Integrated Bio-Behavioral Surveillance Survey on Street Involved Children and Youth in Kathmandu Valley

Round I

Ministry of Health
National Centre for AIDS and STD Control
Teku, Kathmandu
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Field Work Conducted by:

Intrepid Nepal
Thapathali, Kathmandu

The IBBS Surveys are part of the National HIV Surveillance Plan led by NCASC. The field work of the survey was carried out by Intrepid Nepal with quality assurance from National Public Health Laboratory and with technical and financial assistance from the Global Fund with Save the Children International.

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ACKNOWLEDGEMENTS

This survey, conducted in accordance with the National Plan on HIV Surveillance, aims to support to generate evidence towards HIV/AIDS, STI, knowledge, related risk behavior, and prevalence trends with the help of an Integrated Biological and Behavioral Surveillance (IBBS) survey. Intrepid Nepal Pvt. Ltd. (INPL) carried out the survey under the leadership of the National Centre for AIDS and STD Control (NCASC). The financial support for the survey was provided by Save the Children/Global Fund.

The NCASC team helped ensure the work was carried out efficiently and scientifically. The team consisting Tara Chettry, Mirak Raj Angdembe, FHI 360, and Komal Badal, UNAIDS primarily provided the technical support to update study tools and techniques of the survey. The survey was successfully completed with support from stakeholder organizations and different individuals. From the outset, we received support from various government offices, NGOs and experts working with street involved children and youths namely Central Child Welfare Board (CCWB),Voice of Children (VOC), Association for Protection of Children (APC) Nepal, Child Protection Centers and Services (CPCS), Child Workers in Nepal (CWIN), Child Watabaran Center Nepal (CWCN), and other stakeholders.

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We are confident that the findings of this survey will provide crucial evidence on the ground realities of HIV/AIDs and STIs in Nepal. Furthermore, we believe that the results will aid in framing policies for reducing prevalence of HIV/AIDS and improving HIV/AIDS related prevention stratagem.

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ABBREVIATIONS

ABC	Abstinence, Being Faithful, Condom Use
AIDS	Acquired Immuno Deficiency Syndrome
ART	Anti-Retroviral Therapy
BSS	Behavioral Surveillance Survey
CC	Community Centers
CHBC	Community and Home Based Care
CI	Confidence Interval
CMs	Community Motivators/Mobilizes
DIC	Drop in Centre
EQA	External Quality Assessment
EQAS	External Quality Assessment Scheme
FSW	Female Sex Worker
GOs	Governmental Organizations
HIV	Human Immuno Deficiency Virus
HTC	HIV Testing and Counseling
IBBS	Integrated Biological and Behavioral Surveillance
IC	Information Center
ID	Identifier
KAP	Key Affected Population
LSD	Lysergic acid diethylamide
NCASC	National Center for AIDS and STD Control
NGO	Non-Governmental Organization
NHRC	Nepal Health Research Council
NPHL	National Public Health Laboratory
OE	Outreach Educator
PE	Peer Educator
PMTCT	Prevention of Mother to Child Transmission
PPS	Probability Proportional to Size
PWID	People Who Inject Drugs
SGS	Second Generation Surveillance
SITWG	Strategic Information Technical Working Group
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infection
UNAIDs	Joint United Nations Programme on HIV/AIDS
UNGASS	United Nations General Assembly Special Session
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

Introduction

Intrepid Nepal (INPL) carried out this Integrated Biological and Behavioral Surveillance (IBBS) survey under the leadership of the National Center for AIDS and STD Control (NCASC) with financial support from Save the Children International, Nepal. This is the first round of the IBBS Survey conducted among street involved children and youths in three districts in the Kathmandu Valley of Nepal. This survey is a part of the National HIV Surveillance Plan (2012) and National HIV and AIDS Strategy (2011-2016). The first round of the survey was undertaken to determine the prevalence of HIV infections and to assess the sexual and/or injecting behaviors related to HIV among street involved children and youths in the Kathmandu Valley.

Methodology

The present survey was conducted using serial cross-sectional method. For the purpose of this survey, the definition of street involved children and youth was "Street involved children and youths aged 10 to 24 years. The survey included both "children and youths of the street" and "children and youths on the street". Children and youths of the street are homeless children who live and sleep on the streets in urban areas. Children on the street earn their living or beg for money on the street and return home at night."

A two-stage cluster sampling method was used to recruit 350 street involved children and youths from Kathmandu Valley. Two sampling techniques viz. facility based and cluster sampling were used for this. Mapping of the possible participants was done to estimate the size. Based on the estimated size, enrollment of representative sample from facilities and streets was decided. A site or hotspot with at least 40 street involved children and youths was defined as a cluster for the street based. To make sure of proper representation of the survey population, 10 out of 18 clusters were selected from street based. Similarly, for the facility based, six facilities out of 10 were selected. In the second stage, at least 10 participants were selected from each street based cluster and at least 30 from facility based cluster.

The research was conducted in compliance with both ethical and human rights standards. Ethical approval for this survey was received from Nepal Health Research Council. Informed consent was obtained in the presence of a witness, who signed on behalf of the street involved children and youths prior to the interview and collection of blood samples. Survey centers with laboratories/clinics were set up at easily accessible locations in each survey district for street based. Regarding facility based, laboratories/clinics were set up at surveyed facility sites. Individual interviews, clinical examinations, and blood collection were carried out in separate rooms at each of the survey centers.

Laboratory Methods

For HIV test, Determine HIV 1/2 was used as the primary method for detecting HIV antibodies. If the first test presented a negative result, no further tests were conducted.

However, if the first test was positive, a second test was performed using Uni-Gold. In case of a tie between the first two tests, a third test was performed using Stat Pak HIV 1/2 as a tiebreaker test.

Key Findings

Prevalence of HIV

HIV prevalence among street involved children and youths was 0.9 percent (n=3). (95% CI, 0, 2 to 2%)

Background Characteristics

Most of street-involved children were males (82%) and below 20 years of age (83%).The median age of the street-involved children and youth was 15 years. Most of the street-involved children and youth (87%) had no education. The representation of both Disadvantaged Janajat ethnic groups and upper caste groups was high 37 percent and 29 percent respectively. Most of street-involved children and youths were rag pickers (36%) and beggars (27%). The average income was found to be NRs. 1,228 with range between none to 20,000.

Use of Alcohol, Drug and Sniffing Behaviour

More than two-thirds (64.3%) of the street involved children and youths admitted that they used to use alcohol. Majority (56.9%) of them were found to have used drugs in the past twelve month. Average duration of drug use was 4 years within a range of less than a month to 14 years. Similarly, more than two-thirds (67.1%) of the participants admitted that they had sniffed different kinds of solvents. The median age they started sniffing was 10 years within the range of 8 to 20 years. The percentage of the children who started sniffing before 16 years of age was very high (96.2%). When asked about the effects of sniffing to those who had sniffed solvents (N=235), Most of the respondents (96.2%)mentioned numbness followed by sound sleep (26.8%) and absence of hunger (19.6%). Multiple reasons were mentioned by the survey participants as reasons for sniffing such as entertainment (68.5%), relief from physical pain (33.2%), lessens hunger pain (18.3%), provide courage (14.0%), to forget the feelings of shame and hopelessness (13.2%).

Injecting Behaviours

A total of 6.6 percent (23 out of 350) of the street involved children and youths admitted that they used injecting drugs via syringe. The median age at first injection was 16 years within the range of 9 to 21 years. Further, among those who injected drugs via syringe (N=23), 73.9 percent (n=17) reported using non-sterile injecting equipment sometime in the last month.

History of Imprisonment

Almost two-third (62.0%) of the street involved children and youths were ever arrested by the police, however, 42.3 percent of them admitted that they had been imprisoned or

detained for some reason. More than one-third (36%) of them reported to have been bothered and threatened by the police.

Sexual Behaviors

Almost half (48.6%) of the street involved children and youths never had sexual intercourse and 28.3 percent of them reported having their first sexual intercourse between 7 to 14 years of age. Among those who had had sexual experience (N=167), the median age at first sex was 14 years. Overall 6.3 percent (n=22) of the street involved children had had sex in exchange of money, food or clothes with same proportion of male and female partners (50%, n=11).

Use and Availability of Condom

A total of 42.6 percent of the street involved children and youths reported to have used condom. Among them (N=149), nearly all (94%, n=140) were knew how to get condom and 40.7 percent (n=57) of them had got condom from any organization in free of cost. More than one-third (35.6%) of the street involved children had used condom during their last sex act

Comprehensive Knowledge on HIV

In total, 44 percent of the street involved children and youth correctly identified all "ABC"(A. Abstaining from sex; B. Being faithful to one partner/avoiding multiple sex partners; C. Consistent condom use or use of condom during every sex act) as HIV preventive measures and only two out of 350 (0.6%) of them were found to be aware of all the five major indicators - "BCDEF" (D. a healthy-looking person can be infected with HIV; E. HIV cannot be transmitted through a mosquito bite; F. HIV cannot be transmitted while sharing a meal with a HIV-positive person) of HIV transmission and perceptions.

Knowledge on HIV Testing Centers and HIV Testing

Majority of street involved children and youths (62.7%) knew about a confidential HIV testing facility in their community while 57.1 percent of them knew the location of a confidential HIV testing center. Among those who ever knew about HIV testing, 26.3 percent ever had a HIV test. Among those who had a HIV test, 64.1 percent had been tested within past 12 months and the majority of them had the test voluntarily (85.9%). One street involved child was diagnosed to be HIV positive from the test..

Knowledge on STI and Treatment Seeking

Fifty-seven percent of the street involved children and youths were found to have heard about sexually transmitted infection (STI). Among those (n=199), who had heard of STI, 46.7% were found to have been aware of the symptom genital ulcer/sore , followed by itching in the genital part (39.7%), foul smell (26.1%), burning pain on urination (24.1%) and genital discharge (17.1%) as some of the symptoms of STI. One-fifth (20.9%) of the street involved children and youths had genital discharge/burning urination in the past 12 months and among them (N=73), more than one third (35.6%) were found to be suffering

at the time of interview as well. Similarly, 13.1 percent had genital ulcer/sore/blister in the past 12 months and among them (N=46), 47.8 percent were found to be suffering at the time of interview. In total, 70.9 percent of the street involved children and youths never had STI symptoms and 16.0 percent of them never sought treatment.

Exposure to HIV Awareness Programs

Overall, half (50.0%) of the street involved children and youths had met/interacted with OE/PE. In addition, 78.9 percent of them had visited DIC; 8.6 percent of them had visited HTC center; and 4.3 percent had visited STI clinic in the past 12 months.

Program Implications and Recommendations

Based on the findings from this survey, the following implications and recommendations are suggested for the new programmes.

- Although the prevalence of HIV low in this survey, there are some street involved children and youths suffering from HIV infection. *Targeted outreaches programs are needed to bring them for treatment to prevent HIV transmission*.

- Most of the street involved children and youth had not received any education. *Thus the family re-integration and comprehensive education in formal schools program are one of the possible interventions programs.* .

- The deliberate sniffing of different kinds of solvents was quite common among street involved children and youths. *Thus, strong monitoring and follow-up mechanism need to be in place to ensure sniffing rehabilitation services and to address the service seeking behavior of street involved children and youths having sniffing problems*

- Street-involved children and youth found practicing sexual risk behaviors and lacked use of condom in their sexual act. *To prevent the HIV transmission the access to condom and condom promotion is the key factors. There is also need to promotions of condom use during oral and anal sex*.

- Exposure to ongoing programs and services related to HIV (peer education, HTC clinics etc.) were found to be low. However, exposure to DIC was found to be moderate. *Targeted interventions among street involved children and youths with the provision of peer and outreach education, partnerships with HTC/STI clinics, and inclusion of care and support are necessary to increase exposure of the street involved children and youths to the programs and services related to HIV and AIDS.* .

- The comprehensive knowledge (ABC), and comprehensive knowledge and misconceptions (BCDEF) of the street involved children and youth was found to be considerably low. *Therefore, comprehensive knowledge, education, and awareness regarding HIV should be promoted through multiple channels. Including strong and specific behavior change communication interventions (BCCI). In the BCCI*

program should also focus on issues related to mitigation of stigma and discrimination amongst street children and youths and their families. The BCCI should focus peer education, and developing electronic media programs and print materials.

- The street involved children and youth movement is considerably high. *There should be comprehensive long term strategy and program to stop migration of children and youths at source places i.e. from various parts of the country.*

Chapter I: Introduction

1.1 Background

Nepal is categorized as a country facing a concentrated HIV epidemic. The National Centre for AIDS and STD Control (NCASC) has estimated that there were 39,249 PLHIV in Nepal in 2014 with adult HIV prevalence of 0.20% (NCASC, 2014).The spread of Human Immunodeficiency Virus (HIV) is concentrated among Key Affected Populations (KAPs) comprising of people who inject drugs (PWIDs), men who have sex with men (MSM), labor migrants and spouses, and Female Sex Workers (FSWs). The transmission of HIV is largely driven by KAPs and consequential health-risk behaviors. The Integrated Biological and Behavioral Surveillance (IBBS) survey is a descriptive serial cross-sectional survey conducted to monitor trends in HIV and STI prevalence and to assess behavioral information from high-risk groups. Behavioral surveillance is the systematic and ongoing collection of data about risk-behaviors related to disease and health conditions, with the purpose of correlating trends in behavior with changes in disease over time. In biological surveillance, biological samples are collected and tested for HIV and other related illnesses. The National Center for AIDS and STD Control (NCASC) aims to track patterns in HIV incidence and prevalence, STI-related awareness, and risk behaviors among high-risk populations in Nepal. A standardized format of the questionnaire is used for each group, which is repeated with relevant modification in the following rounds of the survey to explore behavioral changes over time (NCASC, 2016).

The National HIV/AIDS Strategy 2006 – 2011 has been endorsed by the government of Nepal. The National HIV/AIDS Action Plan 2008 – 20011 was developed subsequently and endorsed as a subset of the national strategy. In both documents, the agenda of children was not properly captured and taken forward. Nepal's National Strategy has overlooked the actual needs in this area. Nepal's national strategy (2008-2011), neither sufficiently includes protection, care, to children affected by Aids (CABA) and orphans and vulnerable children (OVC) nor does it address socioeconomic support, educational support, or psychosocial support to CABA OVC who have lost both parents.

Over the course of 10 years, Nepal has had a great experience of conducting IBBS surveys successfully among KAPs. However, only one IBBS surveys are conducted among street involved children and youths of Nepal in last decade. So the burden of HIV among street children in Nepal is limited and need to be assessed. One of the major components of Second Generation Surveillance (SGS) as well as the strategic direction of the national strategy is to conduct Integrated Biological and Behavioral Surveillance (IBBS) Survey among Key Populations (KPs) at higher risk to HIV in selected high-risk areas in regular interval based on the national plan on HIV and STI surveillance. These surveillance studies help in assessing health risk behaviors, measuring prevalence of HIV and STI among key populations, monitoring epidemic trends, and ultimately assisting in plans to respond against HIV epidemic in Nepal.

1.2 Objectives of the Survey

The main objective of the survey was to determine the prevalence of HIV and to assess the HIV related risk behavior among street involved children and youths in Kathmandu, Lalitpur and Bhaktapur district.

The specific objectives of the survey were:

- To determine the prevalence of HIV and to assess the HIV related risk behavior among street involved children and youths in the Kathmandu Valley.
- To determine the behaviour on deliberate inhalation of solvents and its consequences among street involved children and youths in the Kathmandu Valley.
- To assess the sexual and/or injecting behaviors related to HIV among street involved children and youths in the Kathmandu Valley.

1.3 Rationale of the Survey

In Nepal, the high rate of poverty causes an increase in the number of children forced to look after themselves. Often the eldest child takes responsibility as the head of the household activities. Some of these children are left with no other option than to live on the streets, exposing themselves to even greater medical, social, and psychological difficulties. Children living in these situations are at increased risk of losing opportunities for education, healthcare, growth, development, nutrition, and shelter. In short, they are deprived of their rights to a decent and fulfilling human existence.

The findings of a recent survey conducted among 251 street children and youth in Kathmandu using purposive sampling technique indicated HIV prevalence of 7.6 percent. The findings indicated that 30 percent of the male respondents were injecting drug users (IDUs) and that 20% of these IDUs were HIV positive. The probability and risk of HIV infection among street children and adolescents, especially those living on the streets, may be high, especially due to their marginalized social and economic situations.

