0
Higher secondary	86	42.4
Bachelor	5	2.5
Marital status		
Married	33	16.3
Divorced/Permanently Separated	18	8.9
Widower	2	1.0
Not married but living together	8	3.9
Never married	142	70.0
Total	203	100.0
Age at marriage/living together		
Less than 20	19	31.1
20-24	25	41.0
25-29	16	26.2
35-39	1	1.6
Mean age at marriage (years)	21.2	
Total	61	100.0

8.2 Sexual behavior

It is notable that majority of the DU/PWIDs (94%) had ever had sexual intercourse. Among them who had ever had sex, over a half (57%) had it in the age between 16-19 years and one in five (20%) had sex

in the age less than 15 years. Among the DU/PWIDs who ever had sexual intercourse, nearly a half (48%) had sex with high risk women/men.

Table 8.3 Sexual behavior

	N	%
Ever had sexual intercourse with a woman		
Yes	190	93.6
No	13	6.4
Total	203	100.0
Age at first sex		
Less than 15	37	19.5
16-19	109	57.4
20-24	25	13.2
Don't know	19	10.0
Total	190	100.0
Ever had sex with high risk women		
Yes	92	48.4
No	98	51.6
Total	190	100.0

8.2.1 Sexual behavior with female sex workers/high risk women

Among those who had sex with high risk women, over two fifths of the DU/PWIDs (42%) had paid for sex. Among them who had ever paid for sex, almost two fifths (39%) had sex with less than five and a fifth (20%) had sex with 10-14 sex workers in his/her lifetime in Bhutan. The average number of sex workers with whom the DU/PWIDs had sex in his/her lifetime was 13.3.

Similarly, among the DU/PWIDs who had ever had sex with high risk women/men, over four fifths (78%) had had sex with a male/female sex worker in the past year in Bhutan. Among them over a half (58%) had had sex with less than five sex workers in Bhutan in the last one year. The average number of sex workers with whom the DU/PWIDs had had sex in Bhutan in the last one year was 6.

Table 8.4 Sexual behavior with female sex workers/high risk women

	N	%
Ever had paid for sex		
Yes	39	42.4
No	53	57.6
Total	92	100.0
Number of sex workers with whom the respondent had sex in his/her lifetime in Bhutan		
Less than 5	15	38.5
5-9	7	17.9
10-14	8	20.5
15-19	2	5.1
20 and above	7	17.9
Mean Number	13.3	
Median Number	7	
Total	39	100.0
Have had sex with a male/female sex worker in the past year in Bhutan		
Yes	72	78.3
No	20	21.7
Total	92	100.0
Number of sex workers with whom the respondent had sex in Bhutan in last one year		
None	3	4.2
Less than 5	42	58.3
5-9	19	26.4
10-14	3	4.2
20 and above	5	6.9
Mean Number	6	
Median Number	3	
Total	72	100.0

8.3 Condom use

8.3.1 Condom use with spouse

Almost a fifth of the DU/PWIDs (19%) had had sexual intercourse with their spouse during the past one-year. Among them more than a third (36%) had used a condom during their last sex with their spouse. Consistent condom use was found very low (7%) among the DU/PWIDs while having sex with their spouse.

Table 8.5 Condom use with spouse

	N	%
Have had sexual intercourse with spouse during the past one-year		
Yes	39	19.2
No	22	10.8
Never married	142	70.0
Total	203	100.0
Use of condom in the last sexual Intercourse with spouse		
Yes	14	35.9
No	25	64.1
Total	39	100.0
Frequency of condom use while having sex with spouse over the last one year		
All of the time	1	7.1
Most of the time	4	28.6
Some of the time	7	50.0
Rarely	1	7.1
Never	1	7.1
Total	14	100.0

8.3.2 Condom use with High risk women/Men

Almost a half of the DU/PWIDs (48%, n=92) had ever had sex with a high risk women. Among them over a half (54%) had used a condom in the last sexual intercourse with a high risk women/men. A third of the DU/PWIDs (34%) used condom all the time (i.e., consistent condom use) while having sex with a high risk women/men.

Table 8.6 Condom use with High risk women/Men

	N	%
Use of condom in the last sexual intercourse with a High risk women/men		
Yes	50	54.3
No	42	45.7
Total	92	100.0
Frequency of condom use while visiting High risk women/men over the last 1 year		
All of the time	17	34.0
Most of the time	8	16.0
Some of the time	18	36.0
Rarely	4	8.0
Never	3	6.0
Total	50	100.0

8.3.3 Condom use with non-casual sex partners (girlfriend/boyfriend)

Majority of the DU/PWIDs (81%) had had sexual intercourse with non-casual sex partners in the past one year. Among them two fifths (40%) had had sex with a non- casual partner for less than 5 times in the last 1 month and nearly a half (46%) had used a condom during their last sex with their non-casual partner. Only about a fifth (21%) had used condom consistently with their non-casual partner.

