National Level
Integrated Biological Behavioural Surveillance Survey among
Male Labour Migrants in Nepal

– Final Report –

Ministry of Health and Population
National Centre for AIDS and STD Control
Teku, Kathmandu

2024

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Ministry of Health and Population
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New ERA
Kathmandu, Nepal

Save the Children
Nepal Country Office
Kathmandu, Nepal

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Ministry of Health and Population
National Centre for AIDS and STD Control
Teku, Kathmandu

New ERA

Save the Children

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Acknowledgment

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Dr. Sarbesh Sharma
Director
National Centre for AIDS and STD Control

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List of Abbreviations

ART	Antiretroviral Treatment
CHBC	Community Home Based Care
CM	Community Mobilizers
CSPro	Census and Survey Processing System
DIC	Drop-in Centre
DHS	Demographic Health Survey
DoHS	Department of Health Services
EQAS	External Quality Assessment
FA	Formative Assessment
FSW	Female Sex Workers
FTF	File Transfer Protocol
GAM	Global AIDS Monitoring
HCV	Hepatitis C Virus
HTC	HIV Testing and Counselling Center
IBBS	Integrated Bio-behavioural Surveillance
KP	Key Population
MLM	Male Labour Migrants
MPTCT	Prevention of Mother-to-child Transmission
MSM	Men Who Have Sex with Men
MTCT	Mother-to-child Transmission
NAC	National AIDS Council
NCASC	National Centre for AIDS and STD Control
NHRC	Nepal Health Research Council
NHSP	National HIV Strategic Plan
NPHL	National Public Health Laboratory
OE	Outreach Educators
PE	Peer Educators
PLHIV	People Living with HIV
PMTCT	Prevention of Mother-to-child Transmission
PPS	Probability Proportional to Size
PWID	People Who Inject Drugs
QC	Quality Controllers
RPR	Rapid Plasma Reagin
SCI	Save the Children International
SI	Strategic Information
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infections
TG	Transgender
TM	Tranmen
TPHA	Treponema Pallidium Hemaglutination Assay
TPPA	Treponema Pallidum Particle Agglutination
TW	Tranwomen
UNAIDS	The Joint United Nations Programme on HIV and AIDS
WHO	World Health Organization

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Executive Summary

Nepal has a concentrated HIV epidemic, with an estimated 30,000 individuals living with HIV and an adult HIV prevalence of 0.1% in 2022. The HIV incidence in the adult population aged 15-49 years was estimated at 0.02 per 1000 people in 2022. According to the National Centre for AIDS and STD Control (NCASC), 92% of people living with HIV (PLHIV) in 2022 knew their HIV status, 78% were on antiretroviral therapy (ART), and 75% had suppressed viral loads. Since the first reported case in 1988, the Nepalese government has implemented robust HIV prevention and control policies, encapsulated in the National HIV Strategic Plan 2021-2026, aimed at achieving the Sustainable Development Goal (SDG) target 3.3 to end the AIDS epidemic by 2030.

The Integrated Bio-Behavioural Surveillance (IBBS) survey, conducted under the leadership of the NCASC with financial and technical support from the Save the Children International/Global Fund program, has revealed crucial insights into the health and behaviors of male labour migrants (MLM) in Nepal. The survey was implemented by New ERA and received ethical approval from the Nepal Health Research Council (NHRC).

The primary objective of the IBBS survey was to measure the prevalence of HIV, syphilis, and Hepatitis C virus (HCV), along with associated risk behaviors among MLM in Nepal. The formative assessment identified that 42 out of 77 districts exhibit the highest seasonal labour migration to India, as validated by the 2021 census data. From these, 14 districts were selected to form the sampling frame, including urban, peri-urban, and rural areas across all provinces, resulting in a total sample size of 1,890 MLM. The survey was completed with a response rate of 99%.

The survey included a population of mainly married MLM whose average age of the first migration to India is during late adolescence. A high percentage of men with no education were found in Madhesh province.

HIV prevalence was found to be 0.2% (95% CI 0.1-0.6%), which is low. During clinical assessment as part of IBBS survey, urethral discharge syndrome was diagnosed in 0.8% of MLM and genital ulcer disease in 1.2%. HCV and syphilis tests were not done in all respondents but only in those that met certain clinical criteria. Only 0.3% of MLM were eligible for HCV test and HCV prevalence in MLM from four provinces (Koshi, Madhesh, Gandaki, Sudurpashchim) was 38.4%. A total of 1.4% were eligible for syphilis test and 2.1% were found to be syphilis positive.

Considering that the included population was relatively young, of note is the rather high level of ever engaging in sex with female sex workers (reported by 13.5%), in particular in Sudurpashchim and Karnali provinces. A similar percentage – around 8% ever had sex with an FSW in India and in Nepal. Condom use at last sex with an FSW in the past year in Nepal was sub-optimal and substantially below the recommended UNAIDS target of 95%. Condom use at last sex with female sex workers (FSW) in India was above the target of 95%.

Ever having sex with a girlfriend in India was reported by less than 10% of MLM but condom use with girlfriends was suboptimal. The commonest reasons for not using condoms at high-

risk sex were not related to condom availability but to personal attitudes such as not liking condoms or thinking that condoms were not needed.

Ever having anal sex with men was rarely reported, with the exception of Madhesh province.

As for obtaining condoms, MLM reported that they were mainly buying condoms, and only approximately one in five obtained them for free. The commonest places that MLM obtained condoms from were PHCC/Health Post/UHC/ BHSC/CHU, FCHVs, and hospitals. Those who bought condoms did so mainly from a pharmacy, private clinics, and general retail stores. NGOs were very rarely mentioned as sources of condoms. A majority of MLM reported not receiving counseling on condom use and safe sex in the past three months.

Almost all respondents heard of HIV and AIDS, but gaps were found in regard to knowledge about HIV prevention and, in particular, about ways of HIV transmission. The vast majority knew that people could protect themselves from HIV by using a condom correctly in each sexual contact and that HIV can be transmitted by using a previously used needle or a syringe.

Knowing where people can get a confidential HIV test in the community was rather low, in particular in Koshi, and that is also where the lowest number of respondents reported ever being tested for HIV. Overall, ever tested for HIV were 16.4% among MLM, and most of them were tested more than a year before the survey. The vast majority reported being HIV-negative. However, of note is that 6.6% of MLM in Bagmati province reported an HIV-positive status, while HIV prevalence assessed via HIV testing was 0.5% in Bagmati.

A minority reported previous testing for HCV, and among those, the vast majority reported to be HCV negative. All those self-reporting to be HCV positive at the time of the survey were from the Gandaki province.

Only a minority (0.6%) reported being tested for STIs in the past 3 months. Of those 101 men who reported STI symptoms at the time of the survey only 18.8% reported being under medical treatment for these symptoms.

In the past 12 months, around 15% of MLM reported illicit drug use, and it was the highest in Madhesh province (around 24%), and that is the province with the lowest age of the first drug use.

Ever injecting drugs for non-medical purposes was rarely reported. The exception to that is Koshi province, where 3.4% reported injecting drugs in the past year and 1.4% injected in the past month.

MLM often expressed stigmatizing attitudes towards PLHIV: approximately one in two would not buy stuff from a shopkeeper or a food vendor who has HIV and thought that their colleague who was HIV positive but not sick yet should not get to continue his/her work. Worryingly, approximately one in three thought that children infected with HIV should not go to school with uninfected children.

Access to community-based HIV prevention was limited, as was access to drop-in centers, STI clinics, and HIV counseling and testing centers.

1.0 Background and Objectives

Nepal has a concentrated HIV epidemic in Nepal, with an estimated population of 30,000 (27,000-33,000) individuals living with HIV, and an adult HIV prevalence of 0.1% in 2022.[1] HIV incidence in adult population aged 15-49 years was estimated at 0.02 [0.02 - 0.03] per 1000 people in 2022. According to NCASC estimates, 92% of people living with HIV (PLHIV) in 2022 in Nepal knew their HIV status, 78% of PLHIV were on ART and 75% of PLHIV had suppressed viral loads.

The Nepalese government has implemented policy guidelines for HIV prevention and control since the first case in 1988. The National HIV Strategic Plan 2021-2026 outlines Nepal's strategies to achieve the SDG target 3.3, which is to end the AIDS epidemic by 2030. The plan includes strategies to increase HIV testing, improve access to treatment and care, reduce HIV stigma and discrimination, and strengthen the national health system. The plan also aims to achieve the 95-95-95 targets by 2026, which are consistent with the global targets set by UNAIDS to end the AIDS epidemic.

The National AIDS Council, chaired by the Prime Minister, leads the overall planning, implementation, and monitoring of HIV response with representation from various ministries, government entities, civil society, and partners. The HIV/AIDS and STI Control Board is envisioned to act as a secretariat of National AIDS Council (NAC). Provincial Health Directorates and local governments are responsible for HIV responses at the sub-national level, and federal policies can be used as a reference for their policies and strategies.

The National HIV Strategic Plan (NHSP) 2021-2026 emphasizes the need to focus HIV prevention efforts on key populations, including female sex workers, transgender (TG) sex workers, clients of sex workers, transgender people, men who have sex with men (MSM), people who inject drugs, prison populations, and male labour migrants (MLM), particularly those migrating to high HIV prevalence areas in India. The plan also recommends investing in areas such as strategic information to generate evidence for better programming and accelerate the country's HIV response. The plan also emphasizes improved gathering of strategic information through surveillance.

The National Consolidated Guidelines on Strategic Information (SI) of HIV Response in Nepal, 2022-2026 recommends conducting national-level Integrated Biological and Behavioural Surveillance (IBBS) Surveys among key populations at a higher risk for HIV in regular intervals. IBBS surveys are used to collect coverage, outcome, and impact indicators, such as uptake of programs/interventions, HIV-related risk behaviors, and HIV and STI prevalence among key populations. They also help monitor epidemic trends and support evidence-based planning of the HIV response in Nepal.

The survey in MLM has been conducted following the designs and methods recommended by the National Consolidated Guidelines on Strategic Information of HIV Response in Nepal 2022-2026.

[1] Country factsheet: Nepal HIV data, 2022. Geneva: UNAIDS, 2022.

Nepal has successfully conducted epidemic zone-specific IBBS surveys among key populations for over 18 years. This is the first time that a national-level survey in MLM has been conducted to generate both national and subnational (province) HIV estimates.

In the surveys conducted in 2017, HIV prevalence was estimated at 0.3% to 0.6% in MLM, and a considerable number reported injecting and sexual risk behaviors (Table 1.1). In 2017, 1.4% of male labour migrants reported drug injection in the last 12 months. Between 11.5% to 31.7% reported ever having sex with sex workers, mainly in India. The prevalence of condom use at the last sex was reportedly as low as 30%. Anal sex with other men was reported by 0.3% to1.1%.

Table 1.1: HIV prevalence and key risk behaviors among male labour migrants in Nepal

Measures	Western Region (2017) [N=360]	Mid-Far Western Region (2017) [N=360]	Six Eastern Districts (2018) [N=630]
HIV prevalence	0.3%	0.6%	0.3%
Drug injection in the last 12 months	1.4%	0.0%	3.6%
Ever had sex with a sex worker	18.6%	31.7%	11.5%
Ever had sex with a sex worker in India	13.6%	25.7%	35.2%
Used condom at last sex	36.4%	30.0%	49.6%
Had anal sex with a male partner in Nepal	0.3%	0.3%	Not measured
Had anal sex with a male partner in India	0.3%	1.1%	Not measured

The HIV prevalence declined from 2.7% in 2006 to 0.3% in 2017 in the Western region (Figure 1). The HIV prevalence also declined to 0.3% in 2017 in the Mid-Far Western region. The HIV prevalence was 0.3% in the six Eastern Districts in 2018. Based on the Nepal Demographic Health Survey (DHS) 2016, the destination of 31.9% of male migrants was within Nepal, 31.8% migrated to the Middle East, 16.6% to India, and 19.6% to other countries.[2] The destination countries of migrants differed significantly across geographical areas in Nepal. Furthermore, according to the Nepal DHS 2022, among currently married respondents aged 15 to 49, slightly more than one-third (34%) of women and 8% of men reported that their spouse lives away from home.

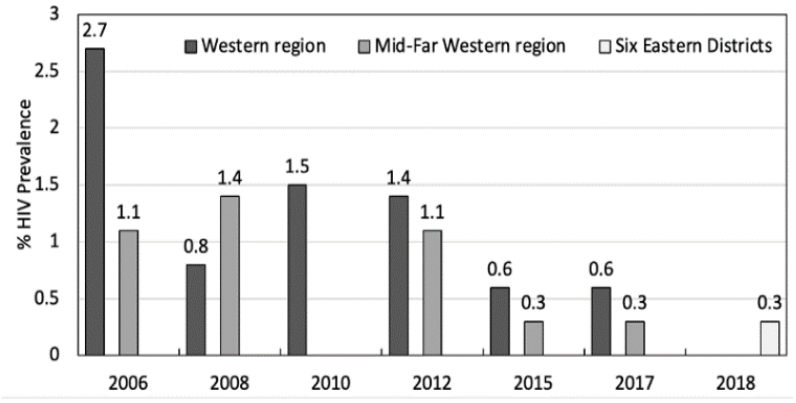


Figure 1: Trend in the HIV prevalence among male labour migrants by regions in Nepal

[2] Ministry of Health, Nepal; New ERA; and ICF. 2017. Nepal Demographic and Health Survey 2016. Kathmandu, Nepal: Ministry of Health, Nepal.

The proportion of women reporting that their spouse lives away from home has remained relatively constant over the past decade, with 32% in 2011 and 34% in both 2016 and 2022.[3]

The high prevalence of sexual risk behaviors, especially when MLM are out of the country, combined with infrequent and inconsistent condom use with spouses and other sexual partners in Nepal poses a significant risk for acquiring and transmitting HIV and other STIs.[4] Therefore, the National Consolidated Guidelines on Strategic Information of HIV Response in Nepal 2022-2026 recommends conducting the first national-level IBBS survey among MLM to generate both national and provincial estimates for HIV, HCV, Syphilis, and key injection and sexual risk behaviors.

1.1 Objectives

The main objective of this IBBS survey is to measure the prevalence of HIV, syphilis, and hepatitis C virus and their associated risk behaviors, among MLM in Nepal.

The specific survey objectives are to:

1. estimate the prevalence of HIV.
2. estimate the prevalence of syphilis among those with symptoms suggestive of syphilis as per syndromic management guidelines.
3. estimate the prevalence of HCV among those who reported ever having injected drugs.
4. estimate the prevalence of single, multiple, and overlapping risk behaviors (unsafe sex and drug use) of MLM in Nepal.
5. measure the coverage of intervention programs aimed at reducing the risk of HIV, STIs (including syphilis), and HCV among MLM in Nepal.
6. measure MLM's knowledge of HIV transmission mode.
7. translate findings into actionable insights that support HIV, Hepatitis C, Syphilis, and other STIs programs, enhancing policies and programs for MLM in Nepal.
8. estimate the population size of PWID, MSM, FSW and TGW using the network scale-up method.

1.2 Formative Assessment

The objectives of the formative assessment (FA) were to:

1. Identify and engage key stakeholders at both federal and provincial levels.
2. Conduct a comprehensive review of secondary data, including relevant survey and census data at both federal and provincial levels.
3. To construct an updated sampling frame for IBBS survey among MLM.

[3] Ministry of Health and Population, Nepal; New ERA; and ICF. 2023. Nepal Demographic and Health Survey 2022. Kathmandu, Nepal: Ministry of Health and Population, Nepal.
[4] Yadav SN. Risk of HIV among the seasonal Labour Migrants of Nepal. Online J Public Health Inform. 2018 May 30;10(1):e167.

The FA was undertaken in collaboration with federal and provincial authorities. New ERA, in consultation with the IBBS survey team and a technical working group, developed the formative assessment tool. The field team conducted on-site visits to selected provincial headquarters and carried out in-person and telephone interviews at few districts for validation. Secondary data reviews, including the analysis of 2021 census data, were conducted at the federal level.

Three teams, consisting of two members each, were deployed to conduct the assessments. The FA was conducted in all seven provinces and 18 districts. All staff participated in a two-day training workshop before the fieldwork began.

During the field visits, meetings were held with government entities including the Ministry of Social Development, the Ministry of Health and Population (MoHP), the Health Desk Provincial Planning Commission, the Ministry of Labour, the Provincial Health Directorate, and the Department of Statistics. Meetings were also held with non-government organizations such as Save the Children, Richmond, Dalit Society Welfare Committee Nepal, Chitwan Sakriya Women's Foundation, FHI 360, and the Nepal Red Cross.

Discussions with key individuals and stakeholders revealed that 42 out of the 77 districts have the highest rates of seasonal labour migration to India. This information was validated using the 2021 Census data (Table 1.2). This implies that the 42 districts should form the assessment's sampling frame. Additionally, migrant laborers return to Nepal during the harvest season, *Dashain/ Tihar*, *Dewali*, *Maghi, Ram Navami*, and typically stay for 1 to 3 months in Nepal. The primary motivations for seasonal labour migration to India in all provinces include poverty, unemployment, better opportunities, the habitual nature of traveling to India, and familiarity with the language and work culture.

Table 1.2: Province highest seasonal labour migration districts to India

Province	Most Seasonal Migrated District to India	Number of districts
Koshi	Illam, Jhapa, Morang, Sunsari and Udaypur	5
Madhesh	Siraha, Dhanusha, Mahotari, Sarlahi and Rautahaut	5
Bagmati	Ramechap, Chitwan, Sindhupalchowk, Dhading, Dolakha and Nuwakot	6
Gandaki	Syangja, Baglung, Kaski, Tanahu and Nawalparasi East	5
Lumbini	Gulmi, Arghakhanchi, Pyuthan, Rupandehi, Kapilbastu, Dang, Banke and Bardiya	8
Karnali	Surkhet, Rukum West, Kalikot, Dailekh, Jajarkot and Salyan	6
Sudurpaschim	Achham, Doti, Bajhang, Baitadi, Kailali, Kanchanpur and Dadeldhura	7
Total		**42**

Using the 2021 census, data were obtained on the number of migrant laborers (MLM) who worked in India, aged 15-54 years, by provinces, districts, and *palikas*.

In total, 15 key informant interviews were conducted with government representatives and 13 with non-government organizations to understand national-level data. The field team also met with 42 individuals in person (25 from the government and 17 from non-government entities)

who work at the province and district levels. Additional phone consultations were held with 18 officials from non-government organizations.

Much of the data on MLM at the provincial level was derived from the 2021 census. Furthermore, there was insufficient data recording on MLM in border (transit) areas by the authorities. In all provinces, government officials relied on census data as their primary source of information on migrants. Although health desks at the borders have initiated data recording since the COVID-19 pandemic, it was found that these records are not consistently maintained and the data is sent to the Epidemiological Disease Control Division in Teku, Kathmandu.

2.0 Methods

2.1 Eligibility Criteria for Participation in the Survey

The following criteria was used to determine eligibility for inclusion in the survey:

- Male returnee migrant between 18-49 years of age who has worked in India as a migrant worker for at least 3 months continuously or with interruptions and returned to Nepal within three years before the day of data collection.
- Willing to give blood for testing for infections and willing to complete a behavioural questionnaire.
- Able to give informed consent.

2.2 Survey Design and Sampling

The IBBS survey was based on a cross-sectional survey design with cluster-based sampling.

Sample size: We used high-risk behavior for the base of our sample size calculation as the prevalence of HIV was very low (0.3% to 0.6%). The sample size was calculated using 49.6% (P) for condom use at the last sex from the last IBBS survey (2018) among male labour migrants. The sample size was calculated to estimate the percentage of condom use at the last sex with a (fixed) margin of error of 10% (D), a total population of ~500,000 male labour migrants (N), and a (DEFF) design effect of 2 (due to cluster sampling effect), and $\alpha = 0.05$, for each province in Nepal.[5] Since the populations are limited in size, sample sizes were corrected using a finite population correction.[6] In summary, considering the design effect of 2, a minimum of 210[7] male labour migrants should be enrolled from each of the seven provinces in Nepal. Assuming a response rate of 80%, we increased the sample size for each province to 270. Therefore, we calculated that from all seven provinces,1890 MLM[8] need to be enrolled.

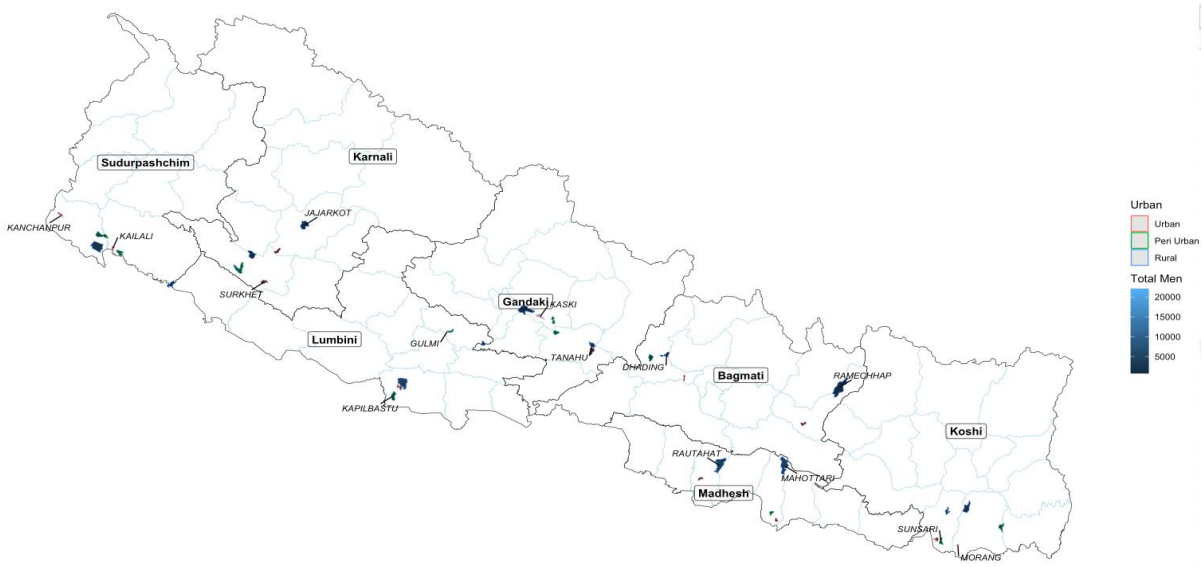
$$n = \frac{DEFF \times N \times P \times (1-P)}{\frac{D^2}{\left(Z_{1-\alpha/2}\right)^2} \times (N-1) + P \times (1-P)}$$

Sampling strategy: A multi-stage cluster sampling method was used to enroll respondents. Two districts were selected in each province using probability proportional to size (PPS). Figure 2 shows the districts at the provincial level selected for the survey. In each selected district, three areas were chosen based on the Degree of Urbanization (DEGURBA) report in Nepal published by the National Statistics Office (urban, peri-urban, and rural).[9] One ward was selected from each urban, peri-urban, and rural area. In each selected ward, five household

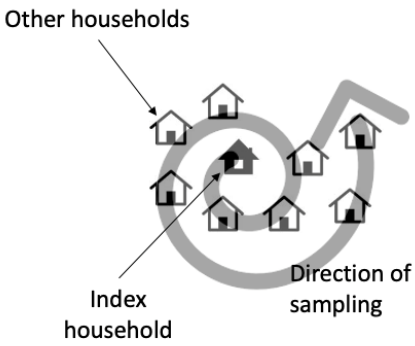
[5] Hulley SB, Cummings SR, Browner WS, Grady D, Newman TB. Designing clinical research: an epidemiologic approach. 4th ed. Philadelphia, PA: Lippincott Wiliams & Wilkins; 2013. Appendix 6E, page 81.
[6] Indrayan A, Holt MP. Concise Encyclopedia of Biostatistics for Medical Professionals 2016.
[7] Design effect of 2 equates to 105 x 2 = 210
[8] Calculation of enrollment is N = 270 x 7 = 1890 individuals
[9] Degree of Urbanization (DEGURBA) in Nepal: National Statistics Office. https://censusnepal.cbs.gov.np/results/downloads/degree-urbanization-report

clusters were chosen. From each household cluster, nine or more households were visited to enroll nine eligible MLM into the survey.