Certain other behavioral risk factors are suspected to play a role in the morbidity/mortality rates and HIV transmission among street children and youth. These behavioral risk factors include group sex, sex with male and female sex workers, anal sex, exchange sex (for food, shelter and other needs), sexual abuse and exploitation, theft, violence, alcohol use/abuse, glue sniffing, and intravenous drug use. Consequently, constant nose bleeds, brain damage, burnt lungs, organ failure, and death. These are accompanied by glue-induced aggression and violent gang fights amongst glue-sniffers.

There is very little data available on HIV prevalence and risk behavior among street children in Nepal. Therefore, the true prevalence of HIV and other sexually transmitted diseases among street children in Nepal is virtually unknown, while information on behavioral risks in

this population is non-existent. Because of this, they have not yet been included among the country's key affected populations.

Very few interventions have been able to adequately address the medical, social welfare and psychological needs of the children affected by AIDS. At the community level, various groups have developed wide range of responses, but geographic and programmatic coverage of existing programs is insufficient. One single organization or program may not be able to address all these needs alone. Yet, partnerships are still few and programs to date have had extreme difficulty in adequately reaching the number of children in need.

There has not been any official census among street children in Nepal for the last decade. because of this, they have not yet been included among the country's KAPs. The true prevalence of HIV and other sexually transmitted diseases and other co-morbidities among street children in Nepal is virtually unknown, while information on behavioral risks in this population is non-existent. For this reason, there is a need for an IBBS survey of street involved children and youth to understand HIV prevalence, risk behaviors and its associated determinants. The understanding of these factors will lead to the successful formulation and implementation of evidence-based biomedical, behavioral and social interventions among street children in Nepal.

Chapter II: Methodology

2.1 Survey Design

The survey was a baseline of serial cross-sectional design.

2.2 Survey Population

The population of the survey consisted of "street involved children and youths between 10 to 24 years of age. The survey recruited both "children and youths of the street" and "children and youths on the street". Children and youth of the street are homeless children who live and sleep on the streets in urban areas. Whereas, children on the street earn their living or beg for money on the street and return home at night."

2.3 Survey Site

The survey was conducted in the Kathmandu Valley (Kathmandu, Lalitpur and Bhaktapur district) (Figure 2.1)

Figure 2-1: Map of Nepal Showing Survey Districts

2.4 Survey Period

The survey was conducted from 15 April to 30 August 2016. The fieldwork was carried out from 8 June to 23 June 2016.

2.5 Formative Assessment

At first, a formative study was done in order to assess whether the sampling technique refereed in the ToR (i.e. Response Driven Sampling) was appropriate for this study or not. This study indicated that the use of Response Driven Sampling technique would be inappropriate for the survey. This sampling technique was considered inappropriate because of its inability to fulfill the assumptions of RDS; i.e. lack of strong network among the street involved children and youth of Kathmandu Valley. Based on interaction with the stakeholders and concerned authorities, the proposed sampling technique was replaced by two stage cluster and facility based sampling (Annex-8).

Furthermore, findings of the formative study indicated that there were two categories of street involved children and youths residing in the Kathmandu valley: street based and facility based. The composition of the population included 33 percent 'street based' and 67 percent 'facility based' children and youths. Thus, as per the findings and population composition, cluster sampling and facility based sampling technique was identified as the appropriate sampling technique for this study. Based on the Probability Proportion to Size (PPS) method, sample size was determined 116 for "street based" and 234 for "facility based" children and youths (Annex- 8). During the survey period, Centre Child Welfare Board (CCWB) had a campaign program of "Street Child Rescue, Protections and Management Guideline 2072". Thus the number of street involved children was less than anticipated. .

2.6 Sample Design

Two types of sampling techniques were used in order to select a total of 350 survey participants.

i) Two Stage Cluster Sampling
ii) Facility Based Sampling

2.6.1 First Stage: Selection of Clusters/Facility

The information on the estimated size of the street-involved children and youth in the Kathmandu Valley was based on the operational mapping exercise and served as the sampling frames for cluster selection. Data for the mapping and size estimation exercise was collated by focusing on Government Organizations (GOs) and Non-Government Organizations (NGOs) working with street involved children and youths.

i) For the "street based", the team collected information on the number of street involved children and youths and possible clusters in consultation with local NGOs to finalize the number of street involved children and youths in each cluster using the tools and in consultation with NGO representatives.

   A site or hotspot with at least 20 street involved children and youths was defined as a cluster for street based children based on the preliminary information collected during the mapping exercise. A list of locations and an estimated number of street involved

children and youths for each location was prepared. The sites with less than 20 estimated street involved children and youths were combined with a neighboring site to form a full cluster, with a minimum size of 20. Out of 18 clusters, 10 clusters were selected randomly.

ii) For the "facility based", each of those facilities that were providing services like rehabilitation, social reintegration, clinical, day care, counseling etc. were listed. Altogether, out of 10 facilities 6 were selected for the survey. A field team visited each of the facility to prepare list of street involved children and youths who met the defined criteria for the survey. Only those street involved children and youths who were available in the selected facilities were included in the list. At least 30 children and youths were selected from "facility based" to meet 234 by systematic random sampling method from each of the respective facility

2.6.2 Second Stage: Selection of Respondents

i) The field teams visited each of the selected clusters for "street-based" participants to prepare a list of street involved children and youths who met the defined criteria for the survey. Only those street involved children and youth who were available in the cluster of the survey district were included in the list. At least 10 street involved children and youths were randomly selected from the "street based" to meet 116 sample sizes.

Table 2-1: An Overview of Number of Clusters Selected in Survey

Cluster	Total no. of clusters	No. of clusters selected
Street Based	18	10
Facilities Based	10	6

2.7 Sample Size

The sample size was determined by using the standard formula recommended by the surveillance guideline[1] which estimated a sample size of 350 (Annex 2).

2.8 Recruitment

i) Using the mapping information on locations and the estimated number of street involved children and youths in those locations, first-stage clusters were defined and all total 26 such clusters were selected using PPS method for "street-based" participants. Then from each of the first-stage clusters, at least 10 street involved children and youths were selected randomly from the sample.

ii) For the "facility based", ten facilities were identified and at least 30 street involved children and youths were systematically selected at random from the sample using PPS method.

[1]Surveillance Report of FHI Impact

In both cases, the field teams, along with community motivators, visited selected clusters and facilities to prepare a list of street involved children and youth who met the criteria for inclusion in the survey. Then the selected street involved children and youths, forming each cluster and facility, were invited to participate in the survey. The community mobilizers and peer educators and social workers approached the selected street involved children and youths and invited them to participate in the survey. At least three attempts were made to contact and include the potential participant. If a potential participant could not be included after the third attempt, s/he was replaced by street involved child or youth from the same cluster and facility selected randomly.

2.9 Data collection tools and techniques

The survey consisted of both biological and behavioral data, including handling of biological data for external quality assurance. An electronic based structured questionnaire was used to assess the background characteristics, sexual risk behaviors, usage of condoms, knowledge and awareness of HIV/AIDS and STIs, violence, exposure to HIV/AIDS programs, drug injecting behaviors, stigma, and discrimination. Furthermore, the questionnaire consisted of deliberate inhalation of different solvents and its consequences. Modifications were made to the questionnaire based on pre-test and in consultation with Strategic Technical Working Group (SITWG) members. All data collection tools were developed in Nepali.

2.10 Survey Team

The survey team was comprised of a team leader, a research officer, a database developer, data entry personnel, a statistician, field researchers, lab technicians, health assistants, counselors, community motivators, and support staff.

2.11 Training of Field Team and Pre-test

The field team was provided five days of training dated from 25 to 29 May 2016. The training was facilitated by experts from the NCASC, Save the Children, FHI 360, and the Joint United Nations Programme on HIV/AIDS (UNAIDS).The training covered topics like overview of IBBS surveys, HIV epidemic and surveillance system in Nepal, survey design and approaches, sampling approaches, behavioral interviews, interview process, administering informed consent/assent, data collection tools, and role(s) and responsibilities of the team members. The training was followed by mock interview exercises in pairs and large group reflection that involved a discussion of mock exercises. Additionally, experts from street involved children and youth networks and organizations also shared their experiences on working with street involved children and youths. During training, pre-test exercise was carried out at *"Voice of Children"* and six interviews were conducted with the street involved children and youths.

2.12 Field Work

The actual fieldwork of the survey started on 8 June, 2016. Before the fieldwork, a stakeholder meeting was conducted among representatives from government organizations (GOs) and I/NGOs working with street involved children and youths. During the meeting, participants shared their experiences and knowledge about different types of street involved children and youths which provided further support for the survey. After the consultation meeting, the survey team contacted the potential community mobilizers (CMs) and prepared them with required knowledge and skills regarding the target population for the survey. The survey team, with the help of CMs, listed the number of street involved children and youths in the selected clusters and facilities. Three districts were selected for inclusion in the survey: Kathmandu, Lalitpur, and Bhaktapur. The base clinic site was centrally located (Jamal for street based) specifically for the convenience of meeting and bringing the street involved children and youths to the individual survey sites. For the "facility based" street involved children and youths, the field team visited each selected facility for participation. The field office had separate rooms for each activity, such as welcome and registration, interviews, general physical and STI examinations, drawing blood and laboratory test of blood as well as pre and post-test counseling. Before the interview, participants were asked different questions informally to ensure that they met the eligibility criteria set for the survey. Strict confidentiality was maintained throughout the survey process. All interviews were conducted in a private room. The names of the participants were not mentioned in any of the tools or notes. Moreover, the participants were provided a unique ID number written on a plastic-coated card. The same number was marked on the questionnaire, on the medical record, and blood specimen. This card was also used for with post-test counseling. The entire work of fieldwork was completed on 23 June, 2016.

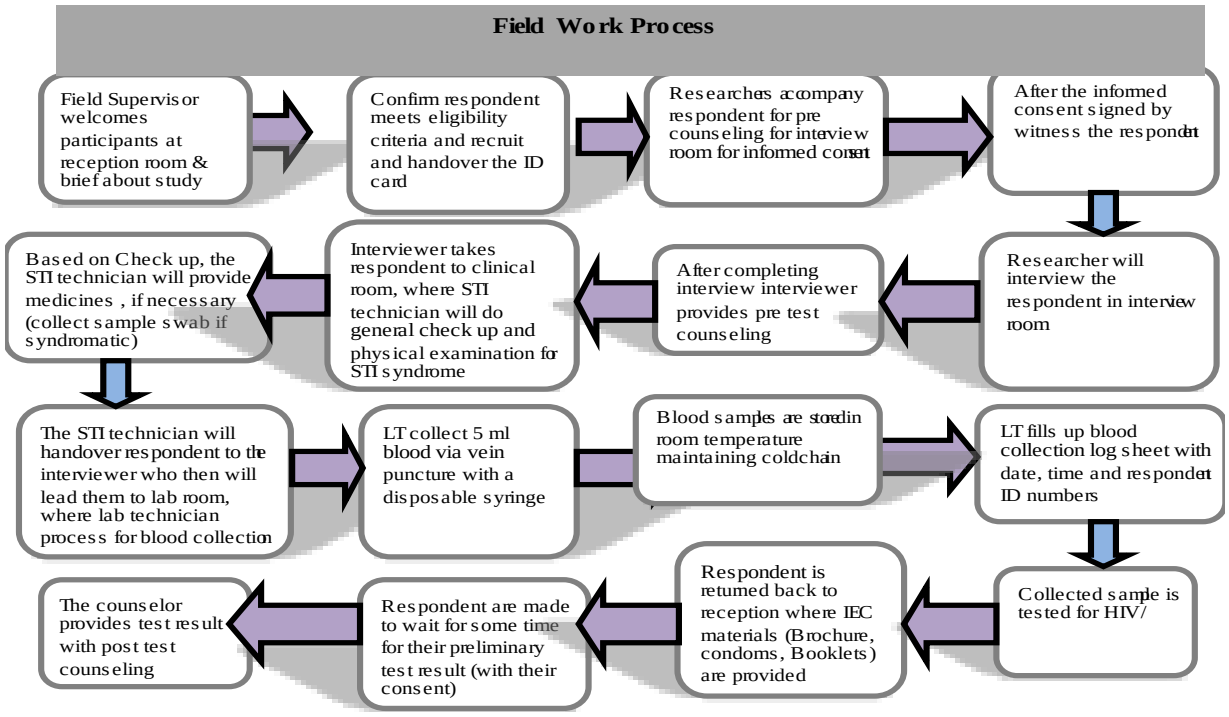

Figure 2-2: Fieldwork Process for IBBS Survey

2.13 Refusal

All participants participated in the survey voluntarily. None of the respondents approached by the survey team refused to participate in the survey. However, two respondents were not included in the survey because they did not meet the pre-determined criteria of the survey.

2.14 Clinical and Laboratory Procedure

Participants were checked for any clinical symptoms of STIs by a certified health assistant who also filled out a checklist of health information provided by each participant. The clinical examination included a simple health check-up (measuring blood pressure, body temperature, weight, and pulse) and a symptomatic examination for the presence of any STIs followed by any necessary syndromic treatment (NCASC, National guidelines on Case Management of sexually transmitted infections, 2014). Laboratory service entailed on-site rapid screening of HIV1/2 followed by a confirmation test.

Approximately 5 ml of whole blood was drawn from each participant using a disposable syringe. The blood sample was centrifuged to separate the blood cells from the serum. Each sample was labeled with the unique ID number correlating to an individual participant. Following collection, a lab technician used the serum to perform a rapid HIV test. Universal precautions and safe waste management practices were strictly followed. For external quality assurance of tests, all positive and 10 percent of negative samples were sent to the National Public Health Laboratory (NPHL) in Kathmandu for confirmation.

HIV 1/ 2

The HIV screenings of serum samples were performed using rapid test kits following the national HIV testing algorithm. Determine HIV 1/2 (Abbot, Japan), Uni-Gold HIV 1/2 (Trinity Biotech, Ireland), and Stat Pak HIV 1/2 (Chembio diagnostics) were followed as per the national 'National Guidelines for HIV Testing and Counseling, September 2011'. All the kits were based on the immune chromatography principle for detecting antibodies against HIV in serum or blood. Serum that tested reactive with the initial kit was then confirmed with the second kit. Samples that were found reactive on both tests were considered HIV positive. Samples that were non-reactive on the first test were considered HIV negative. Any sample that was reactive on the first test but nonreactive on the second was tested with the third "tie breaker" kit. Based on the result of the third kit, HIV status was determined; if the third test gave a reactive result, the sample was considered HIV positive. If the result was non-reactive, the sample was considered as negative. The internal quality of the assay was assured by the built-in control of each kit and external quality was assured by sending all positive cases and 10% of negative cases to the reference lab (NPHL) (Table 2.2 & 2.3).

Table 2-2: HIV Testing Algorithm

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

Table 2-3: Sensitivity and Specificity of HIV1/2Kits

Test Kits	Company	Init	Confirm	Tiebreak	Antigen Type	Spec.	Sens.
Determine	Allere	X			RecomHIV-1 and HIV-2	99.4%	100.0%
Uni-Gold	Trinity Biotech		X		HIV-1 & HIV-2	100.0%	100.0%
Statpak	CHEM BIO			X	HIV-1 (gp41; p24) & HIV-2 (gp36)	99.3%	100.0%

2.15 Precautions, Disposal Mechanism, and Post Exposure Management

Universal precautions and post exposure management were followed as per the recommendations of the Center for Disease Control (CDC, USA). In order to minimize the possible spread of infection to clinical personnel and to the local community, a strict disposal procedure was implemented. Color-coded disposable plastic bags were inserted into thick leak-proof container with a tight seal having same color. All materials were decontaminated by disinfecting or incinerating before disposal. Contaminated materials including specimens of bodily fluids, cotton gauze, broken glassware, and used needles were decontaminated in 0.5% Sodium Hypochlorite on a daily basis. The plastic material, papers and cotton were incinerated. The used Sodium Hypochlorite was poured down the drain or in a flushable toilet.

2.16 Quality Control of Laboratory Tests and External Quality Assurance Scheme

Quality control was strictly maintained throughout the process of to collect , to handle and to test the specimen. All the tests were performed using internal control mechanism. Aliquots of selected serum specimens were prepared in the field and sent to NPHL within a week for EQAS maintaining cold chain system.

2.17 Fieldwork Supervision and Monitoring

The progress of the fieldwork was closely monitored throughout the survey period. The survey team visited survey sites regularly for monitoring, supervision, and assistance. A

tracking sheet was developed to document the number of interviews conducted every day at each site.