Table 8.7 Condom use with non-casual sex partners (girlfriend/boyfriend)

	N	%
Have had sexual intercourse with girl/ boy friend during the past one year		
Yes	153	80.5
No	37	19.5
Total	190	100.0
Frequency of sexual intercourse in the last 1 months with non-casual sex partners		
None	7	4.6
Less than 5	61	39.9
5-9	28	18.3
10-14	18	11.8
15 and more	17	11.1
Don't know	22	14.4
Total	153	100.0
Use of condom in the last sexual Intercourse with girl/boy friend		
Yes	71	46.4
No	82	53.6
Total	153	100.0
Frequency of condom use while having sex with girl/boy friend in Bhutan over the last 12 months		
All of the time	15	21.1
Most of the time	20	28.2
Some of the time	32	45.1
Rarely	2	2.8
Never	2	2.8
Total	71	100.0

8.3.4 Condom use with male partners (only for male)

Among the male DU/PWIDs, 4 percent (n=8) had ever had sex with a male partner. Three respondents out of 8 respondents (38%) had anal sex with a male partner during the past one year. Among these three respondents, one respondents had 6 times and among them over a third (37%; n=3) had had anal

sex with a male partner during the past one year. None of the respondents used condom in the last anal sex with male partner.

Table 8.8 Condom use with male partners (only for male)

	N	%
Ever have had sex with a male partner		
Yes	8	4.5
No	169	95.5
Total	177	100.0
Have had anal sex with a male partner during the past one-year		
Yes	3	37.5
No	5	62.5
Total	8	100.0
Use of condom in last anal sex with male partners		
Yes	0	0
No	3	100.0
Total	3	100.0

8.4 Condom accessibility

The study assessed the usual condom carrying practice among the respondents. Over a half of the DU/PWIDs (53%) usually carried condom with them. The most common site from where they could access condom was pharmacy (65%), general retail store/hospital (52%), peer/friends (50%) and health post/health center (38%).

Table 8.9 Condom accessibility

	N	%
Usual condom carrying practice		
Yes	108	53.2
No	95	46.8
Total	203	100.0
Place or persons		
Health Post / Health Center	77	37.9
Pharmacy	133	65.5
General retail store/Hospital	106	52.2
Peer/Friends	102	50.2
Health Workers/Volunteers	23	11.3
Hotel /Lodge/Bar	5	2.5
NGO	2	1.0
Others	5	2.5
Don't know	5	2.5
Total	203	100.0

Percentage total may exceed 100 due to multiple responses

8.5 Use of alcohol

A large majority of the DU/PWIDs (89%) ever drank alcohol. Among them, one in five (20%) drank alcohol every day. One-third of them (34%) drank 2-3 times a week and almost a fifth (19%) drank at least once a week. Over half of the DU/PWIDs (58%) reported of getting drunk sometimes while having (anal/vaginal) sex with a sex partner. Similarly more than half of the respondent's sex partner (53%) sometimes get drunk or indulge on illicit drugs while having sex with him/her.

Table 8.10 Use of alcohol

	N	%
Ever drank Alcohol		
Yes	181	89.2
No	22	10.8
Total	203	100.0
Frequency of having drinks containing alcohol during the last 30 days		
Everyday	36	19.9
2-3 times a week	62	34.3
At least once a week	35	19.3
Less than once in a week	25	13.8
Never	20	11.0
Don't know	3	1.7
Total	181	100.0
Frequency of getting drunk while having sex (anal/vaginal) with sex partner		
Always	8	4.4
Most of the time	16	8.8
Sometimes	104	57.5
Never	33	18.2
Never had sex	19	10.5
Don't know	1	0.6
Total	181	100.0
Frequency of the respondent's sex partner getting drunk or high on illicit drugs while having sex with him/her		
Always	3	1.9
Most of the time	7	4.3
Sometimes	86	53.1
Never	66	40.7
Total	162	100.0

8.6 Use of Drugs

8.6.1 Ever use of drugs

It is notable that almost four in five DU/PWIDs (79%) took drugs for the first time at adolescent ages (10-19 years). Majority of the DU/PWIDs (79%) took drugs in the past one month and among them nearly three fourths (72%) took drugs in the past week.