Figure 2: Selected districts in IBBS survey 2024, Nepal



The household clusters (pictured on the right) were developed from a list of all households in each selected ward. The list of households was sorted by location (from northeast to southwest), and a systematic random sample was used to select five index households. Each household cluster consisted of the index household and an additional eight surrounding households. The direction (starting point and rotation) of sampling in each household cluster was randomly selected. From each household, one eligible MLM was enrolled at random. Sampling of households in each household cluster continued until nine eligible MLMs were enrolled in the survey. Therefore, a minimum of nine households were interviewed in each household cluster.



2.2.1 Behavioural Questionnaire

All data collection forms were received in English, then translated into Nepali and translated back into English by a non-project person to ensure the accuracy of the translation.

The questionnaire contained questions that enabled the implementation of the network scale-up method to estimate the size of key populations (KPs) in Nepal. In the survey, MLM were asked how many individuals they know within their network who are FSW, PWID, MSM, TW, and TM and if they recall these individuals' names.

The questionnaire included the following sections:

- General (sociodemographic) information
- Consumption of drugs
- Sexual behaviors

- Accessibility of condoms
- Knowledge of STIs
- Knowledge HIV transmission
- Testing for HIV and HCV
- Presence of STI symptoms
- Access to means of HIV prevention and uptake of HIV prevention services
- Stigma and discrimination towards PLHIV
- Network scale-up questions

2.2.2 Staff Recruitment and Training

Thirty-five staff members collected data for this survey. Each team had five members: a supervisor, a lab technician, a health assistant for syndromic management and counseling, and two enumerators. Each team was assigned to one of the provinces. Additionally, there were two quality controllers and one backup team to account for any attrition. Team members received training on survey design, recruitment of MLM, interviewing techniques, and respecting confidentiality and privacy. Separate training was conducted for staff responsible for counseling, testing, and syndromic management.

The training included an overview of IBBS survey, HIV programs in Nepal, the evidence and situation of HIV and AIDS in Nepal, and HTC and ART sites in Nepal. It also covered survey design, sampling and listing procedures, data collection tools and techniques, the interview process, ethical considerations, consent, and the responsibilities of each field team member. The training was supplemented with lab practice, syndromic assessment, and mock interview exercises.

A one-day pretest was conducted in Kathmandu Valley in consultation with the Nepal Migration Network. A review meeting was held after the pretest. Representatives from NCASC, SCI Global fund, and various migration networks attended the training sessions. Local motivators were recruited from the community in each ward to facilitate the fieldwork.

2.2.3 Process of Data Collection

Each team was provided with work schedules and district maps indicating selected municipalities and wards.

Interviewing and testing sites included mobile clinics and available facilities such as schools, ward offices, and private houses.

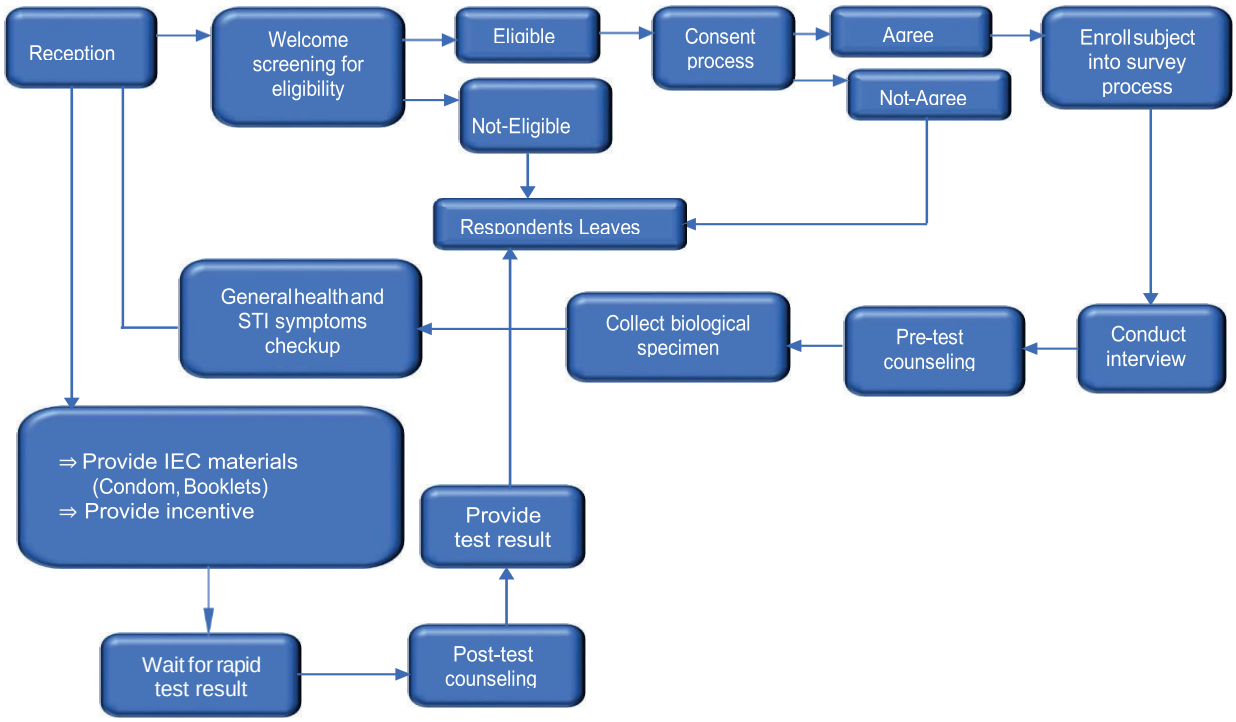
Eligibility screening was conducted according to the information on the screening and eligibility form. Those eligible respondents were given a consent form to read and sign and explanations about the survey process. Eligible respondents s who did not provide consent completed a refusal form.

Respondents who consented were assigned a unique ID and asked to complete a behavioural questionnaire during a face-to-face interview. Following this, a certified

health assistant examined them for STI symptoms and assessed their general health, including blood pressure, weight, and pulse. Syndromic management of STIs, according to the 2022 national guidelines, was applied to those showing symptoms. If additional treatment was needed, the health assistant referred the respondent accordingly.

The process of data collection is described in Figure 3.

Figure 3: Process of data collection



Testing for Infections

After the pretest counseling session, the lab technician briefly explained the testing process. Biological data collection was conducted according to the 'National HIV Testing and Treatment Guidelines, 2022'.

The trained lab technician performed the blood drawing, updating the respondent's checklist form accordingly. Onsite laboratory services included rapid screening for HIV 1/2 and syphilis, followed by confirmation testing. A disposable syringe collected approximately 5 milliliters of whole blood for the laboratory tests from each labour migrant. The blood sample was separated into blood cells and serum through centrifugation and labeled with a unique ID number for each respondent. The lab technician then used the serum to perform rapid HIV and RPR tests while following proper universal precautions and safe waste management practices. For external quality assurance, all positive samples and 10% of negative samples were sent to the National Public Health Laboratory (NPHL) Reference Laboratory under MoHP for HIV testing. For syphilis and HCV testing, samples were sent to Sukraraj Tropical and Infectious Disease Hospital, a federal-level public hospital.

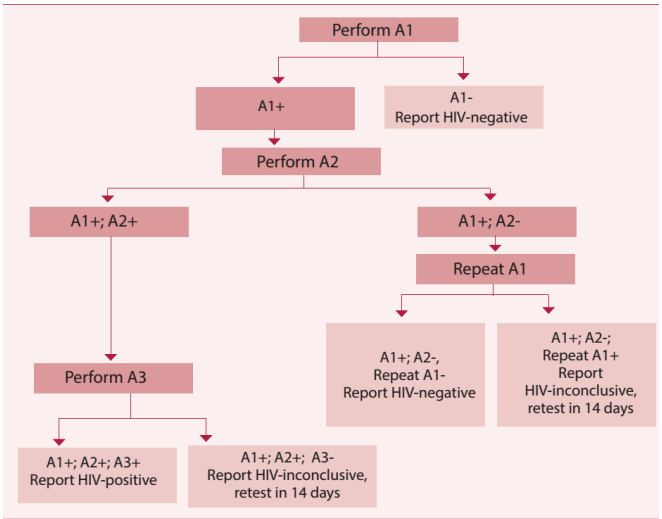
Respondents received test results after testing. Those with reactive test results were referred to nearby facilities and ART centers for further clinical assessment.

Testing for HIV

A three-test HIV testing algorithm was used, per the National HIV Testing and Treatment Guidelines from 2022 (Figure 4). The first assay was Determine HIV-1/2, followed by Uni-Gold HIV as the second test, and HIV 1/2 Stat-Pak as the third.

Internal quality control was maintained by the inbuilt controls of each kit, while external quality was ensured by sending all positive cases and 10% of negative cases to the NPHL.

Figure 4: HIV testing algorithm



Testing for Syphilis

Syphilis testing was conducted according to the 'National Guidelines for Management of Sexually Transmitted Infections, 2022' for individuals with symptoms suggestive of syphilis infection. The serum was tested using the Rapid Plasma Reagin (RPR) test, which is used for qualitative screening and semi-quantitative titration. All RPR-reactive serum samples were confirmed using the specific Treponema pallidum hemagglutination assay (TPHA) test.

Serum samples with an RPR titer value equal to or above 1:8 were reported as indicating active syphilis, while titers below 1:8 were reported as cases with a history of syphilis. As part of external quality assurance, internal controls (positive and negative) were used to ensure the accuracy of the kits, and all reactive/positive samples and 10% of non-reactive/negative samples were sent to the Sukraraj Tropical and Infectious Disease Hospital for retesting.

The interpretation of syphilis status is based on the combination of RPR qualitative, RPR titer, and TPHA test results, as follows:

- Those who test RPR positive with a titer value of more than or equal to 1:8 and also test positive for TPHA are active syphilis cases.
- Those who test RPR positive with a titer value of less than 1:8 and also test positive for TPHA are cases with a history of syphilis.
- Clients who test RPR positive with a titer value greater than, lower than, or equal to 1:8 and test negative for TPHA are considered syphilis-negative cases.

Atlas Medical RPR and TPHA test kits were used for syphilis testing. A total of 20 men were tested for syphilis.

HCV Testing

HCV testing was carried out among male labour migrants who reported drug-injecting behaviors for non-medical purposes, either historically or at the time of the survey. The Rapid HCV test (SD Bioline HCV test kit, Abbott) was used, and a total of 16 men were tested for HCV.

The biological data was collected according to the survey protocol. Each field team was provided with a portable freezer to keep gel packs frozen and to store processed specimens. Samples for external quality assurance (EQAS) were transported and stored at the Complete PATH clinic laboratory in Kathmandu, which has a collaboration with the Sukraraj Tropical and Infectious Disease Hospital for EQAS testing and reporting. EQAS was performed on all specimens that were reactive for, and 10% of all negative results.

2.2.4 Quality Assurance

The survey team received comprehensive training, including role plays, mock interviews, and data entry sessions, to ensure they were well-equipped for quality data collection.

The understanding of the tools and methodology by Quality Controllers (QCs), Data Collectors, lab technicians, and health assistants/counselors was assessed. Team members who did not demonstrate satisfactory performance received additional training or, in severe cases, were removed from the survey.

To maintain uniformity in data collection, the field team was provided with a manual that detailed how to ask specific questions. This manual also clearly explained the survey's purpose and procedures, which were introduced during the interview period.

An External Quality Assurance System (EQAS) was implemented for quality control. This involved evaluating the testing laboratory's performance through a recognized external agency. All samples that tested positive for HIV were retested at NPHL, while those positive for RPR and HCV were rested at Sukraraj Tropical and Infectious Disease Hospital. Additionally, 10% of all negative test results were also retested. All specimens were stored at below -20°C at the survey site and during daily transportation. In compliance with EQAS protocol, select serum specimens prepared in the field were sent to Complete PATH Clinic Nepal's laboratory in Kathmandu within a week of collection for optimal storage below -20°C. Once field testing activities were completed, the specimens stored at Complete PATH Clinic were handed over to NPHL for retesting. The test kits used during field testing were also provided to NPHL to ensure validity and reliability.

At the end of each day, the QCs monitored the assigned teams and checked for any discrepancies or missing information. The core team regularly reviewed the dataset to ensure data quality.

Core team members carried out both in-person and remote monitoring of data collection. They maintained constant communication with data collectors, providing timely feedback and suggestions.

EQAS Result

A total of 196 samples were transported to NPHL for HIV testing, following the national protocol for all positive and inconclusive samples, as well as 10% of negative samples. All results matched the field results except for one inconclusive sample from the field, which turned out negative in the NPHL results. This resulted in a 99.49% agreement with a kappa value of 0.94, indicating almost perfect agreement. Syphilis and HCV testing, performed at Sukraraj Tropical and Infectious Disease Hospital due to a shortage of test kits at NPHL, showed 100% agreement with a kappa value of 1, indicating perfect agreement.

Summary of EQAS of HIV

HIV 1/2 Antibody RDT Results		**NPHL Result**			
		Negative	**Positive**	**Inconclusive**	**Total**
New ERA Results	Negative	186	0	0	186
	Positive	0	4	0	4
	Inconclusive	1	0	5	6
Total		**187**	**4**	**5**	**196**
Percentage agreement = (195/196)*100% = 99.49% Kappa=0.94 Strength of agreement = Almost perfect agreement					

Summary of EQAS of Syphilis

Syphilis Results		**Sukraraj Tropical & Infectious Disease Hospital Result**		
		Negative	**Positive**	**Total**
New ERA Results	Negative	5	0	5
	Positive	0	1	1
Total		**5**	**1**	**6**
Percentage agreement = (6/6)*100% = 100% Kappa=1 Strength of agreement = Perfect agreement				

Summary of EQAS of HCV

HCV RDT Results		**Sukraraj Tropical & Infectious Disease Hospital Result**		
		Negative	**Positive**	**Total**
New ERA Results	Negative	4	0	4
	Positive	0	5	5
Total		**4**	**5**	**9**
Percentage agreement = (9/9) * 100% = 100% Kappa=1 Strength of agreement = Perfect agreement				

2.2.5 Data Transfer and Management

The data capture process for the survey was carried out on Android PC tablets which had the Census and Survey Processing System (CSPro). Field surveyors verified the data they entered on the tablets and sent it to New ERA's server.

Field surveyors, who also received training on data storage and synchronization with the central database, transferred the data daily from their tablet PCs to New ERA's File Transfer Protocol (FTP) server via the internet.

The field surveyors backed up the data on the tablets daily. After each interview, the data was automatically saved to an external data card on each tablet PC. The dataset was accessible only to survey-authorized individuals from New ERA on password-protected computers. Information was not disclosed to any organization or individual at any stage.

New ERA's core team was responsible for editing, verifying, and processing the data. Data editing included checks for range, structure, and internal consistency. Once all errors were resolved, a clean copy of the data was prepared for analysis.

2.2.6 Field Work Supervision and Monitoring

The New ERA central office closely monitored the fieldwork. Whenever possible, the field team transferred data collected from the field to the central office immediately after completing the survey. In areas with limited internet connectivity, particularly in remote locations, data was sent from the nearest connected sites. The Team Supervisor reviewed each day's data with team members in the field. Observation sheets were entered into the tablets at the facility immediately after collection. The first round of data edited was completed at the facility by checking data inconsistencies and reviewing error messages. The team noted unique answers and inconsistencies that were not accepted by the program. For data security, each dataset was automatically saved to an external data card on each tablet. Clinical observation paper tools collected in the field were regularly sent to New ERA via courier service and were also collected by core team members during their monitoring visits.

Every day, New ERA core team members checked the quality of the data received from the field. They closely reviewed the list of data errors, notes from the field, and responses under the 'other' categories. Error messages for each facility were verified and re-confirmed before finalizing the data. Team members received regular feedback and were asked to explain any inconsistencies. In some cases, team members were required to revisit the surveyed facilities to confirm data or meet respondents to complete certain sections of the survey. Core survey team members also conducted periodic fieldwork monitoring and supervision.

During the data collection period, core team members from New ERA conducted monitoring visits across various districts. They observed coordination processes, sampling, respondent selection, interviews, clinic setup, blood drawing and testing, history taking, and respondent examinations. Timely feedback was provided to ensure adherence to survey protocols and the timely completion of fieldwork.

At the central and provincial levels, SCI officials supervised and monitored survey processes implemented by the teams. Additionally, a governmental representative from the provincial government authority monitored the fieldwork in Madhesh province.

2.2.7 Data Analysis

The questionnaire included standard indicators of sexual risk-taking (condom use and sex work), HIV testing, uptake of HIV prevention, and HIV knowledge, as recommended by the Global AIDS Monitoring (GAM) of UNAIDS[10] and the National Consolidated Guidelines on Strategic Information for HIV response in Nepal, 2022-2026[11]. The analyses were done using STATA v 18.0. When analyzing data, we used the household clusters and the survey commands in Stata. We used the last 2021 Nepal census data for the number of MLM 18 to 49 years old from India in each province and in selected districts, the number of MLM from India we found in households we approached, and the number of MLM we enrolled to survey from households to calculate the sampling probabilities (see Appendix 1). We used the inverse of sampling probabilities as weights in our analysis.

[10] Global AIDS Monitoring Guidelines. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS), 2024.

[11] https://www.aidsdatahub.org/sites/default/files/resource/nepal-national-consolidated-guidelines-si-hiv-response-2022-26.pdf

3.0 Ethical Considerations

The survey received ethical approval from the Nepal Health Research Council (NHRC). All protocols and questionnaires were approved by NHRC. The survey adhered to all procedures as per the guidelines and instructions provided by NHRC.

During survey planning and fieldwork team training, systematic efforts were made to address the following important ethical issues:

- Written consent from respondents.
- Respondents received pre-test and post-test counseling.
- Preserve confidentiality through private face-to-face interviews.
- Respondents with reactive test results were referred to further clinical management.

4.0 Results

Out of 1,870 labour migrants, a total of 1,873 were recruited for the survey across seven provinces. The sample size per province was 270, except in Gandaki and Lumbini, where 255 and 268 labour migrants were recruited, respectively. The survey achieved a response rate of 99%.

4.1 Socio-demographic Characteristics

The mean age of labour migrants was 31 years, ranging from 28.1 years in Madhesh to 35.9 years in Bagmati province. Over 97.0% reported being born in the province from which they were recruited (Table 4.1).

The most common caste reported was Terai Dalit in Koshi (44.3%) and Madhesh (48.4%), Hill Janajati in Bagmati (55.6%) and Gandaki (42.6%), Hill Dalit in Karnali (39.6%), and Terai Janajati in Lumbini (26.6%) and Sudurpaschim province (46.3%) (Table 4.1).

The most common educational level attained was basic education (58.3%), followed by secondary education (29.9%). Only 0.4% had higher education, while 11% had no education. The proportion with no education ranged from 4% in Gandaki to 35% in Madhesh province (Table 4.1).

Table 4.1: Age, Caste and educational status by province

Caste/Ethnicity	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur-pashchim	Total
Mean age of the MLM	Mean	30.9	28.1	35.9	32.3	31.1	33.2	30.2	31.0
	95% CI	[29.6,32.3]	[26.3,29.8]	[33.8,38.0]	[30.6,34.0]	[29.6,32.6]	[31.9,34.6]	[29.0,31.3]	[30.3,31.6]
Caste									
Hill Brahmin	%	0.5	0.0	5.1	5.9	2.2	7.0	3.1	3.1
	95% CI	[0.1,3.4]	-	[2.5,10.3]	[2.4,14.1]	[0.7,6.4]	[4.3,11.2]	[1.5,6.5]	[2.1,4.6]
Hill Chhetri	%	6.7	1.3	10.1	6.6	13.5	33.2	18.2	15.0
	95% CI	[2.4,17.3]	[0.2,9.0]	[5.9,16.7]	[3.3,12.7]	[9.0,19.7]	[21.5,47.3]	[11.9,26.8]	[11.9,18.8]
Terai Brahmin/ Chhetri	%	7.2	2.4	0.0	0.4	0.0	0.0	4.3	2.3
	95% CI	[4.2,12.0]	[0.9,5.8]	-	[0.1,3.0]	-	-	[2.4,7.8]	[1.5,3.6]
Other Terai Caste	%	5.0	16.1	0.0	0.7	8.8	0.0	0.5	4.2
	95% CI	[2.8,8.6]	[10.9,23.1]	-	[0.2,2.7]	[4.2,17.3]	-	[0.1,3.2]	[2.7,6.4]
Hill Dalit	%	7.7	1.3	23.8	40.6	23.6	39.6	16.2	20.9
	95% CI	[3.2,17.3]	[0.3,5.4]	[13.4,38.8]	[30.9,51.1]	[17.2,31.5]	[23.6,58.3]	[10.5,24.1]	[17.4,24.9]
Terai Dalit	%	44.3	48.4	0.5	0.7	1.5	1.3	10.9	11.1
	95% CI	[31.4,58.0]	[40.0,57.0]	[0.1,3.8]	[0.1,5.0]	[0.6,3.8]	[0.3,4.9]	[6.4,17.9]	[8.9,13.8]
Newar	%	0.5	0.0	4.7	1.1	0.0	0.0	0.0	0.3
	95% CI	[0.1,3.4]	-	[2.0,10.4]	[0.4,3.5]	-	-	-	[0.2,0.6]
Hill Janajati	%	10.5	0.4	55.6	42.7	12.3	13.7	0.5	11.1
	95% CI	[4.9,21.2]	[0.1,3.1]	[40.3,69.8]	[34.2,51.7]	[7.6,19.2]	[7.7,23.3]	[0.1,3.2]	[9.2,13.3]
Terai Janajati	%	11.2	12.2	0.2	1.1	26.6	5.2	46.3	27.0
	95% CI	[7.4,16.8]	[7.7,18.8]	[0.0,1.4]	[0.4,3.4]	[17.9,37.4]	[2.5,10.4]	[31.7,61.6]	[21.1,34.0]
Muslim	%	6.5	17.8	0.0	0.0	11.5	0.0	0.0	4.9
	95% CI	[2.4,16.0]	[9.7,30.6]	-	-	[6.6,19.5]	-	-	[3.3,7.3]
Education									
No Education	%	19.0	34.9	16.3	3.8	7.5	11.1	9.1	11.3
	95% CI	[12.9,27.2]	[28.3,42.2]	[11.3,22.9]	[1.7,8.4]	[4.0,13.7]	[6.9,17.4]	[5.1,15.8]	[9.0,14.1]
Basic Education	%	62.0	46.2	65.3	71.4	63.6	48.3	55.2	58.3
	95% CI	[54.6,68.8]	[40.8,51.6]	[57.7,72.2]	[64.6,77.4]	[56.9,69.7]	[40.3,56.5]	[48.2,62.0]	[54.9,61.6]
Secondary Education	%	18.6	18.9	17.8	24.8	28.9	40.5	34.6	29.9
	95% CI	[14.1,24.0]	[13.9,25.2]	[13.3,23.5]	[19.1,31.5]	[23.5,35.0]	[32.3,49.3]	[26.9,43.2]	[26.4,33.7]
Higher Education	%	0.5	0.0	0.5	0.0	0.0	0.0	1.0	0.4
	95% CI	[0.1,3.4]	-	[0.1,3.8]	-	-	-	[0.3,3.2]	[0.2,1.2]

In terms of marital status, 71.6% of the respondents were married at the time of the survey, while 26.9% reported never having been married. The lowest percentages of married men were in Madhesh (62.3%) and Gandaki (68.2%) provinces. The mean age at marriage was 20.6 years, with minimal variation across provinces, ranging from 19.5 years in Madhesh to 21.0 years in Lumbini (Table 4.2).

At the time of the survey, 69.2% of respondents reported living with their wife, while 28.6% were living with their parents (Table 4.2).