Similarly, efforts were made to collect high quality data throughout the survey. The team leader and research officer were both involved in monitoring and controlling the quality from the initial stage of the fieldwork. They reviewed forms to ensure that: a) the correct clusters had been surveyed; b) the correct number of street involved children and youths had been interviewed; and c) the correct administration of the questionnaires and recording had been carried out. They also checked completed forms randomly and, provided feedback, and made random return visits to ensure the quality of the data. External monitors from the NCASC, Save the Children, and IBBS consultants also supervised the fieldwork.

2.18 Data Management

Estimation of the size of the survey population and their distribution in the survey areas was collected (Annex – 7). Lists and maps were generated from the operational mapping exercise. The completed questionnaires were re-checked regularly by a field researcher and field supervisor to ensure that the questionnaires were filled properly.

Tablet based data collection was implemented for this survey round. Furthermore, the electronic data was extracted into MS Excel for verification and transferred into Statistical Package for the Social Sciences (SPSS). A number of quality check mechanisms including range checks, logical checks, and skip instructions were developed to detect errors during the interview process in quick tap survey.

To ensure confidentiality, each street involved child and youth was given an identity number. The numbers were coded in each questionnaire. The numbers, however, did not correspond to the name, contact or address of the participants. To ensure anonymity of the participants, all data entered in the software was kept secure through encrypted, password protected computers at the research organization.

2.19 Data Analysis

Data was analyzed using descriptive statistics and bi-variate analysis. SPSS was used for statistical analysis. Descriptive analysis of background characteristics, sexual behavior and history of sexual intercourse, behaviors related to HIV risk and knowledge of HIV/STIs, use and availability of condoms, knowledge of HIV and AIDS awareness programs, and drug injecting behaviors were explored. Bi-variate analysis of the key indicators of HIV related risk behaviors were performed.

2.20 Ethical Considerations

Nepal Health Research Council (NHRC) approved the protocol of the survey. The survey was conducted in compliance with all human rights and ethical standards required by health researchers conducting studies in human subjects on sensitive issues, such as HIV and AIDS.

Informed consent of the participants in presence of witness was obtained prior to the interviews. There may be a risk of identifying the participants through their signatures if written consent was used. Therefore, the informed consent was taken in presence of a witness (community motivators or another member of the survey team) who then signed the consent form. Survey procedure was designed to protect participants' privacy allowing for anonymous and voluntary participation. Names and personal identifiers were not used in any stage of data collection. Prior to conducting the interview, the purpose and benefit of the survey was explained to each participant. They were provided with information about the survey risks, confidentiality, and compensation. The participants were given the opportunity to ask questions about the survey and to decide whether they would like to participate in the survey. During the consent process, the participants were informed that they were free to refuse or decline to participate at any time during the survey. Although the risk of participation in this survey was minimal, there were some questions that could make the subjects of the survey uncomfortable. The participants were clearly informed that in such a situation they were free to decline answering such questions and could also withdraw from the survey at any time. Best efforts were made to minimize risks associated to participation in the survey. During the analysis and presentation of the survey findings, the names and address of the participants were not mentioned.

2.21 Post-test Counseling and Test Result Distribution

All participants were provided with free post-test counseling. Post-test counseling and the counseling session was conducted one-to-one by trained counselors and focused on high-risk behaviors and other aspects related to STIs and HIV. Some participants were also referred to other health facilities for further services. The report of the HIV test was not distributed to the individuals in order to maintain anonymity of the participants

2.22 Limitations of the survey

- This survey was conducted in three districts of Nepal (Kathmandu, Lalitpur, and Bhaktapur). Therefore, the analysis and results presented in this report are limited to these districts and may not be generalized to other districts or parts of the country.
- The IBBS has adopted serial cross-sectional sampling designs, which means it gives a snap shot scenario of the survey population. Thus, the findings provide evidence of statistical association between those items and the risk behavior; it cannot show a cause-effect relationship.
- There may be a possibility of recall and social desirability bias. Survey participants are expected to provide honest responses to the survey questions asked; however, in some circumstances this assumption might have been violated due to different factors.

Chapter III: Findings

3.1 Sample Distribution

A total of 350 street involved children and youths, aged 10 to 24 years, participated in the survey. All together 234 *'Facility Based Children and Youths'* from ten facilities and 116 *'Street Based Children and Youths'* from six clusters, were selected as the participants representing three districts of the Kathmandu Valley (Kathmandu, Lalitpur and Bhaktapur). Among them two thirds (67%; n=234) were represented from facility based group and one third (33%; n=116) were represented from street based group (Figure: 3.1).

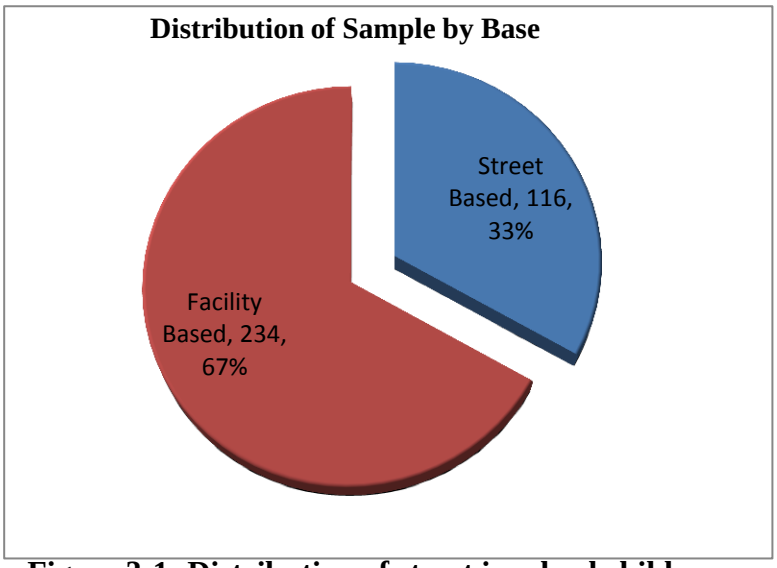

Figure 3-1: Distribution of street involved children and youthbv Base

3.2 Geographical Characteristics

While identifying the distribution of street involved children and youths by districts, the distribution was found to be the highest in the Kathmandu district (77%); followed by Lalitpur district (13%) and Bhaktapur district (10%) as illustrated in Figure 3.2.

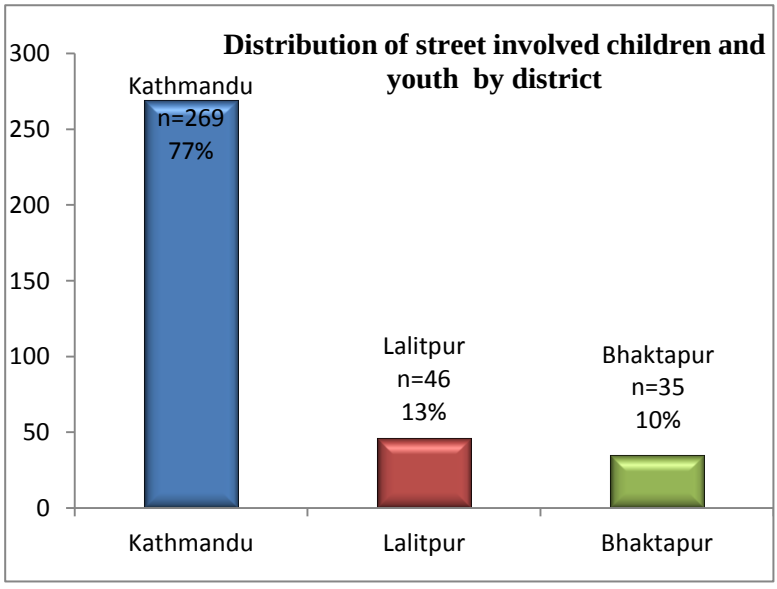

Figure 3-2: Distribution of Sample by District

Similarly, among the 116 street based participants, a huge majority (96.6%) were from Kathmandu district followed by Lalitpur district (3.4%). There were no such participants from Bhaktapur district (Table 3.1).

Out of 234 facility based participants, more than two third (67.1%) were from Kathmandu followed by , nearly one-fifth (17.9%) from Lalitpur and Bhaktapur (15%) as shown in Table 3.1.

Table 3-1: Distribution of Street Involved Children and Youth by District

Districts	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Kathmandu	112	96.6	157	67.1	269	76.9
Lalitpur	4	3.4	42	17.9	46	13.1
Bhaktapur	0	0.0	35	15.0	35	10.0
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

3.3 Socio-demographic Characteristics

The survey explored the socio-demographic characteristics of street involved children and youths in the survey districts. Among the total 350 participants, more than four-fifth (82.3%) were found to be male and nearly one-fifth (17.7%) of them were females (Table 3.2).

The median age of the participants was 15 years ranging from of 10 to 24 years. Four-fifths (83.2 %) of the participants were below 20 years of age. More than four-fifths (86.6%) of them were illiterate and 11.4 percent had no schooling but literate. Very few of them (2.0%; n=350) had primary level of education (Table 3.2).

The participants were from the all major ethnic groups. As shown by the data presented below, *Janajatis* (36.9%) constituted the highest number of street involved children and youths followed by Upper Caste Group (29.1%). Similarly, 16.9% participants were from Dalit and 14.3 percent were from other ethnic groups (Disadvantaged non-Dalit Terai caste group, religious minorities and relatively advantage Janajatis). Notably, 10 out of 350 (or 2.9%) had reported that they were unaware of their ethnicity (Table 3.2).

Regarding home districts and developmental regions of the street involved children and youths the survey included majority of participants from Central Development Region (CDR) (67.1%) followed by Eastern Development Region (15.1%). Similarly, 10.6 percent of them were from Western Development Region (WDR), 4.3 percent were from Mid-Western Development Region (MWDR) and 1.7 percent from Far-Western Development Region (FWDR). In addition, two (or 0.6%) of them reported that they were unaware about their home district. The same number of the children and youths reported that they were from India. Likewise, on the basis of the Ecological Region of the origin of the participants, three fifths (60.3%) were found to be from Hill, more than one fifth (22%) from Terai[2] and 16.6 percent from Mountain region (Table 3.2).

The survey tried to explore the age group of the street involved children and youths, when they left their home for the first time with different reasons. As the respondent reported, age group of 6 to 11 years was found to be the highest (71.1%) when left the home for the first time, followed by second highest age group 12 – 15 years (14.0%). Almost equal proportion (13.4%) with previous age group was found to be the third highest age group of less than 6 years and five out of 350 (or 1.4%) were found to be the lowest age group of age 16 years and above, when the street involved children and youth left the home for the first time. The

[2] Plain land along East to West located at the southern part of the country

survey revealed that almost half (48.9%) mentioned reasons for leaving home was found to be the domestic violence, as reported. Similarly, one-fourth (25.1%) and one-fifth (21.1%) reasons were found to be peer pressure and poor economic condition respectively. Nearly 5 percent (4.6%) reasons for leaving home were found that the death of parents (both), whereas, four percent reasons were found that the death of either father or mother. Notably, almost two percent (1.7%) reasons for leaving home was found to be the conflict situation of nation in the past (Table 3.2).

The street involved children and youths were further asked about their parents. Almost two-fifth (37.7%) of them reported that both the parents lived in their original home. Notably 16.9 percent and 14 percent of them were living with their mother only and father only respectively. Further, 15.4 percent of them were found to be unaware of their parents' condition (alive or dead). Likewise, 8 percent of them were found to be living with both parents, whereas, 8.3 percent of them reported that both the parents had passed away(Table 3.2).

The survey further asked the street involved children and youths about their main work and income. More than one third (36.3%) of them reported that they depend on picking the rags, and (27.1%) mentioned that they. Similarly, a quarter (25.1%) of them was found to be a labour work in different places like bus, market, hotel and house. Notably, nearly two percent were involved in sex work. While asked about the income of the last week, as they reported, average income was found to be NRs. 1,228.00 with range between none to NRs.20,000.00. More than half (54.9%) of them had reported that they had no income in the last week, as illustrated in Table 3.2.

In terms of sleeping at night, half (50.6%) of the street involved children and youth reported that they use to sleep alone, on their own, whereas 29 percent of them had reported to sleep with other street involved children and youth,. Similarly, 12 percent had reported that they sleep with other family member and 8.6 percent at Drop in Center (DIC) (Table 3.2).

Table 3-2: Socio-Demographic Characteristics

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Gender						
Male	107	92.2	181	77.4	288	82.3
Female	9	7.8	53	22.6	62	17.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Age in years						
10 – 13	11	9.5	110	47.0	121	34.6
14 – 16	28	24.1	66	28.2	94	26.9
17 – 19	41	35.3	35	15.0	76	21.7
20 – 22	26	22.4	16	6.8	42	12.0
23 – 24	10	8.6	7	3.0	17	4.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Median Age (Range)	**18 (12 – 24)**		**14 (10 – 24)**		**15 (10 – 24)**	

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Mean Age ± Std. Dev.	**18.04 ± 3.071**		**14.61 ± 3.273**		**15.0 ± 3.588**	
Education						
Illiterate	91	78.4	212	90.6	303	86.6
Literate, no schooling	18	15.5	22	9.4	40	11.4
Primary	7	6.0	0	0.0	7	2.0
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Ethnicity						
Dalit	15	12.9	44	18.8	59	16.9
Disadvantage Janajatis	41	35.3	88	37.6	129	36.9
Disadvantage non-Dalit Terai cast Groups	1	0.9	12	5.1	13	3.7
Religious Minorities	0	0.0	2	0.9	2	0.6
Relatively Advantage Janajatis	16	13.8	19	8.1	35	10.0
Upper Cast Groups	37	31.9	65	27.8	102	29.1
Don't know	6	5.2	4	1.7	10	2.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Original home (Development Region)						
Eastern Development Region	21	18.1	32	13.7	53	15.1
Central Development Region	75	64.7	160	68.4	235	67.1
Western Development Region	12	10.3	25	10.7	37	10.6
Mid-Western Development Region	5	4.3	10	4.3	15	4.3
Far-Western Development Region	3	2.6	3	1.3	6	1.7
India	0	0.0	2	0.9	2	0.6
Don't know	0	0.0	2	0.9	2	0.6
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Original home (Ecological Region)						
Mountain	14	12.1	44	18.8	58	16.6
Hill	71	61.2	140	59.8	211	60.3
Terai	31	26.7	46	19.7	77	22.0
India	0	0.0	2	0.9	2	0.6
Don't know	0	0.0	2	0.9	2	0.6
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Age when left the home for the first time						
Less than 6	18	15.5	29	12.4	47	13.4
6-11	77	66.4	172	73.5	249	71.1
12-15	19	16.4	30	12.8	49	14.0
16 or above	2	1.7	3	1.3	5	1.4
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Reason for leaving home*						
Domestic violence	55	47.4	116	49.6	171	48.9
Peer pressure	35	30.2	53	22.6	88	25.1

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Poor economic condition	14	12.1	60	25.6	74	21.1
Seeking employment	14	12.1	11	4.7	25	7.1
To see the city life	11	9.5	13	5.6	24	6.9
Death of parents (Mother/Father/both)	6	5.2	10	4.3	16	4.6
Mother Death	4	3.4	5	2.1	9	2.6
Due to conflict situation at past	1	.9	5	2.1	6	1.7
Father Death	2	1.7	3	1.3	5	1.4
Left Mother	0	0.0	3	1.3	3	0.9
To Study	0	0.0	3	1.3	3	0.9
Self	1	0.9	0	0.0	1	0.3
Theft accusations	1	0.9	0	0.0	1	0.3
Other	1	0.9	9	3.8	10	2.9
Where are your parents?						
Both parents are dead	10	8.6	19	8.1	29	8.3
Both parents live in my original hometown/village	40	34.5	92	39.3	132	37.7
I don't know, possibly alive	22	19.0	32	13.7	54	15.4
Both parents live with me	11	9.5	16	6.8	27	7.7
My father lives with me	16	13.8	33	14.1	49	14.0
My mother lives with me	17	14.7	42	17.9	59	16.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Main work*						
Rag Picker	52	44.8	75	32.1	127	36.3
Begging	14	12.1	81	34.6	95	27.1
Working at the market/ Bus/ House/ Labour/ Hotel	24	20.7	64	27.4	88	25.1
Whatever work I can find	32	27.6	34	14.5	66	18.9
No work	2	1.7	31	13.2	33	9.4
Stealing	8	6.9	16	6.8	24	6.9
Study	0	0.0	10	4.3	10	2.9
Selling flowers/ newspapers/ fruits on the road	1	0.9	8	3.4	9	2.6
Cremation/Temple cleaning	1	0.9	7	3.0	8	2.3
Sex work	5	4.3	1	0.4	6	1.7
Beauty parlour	0	0.0	3	1.3	3	0.9
Painter	2	1.7	0	0.0	2	0.6
Tourist Guide	2	1.7	0	0.0	2	0.6
Khalasi (public vehicle helper)	1	0.9	0	0.0	1	0.3
Others	1	0.9	10	4.3	11	3.1
Income in the last week (NRs.)						
None	13	11.2	179	76.5	192	54.9

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
100 – 500	12	10.3	10	4.3	22	6.3
501- 1000	16	13.8	7	3.0	23	6.6
1001 – 1500	10	8.6	6	2.6	16	4.6
1501 – 2000	12	10.3	8	3.4	20	5.7
2001 – 2500	10	8.6	6	2.6	16	4.6
2501 – 3000	11	9.5	9	3.8	20	5.7
3001+	32	27.6	9	3.8	41	11.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Average Income in the last week	**2638.79**		**528.63**		**1228.00**	
Range	**0 – 20,000.00**		**0 – 10,000.00**		**0 – 20,000.00**	
Sleeping at night with						
No one, I sleep on my own	13	11.2	164	70.1	177	50.6
Other street children/youth	88	75.9	13	5.6	101	28.9
With other family members	15	12.9	27	11.5	42	12.0
Drop in Center (DIC)	0	0.0	30	12.8	30	8.6
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

**Multiple responses allowed*

3.4 History of Imprisonment

More than three-fifth (62%) of participants reported having been arrested. Similarly, more than two-fifths (42.3%) of them had experience of being imprisoned or detained at some point in their life for various reasons by law enforcement. Further, more than one-third (36%) of them reported to have been threatened by the police (Table 3.3).