Table 8.11 Use of Drugs

	N	%
Ever tried any of the drugs		
Yes	203	100.0
No	0	0
Total	203	100.0
Age of the respondent while taking drugs for the first time		
Less than 15 years	37	18.2
15-19	124	61.1
20-24	26	12.8
25 and above	3	1.5
Don't remember age	13	6.4
Total	203	100.0
Ever taken drugs in the past one month		
Yes	161	79.3
No	42	20.7
Total	203	100.0
Ever taken drugs in the past week		
Yes	117	72.7
No	44	27.3
Total	161	100.0

8.6.2 Name of drugs ever used

The most common drugs used by the DU/PWIDs was Ganga (89%) followed by Nitrosun (77%), Chares/Hashish (73%), Spasmo Proxyvon (71%), Gluee/Dendride/Hellosijenic (64%), Corex (56%) and Relipen (54%).

Table 8.12 Name of drugs ever used

	N	%
Brown Sugar	19	9.4
Nitrosun	156	76.8
Ganja	180	88.7
Yaba	7	3.4
Morphine	18	8.9
Phensydyl	30	14.8
Relipen	109	53.7
Diazepam	92	45.3
Corex	113	55.7
Phenergan/Sleeping Tablet	79	38.9
Cocaine	20	9.9
Spasmo Proxyvon (SP)	144	70.9
White Sugar/Smack	14	6.9
Chares/Hashish	148	72.9
Gluee/Dendride / Hellosijenic	130	64.0
Katemine	21	10.3
Total	203	100.0

Percentage total may exceed 100 due to multiple responses

8.6.3 Name of drugs used in last week

Over half of the DU/PWIDs (54%) consumed Ganga in the last week followed by Spasmo Proxyvon (50%), Nitrosun (49%), Chares/Hashish (47%) and Gluee/Dendride/Hellosijenic (33%).

Table 8.13 Name of drugs used in last week

	N	%
Ganja	110	54.2
Spasmo Proxyvon (SP)	102	50.2
Nitrosun	100	49.3
Relipen	55	27.1
Diazepam	44	21.7
Corex	54	26.6
Phenergan/Sleeping Tablet	40	19.7
Brown Sugar	3	1.5
Yaba	3	1.5
Morphine	6	3.0
Phensydyl	6	3.0
Cocaine	14	6.9
White Sugar/Smack	15	7.4
Chares/Hashish	95	46.8
Gluee/Dendride / Hellosijenic	66	32.5
Katemine	8	3.9
Total	203	100.0

Percentage total may exceed 100 due to multiple responses

8.6.4 Use of combination of drugs

Majority of the DU/PWIDs (79%) used drugs in combination. Among them, over two out of five (44%) used combination of 3 drugs and almost two fifths (39%) used two drugs in combination.

Table 8.14 Use of combination of drugs

	N	%
Use of these drugs in combination form		
Yes	160	78.8
No	43	21.2
Total	203	100.0
Number of drugs that have been used in combination		
2	63	39.4
3	71	44.4
4	23	14.4
5	3	1.9
Total	160	100.0

8.6.5 Injecting drug uses

Less than a tenth of the DU/PWIDs (7%) had ever injected drugs. Among them who had ever injected drugs, 7 percent (n=1) had injected in the past 12 months and another 7 percent (n=1) had injected in the past one month. Similarly, the same percentage (7%; n=1) had injected drugs in the past one week and had been currently injecting drugs respectively.

Table 8.15 Injecting drug uses

	N	%
Ever-injected drugs using syringe		
Yes	15	7.4
No	187	92.1
Don't know	1	0.5
Total	203	100.0
Ever injected drugs in last 12 months		
Yes	1	6.7
No	14	93.3
Total	15	100.0
Ever injected drugs in the past one month		
Yes	1	6.7
No	14	93.3
Total	15	100.0
Ever injected drugs in the past one week		
Yes	1	6.7
No	14	93.3
Total	15	100.0
Currently injecting drugs		
Yes	1	6.7
No	14	93.3
Total	15	100.0

8.6.6 Needle sharing

Two fifths of the DU/PWIDs (40%; n=6) who had ever injected drugs using syringe, had used a needle or syringe that had already been used by others during the last injection. Three out of five of them (60%; n=9) had purchased a new needle/syringe and over a half (53%; n=8) had obtained the syringe/needle from a friend/relative.

Table 8.16 Needle sharing

	N	%
Use of needle or syringe that had previously been used by someone else by the respondent at the last time he/she injected drugs		
Yes	6	40.0
No	8	53.3
Don't know	1	6.7
Total	15	100.0
How do you obtain a syringe/needle		
My friend/relative give it to me after use	8	53.3
Unknown person give it to me	1	6.7
I purchase a new needle/syringe	9	60.0
Total	15	100.0

8.6.7 Needle sharing behavior

Two fifths of the DU/PWIDs (40%; n=6) who had ever injected drugs, had injected two or more times in the day before. Similarly, among the DU/PWIDs who had injected the day before, over a half (58%; n=12) used a needle/syringe which he/she had self purchased. Two thirds of them (67%; n=8) could access to new (unused) syringe. Among them who could access a new syringe, all (100%) respondent knew that they could obtain a new syringe from a medical shop followed by a half (50%) from their friends.