Table 4.2: Marital status by province

Marital Status	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	Total
Never married	%	22.5	37.3	16.3	26.8	28.8	11.3	28.9	26.8
	95% CI	[17.5,28.5]	[29.9,45.2]	[9.9,25.6]	[20.6,34.0]	[21.8,37.0]	[6.9,17.8]	[22.0,36.8]	[23.3,30.7]
Married	%	75.6	62.3	80.8	68.2	70.5	83.9	70.4	71.6
	95% CI	[68.7,81.3]	[54.1,69.9]	[70.8,87.9]	[60.2,75.2]	[62.6,77.4]	[75.3,89.9]	[62.1,77.6]	[67.6,75.2]
Divorced/Separated	%	1.4	0.0	2.4	3.2	0.7	4.1	0.3	1.1
	95% CI	[0.5,4.1]	-	[0.8,6.8]	[1.7,5.8]	[0.2,2.7]	[1.5,10.8]	[0.0,2.0]	[0.7,1.8]
Widower	%	0.5	0.4	0.5	1.9	0.0	0.7	0.5	0.5
	95% CI	[0.1,3.4]	[0.1,3.1]	[0.1,3.8]	[0.7,4.9]	-	[0.1,4.1]	[0.1,3.2]	[0.2,1.1]
Mean age at marriage	Mean	20.9	19.5	20.4	20.9	21.0	20.2	20.5	20.6
	95% CI	[20.1,21.7]	[19.1,19.8]	[19.7,21.1]	[20.3,21.4]	[20.5,21.5]	[19.5,20.9]	[20.0,21.1]	[20.3,20.9]
Currently living with									
Wife	%	63.9	62.3	80.0	62.7	67.9	78.6	70.4	69.2
	95% CI	[56.4,70.7]	[54.1,69.9]	[70.5,87.1]	[54.6,70.1]	[59.6,75.3]	[68.5,86.1]	[62.1,77.6]	[65.2,73.0]
Parents	%	33.3	35.6	18.1	31.1	31.0	17.0	27.9	28.6
	95% CI	[26.6,40.6]	[28.1,43.9]	[11.3,27.8]	[25.0,37.9]	[24.2,38.8]	[10.8,25.8]	[21.7,35.2]	[25.2,32.2]
Others	%	1.9	0.4	0.2	2.8	0.4	0.6	0.5	0.7
	95% CI	[0.6,5.8]	[0.1,3.1]	[0.0,1.4]	[1.4,5.4]	[0.1,2.6]	[0.1,4.5]	[0.1,3.2]	[0.3,1.5]

4.2 Work and Migration

The mean age of first migration for work to India was 18.7 years, with a range from 17.7 years in Madhesh to 20.3 years in Koshi. At the time of the most recent visit for work to India, respondents had a mean age of 30.2 years, varying from 27.3 years in Madhesh to 34.6 years in Bagmati (Table 4.3).

The most common cities in India for MLM's most recent work was Punjab (18.4% of migrants from Koshi province), Maharashtra (19.9% from Madhesh and 27.4% from Sudurpaschim province), Delhi (39.6% from Bagmati), Hyderabad (22.6% from Gandaki province), Uttar Pradesh (29.4% from Lumbini province), and Himachal Pradesh (32.8% from Karnali province). Overall, the top three most frequented states by MLM were Maharashtra (22.8%), Gujarat (11.1%), and Uttar Pradesh (10.2%) (Table 4.3).

The most common types of work undertaken by labour migrants in India were in hotels/restaurants (35.3%), industrial production (15.7%), and construction (12.0%). During their last stay in India, 54.0% of labour migrants lived with friends, 25.1% with relatives, 12.4% lived alone, and 7.9% with their wife (Table 4.3).

Table 4.3: Work and migration of MLM

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	Total
Mean age at first India visit	Mean	20.3	17.7	19.4	19.2	18.6	18.1	18.5	18.7
	95% CI	[18.9,21.6]	[17.2,18.3]	[18.8,20.1]	[18.5,19.9]	[18.0,19.3]	[16.8,19.4]	[17.9,19.1]	[18.3,19.0]
Mean age at last India visit	Mean	30.2	27.3	34.6	31.1	30.6	32.8	29.3	30.2
	95% CI	[28.8,31.5]	[25.6,29.1]	[32.6,36.6]	[29.5,32.8]	[29.1,32.1]	[31.4,34.2]	[28.2,30.4]	[29.6,30.9]
Destinations of most recent work									
Maharastra	%	9.4	19.9	2.9	19.0	28.9	8.8	27.4	22.8
	95% CI	[5.6,15.2]	[13.7,28.0]	[1.4,5.9]	[11.8,29.1]	[20.8,38.6]	[5.0,15.1]	[20.1,36.2]	[19.0,27.1]
Gujarat	%	9.0	6.2	2.7	2.8	1.5	16.2	20.7	11.1
	95% CI	[5.3,14.8]	[2.9,13.0]	[1.3,5.7]	[1.4,5.3]	[0.6,3.8]	[9.9,25.4]	[12.3,32.6]	[7.7,15.7]
Uttar Pradesh	%	3.9	0.4	4.0	11.0	29.4	8.9	0.0	10.2
	95% CI	[1.5,9.7]	[0.1,3.1]	[1.8,8.6]	[7.3,16.4]	[22.2,37.7]	[5.5,14.0]	-	[8.2,12.6]
Himanchal Pradesh	%	0.5	0.4	2.8	0.8	4.1	32.8	12.9	9.2
	95% CI	[0.1,3.7]	[0.1,3.1]	[1.1,6.8]	[0.2,3.2]	[1.8,9.1]	[26.2,40.1]	[8.0,20.1]	[7.0,12.0]
Punjab	%	18.4	17.9	5.1	1.3	3.7	1.9	3.7	5.4
	95% CI	[12.2,26.9]	[11.8,26.1]	[2.4,10.5]	[0.2,8.6]	[1.9,7.2]	[0.7,5.5]	[1.8,7.6]	[4.1,7.1]
Karnataka	%	7.7	5.5	0.9	1.5	1.1	2.6	7.2	4.3
	95% CI	[3.5,16.2]	[2.9,10.0]	[0.2,3.8]	[0.5,4.8]	[0.4,3.1]	[0.8,7.9]	[4.0,12.7]	[2.9,6.4]
Uttarakhand	%	0.7	0.0	2.2	0.4	0.0	16.7	1.5	2.2
	95% CI	[0.2,3.1]	-	[0.9,5.2]	[0.1,3.0]	-	[11.0,24.4]	[0.5,4.5]	[1.5,3.3]
Delhi	%	8.8	7.4	39.6	12.7	17.4	3.3	3.7	10.2
	95% CI	[4.9,15.1]	[4.4,12.3]	[31.7,48.1]	[9.0,17.8]	[11.9,24.8]	[1.6,6.8]	[1.8,7.6]	[8.2,12.6]
Hariyana	%	13.9	4.9	10.0	4.4	4.8	0.0	1.8	4.0
	95% CI	[9.8,19.5]	[2.5,9.6]	[6.3,15.5]	[2.4,7.9]	[2.6,8.8]	-	[0.7,4.1]	[3.0,5.2]
Rajasthan	%	3.6	5.3	11.4	3.6	1.1	1.3	0.6	2.0
	95% CI	[1.3,9.8]	[2.8,9.7]	[7.4,17.1]	[1.5,8.3]	[0.4,3.1]	[0.2,8.8]	[0.1,2.1]	[1.4,2.8]
Goa	%	0.0	0.0	0.0	0.0	0.4	0.6	0.7	0.4
	95% CI	-	-	-	-	[0.1,2.7]	[0.1,4.5]	[0.2,3.1]	[0.2,1.3]
Bihar	%	8.9	2.7	4.9	3.6	0.7	0.0	0.0	1.4
	95% CI	[5.7,13.7]	[1.2,6.1]	[2.6,9.0]	[1.8,7.2]	[0.2,3.0]	-	-	[1.0,2.0]
West Bengal	%	8.2	0.4	1.3	2.5	0.0	0.0	0.5	1.0
	95% CI	[4.4,15.0]	[0.1,3.1]	[0.5,3.8]	[0.7,8.4]	-	-	[0.1,3.2]	[0.6,1.7]
Assam	%	1.9	0.3	10.6	0.7	0.0	0.6	0.0	0.7
	95% CI	[0.5,7.1]	[0.0,2.1]	[7.2,15.4]	[0.2,2.7]		[0.1,4.5]	-	[0.5,1.0]
Jharkhand	%	0.0	1.2	0.0	0.0	0.0	1.3	0.0	0.2
	95% CI	-	[0.4,3.6]	-	-	-	[0.3,4.9]	-	[0.1,0.5]
Kela	%	0.5	2.2	0.0	4.8	0.0	0.6	3.0	1.8
	95% CI	[0.1,3.4]	[0.9,5.6]	-	[2.6,8.5]	-	[0.1,4.5]	[1.6,5.5]	[1.1,2.7]
Madhya Pradesh	%	0.3	1.0	0.5	0.4	1.8	0.0	0.7	0.9
	95% CI	[0.0,1.9]	[0.3,4.2]	[0.1,3.8]	[0.1,3.0]	[0.6,5.4]	-	[0.2,3.1]	[0.4,2.0]
Tamil Nadu	%	1.3	19.0	0.4	3.3	0.4	0.0	13.2	6.9
	95% CI	[0.5,3.4]	[13.4,26.2]	[0.1,1.5]	[1.7,6.5]	[0.1,2.7]	-	[7.7,21.8]	[4.7,10.1]
Jammu Kashmir	%	1.0	3.4	0.0	2.4	0.0	0.8	1.2	1.0
	95% CI	[0.3,3.2]	[0.9,11.3]	-	[1.2,4.9]	-	[0.2,3.9]	[0.4,3.7]	[0.6,1.9]
Hyderabad	%	1.2	0.9	0.0	22.6	4.0	1.3	1.2	3.6
	95% CI	[0.4,3.8]	[0.1,6.1]	-	[16.7,29.8]	[1.3,11.5]	[0.2,8.8]	[0.4,3.7]	[2.4,5.3]
Others	%	0.7	0.9	0.6	2.0	0.7	2.1	0.0	0.7
	95% CI	[0.2,3.1]	[0.2,3.3]	[0.2,1.7]	[0.7,5.4]	[0.2,2.7]	[0.8,5.5]	-	[0.4,1.2]
Types of work undertaken in India									
Industrial Production	%	21.7	33.3	17.8	22.1	16.6	5.2	11.5	15.7
	95% CI	[15.7,29.1]	[27.5,39.5]	[12.3,25.3]	[17.1,28.2]	[11.5,23.4]	[2.3,11.2]	[8.4,15.6]	[13.5,18.1]
Agriculture	%	17.4	16.5	0.0	1.1	3.8	14.5	11.8	9.2
	95% CI	[11.7,25.2]	[10.8,24.4]	-	[0.3,4.4]	[1.4,9.9]	[8.0,24.9]	[6.9,19.4]	[6.8,12.3]
Hotel/ Restaurant	%	16.0	30.1	50.4	54.3	39.1	18.9	34.9	35.3
	95% CI	[8.3,28.6]	[24.0,36.9]	[41.8,59.0]	[46.6,61.7]	[34.1,44.4]	[12.0,28.5]	[26.5,44.5]	[31.4,39.3]
Security	%	6.7	0.9	8.9	7.9	1.1	9.2	12.1	7.2
	95% CI	[2.8,15.2]	[0.2,3.3]	[5.7,13.7]	[5.1,12.1]	[0.4,3.3]	[5.2,15.7]	[8.4,17.0]	[5.6,9.2]
Household works	%	1.9	2.4	8.1	2.8	4.5	0.6	3.3	3.4
	95% CI	[0.6,5.8]	[1.1,5.1]	[4.7,13.9]	[1.3,6.1]	[2.4,8.2]	[0.1,4.5]	[1.5,7.3]	[2.3,5.0]
Driver/ Transportation	%	2.7	2.7	1.9	4.4	2.6	2.6	2.5	2.7
	95% CI	[1.1,6.3]	[1.3,5.2]	[0.8,4.4]	[2.3,8.5]	[1.3,5.1]	[0.8,7.9]	[1.2,5.0]	[1.9,3.8]
Supermarket/ Shop/Airport	%	4.6	4.9	1.5	2.0	4.1	3.4	1.0	2.7
	95% CI	[2.5,8.4]	[3.0,8.0]	[0.6,4.1]	[0.8,4.5]	[2.4,7.1]	[1.2,9.5]	[0.3,3.2]	[2.0,3.7]
Construction	%	14.9	6.9	3.3	5.4	20.9	36.1	2.8	12.0
	95% CI	[9.4,22.7]	[3.7,12.8]	[1.7,6.2]	[2.8,10.1]	[14.9,28.5]	[30.9,41.6]	[1.5,5.3]	[10.1,14.3]
Porter	%	14.1	1.8	7.4	0.0	3.5	6.8	20.1	10.5
	95% CI	[8.4,22.7]	[0.6,5.4]	[4.3,12.5]	-	[1.8,6.4]	[3.8,11.6]	[12.7,30.3]	[7.5,14.4]
Others	%	0.0	0.6	0.5	0.0	3.7	2.7	0.0	1.3
	95% CI	-	[0.2,2.3]	[0.1,3.8]	-	[1.8,7.4]	[0.9,7.9]	-	[0.7,2.4]

4.3 Sexual Behaviours and Condom Use

The reported mean age of first sexual activity was 18.8 years, ranging from 17.6 years in Madhesh to 20.0 years in Lumbini. 90.7 percent of MLM reported ever having sex, with rates ranging from 83.5% in Lumbini to 98.1% in Kamali province (Table 4.4).

For 54.3% of MLM, the most recent sexual activity with any partner occurred days ago, 21.4% reported it was weeks ago, 16.3% said it was months ago, and 8.1% indicated it was years ago. Of those who had sex with any partner in the past year, 18.7% reported using a condom, with usage varying from 4.5% in Koshi to 25.5% in Sudurpaschim province (Table 4.4).

A minority (1.9%) reported ever having anal sex with another man, with no reports from Bagmati and Lumbini and 5.6% from Madhesh province. Among eight men who reported anal sex with other men in the past six months (two in Karnali and six in Madhesh province), 89.1% did not use condoms during their last anal sex, and the same percentage reported never using condoms for anal sex with men in the past six months. The most common reason for not using a condom at last anal sex was "not thinking of it," reported by 54.9% of men, while 66.7% cited "didn't think it was necessary" as the main reason for not consistently using condoms in the past six months (Table 4.4).

Ever having sex with an FSW was reported by 13.5% of MLM, with significant variation across provinces—ranging from 2.2% in Lumbini to approximately 20% in Sudurpaschim and Karnali provinces (Table 4.4).

Table 4.4: Sexual behaviors and condom use among MLM

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	Total
Mean age of first sex	Mean	19.3	17.6	19.2	18.8	20.0	18.3	18.3	18.8
	95% CI	[18.8,19.8]	[17.2,18.0]	[18.7,19.8]	[18.3,19.3]	[19.6,20.4]	[17.9,18.8]	[17.9,18.7]	[18.6,19.0]
Time of last sexual intercourse									
Days ago	%	30.6	51.5	69.7	43.0	46.3	48.5	65.5	54.3
	95% CI	[26.1,35.6]	[44.9,58.1]	[61.7,76.7]	[35.7,50.6]	[39.9,52.9]	[36.7,60.5]	[58.1,72.3]	[50.7,57.9]
Weeks ago	%	38.3	24.2	15.5	22.6	27.2	26.8	13.7	21.4
	95% CI	[33.0,43.9]	[18.8,30.5]	[10.6,22.2]	[17.4,28.9]	[22.2,32.8]	[18.8,36.7]	[9.1,20.1]	[18.7,24.3]
Months ago	%	21.1	12.4	6.5	24.2	16.8	15.8	15.4	16.3
	95% CI	[16.1,27.1]	[8.9,17.0]	[4.0,10.5]	[18.4,31.1]	[12.3,22.6]	[9.6,24.8]	[11.4,20.5]	[14.0,18.8]
Years ago	%	10.0	11.9	8.2	10.2	9.7	8.9	5.4	8.1
	95% CI	[6.4,15.2]	[7.8,17.9]	[5.2,12.6]	[6.5,15.6]	[6.3,14.5]	[5.5,14.0]	[3.2,8.9]	[6.5,9.9]
Condom use with their most recent partner in past one year									
No	%	95.5	89.4	87.0	89.2	81.9	85.6	74.5	81.3
	95% CI	[92.2,97.5]	[82.8,93.7]	[81.2,91.2]	[83.3,93.2]	[76.9,86.0]	[76.8,91.4]	[67.8,80.2]	[78.3,84.1]
Yes	%	4.5	10.6	13.0	10.8	18.1	14.4	25.5	18.7
	95% CI	[2.5,7.8]	[6.3,17.2]	[8.8,18.8]	[6.8,16.7]	[14.0,23.1]	[8.6,23.2]	[19.8,32.2]	[15.9,21.7]
Ever having anal sex with another man	%	1.5	5.6	0.0	0.4	0.0	3.2	2.9	1.9
	95% CI	[0.6,3.6]	[3.3,9.3]	-	[0.1,3.0]	-	[1.2,8.2]	[1.5,5.5]	[1.3,2.9]
Condom use at last anal sex with another man in past 6 months									
No	%	-	82.4	-	-	-	100.0	-	89.1
Yes	%	-	17.6	-	-	-	0.0	-	10.9
Reasons for not using condom at last sex with another man									
Not available	%	-	14.6	-	-	-	50	-	29.7
Didn't like to use	%	-	42.7	-	-	-	0.0	-	24.5
Didn't think necessary	%	-	64.0	-	-	-	0.0	-	36.7
Didn't think of it	%	-	21.3	-	-	-	100.0	-	54.9
Reasons for not using condom in last sex with another man in past 6 months									
Did not think necessary	%	-	66.7	-	-	-	-	-	66.7
Ever having sex with FSW	%	6.6	19.6	12.2	10.1	2.2	20.5	20.8	13.5
	95% CI	[3.9,11.2]	[14.7,25.6]	[9.1,16.1]	[7.2,14.0]	[1.0,4.9]	[14.6,27.9]	[16.6,25.8]	[11.6,15.6]

While 8.1% of MLM reported ever having sex with an FSW in Nepal, 3.2% had done so in the past 12 months. The mean number of FSWs with whom MLM had sexual intercourse in Nepal over the past year was 2.0, ranging from 1.6 in Karnali and Sudurpaschim to 4.0 in Gandaki province. Condom use during the most recent sexual encounter with an FSW in the past year was reported by 63.9% of MLM (Table 4.5).

Table 4.5: Reporting of ever having sex with a female sex worker

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Ever had sexual intercourse with female sex worker in Nepal	%	4.4	12.3	6.9	4.3	0.7	13.2	12.9	8.1
	95% CI	[2.1,8.9]	[8.3,17.8]	[4.5,10.4]	[2.5,7.3]	[0.2,2.7]	[9.4,18.4]	[9.6,17.2]	[6.6,9.8]
Had sexual intercourse with female sex worker in the past 1 year in Nepal	%	2.9	6.1	1.3	1.1	0.4	4.1	5.3	3.2
	95% CI	[1.3,6.5]	[3.5,10.2]	[0.5,3.8]	[0.4,3.4]	[0.1,2.6]	[2.2,7.5]	[3.6,7.7]	[2.5,4.2]
Mean number of FSWs with whom labour migrants had intercourse in Nepal in the past year	Mean	3.1	3.1	3.4	4.0	2.0	1.6	1.6	2.0
	95% CI	[3.1,3.1]	[3.1,3.1]	[3.4,3.4]	[4.0,4.0]	[2.0,2.0]	[1.6,1.6]	[1.6,1.6]	[2.0,2.0]

Among those who used condoms, 68.9% reported initiating their use. In the past year, 53.7% of labour migrants reported using condoms every time they had sex with an FSW, while 36.1% never used them. The most common reason for not using a condom during the last sexual encounter was 'I did not like to use it,' reported by 59.5% of labour migrants. Similarly, 65.9% cited this reason for not consistently using condoms in the past year (Table 4.6).

Table 4.6: Condom use at last sex with FSW in Nepal in the past one year

	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Condom use in recent sexual intercourse with a female sex worker in Nepal in last one year	50.8	58.8	44.4	100.0	0.0	34.1	73.8	63.9
Condom use suggestion from								
Own	67.7	33.1	100.0	68.3	*NA*	53.3	76.4	68.9
Partner	32.3	66.9	0.0	31.7	*NA*	46.7	23.6	31.1
Reasons of not using condom								
Not available	33.3	35.2	0.0	*NA*	100.0	24.1	0.0	21.7
Partner objected	0.0	0.0	0.0	*NA*	*NA*	24.1	0.0	5.0
Didn't like to use	33.3	64.8	73.4	*NA*	0.0	0.0	100.0	59.5
Didn't think to use	66.7	47.2	26.6	*NA*	0.0	51.7	0.0	24.0
Didn't think of it	33.3	0.0	0.0	*NA*	0.0	24.1	0.0	7.5
Frequency of condom use								
Never	49.2	41.2	55.6	0.0	100.0	65.9	26.2	36.1
Some of the time	16.4	5.0	0.0	68.3	0.0	0.0	8.7	8.9
Most of the time	9.0	0.0	0.0	31.7	0.0	0.0	0.0	1.4
All of the time	25.4	53.8	44.4	0.0	0.0	34.1	65.1	53.7
Reasons of not using condom								
Not available	22.0	42.1	0.0	36.5	100.0	24.1	0.0	20.6
Partner objected	0.0	0.0	0.0	31.7	0.0	0.0	0.0	1.9
Didn't like to use	44.0	57.9	73.4	100.0	0.0	0.0	100.0	65.9
Didn't think necessary	100.0	57.9	26.6	31.7	0.0	75.9	0.0	31.7
Didn't think of it	12.0	0.0	0.0	0.0	0.0	24.1	25.0	16.5

A total of 8.7% of men reported ever having sex with an FSW in India, with considerable variation across provinces from 1.4% in Lumbini to 14.8% in Sudurpaschim. In the past 12 months, 3.7% of MLM engaged in sex with an FSW in India. The mean number of FSWs with whom labour migrants had intercourse in India over the past year was 2.2, ranging from 1.0 in Koshi and Lumbini to 3.0 in Karnali province (Table 4.7).

Table 4.7: Reporting of ever having sex with female sex workers in India

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Ever had sexual intercourse with female sex worker in India	%	2.7	8.6	5.9	7.4	1.4	11.1	14.8	8.7
	95% CI	[1.3,5.6]	[6.1,12.0]	[3.1,11.0]	[4.8,11.3]	[0.5,4.5]	[7.3,16.5]	[11.0,19.7]	[7.0,10.6]
Had sexual intercourse with female sex worker in the past 1 year in India	%	0.7	2.2	0.2	2.1	0.7	4.5	7.1	3.7
	95% CI	[0.2,3.1]	[1.0,4.7]	[0.0,1.4]	[1.0,4.4]	[0.2,2.8]	[2.0,10.0]	[4.4,11.2]	[2.5,5.3]
Mean number of FSWs with whom labour migrants had intercourse in India in the past year	Mean	1.0	1.5	2.0	2.4	1.0	3.0	2.3	2.2
	95% CI	[1.0,1.0]	[1.5,1.5]	[2.0,2.0]	[2.4,2.4]	[1.0,1.0]	[3.0,3.0]	[2.3,2.3]	[2.2,2.2]

The majority of men (98.3%) reported using a condom during their most recent sexual encounter with an FSW in India (Table 4.8). Of these, 61.8% indicated that condom use was initiated by the FSW.

Table 4.8: Condom use at last sex with a FSW in India in the past year

	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Frequency of condom use								
Never	64.6	19.8	0.0	0.0	0.0	0.0	0.0	1.7
Rarely	0.0	19.8	0.0	0.0	0.0	0.0	0.0	0.9
Some of the time	0.0	0.0	0.0	20.0	0.0	0.0	4.0	3.8
Most of the time	35.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4
All of the time	0.0	60.4	100.0	80.0	100.0	100.0	96.0	93.1
Reasons of not using condom								
Not available	0.0	0.0	-	100.0	-	-	0.0	13.1
Didn't like to use	0.0	50.0	-	100.0	-	-	100.0	68.8
Didn't think necessary	100.0	100.0	-	100.0	-	-	0.0	57.5
Didn't think of it	64.6	50.0	-	0.0	-	-	0.0	24.8
Condom use in recent sexual intercourse with a female sex worker in India in last one year	35.4	80.2	100.0	100.0	100.0	100.0	100.0	98.3
Condom use suggestion from								
Own	100.0	16.9	100.0	60.0	100.0	28.6	34.2	38.2
Partner	0.0	83.1	0.0	40.0	0.0	71.4	65.8	61.8

A high percentage of men (93.1%) reported always using a condom with FSWs in India over the past year. The most common reason for not always using a condom was that they did not like using it, reported by 68.8% of respondents (Table 4.8).