Table 3.3: History of Imprisonment

Characteristics	Street Based		Facility Based		Total (N=350)	
	N	%	N	%	N	%
Ever arrested by the police						
Yes	92	79.3	125	53.4	217	62.0
No	24	20.7	109	46.6	133	38.0
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Ever imprisoned or detained for any reason						
Yes	76	65.5	72	30.8	148	42.3
No	40	34.5	162	69.2	202	57.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Ever bothered and threatened by the police						
Yes	63	54.3	63	26.9	126	36.0
No	53	45.7	171	73.1	224	64.0

Characteristics	Street Based		Facility Based		Total (N=350)	
	N	%	N	%	N	%
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

3.5 Use of Alcohol and Drugs

A series of questions were asked regarding the use of alcohol, oral and injecting drugs including inhalation of solvents by the street involved children and youth. As high as 64.3 percent street involved children and youths reported to be using alcohol. Likewise, almost two-fifths (39.4%) of them reported that they took alcohol less than once a week in the past month, whereas, more than one-third (35.7%) of them claimed that they never drink alcohol. Further, 13.7 percent of them reported that they took alcohol sometime more than once a week in the past month. Notably, 24 out of 350 of them (6.9%) reporting to have taken alcohol daily in the past month, whereas, 4.3 percent of them claimed that they either took alcohol sometimes or quitted it in the past month (Table 3.4).

In response to the question on the deliberate inhalation of solvents[3], more than two-thirds (67.1%) of them reported that they sniffed different types of solvents. The most used solvent by the street involved children and youths for sniffing was found to be 'Dendrite'[4] (97.0 %).The survey also revealed that cigarette was the second most used sniffing substance (11.9%) followed by ganja or marijuana (9.4%). In addition, among those, sniffed solvents, the median age at which they started sniffing were found to be 10 years with the range of 8 to 20 years. A surprisingly high portion (96.2%) of the respondents reported that they started sniffing before they were 16 years of age Very few (3.8 %) of them reported that they had started sniffing after they were 16 years old. Among those who sniffed solvents, nearly two-thirds (63%) admitted that they sniffed inhalants on a daily basis whereas, one fifth (20%) of them reported to be sniffing 2 to 6 days per week as shown in Table 3.4.

In terms of multi effects of sniffing to the street involved children and youths, as they reported, 'numbness' was found to be the highest (96.2%) followed by 'sound sleep' as the second highest (26.8%) effect. Similarly, for almost one-fifth (19.6%), 'absence of hunger' was the effect caused. Further, the participants were asked about the reason of sniffing. More than two third (68.5%) mentioned 'entertainment' to be the reason, followed by 'relieve physical pain' as a second highest reason (reported by 33.2%) for sniffing solvents. Beside these reasons, the street involved children and youths reported various other reasons for sniffing solvents, as shown in Table 3.4.

When the street involved children and youth were asked about their experience of drug consumption, 56.9 percent admitted that they had tried oral drugs like Nitrson, Nitrovet, Ganja, Bhang etc. in the past 12 months. Among them, 30.2 percent children were using drugs for five years, followed by 25.6% doing so for two to five years. Only 12.1 percent of

[3] A liquid that can dissolve other substances, in common usage it refers to volatile organic solvents. Organic solvents are usually volatile and inhaled for psychoactive effects. Solvents include a variety of products such as glue, paints petrol etc

[4] Dendrite is a kind of glue

them reported that they had started using oral drugs less than three months ago. The average duration of drug use was about 4 years with the range of less than a month to 17 years (Table 3.4).

Regarding on use of injecting drugs, 23 street involved children and youths out of 350 (6.6%) admitted that they had injected drugs in the past 12 months. Further, 9 among these 23 participants (39.1%) reported that they had started injecting drugs before they reached 16 years. The median age of the start of injecting practice was 16 years within a range of 9 to 21 years of age (Table 3.4).

The survey also studied drug injecting behaviour of the street involved children and youths. Among the 23 participants who had injected drugs in the past 12 months, 17 (73.9%) reported that they had used non-sterile injecting equipments at some time in the last month. In addition, when asked about the frequency of injecting drugs the previous day, 16 out of 23 (69.6%) mentioned that they had not injected drugs the previous day, whereas 7 of them (30.4%) admitted that they had injected drugs 1 to 3 times. Further, the participants were asked about the frequency of injecting drugs during the last week. Eleven out of 23 (47.8%) reported that that they had not injected drugs during the last week. Similarly, 7(30.4%) of them admitted that they had injected drug once during the last week, Moreover, 3 out of 23 (13%) admitted that they had injected drug two to three times during the same period as illustrated in Table 3.4.

Table 3-4: Alcohol and Drug Using Behavior

Characteristics	**Street Based**		**Facility Based**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**
Drink alcohol						
Yes	89	76.7	136	58.1	225	64.3
No	27	23.3	98	41.9	125	35.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Frequency of drinking in the past month						
Everyday	14	12.1	10	4.3	24	6.9
More than once a week	30	25.9	18	7.7	48	13.7
Less than once a week	40	34.5	98	41.9	138	39.4
Never drink	27	23.3	98	41.9	125	35.7
Sometimes	4	3.4	9	3.8	13	3.7
Quit	1	0.9	1	0.4	2	0.6
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Sniff solvents						
Yes	96	82.8	139	59.4	235	67.1
No	20	17.2	95	40.6	115	32.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Solvent name* (N=235)						
Dendrite	91	94.8	137	98.6	228	97.0

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Cigarette	8	8.3	20	14.4	28	11.9
Ganja	8	8.3	14	10.1	22	9.4
Glue	6	6.3	3	2.2	9	3.8
Goti	2	2.1	6	4.3	8	3.4
Maxibon	3	3.1	4	2.9	7	3.0
Fevibon	1	1.0	4	2.9	5	2.1
Alcohal	1	1.0	3	2.2	4	1.7
Polen	2	2.1	1	0.7	3	1.3
Brown Sugar	1	1.0	2	1.4	3	1.3
Fevicol	2	2.1	0	0.0	2	0.9
Paint	1	1.0	0	0.0	1	0.4
Age started to sniffing						
8 - 10 years	44	45.8	79	56.8	123	52.4
11 - 15 years	45	46.9	58	41.7	103	43.8
16 - 20 years	7	7.3	2	1.4	9	3.8
Total	**96**	**100.0**	**139**	**100.0**	**235**	**100.0**
Median Age (Range)	**11 (8 – 20)**		**10 (8 – 18)**		**10 (8 – 20)**	
Mean Age ± Std. Dev.	**11.27 ± 2.778**		**10.5 ± 1.878**		**10.81 ± 2.315**	
Frequency of sniffing						
Everyday	58	60.4	90	64.7	148	63.0
2-6 days week	26	27.1	21	15.1	47	20.0
1-4 days week	7	7.3	16	11.5	23	9.8
Once a week	5	5.2	12	8.6	17	7.2
Total	**96**	**100.0**	**139**	**100.0**	**235**	**100.0**
Multi Effect of sniffing*						
Numbness	92	95.8	134	96.4	226	96.2
Sound sleep	26	27.1	37	26.6	63	26.8
Absence of hunger	13	13.5	33	23.7	46	19.6
Weakness	7	7.3	23	16.5	30	12.8
Increased appetite	7	7.3	13	9.4	20	8.5
Happiness	6	6.3	7	5.0	13	5.5
Sleeplessness	2	2.1	11	7.9	13	5.5
feel like Brave	6	6.3	4	2.9	10	4.3
Others (specify)	2	2.1	2	1.4	4	1.7
Multi Reasons for sniffing*						
Offers entertainment	65	67.7	96	69.1	161	68.5
Relieves physical pain	45	46.9	33	23.7	78	33.2
Lessens hunger pains	13	13.5	30	21.6	43	18.3
Provides courage	16	16.7	17	12.2	33	14.0
Helps to forget the feelings of shame and hopelessness	19	19.8	12	8.6	31	13.2

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Peer Pressure	5	5.2	21	15.1	26	11.1
Increases energy to work	12	12.5	14	10.1	26	11.1
Adds excitement	9	9.4	4	2.9	13	5.5
Others	1	1.0	5	3.6	6	2.6
Makes it easier to steal	2	2.1	4	2.9	6	2.6
Habit	2	2.1	1	0.7	3	1.3
Drug consumption in the past 12 months						
Yes	86	74.1	113	48.3	199	56.9
No	30	25.9	121	51.7	151	43.1
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Duration for using drugs						
Less than 3 months	4	4.7	20	17.7	24	12.1
4 - 6 months	2	2.3	4	3.5	6	3.0
7 - 12 months	9	10.5	19	16.8	28	14.1
13 - 24 months	9	10.5	21	18.6	30	15.1
25 - 60 months	25	29.1	26	23.0	51	25.6
More than 5 years	37	43.0	23	20.4	60	30.2
Total	**86**	**100.0**	**113**	**100.0**	**199**	**100.0**
Average duration in months (year)	**62.27 (5.19)**		**37.96 (3.16)**		**48.47 (4.01)**	
Range in months	**<1 – 156**		**<1 – 168**		**<1 – 168**	
Injecting drugs via syringe						
Yes	9	7.8	14	6.0	23	6.6
No	107	92.2	220	94.0	327	93.4
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Age at the first injection						
9 - 15 years	1	11.1	8	57.1	9	39.1
16 - 21 years	8	88.9	6	42.9	14	60.9
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**
Median Age (Range)	**18 (13 – 21)**		**15 (9 – 20)**		**16 (9 – 21)**	
Mean Age ± Std. Dev.	**17.56 ± 2.297**		**14.57 ± 3.005**		**15.74 ± 3.078**	
Used non-sterile injecting equipment at any time in the last month						
Yes	9	100.0	8	57.1	17	73.9
No	0	0.0	6	42.9	6	26.1
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**
Frequency of drugs injected yesterday						
Not injected yesterday	4	44.4	12	85.7	16	69.6
1 - 3 times	5	55.6	2	14.3	7	30.4
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Frequency of injecting drugs in last week						
Once a week	4	44.4	3	21.4	7	30.4
2-3 times a week	2	22.2	1	7.1	3	13.0
Once a day	0	0.0	1	7.1	1	4.3
Not injected in the last week	3	33.3	8	57.1	11	47.8
No response	0	0.0	1	7.1	1	4.3
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**

*Multiple responses allowed

3.6 Needle Sharing Behaviour

The probability and risk of HIV infection among street-involved children and youths, especially those living on the streets, may be high, especially due to their marginalized social and economic situations. This section deals with needle sharing habits as well as treatment to get rid of addiction.

Among the 23 street involved children and youths who injected drugs, 11 (47.8%) claimed that they had obtained new needle/syringe from their friend during the last time they used drugs. Six of them (26.1%) reported that they purchased a new one . Notably, four out of 23 (17.4%) of them reported to have used needle/syringe used by their friend/relatives, whereas, one (4.3%) such participant had received a new needle/syringe from NGO staff/volunteer. Further, 15 out of 23 (65.3%) of them claimed that they had injected drugs alone in the past week whereas, eight of them (34.7%) reported that they had injected in groups of 1 to 4 persons during the past week as illustrated in Table 3.5.

When the street involved children and youth were asked about needle/syringe sharing behaviour during the past week, 12 out of 23 (52.2%) claimed that they had not injected any drugs. But, five of them (21.7%) reported to have injected alone. Similarly, , six such participants (26.1%) admitted sharing the same needle/syringe among one to six partners (Table 3.5).

Among the 11participants who had injected drugs during the past week, 4 (36.4%) reported that they had given needle to someone else after use either every time or sometimes during the past week. But, seven of them (63.6%) claimed that they had never given needle to someone else after use. Further, only one (9.1%) of them reported to have used pre-filled syringe during the past week and three (27.3%) were found to have used syringe after someone else had squirted drugs into it from his/her used syringe either every time or sometimes. Similarly, four out of 11 (or 36.4%) of the street involved children and youth were found to be sharing injecting equipments like bottle, cooker, spoon, whereas five of them (45.5%) reported that they had drawn drug solution from a common container used by others in the past week as shown in Table 3.5.

Among the 23 street involved children and youths who inject drugs, 20 (87%) reported that they could obtain new syringe when needed. Further when asked about how they could obtain a new syringe, they mentioned drugstore as the most common source (78.3%), followed by from friends and hospital (30.4% each). The street involved children and youths further reported that they could obtain syringe/needle from DIC (26.1%) and health worker (21.7%). Beside these places, they reported several other places as mentioned in Table 3.5.

The street involved children and youths who injected drugs were further asked about what they usually did with the needle/syringe after use. In response, 15 out of 23 (65.2%) reported that they threw it anywhere; whereas, two of them (8.7%) mentioned that they kept/carried it safely for another use. Notably, six of them (26.1%) claimed that they disposed the syringe at public places (Table 3.5).

Table 3-5: Needle Sharing Behaviour

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Last time obtain syringe/needle from						
My friend/relative gave it to me After his use	2	22.2	2	14.3	4	17.4
I used a new needle/syringe given by NGO staff/ volunteer	0	0.0	1	7.1	1	4.3
I used a needle/syringe which I purchased	2	22.2	4	28.6	6	26.1
My friend gave new needle/ syringe	4	44.4	7	50.0	11	47.8
Others	1	11.1	0	0.0	1	4.3
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**
No of injecting partners in past week						
1 - 2 Persons	2	22.2	1	7.1	3	13.0
3 - 4 Persons	2	22.2	3	21.4	5	21.7
Alone	5	55.6	10	71.4	15	65.3
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**
Shared needle or syringe with different Injecting partners in the past week						
None	2	22.2	3	21.4	5	21.7
1 - 2 Partners	2	22.2	2	14.3	4	17.4
3 - 6 Partners	1	11.1	1	7.1	2	8.7
Not injected in the past week	4	44.4	8	57.1	12	52.2
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**
Gave needle to someone else after use in past week						
Every times	1	20.0	0	0.0	1	9.1
Sometimes	2	40.0	1	16.7	3	27.3
Never	2	40.0	5	83.3	7	63.6
Total	**5**	**100.0**	**6**	**100.0**	**11**	**100.0**

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Ever injected pre-filled syringe in past week						
Yes	0	0.0	1	16.7	1	9.1
No	5	100.0	5	83.3	10	90.9
Total	**5**	**100.0**	**6**	**100.0**	**11**	**100.0**
Used syringe after someone else had squirted drugs into it from his/her used syringe in the past week						
Every times	1	20.0	0	0.0	1	9.1
Sometimes	0	0.0	2	33.3	2	18.2
Never	4	80.0	4	66.7	8	72.7
Total	**5**	**100.0**	**6**	**100.0**	**11**	**100.0**
Shared a bottle, spoon, cooker, vial/container, cotton/filter and rinse water in the past week						
Almost every-times	1	20.0	0	0.0	1	9.1
Sometimes	2	40.0	1	16.7	3	27.3
Never	2	40.0	5	83.3	7	63.6
Total	**5**	**100.0**	**6**	**100.0**	**11**	**100.0**
Drew drug solution from a common container used by others in the past week						
Almost every-times	1	20.0	0	0.0	1	9.1
Sometimes	2	40.0	2	33.3	4	36.4
Never	2	40.0	4	66.7	6	54.5
Total	**5**	**100.0**	**6**	**100.0**	**11**	**100.0**
Could obtain new syringe						
Yes	9	100.0	11	78.6	20	87.0
No	0	0.0	3	21.4	3	13.0
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**
New syringe obtaining places*						
Drugstore	7	77.8	11	78.6	18	78.3
Friends	2	22.2	5	35.7	7	30.4
Hospital.	4	44.4	3	21.4	7	30.4
DIC	2	22.2	4	28.6	6	26.1
Health worker	2	22.2	3	21.4	5	21.7
Drugs seller	2	22.2	1	7.1	3	13.0
Drug wholesaler/drug agency	2	22.2	1	7.1	3	13.0
Buy Street Bases	1	11.1	1	7.1	2	8.7
Other drugs users	0	.0	2	14.3	2	8.7
Needle exchange program	1	11.1	0	0.0	1	4.3

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Other shop	0	.0	1	7.1	1	4.3
What do you usually do with your used needle/ syringe						
Disposed	4	44.4	2	14.3	6	26.1
Kept/carry safely for another use	0	0.0	2	14.3	2	8.7
Threw anywhere (please specify)	5	55.6	10	71.4	15	65.2
Total	**9**	**100.0**	**14**	**100.0**	**23**	**100.0**
How do you dispose						
Public place	4	100.0	2	100.0	6	100.0
Total	**4**	**100.0**	**2**	**100.0**	**6**	**100.0**

*Multiple responses allowed

3.7 Sexual Behaviour

These findings describe sexual behavior of the street involved children and youth. In response to the question asked about their age at first sexual intercourse, almost half (48.6%) reported never having sexual intercourse, whereas, 28.3 percent of them reported to have had sex very early at seventh 14 years of age. The median age of first sexual experience was 14 years within the range of seven to 21 years (Table 3.6).