Table 8.17 Needle sharing behavior

	N	%
Number of times the respondent injected drugs yesterday/last day		
1 time	6	40.0
2 or more times	6	40
Never shared injection	3	20.0
Total	15	100.0
Way the respondent got/obtained that syringe/needle the last time he/she injected		
My friend/relative after his use	3	25.0
Unknown person after his use	1	8.3
I used a needle/syringe which I purchased	7	58.3
I reused my own needle/syringe]	1	8.3
Total	12	100.0
Access to new, unused needles and syringes whenever the respondent need them		
Yes	8	66.7
No	3	25.0
Don't know	1	8.3
Total	12	100.0
Where can you obtain new unused needle and syringes		
Medical shop	8	100.0
Health worker	1	12.5
Family/relatives	1	12.5
Friends	4	50.0
Steal from hospital/medical shop	3	37.5
Total	8	100.0

Percentage total may exceed 100 due to multiple responses

8.6.8 Currently under treatment or received treatment because of drug use

One fourth of the DU/PWIDs (25%; n=3) had previously received treatment for drug use and one third (33%; n=1) each had received the treatment one, five and twelve months before the survey.

Table 8.18 Currently under treatment or received treatment because of drug use

	N	%
Currently under treatment or ever received treatment because of drug use		
Was in treatment but not now	3	25.0
Have never received treatment	9	75.0
Total	12	100.0
Respondents received treatment before (months)		
1	1	33.3
5	1	33.3
12	1	33.3
Total	3	100.0

8.7 HIV/AIDS

8.7.1 Awareness on HIV/AIDS

Almost cent percent of the DU/PWIDs (99.5%) had heard of HIV/AIDS. The major source of information regarding HIV/AIDs was television (93%), friends/relatives (89%), newspaper/magazines (85%), school/teachers (82%), health workers (79%) and pamphlets/posters (79%).

Table 8.19 Awareness on HIV/AIDS

	N	%
Ever heard of HIV/AIDS		
Yes	202	99.5
No	1	0.5
Sources		
Television	189	93.1
Friends/Relatives	180	88.7
Newspapers/Magazines	172	84.7
School/Teachers	167	82.3
Pamphlets/Posters	160	78.8
Health Workers	161	79.3
Work Place	99	48.8
Radio	116	57.1
People from NGO	72	35.5
Total	202	100.0

8.7.2 Comprehensive knowledge on HIV

Only slightly higher than two in five (42%) respondent aware that people can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner. Two fifths of the DU/PWIDs (42%) knew that people can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact. More than two thirds of the respondents (70%) knew that a healthy-looking person can be infected with HIV. Over half of them (53%) knew that a person cannot get the HIV virus from mosquito bite. Three fourths of the DU/PWIDs (75%) knew that a person do not get HIV by sharing a meal with an HIV infected person.

Comprehensive knowledge on HIV transmission is defined as knowing that consistent condom use and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV transmission. Although almost all respondents were aware about HIV, comprehensive knowledge was very low. Only one fifth (21%) had comprehensive knowledge on HIV.

Table 8.20 Comprehensive knowledge on HIV

	N	%
People can protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner		
Yes	86	42.4
No	94	46.3
Don't know	23	11.3
People can protect themselves from HIV, virus-causing AIDS, by using condom correctly in each sexual contact		
Yes	87	42.9
No	86	42.4
Don't know	30	14.8
A healthy-looking person can be infected with HIV		
Yes	142	70.0
No	28	13.8
Don't know	33	16.3
A person can get the HIV virus from mosquito bite		
Yes	74	36.5
No	108	53.2
Don't know	21	10.3
A person get HIV by sharing a meal with an HIV infected person		
Yes	36	17.7
No	152	74.9
Don't know	15	7.4
Total	203	100.0
Comprehensive knowledge on HIV		
Yes	42	20.7
No	161	79.3
Total	203	100.0

Comprehensive knowledge on HIV among the PWIDs varied according to the district of residence, age group, duration of work, level of education, age at first sex and exposure to out-reach program. Majority of the respondents residing in Sarpang district (80%) had comprehensive knowledge on HIV followed by Wangdue Phodrang and Trongsa district (58%) each. On the other hand, the lowest comprehensive knowledge on HIV was found among the PWID residing in Thimpu district (13%) while none of the respondent residing in Chukha and Samdrup Jongkhar had such knowledge.