4.4 Condom Use with Wives

A minority of men (14.9%) reported using a condom during their last sexual encounter with their wives in the past year, with rates ranging from 6.9% in Gandaki to 18.0% in Lumbini province. Of those who used condoms, 80% reported that they suggested using them. The most common reason for not using a condom at the last encounter was ‘didn’t think it was necessary,’ cited by 82.9% of respondents. Additionally, 85.1% reported never using condoms with their wives in the past year. Among those who did not consistently use condoms with their wives, 78.9% believed it was not necessary (Table 4.9).

Table 4.9: Condom use at last sex in the past year preceding the survey with wives

Outputs	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur paschim	Total
Condom use in last sexual intercourse in past one year	%	10.1	15.7	9.1	6.9	18	12.1	16.5	14.9
	95% CI	[7.2,14.0]	[10.4,23.1]	[5.7,14.3]	[3.5,13.2]	[14.1,22.7]	[6.6,21.4]	[11.5,23.0]	[12.5,17.7]
Condom use suggestion in last intercourse in past one year									
Own	%	93.5	87.9	100	100	94.1	91.8	59.5	79.6
	95% CI	[62.8,99.2]	[66.9,96.3]	-	-	[78.9,98.5]	[73.0,97.9]	[35.0,80.0]	[65.1,89.1]
Wife	%	6.5	12.1	0	0	5.9	8.2	40.5	20.4
	95% CI	[0.8,37.2]	[3.7,33.1]	-	-	[1.5,21.1]	[2.1,27.0]	[20.0,65.0]	[10.9,34.9]
Reasons for not using condom in past one year									
Not available	%	0	1.4	0	1.3	0.6	2.1	1.8	1.2
	95% CI	-	[0.3,5.7]	-	[0.3,4.9]	[0.1,4.4]	[0.7,6.3]	[0.5,5.6]	[0.6,2.5]
Partner objected	%	0.7	2.3	0.8	3.9	0.7	2.6	2.9	2.1
	95% CI	[0.1,5.2]	[0.5,9.6]	[0.1,5.0]	[1.7,8.7]	[0.1,4.9]	[0.6,10.4]	[1.1,7.2]	[1.2,3.6]
Didn't like to use it	%	17.3	41.1	3.3	29	34.2	3.1	29.4	26.4
	95% CI	[10.2,27.9]	[33.3,49.4]	[1.4,7.4]	[22.4,36.6]	[26.5,42.8]	[1.3,7.6]	[23.2,36.5]	[23.2,30.0]
Didn't think necessary	%	97.4	75.3	93.7	90.3	70.4	88.2	86	82.9
	95% CI	[93.6,99.0]	[65.5,83.1]	[87.6,96.9]	[85.3,93.7]	[61.9,77.7]	[75.3,94.8]	[79.3,90.8]	[79.5,85.9]
Didn't think of it	%	28.5	20.6	4.1	40.7	7.5	11.8	16	15.9
	95% CI	[22.0,36.0]	[13.8,29.8]	[1.7,9.6]	[33.9,48.0]	[4.0,13.9]	[6.9,19.4]	[11.0,22.6]	[13.4,18.8]
Frequency of condom use in past one year									
Never	%	89.9	84.3	90.9	93.1	82	87.9	83.5	85.1
	95% CI	[86.0,92.8]	[76.9,89.6]	[85.7,94.3]	[86.8,96.5]	[77.3,85.9]	[78.6,93.4]	[77.0,88.5]	[82.3,87.5]
Rare	%	2	2.6	1.2	0	0.5	0.2	4.3	2.1
	95% CI	[0.7,5.4]	[1.0,6.7]	[0.3,4.0]	-	[0.1,3.7]	[0.1,0.8]	[2.0,8.8]	[1.2,3.8]
Sometimes	%	7.1	8.8	0.7	5.2	13.3	2.3	5.5	7.4
	95% CI	[4.5,11.0]	[4.6,16.2]	[0.3,2.1]	[2.9,9.0]	[9.6,18.2]	[0.9,5.6]	[2.5,11.5]	[5.6,9.7]
Most of the times	%	0.4	1.2	2.7	0.6	1.6	3.3	3.4	2.3
	95% CI	[0.0,2.5]	[0.3,4.8]	[0.9,8.3]	[0.1,4.3]	[0.3,6.9]	[1.5,7.1]	[1.6,7.1]	[1.4,3.9]
All of the times	%	0.7	3.1	4.5	1.1	2.6	6.3	3.4	3.2
	95% CI	[0.1,4.5]	[1.3,7.3]	[2.3,8.3]	[0.3,4.5]	[1.0,6.4]	[3.1,12.3]	[1.5,7.2]	[2.1,4.7]
Reasons for not using condom always									
Not available	%	0.7	3.2	0.3	2.5	0.5	1.9	2.5	1.7
	95% CI	[0.1,4.8]	[1.4,7.4]	[0.0,1.8]	[1.0,6.0]	[0.1,3.6]	[0.6,5.9]	[1.0,6.1]	[1.0,3.0]
Partner objected	%	1.3	3.7	0.7	4.2	0.6	1.7	2.5	1.9
	95% CI	[0.3,5.0]	[1.4,9.4]	[0.1,4.8]	[1.9,8.8]	[0.1,4.1]	[0.4,6.1]	[0.7,8.0]	[1.0,3.6]
Didn't like to use it	%	18.2	39.5	4.1	29	41.4	4.9	34.5	30.8
	95% CI	[12.1,26.4]	[32.1,47.3]	[2.0,8.0]	[22.0,37.0]	[33.5,49.7]	[1.7,13.4]	[28.3,41.3]	[27.5,34.4]
Didn't think necessary	%	97.4	71.7	90.2	87.4	66.9	86.8	80.4	78.9
	95% CI	[91.7,99.2]	[63.1,78.9]	[85.0,93.8]	[80.3,92.2]	[59.9,73.3]	[75.1,93.5]	[73.2,86.0]	[75.5,81.9]
Didn't think of it	%	26.3	23.6	5.7	44.8	6.3	15.4	15.7	16.1
	95% CI	[18.7,35.5]	[16.6,32.5]	[2.9,10.9]	[37.6,52.3]	[3.5,11.2]	[9.3,24.6]	[11.3,21.4]	[13.8,18.8]

4.5 Sexual Behaviours with Girlfriends in India

About 5.6% of men reported ever having sex with a girlfriend in India, with variation across provinces ranging from 1.2% in Koshi to 8.2% in Karnali province. Among the 61 men who had a girlfriend in India in the past 12 months, 54.6% reported using condoms at their last sexual encounter with her. In most cases (90.8%), the men suggested condom use. Among those who did not use condoms, the most common reason was the belief that it was not necessary, cited by 61.5%. Regarding the frequency of condom use over the past year, 45.4% reported never using condoms, while 40.1% reported always using them. The primary reason for not always using condoms was 'I did not like to use it,' as mentioned by 53.2% of the men (Table 4.10).

Table 4.10: Ever having sex with girlfriends in India

Condom use behavior with girlfriend in India	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur-paschim	Total
Ever had sexual intercourse with girl friend	1.2	7.7	4.9	6.4	2.2	8.2	7.8	5.6
95% CI	[0.2,5.9]	[4.3,13.4]	[2.7,8.7]	[3.7,10.6]	[0.9,5.3]	[5.0,12.9]	[5.0,11.9]	[4.3,7.4]
Condom use in last sexual intercourse in past one year	-	18.5	54.8	58.7	83.9	76.9	48.1	54.6
Condom use suggestion in last intercourse in past one year								
Own	-	71.1	100.0	100.0	80.8	76.7	100.0	90.8
Girl friend	-	28.9	0.0	0.0	19.2	23.3	0.0	9.2
Reasons of not using condom in past one year								
Not available	-	19.2	0.0	18.3	0.0	11.1	0.0	6.4
Partner objected	-	9.6	0.0	18.3	0.0	0.0	19.1	14.5
Didn't like to use it	-	38.9	58.0	60.6	100.0	0.0	42.7	45.5
Didn't think necessary	-	58.1	42.0	60.6	0.0	77.9	69.1	61.5
Didn't think of it	-	6.6	58.0	21.1	0.0	11.1	19.1	16.0
Frequency of condom use in past one year	-							
Never	-	81.5	45.2	41.3	16.1	23.1	51.9	45.4
Rare	-	0.0	0.0	7.6	0.0	0.0	0.0	0.8
Sometimes	-	0.0	0.0	0.0	50.5	0.0	0.0	8.7
Most of the times	-	5.3	0.0	0.0	16.1	18.0	0.0	5.0
All of the times	-	13.2	54.8	51.1	17.2	59.0	48.1	40.1
Reasons of not using condom always								
Not available	-	24.2	73.4	15.5	0.0	6.2	0.0	6.9
Partner objected	-	15.2	0.0	15.5	0.0	0.0	0.0	4.0
Didn't like to use it	-	45.5	26.6	51.2	80.5	0.0	50.0	53.2
Didn't think necessary	-	63.5	0.0	51.2	0.0	43.8	69.1	47.5
Didn't think of it	-	6.2	73.4	48.8	0.0	56.2	0.0	9.8

4.6 Condom Availability

A minority of men (4.8%) reported that they usually carried condoms with them, with rates varying from 2.7% in Karnali to 9.1% in Bagmati province. The most frequently mentioned sources where MLM knew they could obtain condoms included PHCCs/Health Posts/UHCs/ BHSCs/CHUs (81.4%), pharmacies (75.4%), hospitals (31.3%), and FCHVs (19.1%). Outreach services were not mentioned by any respondents and NGOs were mentioned by only 0.1% (Table 4.11).

Regarding the cost of obtaining condoms, 21.2% reported that condoms were always free of charge, while 32.9% reported that they always bought them, and 19.5% reported that they usually bought them (Table 4.11).

Table 4.11: Availability of condoms

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur-paschim	Total
Usually carry condoms	%	8.9	2.9	9.1	3.1	2.9	2.7	6.2	4.8
	95% CI	[6.0,12.9]	[1.6,5.4]	[6.2,13.0]	[1.2,8.1]	[1.6,5.3]	[1.1,6.2]	[3.6,10.5]	[3.6,6.4]
Places known to obtain condoms									
PHCC/Health Post/UHC/ BHSC/CHU	%	65.2	54.9	97.4	80.3	75.1	86.5	91.3	81.4
	95% CI	[56.4,73.0]	[47.6,62.0]	[94.5,98.8]	[75.0,84.7]	[68.0,81.1]	[79.1,91.5]	[85.4,94.9]	[78.6,84.0]
Pharmacy	%	82.2	74.0	86.0	83.3	89.8	73.6	61.8	75.4
	95% CI	[76.3,86.9]	[68.8,78.6]	[80.7,90.0]	[77.1,88.0]	[85.5,93.0]	[66.1,79.9]	[57.5,66.0]	[73.2,77.5]
General retail store/ Supermarket	%	1.0	16.4	0.2	2.8	1.1	6.0	34.7	15.5
	95% CI	[0.2,3.6]	[12.2,21.8]	[0.0,1.4]	[1.4,5.4]	[0.4,3.4]	[3.5,10.0]	[26.4,44.2]	[12.4,19.3]
Private Clinic	%	3.6	5.3	11.3	5.4	0.4	2.0	48.6	20.2
	95% CI	[1.7,7.7]	[3.3,8.6]	[7.7,16.4]	[3.0,9.4]	[0.1,2.7]	[0.5,7.7]	[45.3,52.0]	[18.9,21.6]
Paan shop	%	0.7	0.9	0.4	0.4	0.0	1.3	2.9	1.4
	95% CI	[0.2,3.1]	[0.2,3.3]	[0.1,1.5]	[0.1,3.0]	-	[0.2,8.8]	[1.5,5.5]	[0.8,2.4]
Hospital	%	18.2	62.0	47.9	34.8	8.7	44.6	38.1	31.3
	95% CI	[14.5,22.6]	[54.1,69.3]	[40.6,55.3]	[28.0,42.3]	[4.9,15.0]	[37.1,52.4]	[31.6,45.1]	[28.3,34.5]

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur-paschim	Total
FPAN Clinic	%	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.4
	95% CI	[0.1,3.4]	-	-	-	-	-	[0.3,3.2]	[0.1,1.2]
Peer/Friends	%	4.4	9.6	0.9	8.0	0.0	5.8	7.4	5.0
	95% CI	[2.3,8.2]	[6.5,14.0]	[0.3,3.3]	[5.1,12.4]	-	[3.1,10.9]	[5.1,10.7]	[3.9,6.3]
Health Workers	%	1.4	4.6	0.8	1.1	1.1	1.0	1.2	1.4
	95% CI	[0.5,4.1]	[2.4,8.7]	[0.3,2.4]	[0.4,3.4]	[0.3,4.4]	[0.3,3.7]	[0.4,3.7]	[0.8,2.3]
Hotel/Lodge	%	0.5	0.7	1.3	[0.5,5.1]	0.0	0.1	1.5	0.8
	95% CI	[0.1,3.4]	[0.2,3.0]	[0.4,4.1]	98.3	-	[0.0,0.7]	[0.6,3.9]	[0.4,1.7]
Brothel	%	0.0	2.4	0.5	0.8	0.0	0.6	0.0	0.3
	95% CI	-	[1.1,4.9]	[0.1,3.8]	[0.2,3.2]		[0.1,4.5]	-	[0.2,0.6]
NGO	%	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.1
	95% CI	-	-	[0.0,1.4]	-	-	-	[0.0,2.0]	[0.0,0.7]
FCHVs	%	1.0	0.0	10.9	4.3	0.4	25.6	42.0	19.1
	95% CI	[0.3,3.2]	-	[7.3,16.0]	[2.1,8.6]	[0.1,2.6]	[19.4,32.9]	[31.1,53.7]	[15.1,23.9]
Outreach service	%	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	95% CI	[0.1,3.4]	-	-	-	-	-	-	[0.0,0.2]
City clinic	%	1.4	0.9	0.0	0.4	0.0	0.0	0.0	0.2
	95% CI	[0.5,4.1]	[0.1,6.1]	-	[0.1,3.0]	-	-	-	[0.1,0.5]
During Community Program	%	0.0	0.0	0.0	0.4	0.0	1.4	0.0	0.2
	95% CI	-	-	-	[0.1,3.0]	-	[0.4,4.8]	-	[0.1,0.5]
Others	%	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.1
	95% CI	-	-	-	-	-	[0.1,4.5]	-	[0.0,0.4]
Don't know	%	10.1	8.6	0.0	0.4	1.4	2.4	0.0	1.9
	95% CI	[7.0,14.5]	[5.5,13.1]	-	[0.1,3.0]	[0.6,3.4]	[0.7,7.5]	-	[1.4,2.6]

Among the places where MLM most often obtained condoms, the most frequently mentioned were PHCCs/Health Posts/UHCs/BHSCs/CHUs (80.8%), followed by FCHVs (30.3%) and hospitals (13.2%) (Table 4.12).

Table 4.12: Places that MLM received condoms

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur paschim	Total
Obtained condoms usually									
Always Free of cost	%	20.0	22.2	57.7	8.9	13.1	48.5	15.5	21.2
	95% CI	[7.9,42.0]	[14.8,32.0]	[47.4,67.5]	[5.5,14.1]	[6.2,25.5]	[41.7,55.3]	[10.2,22.7]	[17.8,24.9]
Always buy	%	18.3	28.2	34.2	21.4	61.7	11.2	33.1	32.9
	95% CI	[10.0,30.9]	[19.7,38.5]	[24.6,45.3]	[14.3,30.7]	[49.4,72.7]	[7.3,16.8]	[22.6,45.6]	[27.0,39.3]
Usually Free of cost	%	13.5	9.7	2.6	22.7	10.2	15.4	19.6	16.5
	95% CI	[6.4,26.3]	[5.3,17.1]	[0.6,10.7]	[14.2,34.2]	[5.5,18.4]	[8.9,25.4]	[13.1,28.4]	[12.7,21.1]
Usually buy	%	35.9	17.7	1.9	36.2	5.7	19.5	21.6	19.5
	95% CI	[21.5,53.4]	[11.5,26.3]	[0.3,12.6]	[26.7,47.0]	[1.3,22.4]	[11.9,30.1]	[15.2,29.9]	[15.6,24.1]
Both free of cost and buy	%	12.4	22.2	3.5	10.8	9.2	5.4	10.1	10.0
	95% CI	[6.2,23.2]	[13.7,33.8]	[1.4,8.6]	[6.8,16.7]	[4.2,18.7]	[2.3,12.2]	[6.5,15.4]	[7.6,13.0]
Obtained Condoms from									
PHCC/Health Post/UHC/ BHSC/CHU	%	100.0	40.4	92.9	71.9	95.6	85.0	81.1	80.8
	95% CI	-	[28.2,53.9]	[78.2,97.9]	[51.4,86.1]	[71.3,99.5]	[72.4,92.5]	[66.8,90.2]	[73.9,86.3]
Hospital	%	0.0	73.9	15.3	11.1	4.4	13.3	6.6	13.2
	95% CI	-	[59.5,84.5]	[6.0,33.7]	[5.0,22.8]	[0.5,28.7]	[5.9,27.3]	[2.5,15.9]	[9.5,18.0]
FPAN Clinic	%	0.0	0.0	0.0	0.0	0.0	0.0	2.2	1.0
	95% CI	-	-	-	-	-	-	[0.6,8.6]	[0.3,4.0]
Peer/Friends	%	0.0	18.7	0.0	21.9	0.0	6.0	2.9	5.6
	95% CI	-	[11.4,29.1]	-	[8.5,45.9]	-	[2.2,15.0]	[0.7,11.5]	[3.4,9.1]
Health Workers	%	5.7	4.6	1.1	2.0	0.0	0.0	1.1	1.2
	95% CI	[0.7,34.4]	[1.1,16.7]	[0.1,7.6]	[0.3,12.7]	-	-	[0.2,7.4]	[0.4,3.2]
FCHVs	%	5.7	0.0	10.1	6.5	0.0	21.7	52.7	30.3
	95% CI	[0.7,34.4]	-	[3.9,23.8]	[2.2,17.8]	-	[13.1,33.8]	[36.6,68.2]	[21.6,40.8]

When asked about the most convenient places to obtain condoms in the future, the majority indicated PHCCs/Health Posts/UHCs/BHSCs/CHUs (66.8%), followed by FCHVs (22.0%) and hospitals (7.5%) (Table 4.13).

In terms of purchasing condoms, MLM most frequently bought them from pharmacies (70.3%), private clinics (30.2%), and general retail stores (6.4%). For convenience in the future, the most preferred locations for buying condoms were pharmacies (68.2%), private clinics (28.5%), and general retail stores (3.2%) (Table 4.13).

Regarding sources of condoms received in the past three months, 20.3% obtained them from PHCCs/Health Posts/UHCs/BHSCs/CHUs, 27.2% from pharmacies, 10.2% from private clinics, 5.6% from FCHVs, and 0.4% from NGOs. However, 34.7% reported not using condoms in the past three months. A significant majority (90.7%) reported not receiving counseling on condom use in the past three months, while 3.0% received counseling from PHCCs/Health Posts/UHCs/ BHSCs/CHUs, 1.9% from pharmacies, and 1.5% from peers/friends (Table 4.13).

Table 4.13: Places that MLM received condoms from in the past three months

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur paschim	Total
Convenient place to obtain condoms (Free of cost)									
PHCC/Health Post/ UHC/BHSC/CHU	%	94.3	35.1	89.9	65.3	95.6	76.8	57.3	66.8
	95% CI	[65.6,99.3]	[22.4,50.4]	[76.2,96.1]	[46.3,80.5]	[71.3,99.5]	[64.9,85.6]	[42.7,70.6]	[58.5,74.1]
Hospital	%	0.0	51.5	0.0	11.1	4.4	5.2	2.9	7.5
	95% CI	-	[34.5,68.1]	-	[4.8,23.8]	[0.5,28.7]	[2.3,11.7]	[0.7,11.7]	[5.1,11.0]
FPAN Clinic	%	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.5
	95% CI	-	-	-	-	-	-	[0.2,7.8]	[0.1,3.7]
Peer/Friends	%	5.7	11.2	0.0	17.3	0.0	3.0	0.0	2.8
	95% CI	[0.7,34.4]	[5.0,23.2]	-	[5.8,41.7]	-	[0.9,9.2]	-	[1.6,5.1]
Health Workers	%	0.0	2.2	0.0	2.0	0.0	0.0	0.0	0.3
	95% CI	-	[0.3,14.7]	-	[0.3,12.7]	-	-	-	[0.1,1.2]
FCHVs	%	0.0	0.0	10.1	4.3	0.0	15.0	38.7	22.0
	95% CI	-	-	[3.9,23.8]	[1.1,14.9]	-	[6.8,29.8]	[26.1,53.0]	[15.2,30.8]
Often bought condoms	%	96.1	98.8	100.0	94.5	100.0	97.5	43.9	70.3
Pharmacy	95% CI	[74.7,99.5]	[91.7,99.8]	-	[86.6,97.9]	-	[85.7,99.6]	[35.4,52.8]	[64.9,75.2]
General retail store/ Supermarket	%	0.0	5.9	0.0	0.0	4.0	2.5	9.6	6.4
	95% CI		[2.4,14.1]	-	-	[0.6,22.9]	[0.3,16.5]	[4.5,19.4]	[3.4,11.7]
Private clinic	%	7.9	3.5	13.2	6.9	0.0	2.5	55.9	30.2
	95% CI	[1.9,27.2]	[0.9,13.2]	[4.4,33.6]	[2.5,17.6]		[0.4,14.3]	[46.2,65.2]	[24.9,36.1]
Paan Shop	%	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	95% CI	[0.5,23.7]	-	-	-	-	-	-	[0.0,0.8]
Hotel/Lodge	%	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.8
	95% CI	-	-	-	-	-	-	[0.2,8.4]	[0.1,4.0]
Convenient place to buy condoms									
Pharmacy	%	92.1	96.4	100.0	94.5	98.0	97.5	41.0	68.2
	95% CI	[72.8,98.1]	[90.1,98.7]	-	[86.6,97.9]	[87.7,99.7]	[85.7,99.6]	[32.5,50.2]	[62.6,73.3]
General retail store (Kirana Pasal)	%	0.0	3.6	0.0	0.0	2.0	0.0	5.1	3.2
	95% CI	-	[1.3,9.9]	-	-	[0.3,12.3]	-	[2.1,11.4]	[1.6,6.6]
Private clinic	%	3.9	0.0	0.0	5.5	0.0	2.5	53.9	28.5
	95% CI	[0.5,25.3]	-	-	[2.1,13.4]	-	[0.4,14.3]	[44.0,63.5]	[23.2,34.4]
Paan Shop	%	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	95% CI	[0.5,23.7]	-	-	-	-	-	-	[0.0,0.8]
Place of receiving condoms in last 3 months									
PHCC/Health Post/ UHC/BHSC/CHU	%	13.5	7.3	0	4.7	36.8	18.0	18.2	20.3
	95% CI	[6.1,27.6]	[3.8,13.4]	-	[1.8,11.8]	[24.5,51.2]	[10.5,29.2]	[13.2,24.7]	[16.7,24.6]
Pharmacy	%	26.6	27.0	31.8	11.4	62.4	9.1	23.5	27.2
	95% CI	[14.6,43.4]	[17.6,39.1]	[21.1,44.8]	[6.0,20.7]	[50.1,73.3]	[4.9,16.1]	[17.9,30.4]	[23.5,31.3]
General retail store/ Supermarket	%	0.0	2.0	0.0	0.0	0.0	0.0	5.7	3.0
	95% CI	-	[0.5,7.7]	-	-	-	-	[3.0,10.8]	[1.5,5.6]
Private Clinic	%	0.0	0.0	0.0	0.0	0.0	0.0	20.6	10.2
	95% CI	-	-	-	-	-	-	[14.4,28.5]	[7.3,14.0]
Hospital	%	0.0	11.3	1.9	2.8	2.9	2.7	1.6	2.7
	95% CI	-	[6.0,20.2]	[0.3,11.7]	[0.9,8.0]	[0.7,10.6]	[0.9,7.7]	[0.4,6.2]	[1.6,4.6]
FPAN Clinic	%	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.7
	95% CI	-	-	-	-	-	-	[0.3,5.5]	[0.2,2.7]
Peer/Friends	%	2.6	4.5	0.0	6.5	0.0	1.8	2.7	2.5
	95% CI	[0.3,17.1]	[1.9,10.0]	-	[3.0,13.4]	-	[0.5,6.9]	[1.0,6.7]	[1.4,4.3]