In terms of sexual intercourse in the past 12 months, 30.3 percent of the street involved children and youths admitted to have had sexual intercourse at least once within that period. Further, 22 out of 350 (6.3%) admitted to have had sex in exchange of money/food/clothes in the past 12 months. Among them, 11 each out of 22 (50% each) reported to have had sex in exchange of money/food/clothes with male and female. These street involved children and youths (n=22) were further asked about involvement in several sexual activities. In response, almost all (21 out of 22 or 95.5%) were found to be involved in vaginal sex, followed by 6 (27.3%) in anal sex, whereas, three (13.6%) were engaged in oral sex. Beside these sexual activities, the street involved children and youths reported other sexual activities that they were involved in as illustrated in Table 3.6.

The survey revealed that the street involved children and youths had been victim of forceful sexual intercourse by people from different age groups. A total of 27 out of 350 (7.7%) of them reported to have faced such condition. Among them, almost four-fifth (21 out of 27 or 77.8%) reported that they had been forced by male and about one-fifth (six out of 27 or 22.2%) reported to have been forced by female. When asked about the age of the male who forced the street involved children and youths for sex, it was found that nearly two-third (13 out of 21 or 61.9%) of them were below 30 years. Similarly, all six females, who forced the street involved children and youths for sex, were below 22 years as shown in Table 3.6

Among the participants, who had experience of sexual intercourse (n=180), more than one third (35.6%) claimed that either they or their partner had used condom in the last sexual intercourse (vaginal/anal/oral). Notably, seven out of 180 (3.9%) of them reported that they

did not remember or know whether they used condom or not during the last sexual intercourse (Table 3.6).

Table 3-6: Sexual Behavior

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Age at first sexual intercourse						
Never had sexual intercourse	29	25.0	141	60.3	170	48.6
7 - 14 years	48	41.4	51	21.8	99	28.3
15 - 19 years	37	31.9	29	12.4	66	18.9
20 - 24 years	1	0.9	1	0.4	2	0.6
Don't know/remember	1	0.9	12	5.1	13	3.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Valid N **	**86**		**81**		**167**	
Median Age (Range)	**14 (8 – 20)**		**13 (7 – 20)**		**14 (7 – 21)**	
Mean Age ± Std. Dev.	**13.95 ± 2.878**		**12.63 ± 3.273**		**13.31 ± 3.137**	
Had sexual intercourse in the last 12 months						
Yes	66	56.9	40	17.1	106	30.3
No	50	43.1	194	82.9	244	69.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Ever had sex in exchange of money/food/clothes						
Yes	13	11.2	9	3.8	22	6.3
No	103	88.8	225	96.2	328	93.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
If yes, with whom						
Male	8	61.5	3	33.3	11	50.0
Female	5	38.5	6	66.7	11	50.0
Total	**13**	**100.0**	**9**	**100.0**	**22**	**100.0**
Ever been involved in*						
Vaginal Sex	13	100.0	8	88.9	21	95.5
Anal Sex	3	23.1	3	33.3	6	27.3
Kissing	4	30.8	1	11.1	5	22.7
Masturbation	2	15.4	2	22.2	4	18.2
Oral Sex	2	15.4	1	11.1	3	13.6
Foundling	2	15.4	1	11.1	3	13.6
Ever involved in sexual intercourse forcefully						
Yes	8	6.9	19	8.1	27	7.7
No	108	93.1	215	91.9	323	92.3
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
If Yes, forced by						
Male	6	75.0	15	78.9	21	77.8

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Female	2	25.0	4	21.1	6	22.2
Total	**8**	**100.0**	**19**	**100.0**	**27**	**100.0**
Age of male sexual partner						
14 24 years	2	33.3	6	40.0	8	38.1
25 - 29 years	2	33.3	3	20.0	5	23.8
30 - 34 years	0	0.0	3	20.0	3	14.3
35 - 39 years	0	0.0	1	6.7	1	4.8
40 and above	2	33.3	0	0.0	2	9.5
Don't know	0	0.0	2	13.3	2	9.5
Total	**6**	**100.0**	**15**	**100.0**	**21**	**100.0**
Age of female sexual partner						
13 - 16 years	1	50.0	2	50.0	3	50.0
17 - 21 years	1	50.0	2	50.0	3	50.0
Total	**2**	**100.0**	**4**	**100.0**	**6**	**100.0**
Used condom in last sex						
Yes	34	39.1	30	32.3	64	35.6
No	52	59.8	57	61.3	109	60.6
Don't Know	1	1.1	6	6.5	7	3.9
Total	**87**	**100.0**	**93**	**100.0**	**180**	**100.0**

*Multiple responses allowed

** Valid N = Excluded “Never had sexual intercourse” and “Don’t know/remember age at first sex, while calculating age statistics”.

3.8 Use and Availability of Condom

This part describes availability and use of condom among the street involved children and youths. In terms of condom use, 42.6 percent of them claimed to have used a condom in the past sometimes. Among them (n=149), most (94%) were found to be aware about how condom can be obtained. As reported on the query about the place where condom can be obtained, the highest proportion (81.4%) mentioned pharmacy, followed by hospital (50%). Similarly, shop and doctor were reported to be the third (27.1%) and fourth highest (20.0%) sources respectively. Further than these responses, street involved children and youth had reported various other places where condom can be obtained (Figure 3.7).

The street involved children and youths, who were aware about how to obtain condom, were further asked about either they had received condom from any organization. Fifth-seven out of 140 (40.7%) of them mentioned that they had got condoms from organizations free of cost. When they were asked about carrying condom with them, one-fifth (20.8%) replied that they usually carried them (Table 3.7).

Table 3.7: Use and Availability of Condom

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Ever Used a Condom						
Yes	64	55.2	85	36.3	149	42.6
No	52	44.8	144	61.5	196	56.0
Don't Know	0	0.0	5	2.1	5	1.4
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Know how condom can be obtained						
Yes	64	100.0	76	89.4	140	94.0
No	0	0.0	9	10.6	9	6.0
Total	**64**	**100.0**	**85**	**100.0**	**149**	**100.0**
Place where obtain the condom*						
Pharmacy	55	85.9	59	77.6	114	81.4
Hospital.	31	48.4	39	51.3	70	50.0
Shop	21	32.8	17	22.4	38	27.1
Doctor	12	18.8	16	21.1	28	20.0
Health worker	11	17.2	14	18.4	25	17.9
Pan Pasal.	15	23.4	7	9.2	22	15.7
Friend.	10	15.6	8	10.5	18	12.9
Clinic	4	6.3	11	14.5	15	10.7
Bar/Guesthouse/Hotel	7	10.9	0	0.0	7	5.0
Family planning center	1	1.6	0	0.0	1	0.7
Others	0	0.0	3	3.9	3	2.1
No response	0	0.0	1	1.3	1	0.7
Got condom from any organization in free of cost						
Yes, free of cost	29	45.3	28	36.8	57	40.7
No	35	54.7	48	63.2	83	59.3
Total	**64**	**100.0**	**76**	**100.0**	**140**	**100.0**
Usually carry condoms						
Yes	14	21.9	17	20.0	31	20.8
No	50	78.1	68	80.0	118	79.2
Total	**64**	**100.0**	**85**	**100.0**	**149**	**100.0**

*Multiple responses allowed

3.9 Knowledge of HIV and AIDS

A series of question about HIV and AIDS were asked to the street involved children and youths examine their knowledge about it. As high as 88.6 percent of them were found to have heard about HIV and AIDS. Besides, 45.5 percent of them had known someone who was

infected with HIV or died of AIDS. Further, those who knew a person who was infected with HIV or died of AIDS (n=159) were asked if any of their close relative or friend was infected with HIV or had died of AIDS, almost two third (61.6%) reported that they knew about such cases that had happened with close friends. Similarly, 16 out of 159 (10.1%) of them reported that they had a close relative who was infected with HIV or died of AIDS as illustrated in Figure 3.3. Annex Table-1 contains in much detail about knowledge of street involved children and youths on HIV and AIDS.

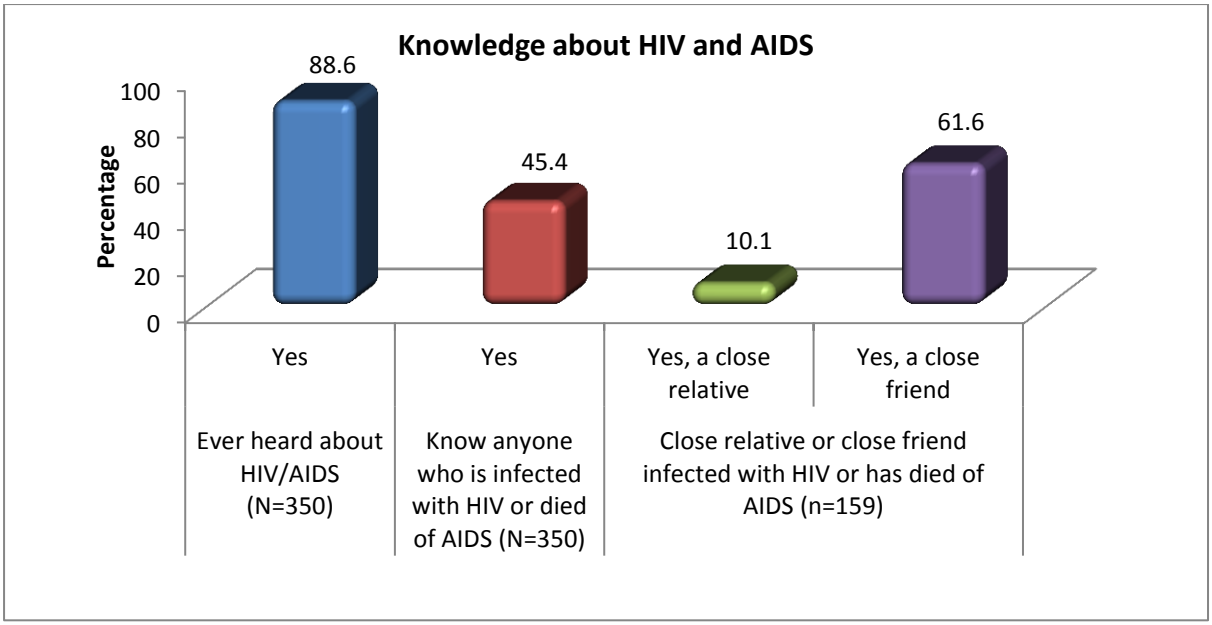

Figure 33: Knowledge about HIV and AIDS

3.10 Comprehensive Knowledge of HIV

Figure 3.4 shows the knowledge of the street involved children and youths regarding ways of preventing transmission of HIV, and major misconceptions about HIV transmission. The number of the children reporting to be aware of **A** (abstinence from sex), **B** (being faithful to one partner or avoiding multiple sex partners) and **C** (consistent condom use or use of condom during every sex act) as HIV preventing measures was 59.4 percent, 62.3 percent and 71.1 percent respectively. Overall 44.0 percent of the street involved children and youths correctly identified all A, B and C as HIV preventive measures.

Similarly, the proportion of the street involved children and youth reporting to have known **D** (a healthy looking person can be infected with HIV), **E** (a person cannot get the HIV virus from mosquito bite) and **F** (cannot get HIV by sharing meal with an HIV infected person) as perceptions regarding HIV were found to be 64.9 percent, 22.3 percent and 34.6 percent respectively. In total, only two out of 350 (0.6%) of the street involved children and youths were found to be aware of all the five major indicators of HIV transmission and perceptions (Figure 3.4). Details in Annex Table -2.

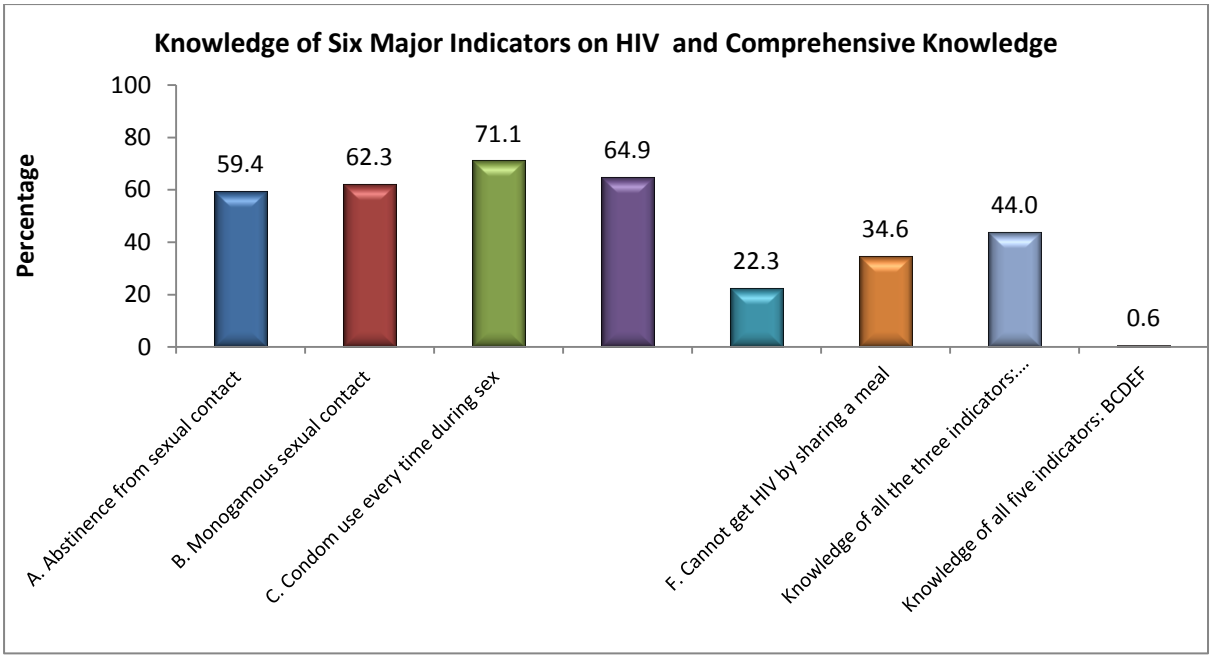

Figure 3.4: Knowledge about All Six Indicators and Comprehensive Knowledge of HIV

3.11 Awareness of Modes of HIV Transmission

The understanding of street involved children and youths about HIV and its different modes of transmission were further tested with the help of a series of questions. Most of them (91.7%) perceived that HIV could be transmitted through the transfusion of blood from an HIV infected person to another and through the use of pre-used needles/syringes (90%). Similarly, 72.3 percent of them mentioned that a pregnant woman infected with HIV could transmit the virus to her unborn child; while 59.7 percent reported that women with HIV could transmit the virus to her new born child through breastfeeding. More than one-third (65.7%) of them mentioned that holding hand of an HIV infected person does not pose a risk of HIV transmission. (Details are included in Annex Table-3).