Comprehensive knowledge on HIV was highest among the PWIDs aged 35 years and above (43%). Similarly, this knowledge was high among the PWIDs completing higher secondary and above education (26%) followed by those who were illiterate (22%). Comparatively higher percentage of PWIDs, who had

their first sex at the age of 20 years and above were aware on comprehensive knowledge of HIV. Over a quarter of the respondents (27%) had ever met or interacted with PE and OW and nearly a fifth of them (18%) had ever visited HISC in the last 12 months had comprehensive knowledge on HIV .

Table 8.21 Comprehensive knowledge on HIV by background characteristics

		Comprehensive knowledge on HIV				Total	
		Yes		No			
		N	%	N	%	N	P value
District of residence	Thimphu	13	13.0	87	87.0	100	na
	Chukha			50	100.0	50	
	Sarpang	15	78.9	4	21.1	19	
	Samdrup Jongkhar			10	100.0	10	
	Wangdue Phodrang	7	58.3	5	41.7	12	
	Trongsa	7	58.3	5	41.7	12	
Age group	Less than 25	15	13.0	100	87.0	115	0.006
	25-34	24	29.6	57	70.4	81	
	35 and above	3	42.9	4	57.1	7	
Level of education	Illiterate	2	22.2	7	77.8	9	0.321
	Below primary	4	16.7	20	83.3	24	
	lower-middle secondary	12	15.2	67	84.8	79	
	Higher secondary and above	24	26.4	67	73.6	91	
Age at first sex	Upto 15	6	16.2	31	83.8	37	0.476
	16-19	23	21.1	86	78.9	109	
	20 and above	12	27.3	32	72.7	44	
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months	Yes	6	27.3	16	72.7	22	0.640
	No	36	20.0	145	80.0	181	
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months	Yes	6	18.2	27	81.8	33	0.698
	No	36	21.2	134	78.8	170	
Total		42	20.7	161	79.3	203	

8.7.3 Information regarding HIV test

Majority of the DU/PWIDs (72%) knew about the possibility for someone to have a confidential HIV test done in their community and four fifths of them (80%) knew about the place where HIV testing could be done. One-third of the DU/PWIDs (34%) had ever undergone an HIV test and above half of them (56%) who had ever undergone an HIV test, had done it voluntarily.

Over two fifths of the DU/PWIDs (43%) who had ever done an HIV test, had done it within the last 12 months. Similarly, among those who had undergone an HIV test within the last 12 months nearly two thirds (63%) had done it once.

Table 8.22 Information regarding HIV test

	N	%
Possibility for someone to have a confidential HIV test in your community		
Yes	147	72.4
No	45	22.2
Don't know	11	5.4
Total	203	100.0
Knowledge about the place where HIV testing can be done		
Yes	162	79.8
No	41	20.2
Total	203	100.0
Ever have had an HIV test		
Yes	70	34.5
No	133	65.5
Total	203	100.0
HIV test undergone either voluntarily or because it was required		
Voluntarily	39	55.7
Required	31	44.3
Total	70	100.0
Time of most recent HIV test		
Within last 12 months	30	42.9
Between 1-2 years	18	25.7
Between 2-4 years	13	18.6
More than 4 years ago	9	12.9
Total	70	100.0
Number of times having undergone HIV test within the last 12 months		
1	19	63.3
2	8	26.7
3	3	10.0
Total	30	100.0

8.8 Sexually Transmitted Infection

8.8.1 Knowledge about STI

Knowledge on STI was assessed among the DU/PWIDs. Three fourths (75%) regarded STI as having discharge from penis followed by burning pain during urination (70%), genital sores/ulcers (62%), swelling in the groin area (45%) and more than quarters (28%) of the DU/PWIDs regarded HIV/AIDS as a form of STI. Nearly a fifth of the DU/PWIDs (18%) were completely unaware of the symptoms of STI.

Table 8.23 Knowledge about STI

	N	%
Knowledge on STI		
Penis discharge	153	75.4
Burning pain during urination	143	70.4
Genital ulcers/sores	126	62.1
Swellings in groin area	91	44.8
Anal discharge	32	15.8
Anal ulcer/sores	2	1.0
Other (Specify)	1	0.5
Don't know	35	17.2
No response	1	0.5
Total	203	100.0

Percentage total may exceed 100 due to multiple responses

8.8.2 Symptoms of STI and treatment

DU/PWIDs were asked whether they were currently having symptoms of STI or not. Nearly a fifth (18%) reported of experiencing burning pain during urination followed by discharge from penis (16%), pain during sex (15%) and swelling in groin area (14%). A quarter of the DU/PWIDs (26%) had experienced at least one symptom of STI and among them only half (50%) had sought medical attention.