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur paschim	Total
Health Workers	%	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2
	95% CI	-	-	-	-	-	-	[0.1,3.6]	[0.0,1.8]
NGO	%	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4
	95% CI	-	-	-	-	-	-	[0.1,5.7]	[0.1,2.9]
FCHVs	%	0.0	0.0	7.2	0.8	0.0	1.8	10.4	5.6
	95% CI	-	-	[3.0,16.3]	[0.1,5.8]	-	[0.5,6.8]	[5.8,17.7]	[3.3,9.5]
Don't know	%	52.0	29.8	0.7	1.7	7.2	0.0	0.0	4.6
	95% CI	[33.2,70.2]	[17.6,45.7]	[0.1,4.8]	[0.2,11.4]	[2.9,16.8]	-	-	[3.3,6.4]
Not used condom in last 3 months	%	6.7	28.2	15.3	73.1	8.6	69.3	29.9	34.7
	95% CI	[2.0,19.8]	[19.4,39.2]	[8.1,27.1]	[60.4,82.9]	[3.9,18.1]	[56.9,79.3]	[22.5,38.6]	[30.1,39.5]
Place received counseling on condom use and safe sex in past 3 months									
PHCC/Health Post/ UHC/ BHSC/CHU	%	1.8	1.2	4.3	2.6	2.6	3.3	3.8	3.0
	95% CI	[0.7,4.2]	[0.4,3.6]	[2.3,8.2]	[1.1,6.0]	[1.2,5.5]	[1.3,8.2]	[2.0,7.3]	[2.1,4.4]
Pharmacy	%	5.4	2.1	1.7	2.5	2.2	1.9	0.8	1.9
	95% CI	[2.9,9.8]	[0.9,4.5]	[0.6,4.3]	[1.1,5.6]	[0.9,5.3]	[0.7,5.5]	[0.3,2.4]	[1.3,2.8]
Private Clinic	%	0.5	0.4	0.0	0.0	0.0	0.0	1.4	0.6
	95% CI	[0.1,3.4]	[0.1,3.1]	-	-	-	-	[0.3,5.6]	[0.2,2.1]
Hospital	%	2.9	2.9	0.2	0.4	0.4	0.6	0.0	0.6
	95% CI	[1.0,8.0]	[1.6,5.4]	[0.0,1.4]	[0.1,3.0]	[0.1,2.6]	[0.1,4.5]	-	[0.3,1.0]
FPAN Clinic	%	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
	95% CI	-	[0.0,2.1]	-	-	-	-	-	[0.0,0.2]
Peer/Friends	%	1.9	14.7	0.0	0.4	0.0	1.3	0.5	1.5
	95% CI	[0.8,4.5]	[11.0,19.3]	-	[0.1,3.0]		[0.3,4.9]	[0.1,3.2]	[1.1,2.1]
Health Workers	%	0.0	5.2	0.2	0.0	0.0	0.0	0.5	0.6
	95% CI	-	[3.1,8.5]	[0.0,1.4]	-	-	-	[0.1,3.2]	[0.3,1.1]
Hotel/Lodge	%	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
	95% CI	-	[0.1,3.1]	-	-	-	-	-	[0.0,0.2]
NGO	%	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.1
	95% CI	-	[0.1,6.1]	-	-	-	-	-	[0.0,0.5]
FCHVs	%	0.0	0.4	0.0	0.4	0.0	0.6	1.0	0.5
	95% CI	-	[0.1,3.1]	-	[0.1,3.0]	-	[0.1,4.5]	[0.3,3.2]	[0.2,1.3]
During Community Program	%	0.0	0.9	0.0	0.0	0.0	0.0	0.3	0.2
	95% CI	-	[0.2,3.3]	-	-	-	-	[0.0,2.0]	[0.0,0.6]
Others	%	0.0	0.9	0.0	0.0	0.0	0.0	0.6	0.3
	95% CI	-	[0.2,3.7]	-	-	-	-	[0.1,2.1]	[0.1,0.8]
Don't know	%	19.4	0.4	0.0	1.5	0.7	1.3	0.0	1.7
	95% CI	[13.6,26.7]	[0.1,3.1]	-	[0.5,4.5]	[0.2,2.7]	[0.3,4.9]	-	[1.2,2.3]
Never received counselling	%	73.1	77.1	94.9	94.3	95.2	90.8	91.6	90.7
	95% CI	[66.0,79.1]	[70.6,82.5]	[91.1,97.1]	[89.0,97.2]	[92.3,97.1]	[84.3,94.8]	[87.2,94.6]	[88.8,92.2]

4.7 HIV-related Awareness and Knowledge

Almost all respondents (99.5%) had heard of HIV and AIDS. A considerable number (26.4%) reported knowing someone infected with HIV or who had died of AIDS. This varied across provinces—ranging from 5.6% in Bagmati to 40.1% in Sudurpaschim province. However, fewer reported having a close relative (3.8%) or close friend (1.6%) who was infected or had died of AIDS (Table 4.14).

Several questions were used to assess knowledge about HIV. A substantial number (79.8%) of MLM were aware that having one uninfected, faithful sex partner can protect against HIV, with awareness ranging from 53.5% in Koshi to 94.9% in Sudurpaschim province. Additionally, 88% knew that correct and consistent condom use could provide protection, varying from 74.8% in Madhesh to 98.7% in Sudurpaschim province (Table 4.14).

Awareness that a healthy-looking person can still be HIV-infected was reported by 84.5% of MLM, with knowledge ranging from 60.8% in Koshi to 90.8% in Sudurpaschim province. However, only 37.3% were aware that HIV is not transmitted through mosquito bites, with figures ranging from 27.7% in Sudurpaschim to 72.7% in Bagmati province. Similarly, only

47.7% understood that HIV cannot be transmitted by sharing a meal with an infected person, with awareness varying from 20.4% in Madhesh to 80.5% in Bagmati province (Table 4.14).

Knowledge about mother-to-child transmission of HIV was relatively high, with 82.3% knowing that HIV can be transmitted from a mother to a child during pregnancy. This awareness was lowest in Karnali (67.2%) and highest in Sudurpaschim province (85.8%). Nonetheless, only 65.3% knew that HIV can be transmitted through breastfeeding, with knowledge ranging from 33.6% in Bagmati to 72.8% in Madhesh province. A significant proportion (64.0%) did not know that HIV-positive pregnant women could reduce transmission risk to their unborn child through medication, with awareness ranging from 39.5% in Bagmati to 78.8% in Lumbini province (Table 4.14).

Approximately 70% of MLM knew that abstaining from sexual intercourse can protect against HIV, with awareness ranging from 30.6% in Bagmati to 79.4% in Sudurpaschim province. Similarly, 68.5% knew that shaking hands with an HIV-positive person does not transmit the virus, with figures ranging from 45.2% in Madhesh to 92.7% in Bagmati province. A significant majority (97.4% on average, and over 90% across all provinces) understood that HIV can be transmitted through the use of previously used needles or syringes. Over 93% of MLM knew that HIV can be transmitted via blood transfusions, with an average of 98.1% across the provinces (Table 4.14).

Table 4.14: Awareness and knowledge related to HIV

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur Paschim	Total
Ever heard of HIV and AIDS	%	98.2	95.6	100.0	99.6	100.0	99.3	100.0	99.5
	95% CI	[95.8,99.3]	[93.0,97.2]	-	[97.4,99.9]	-	[95.9,99.9]	-	[99.2,99.6]
Know someone who is infected with HIV or who has died of AIDS	%	13.9	39.7	5.6	36.3	6.3	28.8	40.1	26.4
	95% CI	[7.8,23.6]	[32.2,47.7]	[3.1,10.1]	[31.8,41.1]	[3.1,12.2]	[20.6,38.7]	[34.1,46.4]	[23.7,29.4]
Know close relative or friend who is infected with HIV or who has died of AIDS									
Close relative	%	1.0	4.0	0.8	5.9	0.7	4.5	6.2	3.8
	95% CI	[0.1,6.6]	[2.3,6.9]	[0.3,2.4]	[3.3,10.6]	[0.2,3.0]	[2.6,7.9]	[3.6,10.3]	[2.7,5.4]
Close friend	%	2.2	6.4	0.8	4.9	0.0	1.9	1.0	1.6
	95% CI	[0.8,6.0]	[3.8,10.5]	[0.3,1.9]	[2.9,8.1]	-	[0.7,5.5]	[0.3,3.2]	[1.1,2.3]
Knowledge of HIV/AIDS									
People can protect themselves from HIV by having one uninfected faithful sex partner	%	53.5	66.6	55.1	88.5	70.9	75.7	94.9	79.8
	95% CI	[46.9,59.9]	[60.1,72.5]	[48.9,61.2]	[85.0,91.3]	[65.1,76.1]	[67.7,82.3]	[90.3,97.4]	[77.5,81.9]
People can protect themselves from HIV by using condom correctly in each sexual contact	%	83.1	74.8	83.9	86.6	79.9	87.9	98.7	88.2
	95% CI	[77.4,87.5]	[67.6,80.9]	[77.1,89.0]	[82.3,90.0]	[74.7,84.2]	[82.9,91.5]	[96.6,99.5]	[86.5,89.8]
Thought a healthy-looking person can be infected with HIV	%	60.8	67.2	83.3	83.8	88.8	76.6	90.8	84.5
	95% CI	[53.2,67.9]	[61.3,72.6]	[76.5,88.3]	[78.6,87.9]	[85.1,91.6]	[69.7,82.3]	[86.8,93.7]	[82.6,86.2]
A person can get HIV from mosquito bite	%	45.9	54.4	21.3	58.0	48.8	48.2	63.0	54.0
	95% CI	[39.1,52.8]	[48.3,60.4]	[17.6,25.5]	[52.6,63.3]	[43.2,54.4]	[42.4,54.1]	[56.9,68.6]	[51.1,56.8]
A person can get HIV by sharing a meal with an HIV infected person	%	48.5	68.6	12.4	38.4	51.6	32.3	49.6	47.6
	95% CI	[40.1,57.0]	[63.4,73.4]	[8.3,18.3]	[32.4,44.7]	[45.6,57.5]	[24.2,41.7]	[41.9,57.3]	[44.0,51.1]
A pregnant woman can get infected with HIV transmit the virus to her unborn child	%	75.0	78.7	83.0	83.8	84.4	67.2	85.8	82.3
	95% CI	[68.6,80.4]	[73.3,83.3]	[76.9,87.7]	[77.7,88.4]	[79.6,88.2]	[62.6,71.5]	[81.2,89.5]	[80.1,84.3]
A pregnant woman can reduce the risk of transmission of HIV to her unborn child by									
Taking medicine	%	23.7	48.6	60.5	46.5	21.2	26.8	41.7	35.3
	95% CI	[19.1,28.9]	[43.4,53.8]	[55.5,65.3]	[40.2,52.8]	[14.8,29.5]	[21.5,32.8]	[35.6,48.1]	[32.1,38.6]
Others	%	0.0	0.7	0.0	0.4	0.0	1.3	1.4	0.7
	95% CI	-	[0.2,3.0]	-	[0.1,3.0]	-	[0.3,4.9]	[0.5,3.9]	[0.3,1.6]
Don't know	%	76.3	50.7	39.5	53.1	78.8	71.9	56.9	64.0
	95% CI	[71.1,80.9]	[45.9,55.5]	[34.7,44.5]	[46.6,59.5]	[70.5,85.2]	[66.7,76.6]	[50.4,63.3]	[60.6,67.2]

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur Paschim	Total
A woman with HIV can transmit the virus to her newborn child through breastfeeding	%	62.5	72.8	33.6	53.9	70.4	47.0	70.7	65.3
	95% CI	[55.0,69.4]	[65.2,79.2]	[26.5,41.5]	[47.2,60.4]	[63.1,76.7]	[40.6,53.6]	[64.3,76.4]	[62.1,68.4]
People can protect themselves from HIV virus by abstaining from sexual intercourse	%	55.3	67.7	30.6	70.4	67.0	72.0	79.4	70.3
	95% CI	[48.7,61.7]	[60.7,74.0]	[24.4,37.6]	[64.7,75.5]	[61.4,72.1]	[63.1,79.5]	[73.4,84.3]	[67.4,72.9]
A person can get HIV by shaking hands with HIV infected person	%	31.8	45.3	5.1	21.2	32.2	14.5	31.0	29.2
	95% CI	[25.3,39.0]	[39.2,51.6]	[2.7,9.4]	[16.2,27.3]	[26.7,38.3]	[10.6,19.6]	[24.4,38.6]	[26.0,32.6]
A person can get HIV by using previously used needle/syringe	%	94.9	92.5	91.4	96.5	98.9	91.9	99.7	97.4
	95% CI	[92.1,96.8]	[89.0,95.0]	[83.7,95.6]	[93.3,98.2]	[95.6,99.7]	[85.8,95.5]	[98.0,100.0]	[96.5,98.0]
Blood transfusion from HIV infected person can transmit HIV to others	%	94.5	93.5	98.0	95.7	98.9	96.6	100.0	98.1
	95% CI	[90.6,96.9]	[90.4,95.6]	[94.9,99.2]	[92.7,97.5]	[96.6,99.6]	[93.1,98.3]	-	[97.5,98.6]
Possible in the community for someone to have a confidential HIV test	%	8.6	67.1	45.2	48.5	60.7	25.9	51.2	49.7
	95% CI	[4.9,14.6]	[61.6,72.1]	[39.3,51.2]	[42.0,55.0]	[53.9,67.1]	[19.4,33.7]	[45.2,57.1]	[46.6,52.7]
Know the place to go for HIV testing	%	29.2	48.8	72.2	69.0	87.3	60.6	92.9	78.5
	95% CI	[23.3,36.0]	[42.0,55.6]	[66.1,77.6]	[60.3,76.5]	[82.7,90.8]	[51.2,69.2]	[88.8,95.6]	[76.3,80.5]

4.8 HIV Testing

Only 49.7% of MLM believed that confidential HIV testing was available in their community, with perceptions ranging from a low 8.6% in Koshi to a high 67.1% in Madhesh province. Despite this, 78.5% knew where they could get tested for HIV, with awareness varying from 29.2% in Koshi to 92.9% in Sudurpaschim province. Similarly, 16.4% of MLM had been tested for HIV, ranging from 6.6% in Koshi to 22.0% in Sudurpaschim province. Overall, 12.7% were tested more than 12 months before the survey, 1.2% between six and 12 months before, and 2.5% within the last six months. Among those who had been tested for HIV, 23.2% reported that the test was required, while for others it was voluntary. On average, the first HIV test was conducted 4.6 years ago (Table 4.15).

Table 4.15: Ever tested for HIV

Testing for HIV	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur Paschim	Total
Ever had HIV test	%	6.6	9.2	8.2	12.9	13.7	20.7	22.0	16.4
	95% CI	[3.7,11.7]	[6.0,13.8]	[5.4,12.2]	[9.1,17.9]	[10.1,18.4]	[15.7,26.6]	[16.7,28.4]	[14.0,19.2]
Have most recent HIV test in									
Never	%	93.4	90.8	91.8	87.1	86.3	79.3	78.0	83.6
	95% CI	[88.3,96.3]	[86.2,94.0]	[87.8,94.6]	[82.1,90.9]	[81.6,89.9]	[73.4,84.3]	[71.6,83.3]	[80.8,86.0]
Last 6 months	%	1.0	0.7	0.9	2.0	1.1	4.6	3.9	2.5
	95% CI	[0.2,3.6]	[0.2,3.0]	[0.3,3.3]	[0.9,4.5]	[0.3,4.4]	[1.9,11.0]	[2.1,7.2]	[1.6,3.9]
Last 6-12 months	%	1.0	0.6	0.2	0.4	2.2	3.9	0.3	1.2
	95% CI	[0.2,3.6]	[0.2,2.3]	[0.0,1.4]	[0.1,3.0]	[0.8,5.5]	[1.7,8.6]	[0.0,2.0]	[0.7,2.1]
More than 12 months	%	4.7	7.8	7.1	10.4	10.5	12.1	17.8	12.7
	95% CI	[2.6,8.4]	[4.7,12.7]	[4.6,10.6]	[7.0,15.1]	[8.1,13.5]	[6.6,21.1]	[13.1,23.8]	[10.6,15.2]

Regarding the results of the most recent HIV test, 97.0% of MLM reported being HIV negative, 0.9% were HIV positive, and 2.1% did not know their HIV status. Notably, there is a high reported percentage of HIV positives in Bagmati province (6.6%) (Table 4.16).

Table 4.16: Self-reported result of testing for HIV

Testing for HIV	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur paschim	Total
By Voluntarily	%	77.6	79.0	27.1	72.0	65.8	53.8	89.1	76.8
	95% CI	[42.4,94.2]	[59.6,90.6]	[13.7,46.6]	[55.8,84.0]	[52.5,77.0]	[32.4,73.9]	[76.7,95.3]	[69.9,82.4]
Was required	%	22.4	21.0	72.9	28.0	34.2	46.2	10.9	23.2
	95% CI	[5.8,57.6]	[9.4,40.4]	[53.4,86.3]	[16.0,44.2]	[23.0,47.5]	[26.1,67.6]	[4.7,23.3]	[17.6,30.1]
Most recent HIV test result									
Negative	%	100.0	91.9	93.4	97.2	97.4	93.7	97.9	97.0
	95% CI	-	[68.6,98.3]	[65.3,99.1]	[81.9,99.6]	[81.9,99.7]	[80.1,98.2]	[86.8,99.7]	[92.9,98.7]
Positive	%	0.0	3.3	6.6	0.0	2.6	0.0	0.0	0.9
	95% CI	-	[0.4,21.4]	[0.9,34.7]	-	[0.3,18.1]	-	-	[0.2,3.7]
Don't know	%	0.0	4.8	0.0	2.8	0.0	6.3	2.1	2.1
	95% CI	-	[0.6,30.8]	-	[0.4,18.1]	-	[1.8,19.9]	[0.3,13.2]	[0.7,6.1]
Currently on ART	%	NA	0	100	0	NA	NA	NA	84.7

Out of the three MLM who responded about their ART status at the time of the survey, two (66.7%) reported being on ART—one from Madhesh and one from Lumbini province—while one person from Bagmati province reported not being on ART (Table 4.16).

4.9 Testing for HCV

A minority (2.2%) reported having been tested for HCV previously, with rates ranging from 0% in Lumbini to 5.5% in Bagmati province. Among those who had ever tested for HCV, 11.7% reported a positive result, though this varied widely across provinces. However, the most recent HCV test results were negative for 98.5% of MLM and positive for 1.5%. (Table 4.17).

Table 4.17: Self-reported result of most recent HCV test

HCV test	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	Total
Ever tested for HCV	%	1.5	1.1	5.5	1.6	0.0	3.4	3.7	2.2
	95%CI	[0.3,5.9]	[0.3,3.3]	[3.4,8.6]	[0.6,4.1]	-	[1.4,8.4]	[1.9,7.3]	[1.4,3.5]
Ever tested positive for HCV	%	33.3	0.0	10.0	25.9	-	58.3	0.0	11.7
Most recent HCV Status									
Negative	%	100.0	100.0	100.0	74.1	-	100.0	100.0	98.5

4.10 Self-reported Symptoms of STIs

Following is the summary of self-reported symptoms of STIs ever experienced:

- No symptoms: 88.0% (44.8% Madhesh – 97.5% Lumbini)
- White discharge/clear to the purulent discharge of pus: 1.7% (0 in Lumbini – 5.9% in Madhesh)
- Pain during urination: 1.7% (0 in Lumbini and Gandaki – 14.0% Madhesh)
- Burning sensation while urinating: 1.9% (0 in Lumbini and Gandaki – 10.0% Madhesh)
- Ulcer or sore around genital area: 1.8% (0 in Lumbini – 9.1% Madhesh)
- Genital lesion: 0.9% (0 in Lumbini – 6.0% Koshi)
- Pain or burning sensation in and around genitalia: 0.5% (0 in Lumbini, Karnali, Sudurpaschim – 4.1% Koshi)

- Anorectal pain: 0.7% (0 in Lumbini – 3.4% Koshi)
- Perianal itching: 1.9% (0 in Lumbini, Gandaki – 5.8% Koshi)
- Other: 0.2% (0-1.4%)
- Do not know: 6.6% (0.5% Sudurpaschim – 36.8% Madhesh)

Only a minority (0.6%) reported being tested for STIs in the past 3 months.

Current symptoms of STIs were rarely reported:

- White discharge/discharge of pus from the urethra: 0.9% (from 0.4% in Gandaki and Lumbini to 6.5% in Madhesh)
- Pain during urination: 1.1% (from 0 in Gandaki to 3.4% in Karnali)
- Burning sensation while urinating: 1.9% (from 0 in Gandaki and Lumbini to 8.9% in Karnali)
- Ulcer or sore around the genital or anal area: 0.9% (from 0.2% in Bagmati to 4.0% in Madhesh)
- Discharge/bleeding from the anus: 0.7% (from 0 in Bagmati and Koshi to 2.7% in Madhesh)
- Other: 0.7% (from 0 in several provinces to 1.4% in Karnali)

Of those 101 men who reported STI symptoms at the time of the survey, 18.8% reported being under medical treatment for these symptoms, ranging from 0 in Koshi and Bagmati to 65.9% in Gandaki province. Of the19 men who reported receiving treatment, 65.1% received treatment from a hospital, 22.3% from a private clinic and 15.3% from a pharmacy (Table 4.18).