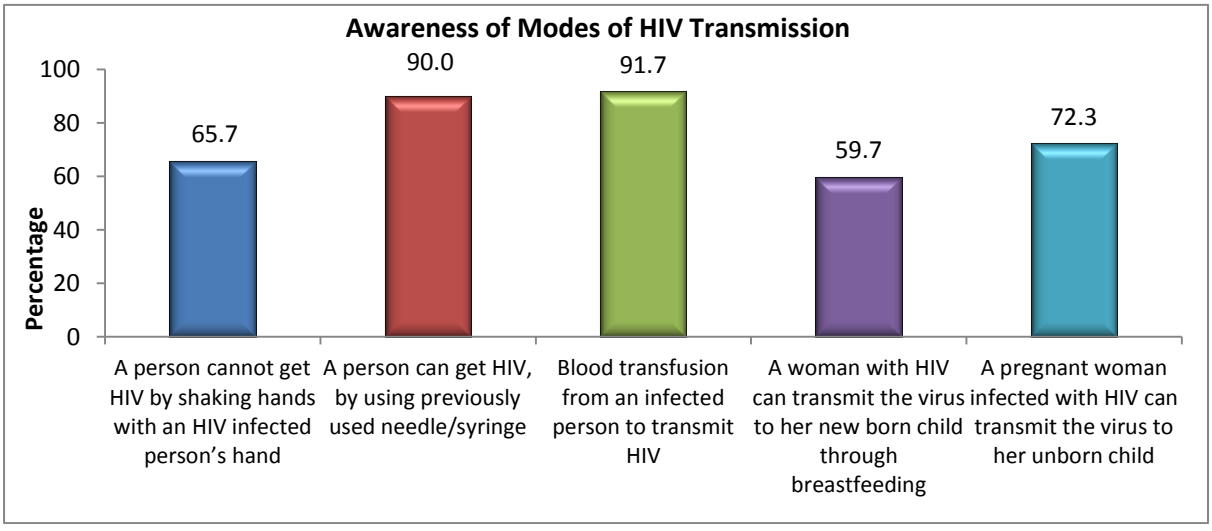

Figure 3.5: Awareness of Modes of HIV Transmission

3.12 Awareness of HIV Testing Facility and HIV Test

After assessing level of knowledge about HIV and its modes of transmission, the street involved children and youths were further asked if they knew about any HIV testing facilities and whether or not they had taken such tests.

Figure 3.6 shows that nearly two thirds (61.7%) of the street involved children and youths knew about confidential HIV test facility available in the community, and 57.1 percent of them were found to be aware of place of HIV testing. In addition, more than a quarter (26.3%) of them had had an HIV test in the past. (See Annex Table 4 for details).

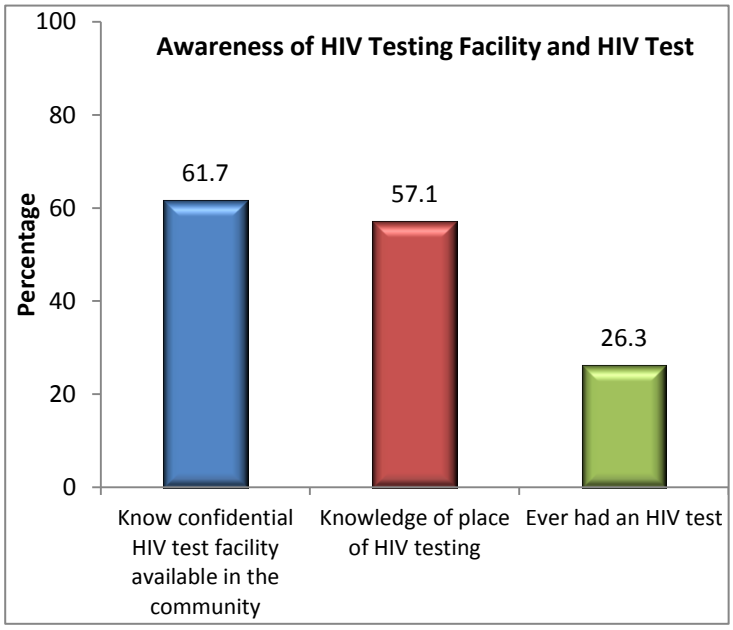

Figure 3-6: Awareness and Availability of HIV Testing Facility and HIV Test

In response to the question on most recent HIV test, among those who ever had HIV test (n=92), two-third (64.1%) claimed that they had the most recent HIV test within the past 12 months. Majority (85.9%) of the street involved children and youths reported that they had had the HIV test voluntarily, whereas, 13 percent of them had had such test as required. However, one out of 92 (1.1%) did not respond (Table 3.8). (See Annex Table 4 for details).

Among those who ever had had the HIV test (n=92), more than three quarters (77.2%) reported that they had got an HIV test result. When the participants who had received the HIV test result were about the HIV result , one out of 71 (1.4%) reported to have received a report with HIV positive and visited HIV Test and Counseling (HTC) center. Similarly, two out of 71 (2.8%) of them were found to be uncertain about the HIV test result. One of them (1.4%) was found to be unaware of this matter (Table 3.8).

Table 3-8: Awareness and Availability of HIV Testing Facility and HIV Test

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Most recent HIV test						
Within the past 12 months	20	50.0	39	75.0	59	64.1
Between 13-24 months	9	22.5	6	11.5	15	16.3
Between 25-48 months	4	10.0	6	11.5	10	10.9
More than 48 months	6	15.0	1	1.9	7	7.6
No response	1	2.5	0	0.0	1	1.1
Total	**40**	**100.0**	**52**	**100.0**	**92**	**100.0**

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Voluntarily underwent the test or because it was required						
Voluntary	34	85.0	45	86.5	79	85.9
Required	5	12.5	7	13.5	12	13.0
No response	1	2.5	0	0.0	1	1.1
Total	**40**	**100.0**	**52**	**100.0**	**92**	**100.0**
Find out Result of HIV test						
Yes	31	77.5	40	76.9	71	77.2
No	9	22.5	12	23.1	21	22.8
Total	**40**	**100.0**	**52**	**100.0**	**92**	**100.0**
Result of the last HIV test						
Positive	0	.0	1	2.5	1	1.4
Negative	30	96.8	37	92.5	67	94.4
Uncertain	1	3.2	1	2.5	2	2.8
Don't know	0	0.0	1	2.5	1	1.4
Total	**31**	**100.0**	**40**	**100.0**	**71**	**100.0**
Visited HTC for HIV care after knowing the positive result						
Went	0	0.0	1	100.0	1	100.0
Total	0	0.0	1	100.0	1	100.0

3.13 Knowledge and Treatment of Sexually Transmitted Infections (STI)

To know the extent of the problem of Sexually Transmitted Infection (STI) among the street involved children and youths and their perceptions towards it, they were asked about their understanding of STI and if they had experienced any STI symptoms during the last year. More than half (56.9%) of them were found to have heard of infection transmitted through sexual intercourse. Among those who had heard of STI (n=199), 46.7% were aware of genital ulcer/sore, followed by 39.7% who were aware of itching in the genital part. Similarly, 26.1% of them knew about foul smell, 24.1% were familiar about burning pain on urination and 17.1% knew about genital discharge as some of the STI symptoms. Notably, 41.7 percent respondents were unaware of the symptoms of STI (Table 3.9).

Table 3-9: Knowledge of STIs, Experienced Symptoms, and Treatment in the Past Year

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Heard of disease transmitted through sexual intercourse						
Yes	80	69.0	119	50.9	199	56.9
No	36	31.0	115	49.1	151	43.1
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Understanding of STI symptoms*						
Genital ulcers/sore	52	65.0	41	34.5	93	46.7
Itching	46	57.5	33	27.7	79	39.7
Foul smelling	25	31.3	27	22.7	52	26.1
Burning pain on urination	25	31.3	23	19.3	48	24.1
Genital discharge	16	20.0	18	15.1	34	17.1
Lower abdominal pain	8	10.0	8	6.7	16	8.0
Swelling in groin area	5	6.3	3	2.5	8	4.0
Others	3	3.8	3	2.5	6	3.0
Don't know	19	23.8	64	53.8	83	41.7

* Multiple responses allowed

To explore the knowledge of STI, experience of symptoms, and treatment sought in the past year, the street involved children and youths were asked about their understanding of STIs and whether they had experienced STI symptoms during the last year. A total of 20.9 percent of them were found to have had genital discharge/burning urination in the past year. Among them (n=73), 35.6 percent reported that they were suffering from such symptoms during the time of the interview. Similarly, in response to question on genital ulcer/sore, blister during the last 12 months, a total of 13.1 percent reported to have suffered. Among them (n=46), nearly a half (47.8%) claimed having such problem during while they were being interviewed (Figure 3.7). See Annex Table-5 for more information.

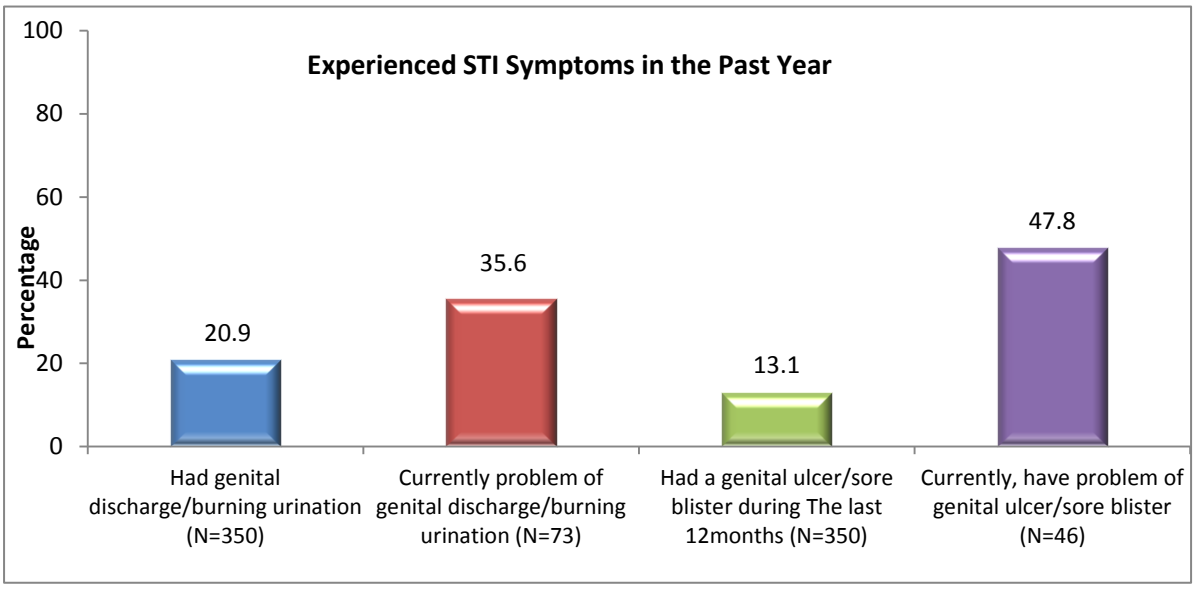

Figure 3-7: Experienced STI Symptoms in the Past Year

To explore the treatment seeking practice among the street involved children and youths, they were asked about the place they had visited the last time when they had STI symptoms. In response to the question, majority (70.9%) claimed that they had never experienced such symptoms. Notably, 16 percent reported that they never tried to seek treatment after facing

STI symptoms. Further, 11 out of 350 (3.1%) and nine out of 350 (2.6%) reported to have visited private doctor and organizations respectively. Notably, one out of 350 (0.3%) had tried self-medication. See Annex Table-5 for details.

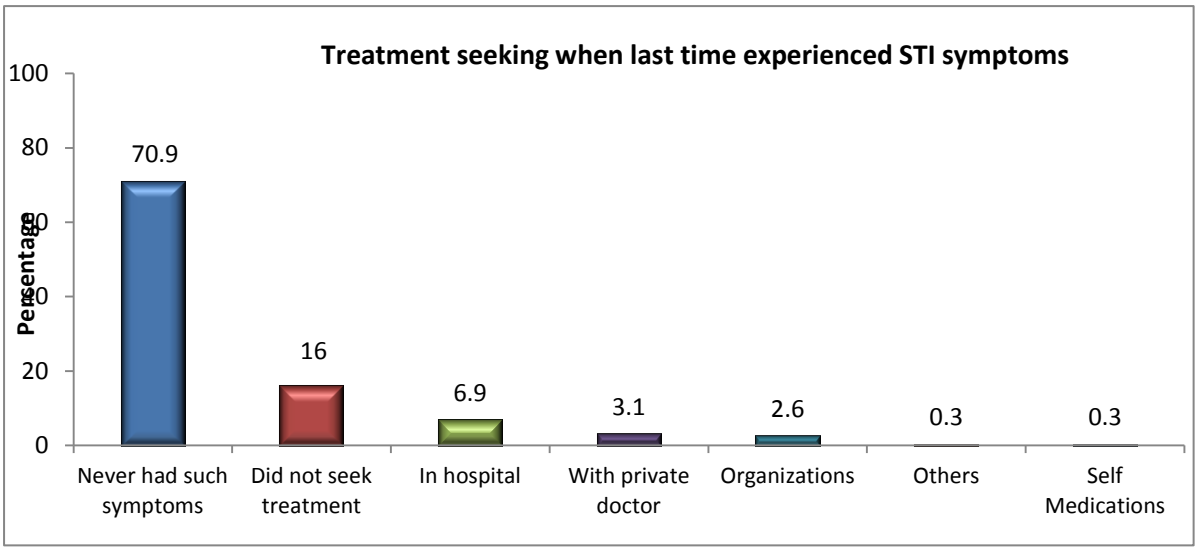

Figure 3.8: Sought Treatment at Last Time Experienced STI Symptoms

3.14 Exposure to HIV Awareness Program in Last 12 Months

These findings explore the exposure of street involved children and youth to HIV awareness programs and their participation in those programs. They were asked a series of important questions regarding components of ongoing HIV and AIDS interventions programs. The information provided by the respondents has been analyzed in the following sections.

3.14.1 OE/PE

Outreach Educators (OE), Peer Educators (PE) are important means of behavioural change communication (BCC) for HIV prevention program. Half (50.0%) of the street involved children and youths claimed that they had met/interacted with OE/PE at least once in last 12 months. Among the participants who had met/interacted with OE/PE (N=175), most (85.7%) reported to have participated in discussion on HIV transmission, discussed about STI (46.9%), and correct way of using condom (33.7%).The street involved children and youths reported some other topics they had discussed with OE/PE, as shown in Table 3.10.

Table 3.10: Meeting/Interaction with Peer Educator/Outreach Educator

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Met or Discussed or Interacted with PEs or OEs in the last 12 months						
Yes	57	49.1	118	50.4	175	50.0
No	59	50.9	116	49.6	175	50.0
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Activities involved in OE and PE*						
Discussion on how HIV/AIDS is/isn't transmitted	52	91.2	98	83.1	150	85.7
Discussion on how STI is/isn't transmitted	31	54.4	51	43.2	82	46.9
Regular/non-regular use of condom	36	63.2	23	19.5	59	33.7
Discussion on safe injecting behavior	17	29.8	21	17.8	38	21.7
Demonstration on using Condom correctly	11	19.3	8	6.8	19	10.9
No Activities	2	3.5	7	5.9	9	5.1
Health Tips	1	1.8	4	3.4	5	2.9
Watch TV/ Playing	0	0.0	4	3.4	4	2.3
Others(Specify)	0	0.0	2	1.7	2	1.1
Drug Educations	0	0.0	2	1.7	2	1.1
Never Visited	0	0.0	1	0.8	1	0.6
Counseling	1	1.8	0	0.0	1	0.6

3.14.2 Drop-in-Center

Drop-in-centers (DIC) are important components of HIV prevention program. DICs not only provide safe space for the target communities to socialize but also a site for educational and counseling activities. Almost four-fifth (78.9%) of the street involved children and youths claimed that they had visited DIC at least once in the last 12 months. Among those who had visited DIC (n=276), more than half (55.4%) claimed to have participated in discussion on HIV transmission. Similarly 13% mentioned that they visited DIC to learnt about the safe injecting behaviour (and another 9.8% to learn about correct way to use condom .The street involved children and youths reported several other activities they were involved in at DIC, as shown in Table 3.11.