Table 8.24 Symptoms of STI and treatment

	N	%
Penis discharge	33	16.3
Burning pain during urination	37	18.2
Genital ulcers/sores	24	11.8
Pain during sex	31	15.3
Swelling in groin area	29	14.3
Anal discharge	4	2.0
Anal ulcer/sores	3	1.5
Total	**203**	**100.0**
At least one symptoms experienced	52	25.6
Total	203	100.0
Having gone through medical treatment for any of these symptoms of STI		
Yes	26	50.0
No	26	50.0
Total	52	100.0

8.9 Stigma and discrimination

The survey explored the status of stigma and discrimination regarding HIV among the DU/PWIDs. An overwhelming majority of the respondents (95%) were willing to take care of his/her HIV positive relative while above three out of five (61%) of them would want it to remain a secret if his/her family member got HIV. Likewise, three fifths (60%) of them were ready to buy food from an HIV positive shop keeper. Nearly half (47%) opined that an HIV positive person required more care than a person of any other chronic disease and nearly four fifths of them (78%) had an opinion that their HIV positive colleagues should be allowed to work if he/she is not very sick. Similarly, another majority (84%) were of the view that an HIV positive child should be able to attend school with children who are HIV negative.

Table 8.25 Stigma and discrimination

	N	%
Opinion on if his/her relative gets HIV, would they be willing to take care of them in their household		
Yes	193	95.1
No	8	3.9
Don't know	2	1.0
Opinion on if his/her family member gets HIV, would they want it to remain a secret		
Yes	124	61.1
No	66	32.5
Don't know	13	6.4
Opinion on if they knew a shopkeeper or food seller had HIV, would they buy food from him/her		
Yes	122	60.1
No	73	36.0
Don't know	8	3.9
Opinion on if a person with HIV should get the same, more or less health care than someone with any other chronic disease		
Same	96	47.3
More	99	48.8
Less	6	3.0
Don't know	2	1.0
Opinion on if one of their colleagues who have HIV but is not very sick should be allowed to continue working		
Yes	158	77.8
No	31	15.3
Don't know	14	6.9
Opinion on either children living with HIV should be able to attend school with children who are HIV negative		
Yes	170	83.7
No	23	11.3
Don't know	8	3.9
No response	2	1.0
Total	203	100.0

8.10 Reach by HIV/AIDS prevention intervention program

8.10.1 Met peer educator in the last 12 months

It is notable that only a tenth of the DU/PWIDs (11%) had ever met or interacted with peer educators (PE) or outreach workers (OE) in the last 12 months. The major activity during their meeting/interaction with PE/OE was discussion on how HIV/AIDS could be transmitted (95%). Other topics of discussion were about how STI could be transmitted (64%), regular/non-regular use of condom and correct use of condom (59%) respectively.

Table 8.26 Met peer educator in the last 12 months

	N	%
Ever met or interacted with Peer Educators (PE) or Outreach Workers (OW) in the last 12 months		
Yes	22	10.8
No	180	88.7
No response	1	0.5
Total	203	100.0
Activities		
Discussion on how HIV/AIDS is/isn't transmitted	21	95.5
Discussion on how STI is/isn't transmitted	14	63.6
Regular/non-regular use of Condom	13	59.1
Condom correctly	13	59.1
Total	22	100.0

Percentage total may exceed 100 due to multiple responses

8.10.2 Visited DIC in the last 12 months

Almost one fifth of the DU/PWIDs (17%) had ever visited a DIC in the past 12 months. Majority of the respondents (71%) visited the DIC to collect condoms. Other major activities they were involved during their visit to DIC was to learn to use condom correctly (56%) and to collect IEC materials (27%).

Table 8.27 Visited DIC in the last 12 months

	N	%
Ever visited to any outreach center (DIC) in the last 12 months		
Yes	34	16.7
No	169	83.3
Total	203	100.0
Activities		
Condom collection	24	70.6
Learn correctly condom use	19	55.9
IEC materials collection	9	26.5
Other	4	11.8
Total	34	100.0

Percentage total may exceed 100 due to multiple responses

8.10.3 Visited HISC in the last 12 months

Only less than a fifth of the DU/PWIDs (16%) visited Health Information Service Centers (HISC) during the past 12 months. Those who visited the HISC in the past 12 months were involved in various activities as; received pre- HIV/AIDS test counseling (61%), received post HIV/AIDS test counseling (30%), given the blood sample for HIV/AIDS test (61%), received HIV/AIDS test result (15%) and received counseling on using condom correctly (27%).