Table 4.18: Self-reported STI symptoms and testing for STIs

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	Total
Types of STI symptoms ever experienced									
White discharge/ Clear to the purulent discharge of pus	%	1.2	5.9	1.8	1.1	0.0	1.5	2.3	1.7
	95%CI	[0.4,3.8]	[3.5,9.7]	[0.7,4.7]	[0.4,3.4]	-	[0.4,4.8]	[1.1,4.8]	[1.1,2.6]
Pain during urination	%	1.4	14.0	1.5	0.0	0.0	0.2	1.2	1.7
	95%CI	[0.3,5.8]	[10.7,18.0]	[0.5,4.2]	-	-	[0.0,1.3]	[0.4,3.7]	[1.2,2.4]
Burning sensation while urinating	%	1.0	10.0	1.3	0.0	0.0	2.9	1.9	1.9
	95%CI	[0.2,3.6]	[6.9,14.3]	[0.4,4.1]	-	-	[1.0,7.9]	[0.8,4.5]	[1.2,2.8]
Ulcer or sore around genital area	%	7.2	9.1	2.0	0.8	0.0	0.1	1.5	1.8
	95%CI	[4.7,10.9]	[6.5,12.7]	[0.8,4.9]	[0.2,3.1]	-	[0.0,0.7]	[0.4,5.4]	[1.2,2.9]
Genital lesion	%	6.0	3.4	0.6	0.4	0.0	0.1	0.5	0.9
	95%CI	[3.7,9.6]	[1.7,6.5]	[0.2,1.7]	[0.1,3.0]		[0.0,0.7]	[0.1,3.2]	[0.5,1.4]
Pain or burning sensation in and around genitalia	%	4.1	2.1	0.6	0.4	0.0	0.0	0.0	0.5
	95%CI	[2.3,7.3]	[0.9,4.5]	[0.2,1.7]	[0.1,3.0]	-	-	-	[0.3,0.7]
Anorectal pain	%	3.4	2.9	0.5	0.4	0.0	0.7	0.5	0.7
	95%CI	[1.9,5.8]	[1.4,6.2]	[0.1,3.8]	[0.1,2.6]		[0.1,4.1]	[0.1,3.2]	[0.4,1.3]
Perianal itching	%	5.8	0.7	2.8	0.0	0.0	1.7	3.1	1.9
	95%CI	[3.4,9.6]	[0.2,3.0]	[1.1,6.8]	-	-	[0.6,4.8]	[1.7,5.8]	[1.2,2.8]
Others	%	0.0	1.3	0.0	0.0	0.0	1.4	0.0	0.2
	95%CI	-	[0.3,5.4]	-	-	-	[0.4,4.8]	-	[0.1,0.6]
Don't know	%	35.3	36.8	6.2	1.5	2.5	4.7	0.5	6.6
	95%CI	[29.3,41.8]	[31.9,42.0]	[4.1,9.2]	[0.5,4.5]	[0.9,6.7]	[2.7,8.1]	[0.1,3.2]	[5.7,7.7]

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	Total
Not seen any symptoms	%	55.6	44.8	87.9	95.4	97.5	90.2	92.9	88.0
	95%CI	[49.5,61.5]	[38.8,51.0]	[83.9,91.0]	[91.7,97.5]	[93.3,99.1]	[84.2,94.0]	[88.4,95.8]	[86.2,89.6]
Tested for STI in the past 3 months	%	0.5	0.9	1.1	0.4	0.4	0.7	0.7	0.6
	95%CI	[0.1,3.4]	[0.2,3.3]	[0.3,4.1]	[0.1,2.6]	[0.1,2.7]	[0.1,4.6]	[0.2,3.1]	[0.3,1.4]
Currently have STI symptoms									
White discharge/ discharge of pus from urethra	%	0.5	6.5	0.5	0.4	0.4	0.6	0.5	0.9
	95%CI	[0.1,3.4]	[4.0,10.4]	[0.1,3.8]	[0.1,3.0]	[0.1,2.7]	[0.1,4.5]	[0.1,3.2]	[0.5,1.6]
Pain during urination	%	0.3	2.8	0.7	0.0	0.4	3.4	1.0	1.1
	95%CI	[0.0,1.9]	[1.5,5.3]	[0.2,3.4]	-	[0.1,2.6]	[1.7,6.7]	[0.3,3.2]	[0.6,1.8]
Burning sensation while urinating	%	1.2	4.9	0.9	0.0	0.0	8.9	1.7	1.9
	95%CI	[0.4,3.8]	[2.8,8.3]	[0.2,3.8]	-	-	[5.2,14.9]	[0.6,4.2]	[1.3,2.8]
Ulcer or sore around genital area or anal area	%	1.7	4.0	0.2	0.8	0.7	0.9	0.5	0.9
	95%CI	[0.7,4.3]	[2.2,7.1]	[0.0,1.4]	[0.2,3.2]	[0.2,2.7]	[0.2,3.8]	[0.1,3.2]	[0.5,1.6]
Discharge, bleeding from anus	%	0.0	2.7	0.0	1.2	0.4	1.6	0.5	0.7
	95%CI	-	[1.3,5.2]	-	[0.4,3.6]	[0.1,2.6]	[0.5,4.8]	[0.1,3.2]	[0.4,1.4]
Others	%	0.5	1.3	0.0	0.0	0.0	1.4	1.2	0.7
	95%CI	[0.1,3.4]	[0.5,3.7]	-	-	-	[0.4,4.8]	[0.4,3.7]	[0.3,1.5]
Went through medical treatment for STI symptoms	%	0.0	27.8	0.0	65.9	24.6	2.6	22.6	18.8
	95%CI	-	[27.8,27.8]	-	[65.9,65.9]	[24.6,24.6]	[2.6,2.6]	[22.6,22.6]	[18.8,18.8]
Place of treatment									
Private Clinic	%	-	45.7	-	48.3	0.0	50.0	0.0	22.3
	95%CI	-	[45.7,45.7]	-	[48.3,48.3]	-	[50.0,50.0]	-	[22.3,22.3]
Hospital	%	-	27.1	-	25.9	100.0	25.0	100.0	65.1
	95%CI	-	[27.1,27.1]	-	[25.9,25.9]	-	[25.0,25.0]	-	[65.1,65.1]
Pharmacy	%	-	36.4	-	25.9	0.0	25.0	0.0	15.3
	95%CI	-	[36.4,36.4]	-	[25.9,25.9]	-	[25.0,25.0]	-	[15.3,15.3]

4.11 Illicit Drug Use

Table 4.19 shows that 24.3% of MLM reported ever using drugs for non-medical purposes, such as cannabis, heroin, or cocaine, with rates ranging from 9.5% in Lumbini to 40.5% in Madhesh province. The average age of first illicit drug use was 19.2 years, varying from 17.9 years in Madhesh to 21.1 years in Lumbini. In the past 12 months, an average of 14.6% of MLM reported using illicit drugs, with figures ranging from 2.2% in Lumbini to 24.3% in Madhesh province.

Table 4.19: Use of illicit drugs in the past 12 months

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Ever used any drugs	%	22.4	40.5	5.5	23.9	9.5	18.7	35.7	24.3
	95%CI	[17.0,28.9]	[34.7,46.6]	[3.2,9.3]	[18.1,30.9]	[6.5,13.6]	[11.9,28.1]	[29.5,42.3]	[21.6,27.3]
First age of using any drugs	Mean	19.3	17.9	20.4	18.8	21.1	19.1	19.1	19.2
	95%CI	[18.0,20.6]	[16.9,18.9]	[16.6,24.2]	[17.2,20.4]	[18.8,23.3]	[17.1,21.2]	[18.3,19.9]	[18.6,19.7]
Drugs used in last 12 months	%	17.2	24.3	2.6	18.7	2.2	13.8	21.8	14.6
	95%CI	[12.2,23.7]	[18.5,31.1]	[1.2,5.5]	[13.3,25.7]	[0.9,5.3]	[8.5,21.5]	[15.3,30.1]	[11.8,17.9]

Ever injecting drugs for non-medical purposes was reported by 1.2% (from 0 in Lumbini and Karnali to 5.3% in Koshi province). In the past 12 months before the survey, 0.8% of MLM reported injecting drugs, ranging from 0 in several provinces to 3.4% in Koshi province. In the past one month, 0.4% injected drugs ranging from 0 in several provinces to 1.4% in Koshi. Of those eight men who reported injecting in the past month, 15.7% used a needle or a syringe that had been used by someone else at the last injecting episode while 84.3% reported to have never used a needle or a syringe that had been used by someone else in the past month. Most commonly those who injected drugs (n=26) obtained needles and syringes by purchasing them (48.1%), from friends and relatives (40.1%) or from NGOs (9.0%) (Table 4.20).

Table 4.20: Injecting drugs for non-medical purposes, ever and in the past month

Outcomes	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Ever injected drugs	%	5.3	1.5	0.2	2.4	0.0	0.0	1.5	1.2
	95%CI	[2.0,13.3]	[0.4,5.3]	[0.0,1.4]	[0.8,6.6]	-	-	[0.6,3.9]	[0.7,2.1]
Drugs injected in last 12 months	%	3.4	0.9	0.0	1.6	0.0	0.0	1.0	0.8
	95%CI	[1.2,8.9]	[0.1,6.1]	-	[0.5,5.3]	-	-	[0.3,3.2]	[0.4,1.5]
Drugs injected in past 1 month	%	1.4	0.4	0.0	0.8	0.0	0.0	0.6	0.4
	95%CI	[0.3,5.8]	[0.1,3.1]	-	[0.2,3.2]	-	-	[0.1,2.1]	[0.2,0.9]
Needle/syringe that had previously been used by someone else	%	33.3	0.0	-	53.5	-	-	0.0	15.7
	95%CI	[33.3,33.3]	-	-	[53.5,53.5]	-	-	-	[15.7,15.7]
Frequency of using previously used needle/syringe									
Almost Every Time	%	33.3	0.0	-	0.0	-	-	0.0	7.4
	95%CI	[33.3,33.3]	-	-	-	-	-	-	[7.4,7.4]
Sometimes	%	0.0	0.0	-	53.5	-	-	0.0	8.3
	95%CI	-	-	-	[53.5,53.5]	-	-	-	[8.3,8.3]
Never	%	66.7	100.0	-	46.5	-	-	100.0	84.3
	95%CI	[66.7,66.7]	-	-	[46.5,46.5]	-	-	-	[84.3,84.3]
Usually get syringe/ needle									
Friend/relative gave it to me after his use	%	9.1	0.0	100.0	50.0	-	-	61.8	40.1
	95%CI	[9.1,9.1]	-	-	[50.0,50.0]	-	-	[61.8,61.8]	[40.1,40.1]
Unknown person gave it	%	0.0	29.7	0.0	0.0	-	-	0.0	2.8
	95%CI	-	[29.7,29.7]	-		-	-	-	[2.8,2.8]
Used a new needle/ syringe given by NGO volunteer	%	0.0	0.0	0.0	0.0	-	-	19.1	9.0
	95%CI	-	-	-		-	-	[19.1,19.1]	[9.0,9.0]
Used a needle/syringe which was purchased	%	90.9	70.3	0.0	50.0	-	-	19.1	48.1
	95%CI	[90.9,90.9]	[70.3,70.3]		[50.0,50.0]	-	-	[19.1,19.1]	[48.1,48.1]

4.12 Stigma and Discrimination

Several questions were asked to understand the extent and patterns of stigma and discrimination towards PLHIV. Overall, 25.0% and 25.1% reported that they were not willing to care for a male relative or a female relative, respectively, in their own households in case a relative becomes ill with HIV. This behavior ranged from 8.3% in Bagmati to 40.3% in Sudurpaschim province for a male relative (4.1% and 40.8%, respectively, if a diseased relative was a female) (Table 4.21).

Approximately one in three (35.6%) said that they would like HIV in a family member remained a secret, ranging from 13.1% in Bagmati to 45.8% in Karnali province. Almost one in two (46.9%) would not buy stuff from a shopkeeper or a food vendor who has HIV, ranging from 24.3% in Bagmati to 69.8% in Madhesh province. Overall, 67.3% were of the opinion that people infected with HIV need more healthcare than people affected by other chronic illnesses, and that ranged from 42.4% in Lumbini to 90.2% in Karnali province. Close to one in two (41.3%) thought that their colleague who is HIV positive but not sick yet should not get to continue his/her work, ranging from 20.3% in Bagmati to 51.7% in Madhesh province. Approximately one in three (37.8%) thought that children infected with HIV should not go to the school with uninfected children, ranging from 15.0% in Bagmati to 65.7% in Madhesh province (Table 4.2).

Table 4.21: Extent and patterns of stigma and discrimination toward PLHIV

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur Pashchim	Total
Willing to care for male relative of ill with HIV in own household									
Yes	%	91.6	72.9	90.6	91.4	83.7	79.1	59.7	74.7
	95%CI	[88.1,94.2]	[66.5,78.5]	[85.4,94.0]	[87.2,94.3]	[76.6,88.9]	[71.5,85.1]	[52.3,66.7]	[71.3,77.9]
No	%	8.4	26.6	8.3	8.6	16.3	18.5	40.3	25.0
	95%CI	[5.8,11.9]	[21.1,33.1]	[5.3,13.0]	[5.7,12.8]	[11.1,23.4]	[12.3,26.9]	[33.3,47.7]	[21.8,28.5]
Don't know	%	0.0	0.4	1.1	0.0	0.0	2.4	0.0	0.3
	95%CI	-	[0.1,3.1]	[0.3,4.1]	-	-	[1.0,5.7]	-	[0.1,0.6]
Willing to care for female relative of ill with HIV in own household									
Yes	%	90.7	71.4	94.8	91.6	84.4	76.8	59.2	74.6
	95%CI	[86.2,93.8]	[65.4,76.8]	[89.5,97.5]	[87.4,94.5]	[77.3,89.6]	[67.8,83.8]	[52.2,65.9]	[71.2,77.7]
No	%	9.3	28.1	4.1	8.4	15.6	20.8	40.8	25.1
	95%CI	[6.2,13.8]	[22.8,34.2]	[2.1,8.2]	[5.5,12.6]	[10.4,22.7]	[13.5,30.7]	[34.1,47.8]	[22.0,28.5]
Don't know	%	0.0	0.4	1.1	0.0	0.0	2.4	0.0	0.3
	95%CI	-	[0.1,3.1]	[0.3,4.1]	-	-	[1.0,5.7]	-	[0.1,0.6]
Willing to remain secret if family member or relative has HIV									
Yes	%	41.3	31.1	13.1	42.5	35.7	45.8	34.1	35.6
	95%CI	[35.7,47.1]	[24.6,38.4]	[8.3,20.1]	[37.6,47.4]	[30.6,41.1]	[37.1,54.8]	[27.8,41.1]	[32.5,38.8]
No	%	55.3	68.9	86.4	56.8	64.3	52.2	65.9	63.9
	95%CI	[48.9,61.5]	[61.6,75.4]	[79.0,91.4]	[51.7,61.8]	[58.9,69.4]	[43.7,60.6]	[58.9,72.2]	[60.7,67.0]
Don't know	%	3.4	0.0	0.5	0.7	0.0	1.9	0.0	0.5
	95%CI	[1.8,6.4]	-	[0.1,3.8]	[0.2,2.7]	-	[0.7,5.0]	-	[0.3,0.8]
Willing to buy stuff from a shopkeeper or a food vendor who has HIV									
Yes	%	64.1	29.7	75.1	59.6	59.0	61.5	44.9	52.7
	95%CI	[58.9,68.9]	[22.9,37.6]	[68.0,81.1]	[53.1,65.7]	[51.3,66.3]	[54.9,67.7]	[37.4,52.6]	[48.9,56.4]
No	%	35.9	69.8	24.3	40.4	40.7	35.9	55.1	46.9
	95%CI	[31.1,41.1]	[61.9,76.7]	[18.8,30.9]	[34.3,46.9]	[33.4,48.4]	[29.4,43.0]	[47.4,62.6]	[43.3,50.7]
Don't know	%	0.0	0.4	0.5	0.0	0.4	2.6	0.0	0.4
	95%CI	-	[0.1,3.1]	[0.1,3.8]	-	[0.1,2.6]	[1.1,5.8]	-	[0.2,0.8]
HIV infected need healthcare than people affected by other chronic illnesses									
Some	%	15.2	11.9	6.6	22.5	12.8	4.6	11.7	12.2
	95%CI	[10.5,21.4]	[8.7,16.2]	[4.2,10.1]	[17.3,28.7]	[9.7,16.6]	[2.1,10.1]	[8.5,15.8]	[10.5,14.2]
More	%	63.1	65.0	87.0	64.2	42.4	90.2	79.8	67.3
	95%CI	[57.9,67.9]	[57.9,71.5]	[82.1,90.6]	[58.3,69.7]	[37.9,47.0]	[83.7,94.3]	[75.2,83.7]	[65.1,69.5]
Less	%	9.4	15.6	3.9	12.2	44.5	2.4	6.8	17.9
	95%CI	[6.2,14.0]	[10.8,22.1]	[2.1,6.9]	[7.8,18.7]	[39.9,49.3]	[1.0,5.6]	[4.3,10.8]	[16.1,19.9]
Don't know	%	12.4	7.4	2.6	1.1	0.4	2.8	1.7	2.5
	95%CI	[7.8,19.0]	[4.8,11.3]	[1.2,5.5]	[0.3,4.4]	[0.1,2.6]	[1.2,6.2]	[0.8,3.8]	[1.9,3.4]
HIV-positive colleague who is not sick should get to continue his/her work									
Yes	%	67.2	47.5	78.8	69.2	59.7	53.6	52.4	57.5
	95%CI	[61.1,72.8]	[41.3,53.9]	[72.4,84.0]	[62.3,75.2]	[51.0,67.8]	[43.2,63.8]	[47.0,57.9]	[54.1,60.8]
No	%	31.0	51.7	20.3	30.8	39.2	41.6	46.8	41.3
	95%CI	[25.4,37.2]	[45.6,57.8]	[15.6,25.9]	[24.8,37.7]	[31.3,47.8]	[30.9,53.3]	[41.6,52.1]	[38.1,44.7]
Don't know	%	1.7	0.7	0.9	0.0	1.1	4.7	0.7	1.2
	95%CI	[0.7,4.2]	[0.2,3.0]	[0.3,3.3]	-	[0.4,3.3]	[2.7,8.1]	[0.2,3.1]	[0.7,2.0]
HIV-infected children should go to the school with uninfected children									
Yes	%	69.6	33.0	84.6	72.1	65.0	68.8	57.3	61.6
	95%CI	[64.6,74.3]	[26.9,39.6]	[78.6,89.2]	[66.0,77.5]	[56.6,72.5]	[62.6,74.4]	[50.1,64.1]	[58.0,65.1]
No	%	29.2	65.7	15.0	27.9	35.0	28.0	42.4	37.8
	95%CI	[24.4,34.4]	[58.9,71.9]	[10.5,20.9]	[22.5,34.0]	[27.5,43.4]	[21.6,35.6]	[35.6,49.6]	[34.3,41.5]
Don't know	%	1.2	1.3	0.4	0.0	0.0	3.1	0.3	0.6
	95%CI	[0.4,3.8]	[0.5,3.5]	[0.1,2.8]	-	-	[1.5,6.5]	[0.0,2.0]	[0.3,1.0]

4.13 Knowledge and Participation is STI and HIV/AIDS Programs

A minority (1.6%) interacted with peer educators (PE), outreach educators (OE), or community mobilizers (CM) in the last six months, with rates ranging from 0.4% in Gandaki to 7.2% in Madhesh province. Additionally, 0.8% visited a drop-in center (DIC), 0.5% visited STI clinics, and 1.6% visited HIV counseling and testing centers, with minimal variation across provinces. The main reasons cited for not visiting an HIV testing and counseling center (HTC) in the last

6 months were not feeling a need to test (58.4%), not knowing about HTC (51.0%), and not having symptoms of HIV (46.2%) (Table 4.22).

Visits by community home-based care (CHBC) health workers to households where MLM live were reported by 3.1%. In most provinces, these visits were reported by less than 5% of MLM, except in Madhesh, where the rate was 26.9% (Table 4.22).

Approximately one in four MLM knew that it is possible to prevent HIV transmission from an HIV-positive mother to her baby, with significant variation across provinces—ranging from 10.6% in Lumbini to 48.2% in Bagmati. Knowledge of where to access prevention of mother-to-child transmission (PMTCT) services was reported by 18.1%, varying from 5.1% in Lumbini to 39.3% in Bagmati province (Table 4.22).

Table 4.22: Knowledge and participation in STI and HIV and AIDS programs

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	Total
Met, discussed or interacted with peer educators, outreach educators, community mobilizer in the last 6 months	%	1.0	7.2	3.2	0.4	0.7	1.5	1.2	1.6
	95%CI	[0.2,3.6]	[4.4,11.6]	[1.6,6.0]	[0.1,3.0]	[0.2,2.7]	[0.4,4.8]	[0.2,5.6]	[0.9,2.6]
Visited or been to any Drop-in Center in the last 6 months	%	1.0	2.2	0.0	0.4	0.4	0.6	1.0	0.8
	95%CI	[0.2,3.6]	[0.9,5.6]	-	[0.1,3.0]	[0.1,2.6]	[0.1,4.5]	[0.3,3.2]	[0.4,1.6]
Visited an STI clinic in the last 6 months	%	0.5	1.2	0.5	0.4	0.0	1.3	0.5	0.5
	95%CI	[0.1,3.4]	[0.4,3.6]	[0.1,3.8]	[0.1,2.6]	-	[0.3,4.9]	[0.1,3.2]	[0.2,1.1]
Visited HIV testing and counseling center in the last 6 months	%	0.7	1.6	0.2	0.8	1.1	1.4	2.4	1.6
	95%CI	[0.2,3.1]	[0.6,4.1]	[0.0,1.4]	[0.2,3.2]	[0.4,3.1]	[0.4,4.8]	[1.1,5.0]	[1.0,2.6]
Participated in HIV awareness raising program or community events in the last 6 months	%	0.3	4.3	0.0	0.8	0.0	1.4	0.9	0.9
	95%CI	[0.0,1.9]	[2.5,7.1]	-	[0.2,3.1]	-	[0.4,4.8]	[0.2,3.5]	[0.5,1.6]
Reasons for not visiting HIV testing and counselling center in the last 6 months									
Didn't know about HTC center	%	53.1	65.2	11.4	64.9	82.8	54.2	25.0	51.0
	95%CI	[45.9,60.1]	[56.6,72.9]	[8.4,15.4]	[57.4,71.7]	[74.2,89.0]	[46.8,61.4]	[20.6,30.1]	[48.0,53.9]
Didn't feel the need for the test	%	13.8	31.9	84.6	57.2	92.8	28.1	50.4	58.4
	95%CI	[8.4,21.7]	[24.7,40.0]	[78.1,89.4]	[48.4,65.6]	[85.6,96.6]	[21.3,36.1]	[46.6,54.2]	[56.0,60.8]
Didn't have any symptoms of HIV	%	64.2	26.4	58.5	49.4	17.7	49.7	65.3	46.2
	95%CI	[57.2,70.6]	[21.5,31.8]	[51.3,65.4]	[41.8,57.1]	[12.0,25.4]	[39.9,59.5]	[58.9,71.3]	[43.0,49.5]
HTC center not nearby	%	2.9	0.6	0.4	4.8	0.0	3.8	0.3	1.1
	95%CI	[1.0,8.1]	[0.2,2.3]	[0.1,1.5]	[2.4,9.2]	-	[2.0,7.2]	[0.0,2.1]	[0.7,1.6]
Already had information from prior testing	%	0.5	1.3	0.5	0.0	0.0	0.7	10.6	4.2
	95%CI	[0.1,3.4]	[0.5,3.8]	[0.1,3.8]	-	-	[0.1,4.6]	[8.0,14.0]	[3.2,5.5]
Didn't have money to go to HTC center	%	0.0	0.0	0.5	0.0	0.0	0.7	0.0	0.1
	95%CI	-	-	[0.1,3.8]	-	-	[0.1,4.6]	-	[0.0,0.4]
Other	%	0.0	0.0	0.0	0.8	2.2	0.8	1.7	1.4
	95%CI	-	-	-	[0.2,3.2]	[0.8,6.2]	[0.1,4.2]	[0.7,4.3]	[0.7,2.6]
Any community home based care health workers visited in the house in the last 6 months	%	3.4	26.9	1.7	2.5	1.4	0.6	0.5	3.1
	95%CI	[1.1,9.6]	[22.3,32.0]	[0.7,4.4]	[1.0,6.3]	[0.6,3.4]	[0.1,4.5]	[0.1,3.2]	[2.5,3.9]
Thought it was possible to prevent HIV to be transmitted from an HIV positive mother to her baby	%	29.7	41.0	48.2	25.3	10.6	17.3	34.7	26.5
	95%CI	[25.3,34.6]	[36.7,45.5]	[41.1,55.5]	[19.9,31.6]	[7.4,15.0]	[11.9,24.6]	[27.2,42.9]	[23.3,29.9]
Knew from where HIV infected mother can get prevention of mother-to-child transmission services	%	15.2	19.9	39.3	17.7	5.1	5.4	28.4	18.1
	95%CI	[11.5,20.0]	[16.7,23.5]	[31.4,47.8]	[12.4,24.6]	[3.1,8.3]	[2.3,12.2]	[23.9,33.2]	[16.1,20.2]

4.14 HIV Prevalence

HIV prevalence among the 1,872 tested MLM was 0.2% (95% CI: 0.1-0.6). Of those tested, 99.7% were HIV negative (95% CI: 99.4-99.9), while 0.1% had inconclusive results. The highest HIV prevalence was found in Bagmati at 0.5%, followed by Gandaki and Lumbini provinces, each at 0.4%. (Table 4.23).

Table 4.23: HIV prevalence

HIV test	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Positive	%	0.0	0.3	0.5	0.4	0.4	0.0	0.0	0.2
	95% CI	-	[0.0,2.1]	[0.1,3.8]	[0.1,3.0]	[0.1,2.6]	-	-	[0.1,0.6]
Negative	%	100.0	99.7	97.6	99.6	99.6	99.9	100.0	99.7
	95% CI	-	[97.9,100.0]	[94.7,99.0]	[97.0,99.9]	[97.4,99.9]	[99.3,100.0]	-	[99.4,99.9]
Inconclusive	%	0.0	0.0	1.8	0.0	0.0	0.1	0.0	0.1
	95% CI	-	-	[0.7,4.7]	-	-	[0.0,0.7]	-	[0.0,0.2]

External quality assurance was conducted at the HIV Reference Laboratory, National Public Health Laboratory, on all positive and 10% of negative samples, totaling 196 specimens. The specimen type was plasma. Results were concordant for 195 out of 196 specimens, yielding a percentage agreement of 99.49%.