Table 3-11: DIC Visiting Practices

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
DIC Visit in the last 12 months						
Yes	56	48.3	220	94.0	276	78.9
No	60	51.7	14	6.0	74	21.1
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Activities in DIC*						
Participated in discussion on HIV transmission	37	66.1	116	52.7	153	55.4
Went to learn about the safe Injecting behavior	14	25.0	22	10.0	36	13.0
Went to learn the correct way of using condom	10	17.9	17	7.7	27	9.8

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Went to watch film on HIV/AIDS	6	10.7	18	8.2	24	8.7
Playing	0	0.0	17	7.7	17	6.2
Went to have new syringe	1	1.8	9	4.1	10	3.6
Just Visited	0	0.0	9	4.1	9	3.3
Went to collect condoms	0	0.0	4	1.8	4	1.4
Health and Sex educations	3	5.4	0	0.0	3	1.1
Study	0	0.0	2	0.9	2	0.7
Drug educations	1	1.8	0	0.0	1	0.4
For Recovering	1	1.8	1	0.5	2	0.7
Others	11	19.6	64	29.1	75	27.2

*Multiple responses allowed

3.14.3 Practice of STI Clinic Visit

Prompt detection and treatment of STI may prevent many health hazards and including HIV infection. Several STI clinics are being run by different organizations. The street involved children and youths were asked if they had visited any STI clinic in last 12 months. In response, only 15 out of 350 (4.3%) reported to have visited STI clinic. Among them (n=15), 11 (73.3%) had undergone blood test for STI detection. About a quarter of them (four out of 11 or 26.7%) was educated to use condom and had their physical examination for STI identification as shown in Table 3.12.

Table 3-12: STI Clinic Visiting Practices

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Visited any STI Clinic in the last 12 months						
Yes	5	4.3	10	4.3	15	4.3
No	111	95.7	224	95.7	335	95.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Activities in STI clinic*						
Blood tested for STI	3	60.0	8	80.0	11	73.3
Regular/non-regular use of Condom	2	40.0	2	20.0	4	26.7
Physical examination conducted for STI identification	3	60.0	1	10.0	4	26.7
Took a friend with me	1	20.0	1	10.0	2	13.3

*Multiple responses allowed

3.14.4 HIV Testing and Counseling (HTC) Centers

Among the 350 street involved children and youths, 30 (8.6%) were found to have visited HTC center in the last 12 months. Among them (n=30), 22 (73.3%) had received HIV test result and had provided blood sample for HIV test. Similarly, eight out of 30 (26.7%) had received counseling on correct use of condom whereas, seven of them (23.3%) had received

HIV pre-test counseling. Further, three (10.0%) had been educated on safe injecting behaviour (Table 3.13).

Table 3-13: HTC Visiting Practices

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Visited HTC Center in the Last 12 months						
Yes	10	8.6	20	8.5	30	8.6
No	106	91.4	214	91.5	320	91.4
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Activities on HTC center*						
Received HIV test result	6	60.0	16	80.0	22	73.3
Blood sample taken for HIV test	7	70.0	15	75.0	22	73.3
Received counseling on using condom correctly in each sexual intercourse	5	50.0	3	15.0	8	26.7
Received pre-HIV test counseling	5	50.0	2	10.0	7	23.3
Received information on safe injecting behavior	1	10.0	2	10.0	3	10.0
Took a friend with me	1	10.0	0	.0	1	3.3

*Multiple responses allowed

3.15 HIV Prevalence

Among the 350 street-based children and youths who participated in the survey by providing blood, three (0.86%) were found to be HIV positive (Table 3.14).

Table 3-14: HIV Prevalence

Characteristics	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Positive	1	0.86	2	0.85	3	0.86
Negative	115	99.14	232	99.15	347	99.14
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

Chapter IV: Association of HIV with Selected Variables

4.1 Socio-Demographic Characteristics and HIV

In the survey, three street-involved children and youths (0.86%) were found to be HIV positive (among 350 street-based children and street-involved children and youths in the survey). However, this survey could not measure the associations between key indicators with HIV because the number of street-involved children infected with HIV was too small (only 3) to perform a reliable bi-variate analysis. The characteristics of street-based children infected with HIV are as presented in Table 4.1. All three (1.1%) HIV infected street-involved children were from Kathmandu district among 269 respondents from the same district. Among them, two were males and one was female. Similarly, all three HIV infected (1.7%) children and youths were between ages of 16 – 24 years among 174 respondents from the same age group. In addition, all three (or 1.0%) cases were illiterate among 303. In terms or ethnicity, one (or 1.7%) among 59 Dalit and two (or 1.6%) among 129 Disadvantage Janajatis participants were found HIV infected from the respective categories.

Table 4-1: Socio-Demographic Characteristics and HIV

Characteristics	HIV Positive		Total N
	N	%	
Recruitment District			
Kathmandu	3	1.1	269
Sex			
Male	2	0.7	288
Female	1	1.6	62
Age			
10–15 years	0	0.0	176
16– 24 years	3	1.7	174
Education			
Illiterate	3	1.0	303
Ethnicity			
Dalit	1	1.7	59
Disadvantage Janajatis	2	1.6	129

4.2 Sexual Behavior and HIV

In terms of the age at first sexual intercourse and HIV infection, among 170 street involved children and youths, one (0.6%) who never had sexual intercourse was found HIV infected. Likewise, one (1.0%) out of 99 participants who had first sex act between the age of seven to

14 years and one (1.5%) out of 66 participants who had first sexual contact between the age of 15 to 19 years were found to be HIV infected (Table 4.2).

Further, among those who had sexual intercourse in the last 12 months (N=106), two (or 1.9%) were found with HIV infection, whereas, one (or 0.4%) among 244 who had not involved in sexual act in the past 12 months was found to be HIV infected. One participant infected with HIV reported to have had sex in exchange of cash or kind (Table 4.2).

Table 4.2: Sexual Behavior and HIV

Characteristics	HIV Positive		Total N
	N	%	
Age at first sexual intercourse			
Never had sexual intercourse	1	0.6	170
7 - 14 years	1	1.0	99
15 - 19 years	1	1.5	66
Had sexual intercourse in the last 12 months			
Yes	2	1.9	106
No	1	0.4	244
Ever had sex in exchange of money/food/clothes			
Yes	1	4.5	22
No	2	0.6	328

4.3 Alcohol and Drugs Use Behaviour and HIV

All three (1.3%) HIV infected street involved children and youth reported to have been used to take alcohol (N=225). Similarly two (0.9%) HIV infected participants reported to have been sniffing solvents. Notably, all three (0.9%) cases had not injected drugs (N=327) as shown in Table 4.3.

Table 4.3: Alcohol and Drugs Use Behaviour and HIV

	HIV Positive		TotalN
	N	%	
Drink Alcohol			
Yes	3	1.3	225
Sniff Solvents			
Yes	2	0.9	235
No	1	0.9	115
Injecting drugs via syringe			
No	3	0.9	327

4.4 Exposure to HIV Awareness Programme and HIV

Among those who had visited DIC in the past 12 months (N=276), one (0.4%) children were found to be infected with HIV. None of the HIV infected participants (0.9%, n=3) among 335 had visited STI Clinic in the last one year. Similarly, among those who had visited HTC center in the past 12 months (N=30), one child was found HIV infected as illustrated in Table 4.4.

Table 4-4: Exposure to HIV Awareness Programme and HIV in the Past 12 Months

Characteristics	HIV Positive		Total N
	N	%	
Visited DIC			
Yes	1	0.4	276
No	2	2.7	74
Visited STI Clinic			
No	3	0.9	335
Visited HTC Center			
Yes	1	3.3	30
No	2	0.6	320

Chapter V: Conclusion and Recommendations

5.1 Conclusion

This section presents brief discussion on major findings of the IBBS surveys among street-involved children and youths in the study districts. This is first round of IBBS survey among 350 street-involved children and youths in Kathmandu, Lalitpur and Bhaktapur district of Nepal. The objectives of the survey were to determine the prevalence of HIV and to assess the HIV related risk behavior as well as to assess the sexual and/or injecting behaviors related to HIV. This round of survey has revealed some gaps in knowledge and a degree of vulnerability among street-involved children. It also raises some questions about including the street involved children as key affected population of HIV.

Street-involved children are affected with HIV:

HIV prevalence among street-involved children was 0.86 percent (0.2% to 2.0% at 95% CI).

Most of the street-involved children were males, younger, illiterate, rag pickers, beggars and imprisoned at least once:

Most of street-involved children were males (82.0%) and below 20 years of age (83.0%). The median age of the street involved children and youths was 15 years. Most of the street involved children and youths (87.0%) were illiterate. Most of street involved children and youths were either rag pickers (36.0%) or beggars (27.0%). The average income was found to be NRs. 1,228 with range between none to 20,000. Majority of street involved children and youths (62.0%) were arrested sometimes in the past and 42 percent of them were imprisoned or detained at some point in their life for various reasons by law enforcement. More than one-third (36.0%) of them reported to have been bothered and threatened by the police in the past.

Sniffing at a young age is prevalent and street involved children and youth possess drug injecting behaviours:

Alcohol consumption was common among street involved children and youths as 64 percent of them had experienced consuming alcohol. Majority of the street involved children and youths (67.0%) had habit of sniffing solvents. The median age of the street involved children and youths was 10 years when they started sniffing and 96.2 percent of them had started deliberate inhalation of solvents before they were 16 years. Nearly two-thirds (63.0%) of them reported to be sniffing solvents daily. About seven percent of the street involved children and youths were found to be as injecting drug users. Among them (N=23), almost 39 percent (9) started injecting drugs at less than 16 years of age.

Street involved children and youths had sexual risk behaviours and use of condom was considerably low

Nearly half (48.0%) of the street involved children and youths had experienced sexual intercourse. Among them, 28 percent had their first sexual intercourse very early at the age between 7 to 14 years. The median age at first sex was 14 years. Overall, 6.3 percent (n=22) of the street involved children and youths had had sex in exchange of money, food or clothes, either with male or female. In total, nearly eight percent (n=27) of the street involved children and youths were being involved for forceful sexual intercourse. Less than half (43.0%) had used a condom in the past. More than one-third (35.6%) of the street involved children and youths had used condom during their last sexual intercourse.

Comprehensive knowledge on HIV is considerably low; street involved children and youth are aware of HIV testing centers:

The survey shows that most of street involved children and youths (89.0%) had heard of HIV. Overall, 44 percent of them correctly identified all three major knowledge indicators ABC as HIV-preventive measures whereas less than one percent (n=2) were aware of all the five major indicators (i.e. BCDEF). Most of the street involved children and youths were aware of modes of HIV transmissions like through the transfusion of blood from an HIV infected person to another (92.0%); through the use of pre-used needles/syringes (90.0%); a pregnant woman infected with HIV could transmit the virus to her unborn child (72.0%); a women with HIV could transmit the virus to her new born child through breastfeeding (60.0%); and holding an HIV infected person's hand does not pose a risk of HIV transmission (66.0%). Majority of them (63.0%) were aware of confidential HIV test facility available in the community and 57 percent were aware of the place of HIV test. More than one fourth of the street involved children and youths (26.0%) had had an HIV test in the past.

Knowledge of STI is considerably moderate; some street involved children and youth had STI; however STI treatment is low:

The survey shows that most of the PWIDs (92.0%) had heard of STIs. The most commonly cited genital symptoms of STIs were genital ulcer/sore blister (37.0% in female and 53.0% in male) and genital discharge (35.0% in female and 44.0% in male). Seven percent reported experiencing genital discharge in the past year and among them, 35 percent reported having such symptom at the time of the survey. Similarly, nine percent of the PWIDs reported experiencing genital ulcers/sore in the past year and among them, 50 percent reported having the symptom at the time of survey. Fifty-seven percent of the PWIDs who had experienced STI had never sought any treatment and 38 percent had sought for treatment from private doctor or hospital/health post. About 57 percent of the street involved children and youths had heard about sexually transmitted infection (STI). They were aware of the symptoms of STI like genital ulcer/sore (47.0%), itching in the genital part (40.0%), foul smell (26.0%), burning pain on urination (24.0%) and genital discharge (17.1%). One-fifth (21.0%) of the respondents had experienced genital discharge/burning urination in the past 12 months; and among them (N=73), more than one third (35.6%) reported to have been experiencing these problems at the time of survey. Similarly, 13 percent had genital ulcer/sore/blister in the past

12 months; and among them (N=46), 48 percent reported to be experiencing such problems at the time of survey. In total, 71 percent never had STI symptoms and 16 percent of the street involved children and youths had never sought any treatment.

Exposure to OE/PE/CM were moderate: DIC were considerably high; however exposure to STI clinic and HTC center were considerably low

Half of the street involved children and youths had met/interacted with OE/PE at least once in the last 12 months. Overall, 79 percent of them had visited DIC in the last 12 months. However, 8.6 percent of them had visited HTC center and 4.3 percent of them had visited STI clinic during the same time.

5.2 Recommendations

Based on the findings from this survey, the following implications and recommendations are suggested for the new programs.

- Although at a low level, there are some street involved children and youth suffering from HIV infection. *Targeted outreaches programs are needed to bring them for treatment to prevent HIV transmission.*
- Most of the street involved children and youths had not received any education. *Thus the family re-integration and comprehensive education in formal schools program are one of the possible interventions programs.*
- The deliberate sniffing of different kinds of inhaled solvents was quite common among the street involved children and youths. *Thus, strong monitoring and follow-up mechanism need to in place to ensure sniffing rehabilitation services and to address the service seeking behavior of street involved children and youths having sniffing problems.*
- Street-involved children and youths were found practicing sexual risk behaviors and lacked the use of condom in their sexual acts. *To prevent the HIV transmission, access to condom and promotion of use of condom are necessary. There is also need of promotion of condom use during oral and anal sex.*
- Exposure to ongoing programs and services related to HIV (peer education, HTC clinics etc.) were found to be low. However, exposure to DIC was found to be moderate. *Targeted interventions among street involved children and youths with the provisions of peer and outreach education, partnerships with HTC/STI clinics, and inclusion of care and support are necessary to increase exposure of the street involved children and youths to the programs and services related to HIV and AIDS. .*
- The comprehensive knowledge (ABC), and comprehensive knowledge and misconceptions (BCDEF) of the street involved children and youths was found to be considerably low. *Therefore, comprehensive knowledge, education, and awareness regarding HIV should be promoted through multiple channel including strong and specific behavior change communication interventions (BCCI). The BCCI program should also focus on issues related to mitigation of stigma and discrimination amongst street children and youths and their families. The BCCI should focus on peer education, and developing electronic media programs and print materials*.

- The movement of the street involved children and youths is considerably high. Therefore, *there should be comprehensive long term strategy and program to stop migration of children and youths at source places i.e. from various parts of the country*.