Table 8.28 Visited HISC in the last 12 months

	N	%
Ever visited any Health Information Service Centers (HISC) centers in the last 12 months		
Yes	33	16.3
No	170	83.7
Total	203	100.0
Activities		
Received pre-HIV/AIDS test counseling	20	60.6
Received post HIV/AIDS test counseling	10	30.3
Blood sample taken for HIV/AIDS test	20	60.6
Received HIV/AIDS test result	5	15.2
Received counseling on using condom correctly in each sexual intercourse	9	27.3
Took a friend with me	6	18.2
Received information on HIV/AIDS window period	3	9.1
Others	1	3.0
Total	33	100.0

Percentage total may exceed 100 due to multiple responses

8.11 Information about Network

The survey tried to collect the information about the DU/PWIDs network in Bhutan. In this regards, large majority of the respondents (90%) had friends who also used/injected drugs from other district than the city they lived. Similarly, nearly three fourth of the DU/PWIDs (71%) knew 20 and above estimated number of other DU/PWIDs in Bhutan.

Table 8.29 Information about Network

	N	%
Respondents having friends who also drug users/inject drugs from other district than this city		
Yes	183	90.1
No	20	9.9
Total	203	100.0
Knowledge about number of other DU/PWID		
Less than 5	8	4.4
5-9	10	5.5
10-14	13	7.1
15-19	21	11.5
20 and above	131	71.6
Total	183	100.0

8.12 Prevalence

It is notable that none of the sampled DU/PWIDs were infected by HIV and Hepatitis B. only one DU/PWID (0.5%) has syphilis.

Table 8.30 Prevalence

	N	%
HIV		
Reactive	0	0
Non-Reactive	203	100.0
Total	203	100.0
Syphilis		
Reactive	1	0.5
Non-Reactive	202	99.5
Total	203	100.0
HBV		
Reactive	0	0
Non-Reactive	203	100.0
Total	203	100.0

The survey explored the prevalence of Syphilis infection by background characteristics of the respondents like place of residence, age group, duration of work, educational status, age at first sex and exposure to out-reach programs. Only one respondent who was residing in Thimpu district had been infected with Syphilis. He was less than 25 years old and had completed less than lower-middle secondary level of education. He had his first sex at the age of 15 years or below and he had never interacted with PE/OW and never visited HISC in the last 12 months (table not shown).

Chapter 9:

Conclusion and Recommendation

9.1.1 Uniformed Personnel

- It is notable that none of the uniformed personnel were HIV positive. However, the prevalence of Syphilis and Hepatitis B virus was 2.6 percent and 2 percent respectively. Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was cent percent among uniformed personnel, comprehensive knowledge on HIV was found very low (32%). Therefore, misconceptions on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.

- In general, access to outreach programs was found low (37%) among uniformed personnel. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of uniformed with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- The consistent condom use was found very low. This may increase vulnerability for HIV and STI transmission. The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that nearly a tenth uniformed personnel had experienced STI symptoms and only about two thirds of them (64%) had sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

9.1.2 Transport workers

- None of the sampled transport worker had HIV infection. However, the prevalence of Syphilis was 7.5 percent (n=13) and Hepatitis B was 1.1 percent (n=2). Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was almost cent percent (96%) among transport workers, comprehensive knowledge on HIV was very low (14%). Therefore, misconceptions in the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- Exposure to program on HIV/AIDS was very low. Only less than a fifth transport workers had ever met or interacted with Peer Educators (PE) or Outreach workers (OE) in the last 12 months. There was a poor exposure of transport workers to outreach center (DIC) and Health

Information Service Centers (HISC) during the past 12 months. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.

- Inclination of the transport workers to high risk behavior was found prominent such as sexual intercourse with high risk women (FSW/bar girls/Drayang girls) and their involvement with multiple sex partners. The average number of lifetime high risk sex partners was 5.7. However, the consistent condom use was found low. Consistent condom use with high risk women in Bhutan was only 33 percent. The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that almost a fifth (17%) of transport workers had experienced of at least one symptoms of STI and over a quarter of transport workers who had experienced STI symptoms (27%) had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

9.1.3 Migrant workers

- None of the sampled migrant workers were diagnosed as HIV positive. The prevalence of Hepatitis B was 3 percent while of Syphilis was only 0.4 percent. Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was high (80%) among migrant workers, comprehensive knowledge on HIV was very low (9%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- In general, access to outreach programs was found low among all of the key populations. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Consistent use of condom with wife was very low (4%). Among less than one in ten of the migrant workers had ever had sex with high risk women (FSW/bar girls/drayang girls) in Bhutan, nearly a half of them practiced consistent condom use with high risk women. On the other hand, consistent use of condom with girlfriend in the last 12 months was low (36%). However, it is encouraging to note that consistent use of condom with female sex workers while staying outside Bhutan was comparatively higher (78%). The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.