One discordant result was identified: a specimen assessed as inconclusive in the IBBS survey was found to be negative by the National Laboratory QA testing.

4.15 Clinical Assessment of STI Symptoms

Table 26 shows that discharge from the penis was reported in 1.4% of MLM, with rates ranging from 0% in three provinces to 7.2% in Karnali province.

Urethral discharge syndrome was diagnosed in 0.8% of MLM, with rates ranging from 0% in three provinces to 1.9% in Karnali and Madhesh provinces (Table 4.24).

Table 4.24: Presence of discharge from penis during clinical examination and urethral discharge syndrome

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Discharge from penis	%	1.4	2.4	0.0	0.0	0.0	7.2	1.2	1.4
	95% CI	[0.3,5.8]	[1.1,4.9]	-	-	-	[4.1,12.5]	[0.4,3.7]	[0.8,2.2]
Urethral discharge syndrome	%	1.0	1.9	0.0	0.0	0.0	1.9	1.2	0.8
	95% CI	[0.1,6.6]	[0.8,4.4]	-	-	-	[0.7,5.5]	[0.4,3.7]	[0.4,1.6]

Genital ulcer disease was diagnosed in 1.2% of MLM, with rates ranging from 0% in two provinces to 2.4% in Sudurpaschim province (Table 4.25).

Table 4.25: Prevalence of genital ulcer diagnosis

	Statistics	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Genital ulcer disease	%	0.0	1.3	0.0	0.8	0.4	0.7	2.4	1.2
	95% CI	-	[0.5,3.7]	-	[0.1,5.8]	[0.1,2.6]	[0.1,4.1]	[0.9,5.9]	[0.6,2.5]

4.16 Testing for HCV and Syphilis

Only 0.3% of MLM were eligible for an HCV test, with rates ranging from 0% in three provinces to 3.4% in Koshi. The HCV prevalence among MLM from four provinces (Koshi, Madhesh, Gandaki, and Sudurpaschim) was 38.4% (Table 4.26).

Additionally, 1.4% (n=20) were eligible for a syphilis test, and 2.1% of those tested were found to be syphilis positive (Table 4.27).

Table 4.26: Eligibility for HCV test and prevalence of HCV

HCV test	Statistics	Koshi	Madhesh	Gandaki	Sudurpashchim	Total
Positive	%	42.9	0.0	0.0	55.2	38.4
	95% CI	[42.9,42.9]	-	-	[55.2,55.2]	[38.4,38.4]
Negative	%	57.1	100.0	100.0	44.8	61.6
	95% CI	[57.1,57.1]	-	-	[44.8,44.8]	[61.6,61.6]

Table 4.27: Eligibility for syphilis test and prevalence of syphilis

Syphilis test	Statistics	Koshi	Madhesh	Gandaki	Lumbini	Karnali	Sudurpashchim	Total
Positive	%	33.3	0.0	0.0	0.0	0.0	0.0	2.1
	95% CI	[33.3,33.3]	-	-	-	-	-	[2.1,2.1]
Negative	%	66.7	100.0	100.0	100.0	100.0	100.0	97.9
	95% CI	[66.7,66.7]	-	-	-	-	-	[97.9,97.9]

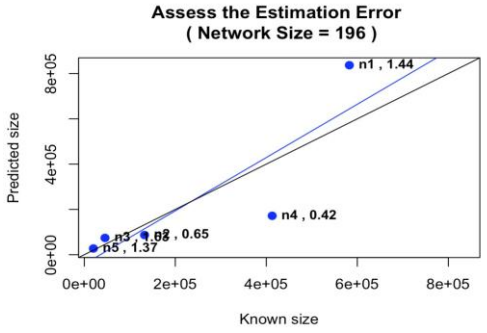
4.17 Population Size Using the Network Scale-up Method

Figure 5 shows the average network size of the general population in Nepal, which is 196 persons. These data have been used to estimate the population size of PWID, MSM, FSW, and TGW through the network scale-up method. They are presented in detail separately in the population size estimation report.

Figure 5: Average network size in Nepal

$\hat{c}$ = average network size of people in Nepal

- Total: 196
- Men: 91
- Women: 105



i	List of populations with "known size"	known size	Total15YPlus	Male15YPlus	Female15YPlus	% of Total
1	# Adult men do you know who worked in India for some time during the last 3 years?	582544	17246258	8134278	9111980	3.38%
2	# Adults do you know who are divorced or permanently separated?	132421	17246258	8134278	9111980	0.77%
3	# Medical doctors (including specialists) do you know?	45498	17246258	8134278	9111980	0.26%
4	# Women do you know who gave birth in 2020?	412935	17246258	8134278	9111980	2.39%
5	# People do you know who are on Kidney dialysis?	20022	17246258	8134278	9111980	0.12%

5.0 Summary of Key Findings

The survey primarily included married MLM, with the average age of first migration to India occurring during late adolescence. A high percentage of men with low educational backgrounds were from Koshi and Madhesh provinces.

Given that the sample population was relatively young, it is noteworthy that a high level (13.5%) reported ever engaging in sex with FSW, particularly in Sudurpaschim and Karnali provinces. Around 8% reported having had sex with an FSW in both India and Nepal. Condom use at last sex with an FSW in Nepal was sub-optimal and substantially below the recommended UNAIDS target of 95%. In contrast, condom use at the last sex with an FSW in India exceeded the target of 95%.

Less than 10% of MLM reported ever having sex with a girlfriend in India, but condom use in these encounters was suboptimal. The most common reasons for not using condoms during high-risk sex were personal attitudes, such as disliking condoms or believing they were unnecessary. Men having anal sex with men was rarely reported, except in Madhesh province.

Regarding condom acquisition, MLM mainly purchased condoms, with only approximately one in five obtaining them for free. The most common sources for condoms were PHCC/Health Post/UHC/BHSC/CHU, FCHVs, and hospitals. Those who bought condoms did so mainly from pharmacies, private clinics, and general retail stores. NGOs were rarely mentioned as sources of condoms. A majority of MLM reported not receiving counseling on condom use and safe sex in the past three months.

Almost all respondents had heard of HIV and AIDS, but gaps were found in knowledge about HIV prevention, particularly regarding transmission. The vast majority knew that using a condom correctly during each sexual contact could protect against HIV and that HIV could be transmitted by using a previously used needle or syringe.

Knowledge of where to obtain a confidential HIV test in the community was low, particularly in Koshi province, which also had the fewest respondents reporting ever being tested for HIV. Overall, 16.4% of MLM had ever been tested for HIV, with most having been tested more than a year before the survey. The vast majority reported being HIV-negative. However, 6.6% of MLM in Bagmati province reported an HIV-positive status, while the HIV prevalence assessed via testing was 0.5% in Bagmati province.

A minority reported previous testing for HCV, with a majority of those tested reporting a negative status. All self-reported HCV-positive cases at the time of the survey were from Gandaki province.

Only 0.6% reported being tested for STIs in the past three months. Of the 101 men who reported STI symptoms at the time of the survey, only 18.8% were under medical treatment for these symptoms.

In the past 12 months, around 15% of MLM reported illicit drug use, with the highest rate in Madhesh (around 24%). Madhesh also had the lowest age of first drug use. Ever injecting drugs for non-medical purposes was rarely reported, except in Koshi, where 3.4% reported injecting drugs in the past year and 1.4% in the past month.

MLM often expressed stigmatizing attitudes towards PLHIV: approximately one in two would not buy from a shopkeeper or food vendor with HIV and thought that an HIV-positive colleague who was not yet sick should not continue working. Concerningly, nearly one in three MLM believed that children with HIV should not attend school with uninfected children. Access to community-based HIV prevention was limited, as was access to drop-in centers, STI clinics, and HIV counseling and testing centers.

HIV prevalence was 0.2%, which is low. During clinical assessment as part of IBBS survey, urethral discharge syndrome was diagnosed in 0.8% of MLM and genital ulcer disease in 1.2%. HCV and syphilis tests were not conducted on all respondents but only on those meeting certain clinical criteria.

Only 0.3% of MLM were eligible for HCV testing, with an HCV prevalence of 38.4% among MLM from four provinces (Koshi, Madhesh, Gandaki, Sudurpaschim).

A total of 1.4% were eligible for syphilis testing, and 2.1% were found to be syphilis positive.

6.0 Limitations

Our survey had five main limitations which we would like to acknowledge. First, the number of people who tested positive for HIV, HCV, and Syphilis was small, so we could not fully assess the predictors of these infections. Second, we measured stigmatized risk behaviors by face-to-face interviews and self-reporting, which may be subject to underreporting due to social desirability or recall biases. Third, we only enrolled male labour migrants who worked in India, so these findings may not be generalizable to female labour migrants or those who worked in other countries. Fourth, testing for syphilis and HCV was only conducted among subgroups of respondents. We tested for syphilis only among those respondents who self-reported symptoms of STI, and we tested for HCV only among those respondents who self-reported drug injection in the past. Testing all respondents could have provided a better understanding of these infections among all male labour migrants. Finally, our survey was designed and had the power to estimate the results at the provincial and national levels, but not at the district level.

7.0 Conclusion

In conclusion, this was the first bio-behavioural survey among MLM in Nepal, providing insights into the structural and behavioural determinants of HIV in this population and the risk of transmission of HIV from MLM to other populations with whom they form sexual networks. The findings should be used to develop appropriate HIV interventions, particularly those that are community-based and accessible to MLM.

8.0 Recommendations

- Increase access to community-based HIV and STI prevention services that are specifically targeted to MLM. This includes services that are close to where MLM lives and at times that are convenient for them. Lengthy waiting times, travel, and costs associated with attending health facilities can conflict with men's work demands. Integrated services that provide a "one-stop-shop" have been effective for men's use of a variety of services, including HIV testing and multi-disease (hypertension, diabetes, malaria, mental health and TB) screenings.[12]
- Promote routine sexual and reproductive health services, and services targeting non-communicable diseases for men, based on the unique risk factors faced by MLM.
- Develop strategies that increase knowledge about HIV and STIs in MLM, knowledge about HIV and STI prevention and STI symptom recognition.
- Raise awareness about facilities and community-based sites (drop-in centers, primary health care centers) where MLM can get HIV and STI testing.
- Engage men in health-service delivery platforms (antenatal, maternal, pediatric, sexual and reproductive services) primarily designated for use by women and children. Increase the number of opportunities for men to engage with sexual health services as clients, for example when they accompany their wives and children during ANC visits and childcare visits. Men's use of HIV and related health services during pregnancy of partners can advance the triple elimination of vertical (mother-to-child) transmission of HIV, syphilis and hepatitis B virus by using prevention and treatment services.
- Explore innovative HIV and STI testing approaches such as mobile testing, outreach-based testing, network-based testing strategies and self-testing.
- Increase availability of free-of-charge condoms and strengthen free condom distribution.
- Raise awareness about places where condoms can be obtained by using innovative social marketing techniques.
- NGOs should expand their service provision to MLM, as only a minority reported being reached by NGOs and outreach workers. These services should include HIV testing, condom provision, testing and treatment for STIs and educational sessions about modes of HIV and STI transmission and prevention.
- As MLM have work demands that require mobility and they are unable to attend facilities regularly, consider implementation of virtual interventions that can provide consistent support and prevention advice while not requiring men to be physically present.
- Explore whether workplace interventions can be provided to MLM in case they congregate at specific worksites before departing to India.
- Assess whether there are other locations for MLM socializing (sports centers, trading centers, markets) and where they could be reached with mobile interventions.
- Structural determinants of higher vulnerability to HIV should be addressed, and that implies a need to develop better educational and employment opportunities for young men in Nepal.

[12] Men and HIV: evidence-based approaches and interventions. A framework for person-centred health services. Geneva: WHO, 2023.

Appendix 1: Sampling weights

Province, District	Total number of MLM 18 to 49 years old in India in province	Total number of 18 to 49 years old MLM in India in district	Total number of household visited	Total people in households	Total number of adult men in households	Total number of MLM in India in households	Total number of MLM who returned from India and live in households and available for interview	Total number of MLM from India who were interviewed	P1_Sampling	P2_Sampling	P3_Sampling	P_Sampling	Weight
Bagmati_Dhading	19,354	2,730	3,919	19,786	4,368	210	135	135	0.192	0.077	0.643	0.010	105.238
Bagmati_Ramechhap		989	4,476	20,097	5,355	930	136	135		0.940	0.145	0.026	38.125
Gandaki_Kaski	39,802	5,109	8,923	42,738	13,772	462	137	135	0.276	0.090	0.292	0.007	137.010
Gandaki_Tanahu		5,885	3,874	19,383	5,466	515	138	135		0.088	0.262	0.006	157.820
Karnali_Jajarkot	42,732	2,199	1,816	9,060	2,663	641	141	135	0.414	0.291	0.211	0.025	39.385
Karnali_Surkhet		15,474	2,587	13,094	3,741	1,184	142	135		0.077	0.114	0.004	277.148
Koshi_Morang	29,348	7,267	4,531	22,146	6,219	1,388	136	135	0.383	0.191	0.097	0.007	140.463
Koshi_Sunsari		3,980	4,169	21,879	8,550	1,329	136	135		0.334	0.102	0.013	76.929
Lumbini_Gulmi	132,503	14,442	4,233	20,742	6,935	354	135	135	0.225	0.025	0.381	0.002	475.300
Lumbini_Kapilbastu		15,381	644	2,974	1,432	250	135	135		0.016	0.540	0.002	506.204
Madhesh_Mahottari	36,100	8,195	6,287	35,173	11,782	1,278	136	135	0.382	0.156	0.106	0.006	158.774
Madhesh_Rautahat		5,607	4,510	25,045	8,848	856	137	135		0.153	0.158	0.009	108.633
SudurPashchim_Kailali	181,313	55,207	2,938	16,029	4,922	1,353	146	135	0.492	0.025	0.100	0.001	830.510
SudurPashchim_Kanchanpur		34,071	2,746	14,915	4,894	945	137	135		0.028	0.143	0.002	512.549
Total	481,152	176,536	55,653	283,061	88,947	11,695	1,927	1,890					

$$\mathbf{P1_{Sampling}} = \frac{\textit{Total number of 18 to 49 years old MLM in India in the two districts}}{\textit{Total number of MLM 18 to 49 years old in India in province}}$$

$$\mathbf{P2_{Sampling}} = \frac{\textit{Total number of MLM in India in households}}{\textit{Total number of 18 to 49 years old MLM in India in the two districts}}$$

$$\mathbf{P3_{Sampling}} = \frac{\textit{Total number of MLM from India who were interviewed}}{\textit{Total number of MLM in India in households}}$$

$$\mathbf{P_{Sampling}} = \mathbf{P1_{Sampling}} \times \mathbf{P2_{Sampling}} \times \mathbf{P3_{Sampling}}$$

$$\textbf{Analysis Weight} = \frac{1}{\mathbf{P_{Sampling}}}$$

Appendix 2: Survey Questionnaire

Integrated Biological and Behavioral Surveillance (IBBS) Survey among Male Labor Migrants in Nepal – 2024
Questionnaire

Introductory Information	
101. Cluster (number).....	☐☐☐
102. Household ID:	☐
103. Province (name and number) _____ .	☐
104. District (name and number) _____ ...	☐☐☐
105. Local level (Urban/Rural Municipality name and number)_____..	☐☐☐☐☐
106. Ward Number	☐☐
105a. New Local level (Urban/Rural Municipality name and number)_ ...	☐☐☐☐☐
106a. New Ward Number.....	☐☐
107. Respondent ID No.:	☐☐☐☐
108. Interviewer's Name and Code: _____	☐☐☐
109. Date of interview	_____/_____ / 2081 DD MM YYYY
110. Interview Starting Time	Hr☐☐ Min☐☐
111. Interview Completion Time	Hr☐☐ Min☐☐

Complete <u>Section A</u> by interviewing the head of the household or an adult person who knows all members of the household.

Section A: Personal Information of Household Head or an Adult Person who knows all members of the household

No.	Questions and Filters	Coding Categories	Skip To
201	How old are you?	Age ..... ☐☐ (Write the completed years)	
202	Including you, how many people (adults and children) live in your household?	Number ..... ☐☐	
203	How many of the people in your household are male 18 to 49 years?	Number ..... ☐☐	
204	How many of those stayed continuously or with an interruption for at least 3 months in India (or any other country out of Nepal)?	Number (India) ..... ☐☐ Number (Other than India)..... ☐☐	
205	How many of those returned within the past 3 years from India (or any other country out of Nepal) and live in this household currently? (This question provides the number of MLM Respondents in this HH).	Number (India) ..... ☐☐ Number (Other than India)..... ☐☐	
206	How many of those who returned from India only and live in this household are currently available for interview? (This question provides the number of MLM Respondents in this HH available for interview).	Number (returned from India) ..... ☐☐ 1._____ 2._____ 3._____ 4._____ 5._____	

Definition of MLM Respondent: "Men aged between 18 to 49 years who have gone to India for work for at least three months and have returned home within the last three years".

- All the following sections should be completed for only one eligible participant MLM per household (as defined above).
- If there are multiple eligible participants in the household, randomly select and enrol one for the study.

Section A: Personal Information of Respondent

No.	Questions and Filters	Coding Categories	Skip To
207	Where were you born?	Province_____ District _____	
208	How old are you? Or tell me what year did you born in, so I can calculate your age.	Age ..... ☐☐ (Write the completed years)	
209	What is your caste?	Hill Brahmin ..... 1 Hill Chhetri ..... 2 Terai Brahmin/Chhetri..... 3 Other Terai Caste..... 4 Hill Dalit..... 5 Terai Dalit..... 6	

No.	Questions and Filters	Coding Categories	Skip To
		Newar ..... 7 Hill Janajati ..... 8 Terai Janajati ..... 9 Muslim ..... 10 Others (Specify)_____ 96	
210	What is your educational status?	Started school but not completed grade 1 ..... 00 Grade 1-10 ..... ☐☐ Grade 11 completed ..... 11 Grade 12 or certificate level completed ..... 12 Bachelors or equivalent ..... 13 Masters and above ..... 14 Non-formal education ..... 15 Illiterate/Never attended school ..... 16 Don't know 98	
211	What is your present marital status?	Married ..... 1 Divorced/permanently separated ... 2 Widower ..... 3 Never married 4	→213
212	How old were you when you were first married?	Age ..... ☐☐ (Write the completed years)	
213	With whom are you staying currently?	With wife ..... 1 With male friends ..... 2 With female friends ..... 3 Alone ..... 4 With parents ..... 5 With children ..... 6 Others (Specify)_____ 96	

Section B: Work and Migration

No.	Questions and Filters	Coding Categories	Skip to
301	For the last time, when did you go to India for work and back?	India Went Year ☐☐☐☐ India Went Month ☐☐ Nepal Back Year ☐☐☐☐ Nepal Back Month ☐☐	
302	Last time when you were in India, in which city were you working?	Maharastra ..... 1 Gujarat ..... 2 Uttar Pradesh ..... 3 Himanchal Pradesh ..... 4 Punjab ..... 5 Karnataka ..... 6 Uttarakhand ..... 7 Delhi ..... 8 Hariyana ..... 9 Rajasthan 10	

No.	Questions and Filters	Coding Categories	Skip to
		Goa .....11 Bihar .....12 West Bengal.....13 Assam .....14 Jharkhand.....15 Kerala .....16 Madhya Pradesh .....17 Tamil Nadu.....18 Jammu Kashmir.....19 Others (Specify)_____ 96	
303	Last time when you were in India, what work did you do?	Industrial Production .....1 Agriculture .....2 Hotel/Restaurant.....3 Security .....4 Household works.....5 Driver/Transportation .....6 Supermarket/Shop/Airport.....7 Construction .....8 Porter .....9 Others (Specify)_____ 96	
304	At what age did you go to India for work purpose at first and last visit?	a. Age at first India visit .... ☐☐ b. Age at last India visit..... ☐☐ (Write the completed years)	
305	Last time when you were India, with whom did you live?	Alone .....1 With wife.....2 With another woman .....3 With friends.....4 With relative.....5 Others (Specify) _____ 96	

Section C: Information on Sexual Behaviour and Condom Use

Before moving on to this section, we want to inform you that we will be discussing sexual contact and various behaviors. There will be a few questions related to this topic, and you are free to choose whether or not to answer if you feel uncomfortable. However, we encourage you to share your responses with confidence. Now, let's proceed with the interview.

Q.N.	Questions and Filters	Coding Categories	Skip to
401	How old were you at your first sexual intercourse? **(In completed years)** **(Sexual intercourse could be oral, vaginal, or anal sex with anyone**) **Tip:** Make sure they understand the question and also ensure them that their answer will be anonymous and will not be shared with anyone.	Years ..... ☐☐ Don't know/can't recall .....98 Never had sexual intercourse.....0	→601
These days, people practice different types of sexual bebaviour and among them is male having sexual contact with male. Are you familiar with this term? Now I would like to ask few questions, if you know the answer, say "Yes" and if you do not know the answer, say "No".			