- It is remarkable that nearly half of the migrant workers were unaware of symptom of STI. The survey found that nearly two thirds of migrant workers who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

9.1.4 High risk women

- None of the sampled HRWs were HIV positive. The prevalence of Syphilis was 2.8 (n=8). Similarly, the prevalence of Hepatitis B was 1.4 percent (n=4). Special attention is needed to reduce the transmission of Syphilis and Hepatitis B through education, improved awareness of risks and access programs.
- Although awareness of HIV was almost cent percent (98%) among HRW, comprehensive knowledge on HIV was very low (9%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- It is encouraging to note that over half of the HRW had ever met/ interacted with PE/OE and visited HISC in the last 12 months. However DIC visit among them was only less than a tenth. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Consistent condom use with different sex partners is low among HRW. This may increase vulnerability for HIV and STI transmission. Consistent condom use with their regular clients was low (16%). More than half of the HRW had sex with their non paying partners in the last 6 months. Majority of the respondents used condom with client/husband/male friend when having last sexual contact but consistent condom use of only 16 percent. The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that nearly two thirds of the HRW who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.

9.1.5 MSM/TG

- It is notable that none of the sampled MSM and TGs had HIV and Hepatitis B. The prevalence of Syphilis among the TGs was much higher (25%) than that of MSM group (3.3%). Special attention is needed to reduce the transmission of Syphilis through education, improved awareness of risks and access programs.
- Although awareness of HIV was high (MSM=93% and TG=83%), comprehensive knowledge on HIV was very low (MSM=13% and TG=8%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- Nearly a half of the respondents had ever met or interacted with peer educators PE/OE and visited HISC in the last 12 months. However, only a tenth of the respondents had ever visited a DIC in the

past 12 months. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.

- Consistent condom use with non-paying male sex partner in the last month was much higher among the TGs (70%) than that of the MSM (28%).However, consistent condom use with non-paying female sex partners among MSM in the last month was found to be low (37%). The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.
- The survey found that more than a third of the MSM/TGs who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.
- Over a half of the MSM/TGs reported coming out of their families, because of their sexual orientation. Almost one-fifth of the (19%) had ever experienced physical violence/abuse and one-third of the TGs (33%) and over one-tenth of the MSM (13%) were forced to have sex with someone against their will in the past 12 months. Hence, necessary information related to sexuality and to the rights of sexual minorities should be provided at a larger scale through awareness campaigns like street dramas, radio and TV programs to transform the negative thought of the society.
- Suicidal tendency was more prevalent among the MSM/TGs than other key population. It is notable that the thought of committing suicide is twice higher in TGs than the MSM. Therefore, the factors leading them to suicidal thought like physical violence, mental stress and family exclusion need to be well explored and psycho-social education should be imparted among them to lead a positive life.

9.1.6 DU/PWIDs

- Although awareness of HIV was almost cent percent among DU/PWIDs, comprehensive knowledge on HIV was low (21%). Therefore, misconceptions among the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs is expected to address these gaps in combating the misconceptions related to HIV/AIDS.
- The participation of DU/PWIDs in different outreach programs and activities related to HIV such as interaction with peer educators, DIC visit, HISC visit and involvement in their various activities was found very low. Involvement of the peer-educators and outreach workers together with wide use of IEC materials are found to be crucial in terms of improving their access to HIV & STIs prevention services. The outreach peer education and outreach services includes, empowerment of these key population groups with correct knowledge on HIV & STIs, referral for VCT services and STIs management services.
- Consistent condom use with spouse was found very low (7%) among the DU/PWIDs. However, a third of them used condom all the time while having sex with a high risk women/men. Similarly, the practice of consistent condom use with non-casual partner was also low (21%). The National HIV/AIDS & STIs Control Program (NACP) under Department of Public Health must carry out an

operational research to determine the factors leading to low consistent condom use in these key population groups. Further, the national program must device an strategy based on the findings from the study to generate demand for the use of condoms.

- The survey found that a half of the DU/PWIDs who had experienced STI symptoms had never sought medical treatment. Therefore, HIV/AIDs awareness programs should also focus on STI education. Client friendly STI testing and treatment services should be made available to increase the service uptake.
- Over half of the DU/PWIDs had started using in drugs at very young age. Nearly one-fifth took drugs for the first time at the age below 15 years. Specific program activities that target school children, college students, adolescents and youths should be designed to impart knowledge on possible risk of drug abuse and its consequences in the society.
- Needle sharing was prevalent among those who injected drugs. There is increased need for the Ministry of Health, Bhutan Narcotic Control Agency (BNCA), Youth-Development Fund and partnering NGOs to increasingly focus on educating the drugs users on possible risk of HIV transmission and launch comprehensive awareness programs focusing onto schools and institutions.
- The mean age at first sex was much younger 17.2 years for DU/PWIDs. Therefore, specific program activities that target adolescents and youths should be designed to impart knowledge on HIV/AIDs awareness and sex education.