Q.N.	Questions and Filters	Coding Categories	Skip to
402	Have you ever had anal sex with a man? **(If answer is 'No' Probe)**	Yes ..... 1 No 2	→ 404
403	How old were you at your first anal sex with a man? **(In completed years)**	Years ..... ☐☐ Don't know/can't recall 98	
403a	During past 6 months, did you use a condom in your last anal sex with another man?	Yes ..... 1 No 2	→ 403c
403b	Who suggested condom use that time?	Myself ..... 1 My partner ..... 2 Don't know 98	→ 403d
403c	Why didn't you use condom that time? **(Multiple answers. Do not read the possible answers)**	Not available ..... A Too expensive ..... B Partner objected ..... C I didn't like to use it ..... D Didn't think it was necessary ..... E Didn't think of it ..... F Others (Specify)_____ X	
403d	Over the last 6 months, how often did you use condom while having sex with other men?	All of the time ..... 1 Most of the time ..... 2 Some of the time ..... 3 Rarely ..... 4 Never ..... 5 No sexual intercourse in last six months 6	→ 403f → 404
403e	Why didn't you use condom always? **(Multiple answers. Do not read the possible answers)**	Not available ..... A Too expensive ..... B Partner objected ..... C I didn't like to use it ..... D Didn't think it was necessary ..... E Didn't think of it ..... F Others (Specify)_____ X	
403f	During past one month, with how many men did you had sexual intercourse with? **If No, write "00" in the box.**	Number ..... ☐☐	
404	Have you ever had sex with a female sex worker? **(For example, gave money for sex (or had sex with a female partner from whom you bought sex in exchange for money, in-kind or drugs)**	Yes ..... 1 No 2	→ 501
	Sexual Behaviour with Female Sex Workers in Nepal		
405	Have you ever had sex with a female sex worker in Nepal? **(If answer is 'No' probe)**	Yes ..... 1 No 2	→ 413
406	In Nepal, did you have sex with a female sex worker in the past 1 year?	Yes ..... 1 No 2	→ 413

Q.N.	Questions and Filters	Coding Categories	Skip to
407	During past 1 year while in Nepal, how many female sex workers did you have sexual intercourse with?	Number ..... ☐☐	
407a	During past 6 months while in Nepal, how many female sex workers did you have sexual intercourse with? **If no, write "00" in the box**	Number ..... ☐☐	
	Condom Use with Female Sex Workers in Nepal		
408	During past 1 year, did you use a condom in your last sexual intercourse with a female sex worker in Nepal?	Yes ..... 1 No ..... 2 →	410
409	Who suggested condom use that time?	Myself ..... 1 My partner ..... 2 Don't know 98	411
410	Why didn't you use a condom that time? **(Multiple answers. Do not read the possible answers)**	Not available ..... A Too expensive ..... B Partner objected ..... C I didn't like to use it..... D Didn't think it was necessary..... E Didn't think of it..... F Others (Specify)_____ X	
411	Over the last 1 year, how often did you use condom while visiting female sex workers in Nepal?	All of the time..... 1 → Most of the time ..... 2 Some of the time ..... 3 Rarely..... 4 Never..... 5	413
412	Why didn't you use condom always? **(Multiple answers. Do not read the possible answers)**	Not available ..... A Too expensive ..... B Partner objected ..... C I didn't like to use it..... D Didn't think it was necessary..... E Didn't think of it..... F Others (Specify)_____ X	
	Sexual Behaviour with Female Sex Workers when living in India		
413	Have you ever had sex with female sex workers in India? **(If answer is 'No' Probe)**	Yes ..... 1 No ..... 2 →	501
414	In India, did you have sex with a female sex worker in the past one year? **(If respondent have returned before 12 months, circle in not applicable)**	Yes ..... 1 No ..... 2 Not applicable..... 97	501
415	During past 1 year in India, with how many female sex workers did you had sexual intercourse with?	Number ..... ☐☐	
415a	During past 6 months in India, with how many female sex workers did you had sexual intercourse with? **(If respondent have returned before 6 months, circle in not applicable** **If No, Write "00" in the box**	Number ..... ☐☐ Not applicable..... 97	

Q.N.	Questions and Filters	Coding Categories	Skip to
	Condom use with Female sex workers during stay in India		
416	During past 1 year, did you use a condom in your last sexual intercourse with a female sex worker in India?	Yes ..... 1 No 2	→ 418
417	Who suggested condom use that time?	Myself ..... 1 My Partner ..... 2 Don't know 98	419
418	Why didn't you use a condom that time? **(Multiple answers. Do not read the possible answers)**	Not available ..... A Too expensive ..... B Partner objected ..... C I didn't like to use it ..... D Didn't think it was necessary ..... E Didn't think of it ..... F Others (Specify)_____ X	
419	Over the last 1 year, how often did you use condom while visiting female sex workers in India? **(If respondent have returned to Nepal before 12 months, then circle 97)**	All of the time ..... 1 Most of the time ..... 2 Some of the time ..... 3 Rarely ..... 4 Never ..... 5 Not applicable 97	→ 501
420	Why didn't you use condom always? **(Multiple answers. Do not read the possible answers)**	Not available ..... A Too expensive ..... B Partner objected ..... C I didn't like to use it ..... D Didn't think it was necessary ..... E Didn't think of it ..... F Others (Specify)_____ X	

Section D: ***Condom use with Wife and*** **Girlfriend**

Q.N.	Questions and Filters	Coding Categories	Skip to
	Condom use with Wife in Nepal		
	(If answer is '4' in the Q. No. 211 Go to Q. 506)		
501	During past 1 year, did you use a condom in your last sexual intercourse with your wife?	Yes ..... 1 No ..... 2 No sexual intercourse in last one year 3	→ 503 → 506
502	Who suggested condom use that time?	Myself ..... 1 My wife ..... 2 Don't know 98	504
503	Why didn't you use a condom that time? **(Multiple answers. Do not read the possible answers)**	Not available ..... A Too expensive ..... B Wife objected ..... C I didn't like to use it ..... D Didn't think it was necessary ..... E Didn't think of it ..... F Others (Specify)_____ X	

Q.N.	Questions and Filters	Coding Categories	Skip to
504	Over the last 1 year, how often did you use condom while having sex with your wife?	All of the time.....1 Most of the time .....2 Some of the time .....3 Rarely.....4 Never.....5	→ 506
505	Why didn't you use condom always? **(Multiple answers. Do not read the possible answers)**	Not available .....A Too expensive .....B Wife objected .....C I didn't like to use it.....D Didn't think it was necessary.....E Didn't think of it.....F Others (Specify)_____.....X	
	Condom Use with Girlfriend During Stay in India		
506	Did you ever have sexual intercourse with your girlfriend in India?	Yes.....1 No 2	→ 512
507	During past 1 year, did you use condom in your last sexual intercourse with your girlfriend in India?	Yes.....1 No .....2 No sexual intercourse in last one year 3	→ 509 → 512
508	Who suggested to use condom that time?	Myself.....1 My girlfriend.....2 Don't know 98	510
509	Why didn't you use a condom that time? **(Multiple answers. Do not read the possible answers)**	Not available .....A Too expensive .....B Girlfriend objected .....C I didn't like to use it.....D Didn't think it was necessary.....E Didn't think of it.....F Others (Specify)_____.....X	
510	Over the last 1 year, how often did you use condom while visiting sex with your girlfriend in India? **(If respondent have returned to Nepal before 12 months, then circle 97)**	All of the time.....1 Most of the time .....2 Some of the time .....3 Rarely.....4 Never.....5 Not applicable 97	→ 512
511	Why didn't you use condom always? **(Multiple answers. Do not read the possible answers)**	Not available .....A Too expensive .....B Girlfriend objected .....C I didn't like to use it.....D Didn't think it was necessary.....E Didn't think of it.....F Others (Specify)_____.....X Don't know .....Z	
	(If answer is '2' in all Q. No. 402, 404, 413, and 506 Go to Q. 601)		
512	Who did you have last sex with?	Wife .....1 Girlfriend .....2 Female Sex worker .....3 Male sex worker .....4 Other men who are not sex worker 5 Others (Specify).....96	

Q.N.	Questions and Filters	Coding Categories	Skip to
513	When was the last time you have had sexual intercourse? **If less than 12 months, the answer must be recorded in days, weeks or months. If 12 months (1 year) or more, answer must be recorded in Years.**	Days ago ..... 1 Weeks ago ..... 2 Months ago ..... 3 Years ago 4	
514	During past 1 year, did you use a condom when you last had sexual intercourse?	Yes ..... 1 No ..... 2 No sexual intercourse in last one year 3	

Section E: Condom Availability

Q.N.	Questions and Filters	Coding Categories	Skip to
601	Do you usually carry condoms with you?	Yes ..... 1 No 2	
602	What are the places or persons that you know from where you can obtain condoms? **(Multiple answers. Do not read the possible answers)**	PHCC/Health Post/UHC/ BHSC/CHU ..... A Pharmacy ..... B General retail store/ Supermarket ..... C Private Clinic ..... D Paan shop ..... E Hospital ..... F FPAN Clinic ..... G Peer/Friends ..... H Health Workers ..... I Hotel /Lodge ..... J Brothel ..... K NGO ..... L FCHVs ..... M Outreach service ..... N Drop-in Centre ..... O City clinic ..... P During Community Program ..... Q Others (Specify)_____ ..... X Don't know ..... Y	→ 604
603	How long does it take for you to get condom?	Minute ..... ☐☐	
604	How do you usually obtain condoms? **(Probe, always get free of cost or always need to buy or both)**	Always Free of cost ..... 1 Always I buy ..... 2 Usually Free of cost ..... 3 Usually, I buy ..... 4 Both ..... 5 Never used condom 6	→ 607 → 607 → 610

Q.N.	Questions and Filters	Coding Categories	Skip to
605	From where do you often obtain condoms? **(Multiple answers. Do not read the possible answers)**	PHCC/Health Post/UHC/ BHSC/CHU.....A Hospital .....B FPAN Clinic .....C Peer/Friends.....D During Community Program .....E Health Workers.....F NGO.....G FCHVs .....H Outreach service .....I Drop-in Centre .....J City clinic .....K Others (Specify)_____.....X	
606	Which would be the <u>most</u> convenient place/s for you to obtain condoms?	PHCC/Health Post/UHC/ BHSC/CHU .....1 Hospital.....2 FPAN Clinic.....3 Peer/Friends.....4 During Community Programme.....5 Health Workers.....6 NGO.....7 FCHVs .....8 Outreach service .....9 Drop-in Centre .....10 City clinic .....11 Others (Specify)_____.....96	
	If 1 or 3 in Q604 then go to Q609.		
607	From where do you often buy condoms? **(Multiple answers. Do not read the possible answers)**	Pharmacy.....A General retail store/ Supermarket .....B Private clinic .....C Paan Shop.....D Hotel /Lodge.....E Brothel.....F Others (Specify)_____.....X	
608	Which would be the <u>most</u> convenient place for you to buy condom?	Pharmacy.....1 General retail store/ Supermarket .....2 Private clinic .....3 Paan Shop.....4 Hotel /Lodge.....5 Brothel.....6 Others (Specify)_____.....96	

Q.N.	Questions and Filters	Coding Categories	Skip to
609	Have you received condoms in the past 3 months from anywhere? **(Multiple answers. Do not read the possible answers)**	PHCC/Health Post/UHC/ BHSC/CHU..... A Pharmacy..... B General retail store/Supermarket.... C Private Clinic..... D Paan shop ..... E Hospital..... F FPAN Clinic ..... G Peer/Friends..... H Health Workers..... I Hotel /Lodge..... J Brothel..... K NGO..... L FCHVs ..... M Outreach service ..... N Drop-in Centre ..... O City clinic ..... P During Community Program ..... Q Others (Specify)_____ ..... X Don't know ..... Y	
610	From where have you received counselling on condom use and safe sex in the past 3 months? **(Multiple answers. Do not read the possible answers)**	PHCC/Health Post/UHC/ BHSC/CHU..... A Pharmacy..... B Private Clinic..... C Hospital..... D FPAN Clinic ..... E Peer/Friends..... F Health Workers..... G Hotel /Lodge..... H Brothel..... I NGO..... J FCHVs ..... K Outreach service ..... L Drop-in Centre ..... M City clinic ..... N During Community Program O Others (Specify)_____ ..... X Don't know ..... Y Never received counselling…….... Z	

Section F: Awareness Regarding of HIV/AIDS

Q.N.	Questions and Filters	Coding Categories	Skip to
701	Have you ever heard of HIV/AIDS? **(If response is No, make every effort to ensure privacy and probe)**	Yes..... 1 No 2	
702	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes..... 1 No 2	→704
703	Do you have a close relative or close friend who is infected with HIV or has died of AIDS?	Yes, a close relative..... 1 Yes, a close friend ..... 2 No 3	

Q.N.	Questions and Filters	Coding Categories	Skip to
704	Can people protect themselves from HIV by having one uninfected faithful sex partner?	Yes ..... 1 No ..... 2 Don't know 98	
705	Can people protect themselves from HIV by using condom correctly in each sexual contact?	Yes ..... 1 No ..... 2 Don't know 98	
706	Do you think a healthy-looking person can be infected with HIV?	Yes ..... 1 No ..... 2 Don't know 98	
707	Can a person get the HIV virus from mosquito bite?	Yes ..... 1 No ..... 2 Don't know 98	
708	Can a person get HIV by sharing a meal with an HIV infected person?	Yes ..... 1 No ..... 2 Don't know 98	
709	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes ..... 1 No ..... 2 Don't know 98	
710	How can a pregnant woman reduce the risk of transmission of HIV to her unborn child?	Take Medicine ..... 1 Others (Specify)_____ ..... 96 Don't know 98	
711	Can a woman with HIV transmit the virus to her newborn child through breastfeeding?	Yes ..... 1 No ..... 2 Don't know 98	
712	Can people protect themselves from HIV virus by abstaining from sexual intercourse?	Yes ..... 1 No ..... 2 Don't know 98	
713	Can a person get HIV by shaking on with HIV infected person's hand?	Yes ..... 1 No ..... 2 Don't know 98	
714	Can a person get HIV by using previously used needle/syringe?	Yes ..... 1 No ..... 2 Don't know 98	
715	Can blood transfusion from HIV infected person transmit HIV to others?	Yes ..... 1 No ..... 2 Don't know 98	
716	Is it possible in your community for someone to have a confidential HIV test?	Yes ..... 1 No ..... 2 Don't know 98	
717	If you have to go for HIV testing, do you know where you should be going?	Yes ..... 1 No 2	
718	Have you ever done HIV testing?	Yes ..... 1 No 2	 → 801
719	When did you have your most recent HIV test?	In the last 6 months ..... 1 In the last 6-12 months ..... 2 More than 12 months ago 3	
720	Did you voluntarily undergo the most recent HIV test or was it required?	Voluntarily ..... 1 Required 2	

Q.N.	Questions and Filters	Coding Categories	Skip to
721	What was your most recent HIV test result?	Positive ..... 1 Negative ..... 2 Uncertain ..... 3 Did not receive result ..... 4 Don't know ..... 98 Declined to answer 99	
722	When was the first time you were tested positive for HIV?	Year ..... ☐☐☐☐ Year don't know ..... 98 Month ..... ☐☐ Month don't know 98	
(If answer is '2' or '3' or '4' or '98' or '99' in the Q. No. 721 Go to Q. 801)			
723	If you are positive for HIV, have you ever started any HIV treatment?	Yes ..... 1 No 2	→ 725
724	If you are positive for HIV, are you currently receiving HIV treatment?	Yes ..... 1 No 2	→ 801
725	Why didn't you go for HIV treatment after discovering, you were positive? **(Multiple answers. Do not read the possible answers)**	I thought I was healthy ..... A Afraid others would find out..... B It would cost money ..... C Bad attitude of service provider..... D Excessive waiting period at the clinic/unsuitable clinic hours ..... E Others _____ (Specify) . X Don't know..... Y	

Section G: Hepatitis C (HCV) Testing, Diagnosis and Treatment

Q.N.	Questions and Filters	Coding Categories	Skip to
801	Have you ever been tested for hepatitis C infection?	Yes ..... 1 No ..... 2 Don't know 98	901
802	Have you ever tested positive for hepatitis C infection?	Yes ..... 1 No ..... 2 Don't know 98	
803	When did you have your most recent hepatitis C test?	Year ..... ☐☐☐☐ Year Don't Know Month ..... ☐☐ Month Don't Know	
804	What was your result of your most recent test for hepatitis C?	Positive ..... 1 Negative ..... 2 Don't know 98	901
805	Has a doctor, nurse or other health care provider ever told you that you had hepatitis C?	Yes ..... 1 No ..... 2 Don't know 98	
806	Have you ever taken medicine to treat your hepatitis C?	Yes ..... 1 No ..... 2 Don't know 98	

Section H: Sexually Transmitted Infection (STI)

Q.N.	Questions and Filters	Coding Categories		Skip to
901	What are the symptoms you have ever experienced of STI? **(Multiple answers. Do not read the possible answers)**	White Discharge/Clear to the purulent discharge of Pus ..... A Pain during urination ..... B Burning Sensation while Urinating ..... C Ulcer or sore around genital area. ... D Genital lesion ..... E Pain or burning sensation in and around genitalia ..... F Anorectal pain. ..... G Perianal itching ..... H Others (Specify)_____ ..... X Don't know ..... Y None ..... Z		
902	Have you been tested for STI in the past 3 months?	Yes ..... 1 No ..... 2 Don't know 98		
903	Do you currently have any of the following symptoms?			
	Symptoms	**Yes**	**No**	
	1. White discharge/discharge of pus from urethra	1	2	
	2. Pain during urination	1	2	
	3. Burning sensation while urinating	1	2	
	4. Ulcer or sore around genital area or anal area	1	2	
	5. Discharge, bleeding from anus	1	2	
	96. Others (Specify) _____	1	2	
	(If answer is 'No' to all in the Q. No. 903 Go to Q. 1001)			
904	Have you gone through medical treatment for any of these symptoms?	Yes ..... 1 No ..... 2 →		1001
905	Where did you go for the treatment? **(Multiple answers. Do not read the possible answers)**	Private Clinic ..... A FPAN Clinic ..... B PHCC/Health Post/UHC/ BHSC/CHU ..... C Hospital ..... D Pharmacy ..... E Self-Treatment _____ ..... F (Specify) Others (Specify)_____ X		

Section I: Use of Drugs and Injection

Now we will be asking you about non-prescribed drug use (for other recreational purpose besides medical use) like Tablet, Ganja, Heroine, Brown sugar etc.

Q.N.	Questions and Filters	Coding Categories	Skip to
1001	**Some people take different types of drugs for non-medical purposes**. Have you ever used any of those drugs? **Non-prescribed medical drugs, and illegal drugs such as cannabis, heroin, cocaine etc.**	Yes .....1 No .....2 Don't know.....98	1004
1002	At what age did you first use any of those drugs?	Completed age ..... ☐☐	
1003	Have you use drugs in last 12 months?	Yes .....1 No .....2 Don't know.....98	
1004	Some people inject drugs using a syringe. Have you ever injected drugs? **(Do not count drugs injected for medical purposes or treatment of an illness)**	Yes .....1 No .....2 Don't know.....98	1101
1005	At what age did you first inject any of those drugs?	Completed age ..... ☐☐	
1006	Have you injected drugs in last 12 months? **(Do not count drugs injected for medical purpose or treatment of an illness)** **Instruction: If yes, Refer the respondent to LAB for Hepatitis C test**	Yes .....1 No .....2 Don't know.....98	1008
1007	Did you inject drugs in the past 1 month?	Yes .....1 No 2	→1010
1008	Think about the time you injected drugs during the past one month. Did you use a needle or syringe that had previously been used by someone else?	Yes .....1 No .....2 Don't know.....98	
1009	Think about the time you injected drugs during the past one month. How often did you inject drugs using previously used needle/syringe?	Every Time .....1 Almost Every Time .....2 Sometimes.....3 Never .....4 Don't Know 98	

Q.N.	Questions and Filters	Coding Categories	Skip to
1010	Usually how do you get/did you get syringe/needle?	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me ..... 2 I picked it up from a public place which was left there by others ..... 3 I picked it up from a public place which was left there by myself ..... 4 I used a new needle/syringe given by NGO volunteer ..... 5 I used a needle/syringe which I purchased ..... 6 Others (Specify)_____ 96	

Section J: Stigma and Discrimination

Q.N.	Questions and Filters	*Coding Categories*	Skip to
1101	If a male relative of yours become ill with HIV, would you be willing to care for him in your household?	Yes ..... 1 No ..... 2 Don't know 98	
1102	If a female relative of yours become ill with HIV, would you be willing to care for him in your household?	Yes ..... 1 No ..... 2 Don't know 98	
1103	If a member of your family become ill with HIV, would you want it to remain secret?	Yes ..... 1 No ..... 2 Don't know 98	
1104	If you find out a shopkeeper or a food vendor has HIV, would you buy stuffs from them?	Yes ..... 1 No ..... 2 Don't know 98	
1105	In your opinion, does a person infected by HIV need some, more, or lesser healthcare than people affected by other chronic illnesses?	Some ..... 1 More ..... 2 Less ..... 3 Don't know 98	
1106	Do you think your colleague, who is HIV positive but not sick yet, should get to continue his/her work?	Yes ..... 1 No ..... 2 Don't know 98	
1107	Do you think children infected with HIV should go to the school with uninfected children?	Yes ..... 1 No ..... 2 Don't know 98	

Section K: Knowledge and Participation in STI and HIV/AIDS Programs

Q.N.	Questions and Filters	Coding Categories	Skip to
1201	Have you met, discussed, or interacted with peer educators (PE) or outreach educators (OE) or community mobilizer (CM) in the last 6 months?	Yes ..... 1 No ..... 2 Don't answer 99	
1202	Have you visited or been to any Drop-in Center (DIC) in the last 6 months?	Yes ..... 1 No 2	
1203	Have you visited any STI clinic in the last 6 months?	Yes ..... 1 No 2	

Q.N.	Questions and Filters	Coding Categories	Skip to
1204	Have you visited HIV testing and counselling center (HTC) in the last 6 months?	Yes ..... 1 No 2	
1205	Have you participated in HIV awareness raising program or community events in the last 6 months?	Yes ..... 1 No 2	
1206	What were the reasons for not visiting HIV testing and counselling center (HTC) in the last 6 months? **(Multiple answers. Do not read the possible answers)**	Didn't know about HTC center ..... A Didn't feel the need for the test ..... B Didn't have any symptoms of HIV ..... C HTC center not nearby ..... D Already had information from prior testing ..... E Didn't have money to go to HTC center ..... F Worried about other people seeing me at the HTC center ..... G Worried about family, friends, or customers finding out ..... H Discrimination by healthcare providers ..... I Not found necessary ..... J Other (Specify)_____ . X	
1207	In the last 6 months have any Community home based care (CHBC) health workers visited your house?	Yes ..... 1 No 2	
1208	Do you think it is possible to prevent HIV to be transmitted from an HIV positive mother to her baby?	Yes ..... 1 No ..... 2 Don't know 98	
1209	Do you know from where can a HIV infected mother get Prevention of mother-to-child transmission (PMTCT) services?	Yes ..... 1 No ..... 2 Don't know 98	

Section L: Link to other populations

In this section, we want to ask you a few questions about the number of people you "**know"** from some groups in Nepal.

By "**know**", we mean that you know them, and they know you by sight or by name, that you could contact them, that they live within Nepal, and that there has been some contact between you and them (either in person, by telephone or mail) in the past year.

Q.N.	Questions and Filters	Coding Categories	Skip to
1301	How many adult men do you know who worked in India for some time during the last 3 years?	Known No. ☐☐☐	
1302	How many adults in Nepal do you know who are divorced or permanently separated?	Known No. ☐☐☐	
1303	How many medical doctors (including specialists) in Nepal do you know?	Known No. ☐☐☐	

Q.N.	Questions and Filters	Coding Categories	Skip to
1304	How many women in Nepal do you know who gave birth in 2023?	Known No. ☐☐☐	
1305	How many people in Nepal do you know who are on Kidney dialysis?	Known No. ☐☐☐	
1306	How many people in Nepal do you know who inject drugs?	Known No. ☐☐☐	
1307	How many men in Nepal do you know who have sex with another man?	Known No. ☐☐☐	
1308	How many women in Nepal do you know who sell sex for money, goods, drugs, rents, etc.?	Known No. ☐☐☐	
1309	How many women in Nepal do you know who were assigned male at birth (i.e., transwomen)?	Known No. ☐☐☐	
1310	How many men in Nepal do you know who were assigned female at birth (i.e., transmen)?	Known No. ☐☐☐	

Clinical Checklist for Male Labor Migrants

Introductory Information	
101. Cluster (number).....	☐☐☐
102. Province (name and number)_____...	☐☐
103. District (name and number)_____	☐☐
104. Respondent ID No..:	☐☐☐☐
105. Name of Clinician and Number:_____	☐☐☐☐
106. Name of Lab Technician and Number: _____.....	☐☐☐☐☐
107. Date of health check-up	_____/_____/ 2081 DD MM YYYY
108. Date of blood collection.....	_____/_____/ 2081 DD MM YYYY

(A) Clinical Information

Weight : _____ Kg. Temperature: _____º F

Pulse: _____ B.P.: _____mm of Hg.

1.0 Syndromic Treatment Information

No.	Questions and Filters	Coding Categories	Skip to
101	Did you have discharge from your penis or a burning sensation when you urinate in the past month?	Yes ..... 1 No 2	
102	If yes, examine the patient. ***If yes, examine the patient and give treatment for gonorrhea and chlamydia accordingly.***	Yes, Discharge (+) ..... 1 No, Discharge (-) 2	
103	Did you have sore, ulcer around your genitals in the past month?	Yes ..... 1 No 2	
104	Did you have one or more painless ulcer with indurated edges with a clean base?	Yes ..... 1 No 2	
105	Did you have palpable lymph nodes in the inguinal region? ***If yes, examine the patient and send for RPR test.***	Yes ..... 1 No 2	
106	Did you have vesicular painful ulcer? ***If yes, examine the patient and treat for herpes simplex virus.***	Yes ..... 1 No 2	
107	What is the syndromic diagnosis?	_____	
108	What is your final diagnosis after laboratory test?	_____	
109	Which medicine did you give for treatment? How many tablets were given?	Given Tablet Name ..... A Given Tablet Number ..... B Medicine Not Given C	

(B) Specimen Collection

Activities	Yes	No
1. Pre-test counseling (Fill- up by interviewer)	1	2
2. Eligible for HCV Test(Fill- up by interviewer)	1	2
3. Eligible for Syphilis test (Fill- up by HA)	1	2
4. Blood collected for HIV (Fill -up by Lab technician)	1	2
5. Blood Collected for Syphilis (Fill -up by Lab technician)	1	2
6. Blood collected for HCV (Fill- up by Lab technician)	1	2
7. Test results given (Confirm my Lab technician)	1	2
8. Post-test Counseling given (Fill- up by HA)	1	2
9. Incentive Given (Fill-up by HA)	1	2