- *There should be comprehensive harm reduction program likes NSP program, OST program, etc. At the same time, there should necessary of linking program with the ongoing PLHIV program with NGO stakeholders working with children. (Community sharing meeting, 11 August 2016).*

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ANNEXES

Annex – 1: Annex Tables

Annex Table 1: Knowledge about HIV

	Street Based		Facility Based		Total	
	N	**%**	**N**	**%**	**N**	**%**
Ever heard about HIV /AIDS						
Yes	113	97.4	197	84.2	310	88.6
No	3	2.6	37	15.8	40	11.4
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Know anyone who is infected with HIV or died of AIDS						
Yes	73	62.9	86	36.8	159	45.4
No	43	37.1	148	63.2	191	54.6
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Close relative or close friend infected with HIV or has died of AIDS						
Yes, a close relative	6	8.2	10	11.6	16	10.1
Yes, a close friend	49	67.1	49	57.0	98	61.6
No	18	24.7	27	31.4	45	28.3
Total	**73**	**100.0**	**86**	**100.0**	**159**	**100.0**

Annex Table 2: Comprehensive Knowledge of HIV

	Street Based		Facility Based		Total	
	N	**%**	**N**	**%**	**N**	**%**
Can protect themselves through abstinence from sexual contact *(A)*						
Yes	86	74.1	122	52.1	208	59.4
No	26	22.4	50	21.4	76	21.7
Don't know	4	3.4	62	26.5	66	18.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Can protect themselves through monogamous sexual contact *(B)*						
Yes	91	78.4	127	54.3	218	62.3
No	22	19.0	37	15.8	59	16.9
Don't know	3	2.6	70	29.9	73	20.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Can protect themselves through condom use every time during sex *(C)*						
Yes	102	87.9	147	62.8	249	71.1
No	14	12.1	20	8.5	34	9.7
Don't know	0	.0	67	28.6	67	19.1
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

	Street Based		Facility Based		Total	
	N	%	N	%	N	%
A healthy-looking person can be infected with HIV *(D)*						
Yes	85	73.3	142	60.7	227	64.9
No	26	22.4	44	18.8	70	20.0
Don't know	5	4.3	48	20.5	53	15.1
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
A person can get the HIV virus from mosquito bite *(E)*						
Yes	70	60.3	117	50.0	187	53.4
No	30	25.9	48	20.5	78	22.3
Don't know	16	13.8	69	29.5	85	24.3
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Can get HIV by sharing a meal with an HIV infected person *(F)*						
Yes	79	68.1	98	41.9	177	50.6
No	33	28.4	88	37.6	121	34.6
Don't know	4	3.4	48	20.5	52	14.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Knowledge of all the three indicators: *(ABC)*						
Right Knowledge*	70	60.3	84	35.9	154	44.0
Misconception/Don't know	46	39.7	150	64.1	196	56.0
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Knowledge of all five indicators: *(BCDEF)*						
Right Knowledge**	0	.0	2	.9	2	.6
Misconception/Don't know	116	100.0	232	99.1	348	99.4
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

*A, B and C; all 'Yes', **B, C and D all 'Yes' & E and F both 'No'

Annex Table 3: Awareness of Modes of HIV Transmission

	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Can a person get HIV by shaking hands with an HIV infected person's hand						
Yes	18	15.5	56	23.9	74	21.1
No	94	81.0	136	58.1	230	65.7
Don't know	4	3.4	42	17.9	46	13.1
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
A person can get HIV, by using previously used needle/syringe						
Yes	114	98.3	201	85.9	315	90.0
No	2	1.7	2	.9	4	1.1

	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Don't know	0	.0	31	13.2	31	8.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Blood transfusion from an infected person to transmit HIV						
Yes	115	99.1	206	88.0	321	91.7
Don't know	1	.9	28	12.0	29	8.3
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Can women with HIV transmit the virus to her new born child through breast-feeding?						
Yes	73	62.9	136	58.1	209	59.7
No	29	25.0	39	16.7	68	19.4
Don't know	14	12.1	59	25.2	73	20.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
A pregnant woman infected with HIV can transmit the virus to her unborn child						
Yes	97	83.6	156	66.7	253	72.3
No	11	9.5	15	6.4	26	7.4
Don't know	8	6.9	63	26.9	71	20.3
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

Annex Table 4: Awareness and Availability of HIV Testing Facility and HIV Testing

	Street Based		Facility Based		Total	
	N	%	N	%	N	%
Confidential HIV test facility available in the community						
Yes	98	84.5	118	50.4	216	61.7
No	11	9.5	18	7.7	29	8.3
Don't know	7	6.0	98	41.9	105	30.0
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Knowledge of place of HIV testing						
Yes	85	73.3	115	49.1	200	57.1
No	31	26.7	119	50.9	150	42.9
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Ever had an HIV test						
Yes	40	34.5	52	22.2	92	26.3
No	76	65.5	182	77.8	258	73.7
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

Annex Table 5: Experienced STI Symptoms and Treatment in the Past Year

	Street Based		Facility Based		Total	
	N	**%**	**N**	**%**	**N**	**%**
Had genital discharge/ burning Urination during the last 12 months						
Yes	25	21.6	48	20.5	73	20.9
No	91	78.4	184	78.6	275	78.6
Don't know	0	.0	2	.9	2	.6
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Currently, problem of genital discharge/burning urination						
Yes	12	48.0	14	29.2	26	35.6
No	13	52.0	34	70.8	47	64.4
Total	**25**	**100.0**	**48**	**100.0**	**73**	**100.0**
Had a genital ulcer/sore blister during The last 12months						
Yes	21	18.1	25	10.7	46	13.1
No	95	81.9	207	88.5	302	86.3
Don't know	0	.0	2	.9	2	.6
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**
Currently, have problem of genital ulcer/sore blister						
Yes	12	57.1	10	40.0	22	47.8
No	9	42.9	15	60.0	24	52.2
Total	**21**	**100.0**	**25**	**100.0**	**46**	**100.0**
Last time you had a genital discharge/burning Urination or a genital ulcer/sore blister, where did you go for treatment						
Did not seek treatment	26	22.4	30	12.8	56	16.0
With private doctor	5	4.3	6	2.6	11	3.1
In hospital	8	6.9	16	6.8	24	6.9
Never had such symptoms	74	63.8	174	74.4	248	70.9
Organizations	2	1.7	7	3.0	9	2.6
Self Medications	0	.0	1	.4	1	.3
Others	1	.9	0	.0	1	.3
Total	**116**	**100.0**	**234**	**100.0**	**350**	**100.0**

*Multiple responses allowed

Annex – 2: Formula for Sample Size Calculation

$$n = D\frac{[Z_{1-\alpha}\sqrt{2\bar{p}(1-\bar{P})} + Z_{1-\beta}\sqrt{P_1(1-P_1)+P_2(1-P_2)}]^2}{(P_2-P_1)^2}$$

n= required minimum sample size per survey round or comparison groups

D = design effect (assumed in the following equations to be the default value of 2

P1 = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area

P2 = the expected level of the indicator either at some future date or for the project area such that the quantity (P2-P1) is the size of the magnitude of change it is desired to be able to detect

Zα= the Z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (P2-P1) would not have occurred by chance (α– the level of statistical significance), and

Zβ= the Z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P1-P2) if one actually occurred (β– statistical power).

Annex – 3: Consent Form

Integrated Biological and Behavioral Surveillance (IBBS) Survey on Street-involved children and youth in Kathmandu Valley

Oral Consent Form

Introduction of Survey

We are asking you to take part in a research study to collect information on knowledge of human immunodeficiency virus (HIV)/sexually transmitted infections (STIs), HIV/STI related risk behaviors, STI treatment practices and to track the trend in the prevalence of HIV among the populations like you. We want to be sure that you understand the purpose of the research and your responsibilities before you decide if you want to participate in the study. This discussion is important. You can listen and learn about the study, ask questions, and then decide if you want to participate. If you choose to participate, one person will explain the study to you and another person will witness and make sure you understand the study. Both people will sign the form. You will not be asked to sign the form. You can ask us to explain any words or information that you may not understand.

Information about the Research and Your Role

This study selects its study participants from the Kathmandu valley who are street involved children and youth using a random process from Kathmandu Valley. You are in the pool of possible candidates, but the final selection would be based on your choice. In total 350 street involved children and youth like you will be selected for this study from Kathmandu Valley. If you agree to participate in the study we will interview you using a structured questionnaire and then ask you to provide blood sample.

You will have to spend about 60 minutes with us if you decide to participate in this research. We would like to inform that this is a research study and not health care provision service.

Possible Risks

The risk of participating in this study is the minor discomfort during blood drawing. Providing blood sample does not put you at any other risk. Some of the questions we ask might make you feel awkward or uncomfortable to answer them. You are free not to answer such questions and also to stop participating in the research at any time you want to do so.

Possible Benefits

You will be provided with free treatment, if currently you have any STI symptoms. You will be made aware of how STI/HIV is transmitted and how it can be prevented and controlled. You will be provided with information on safe sex. The information we obtain from this research will help to plan strategies to control and prevent further spread of HIV/AIDS and other sexually transmitted infections.

If You Decide Not to Be in the Research

You are free to decide whether or not to take part in this research. Your decision will not affect the health services you are seeking now and you would normally receive from the study centre.

Confidentiality

We will protect information collected about you and your taking part in this study to the best of our ability. We will not use your name in any reports. We will not ask you to put your name or sign on this form, but only ask you to agree verbally (with spoken words) in front of witness. We assure you that all the activities will be confidential.

Payment

We will provide NRs 300.00 for involving in the study for interview and providing blood sample

Leaving the Research

You may leave the research at any time. If you do, it will not change the healthcare you normally receive from the study clinic.

If you have a questions about the study

Principal Investigator: Dr. Tarun Paudel

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VOLUNTEER AGREEMENT

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

Signature of Person Who Obtained Consent Date

Annex – 4: Questionnaire

Integrated Biological and Behavioral Surveillance Survey among Street involved children and youth in Kathmandu Valley-2016

Would you be willing to participate?

1. Yes 2.No

Signature of the interviewer:_____Date:_____/_____/2073

Operational definition of Street-involved Children and Youth:

Street-involved children and youth 10 to 24 years of age and provided informed consent.

Inclusion criteria: IBBS survey will recruit both "children and youth of the street" and "children and youth on the street". Children and youth of the street are homeless children who live and sleep on the streets in urban areas. Children on the street earn their living or beg for money on the street and return home at night

IDENTIFICATION NUMBER: ☐☐☐☐☐

Interviewer Name:_____ Code Interviewer:____

Date Interview:___/_____/2073

Checked by the supervisor: Signature:_____Date:/____/2073

001. Has someone interviewed you from……with a questionnaire in last few weeks?

1. Yes 2.No(continue interview)

↓

When?

_____Days ago (make sure that it was interviewed by……and close the interview)

Code Répondent: (circule)

Children and Youth on the Streets: 1 Facilite Base Child en and youth: 2

1.0 BACKGROUNDOFRESPONDENT

Q.N.	Que	Coding Categories	Skip
101	Where are you living now? **(Write current place of**	District: _____	
102	Sex	Male……1 Female……....……2 Others ……...……96	
103	How old are you?	Age.....☐☐ **(write the completed years)**	
104	What is your educational status? **(Circle'0'ifilliterate,'19'forthelite rate without attending the school, and write exact number of the passed grade)**	Illiterate.....0 Literate without formal education .....19 Literate Grade.....☐☐ **(write the completed grade)**	
105	What is your caste? **(Specify Caste)**	Caste_____ I don't know.....1	
106	Where is your original home?	……. District	
107	What was your age when you first left your home? (in year)	Less than 6 .....1 6-11 .....2 12-15 .....3 16 or above .....4 Don't Know……98	
107.1	What is the reason for leaving home? (multiple answer possible)	Domestic violence .....1 Poor economic condition .....2 Seeking employment .....3 Peer pressure .....4 To see the city life .....5 Due to conflict situation at past .....6 Death of parents (Mother/Father/both) 7	

108	Where are your parents?	Both parents are dead..……..1 Both parents live in my original hometown/village……..……2 I don't know, possibly alive….3 Both parents live with me…..…4 My father lives with me…..……5	
109	What type of work are you mainly engaged in?	Begging……...…….1 Selling flowers/ newspapers/ fruits on the road……...…...2 Working at the market……...3 Stealing……...……..4 Sex work……..5 Whatever work I can find.....6	
110	How much did you earn last week? (for no income write 0)	……. Rs.	
111	Who do you sleep with at night? Do check and Link with Q no 107	Other street children/youth……1 No one, I sleep on my own..…..2 With other family members…...3 Other (specify)…….96	
112	Have you ever been arrested by the police?	Yes.....1 No.....2 No response 99	
112.1	Have you ever been imprisoned or detained for any reason?	Yes.....1 No.....2 No response 99	
113	Have you ever been bothered and threatened by the police?	Yes.....1 No.....2 No response 99	

2.0 ALCOHOL USE AND DRUG USE BEHAVIOR

O.N.	Questions	Coding Categories	Skip to
201	Do you drinks containing alcohol?	Yes.....1 No.....2	
202	During the past one-month how often have you had drinks containing alcohol? **(Such as beer, local beer etc.)**	Every day.....1 More than once a week.....2 Less than once a week.....3 Never drink.....4 Others(Specify)……..96	
203	Do you sniff any kind of solvents? (Probe: the deliberate inhalation of solvents such as glue, paints etc. is known as solvent abuse and 'sniffing'.) Solvent: a liquid that can dissolve other substances, in common usage it refers to volatile organic solvents. Organic solvents are usually volatile and inhaled for psychoactive effects.	Yes.....1 No.....2 No response.....99	} 209
204	If yes, can you name those solvents? (multiple response allowed)	…… …….. ……	
205	How long have you been sniffing ?	Age ☐☐ Don't Know 98	
206	When was the last time you sniffed inhalant?	I have sniffed today……1 ☐☐ days ago	
207	How many times do you use or sniff inhalants?	Everyday……..……1 2-6 days a week……..2 1-4 days a month……3 Once a month 4	
208	What effects do you have from sniffing inhalants?	Numbness……..……1 Increased appetite……..…..2 Absence of hunger…….……..3 Sleeplessness…….……..4 Weakness……..……..5 Sound sleep……6	

209	What were your reasons for sniffing solvents?	Lessens hunger pains……1 Adds excitement……..2 Provides courage……..3 Helps to forget the feelings of shame and hopelessness……..4 Increases energy to work……..5 Offers entertainment……6 Relieves physical pain…….7 Makes it easier to steal……8 Others (specify)… ……96	
210	Some people take different types of drugs. Have you also tried any of those drugs in the last 12 months? (Ganja, Bhang, Nitroson, Nitrovet)	Yes ..... 1 No ..... 2 Don't know.....98	211
211	How long have you been using drugs? **(Drug means medicine not used for treatment purpose rather used for**	Year ☐☐ Months ☐☐ No response.....99	
212	Some people try injecting drugs using a syringe. Have you injected such drugs in the last 12 months? **DO NOT COUNT DRUGS INJECTED FOR MEDICAL PURPOSES OR TREATMENT OF AN ILLNESS**	Yes..... 1 No ..... 2 Don't know.....98	401
213	How old were you when you first injected drugs? **(Include self-injection or**	Years..... ☐☐	
214	Have you used non-sterile injecting equipment at any time in the last month?	Yes.....1 No.....2	
215	How many times did you inject drugs yesterday?	Times..... ☐☐ → 217 Not injected.....0	

216	Would you like to tell me why you did not Inject yesterday?	Due to lack of Money…….....1 Want to quit slowly…….....2 Had taken Ganja…….3 Had taken Brown Sugar…….4 Had injected previous day…..5 Had taken alcohol……...6 Did not find Drugs……..7 Was under police custody…..8 Had taken Nitrosun…...…….9 Was Sick…….……..10	
217	How many days ago did you inject?	☐☐ Daysago.....	
218	During the past one-week how often would you say you injected drugs?	Once a week.....1 2-3 times a week.....2 4-6 times a week.....3 Once a day.....4 2-3 times a day.....5 4 or more times a day.....6 Not injected in the last week...7	

3.0 NEEDLE SHARING BEHAVIORS

Q.N.	Questio	Coding Categories	Skipto
301	The last time you injected, how did you get that syringe/needle?	My friend/relative gave it to me After his use.....1 Unknown person gave it to me after house……...2 I pick edit up from a public place which was left there by others.....3 I pick edit up from a public place which was left there by myself..... 4 I used a new needle/syringe given by NGO staff/ volunteer.5 **(write the name of Organization)** I used a needle/syringe which I purchased.....6 I reused my own needle/ syringe.....7 My friend gave new needle/ syringe.....8 Others(Specify…….....96	
301.1	If you were in a group the last time that you injected, how many different people in the group. Do you think used the same syringe/needle?	No of person:.....☐☐ Injected alone.....95	
302	With how many different injecting partners did you share needles or syringes in the past one week? **(Count everyone who injected from the same syringe)**	No. of partners…….. ☐☐ Don't know……..98 No response…….99	
303	In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it?	Every times.....1 Almost every-times.....2 Sometimes.....3 Never.....4 Don't know.....98	

304	In the past-week, did you ever inject with apre-filled syringe? **(By that I mean a syringe that was filled without you witnessing it)**	Yes.....1 No.....2 Don't know……..98 No response.....99	

Q.N.	Questions	Coding Categories	Skip to
305	In the past one-week ,how often did you inject Drugs using a syringe after someone else had squirted drugs in to it from his/her used syringe?	Every times.....1 Almost every-times.....2 Sometimes.....3 Never.....4 Don't know.....98	
306	In the past one-week, when you injected drugs, how often did you share a cooker/ vial/container, cotton/filter ,orrise water?	Every times.....1 Almost every-times.....2 Sometimes.....3 Never.....4 Don't know.....98	
307	In the past one-week, how often you draw up your drug solution from a common container Used by others?	Every times.....1 Almost every-times.....2 Sometimes.....3 Never.....4 Don't know.....98	
308	Can you obtain new, unused needles and Syringes when you need them?	Yes.....1 No.....2 Don't 'know.....98 No response.....99	316
309	Where can you obtain new unused needles and syringes? **(Do not read outlist. Multiple answers possible. Probe only with "Any where Else?")**	Drugstore.....1 Other shop.....2 Health worker.....3 Hospital.....4 Drug wholesaler/drug agency..5 Family/relatives.....6 Sexual partner.....7 Friends.....8 Other drugs users.....9 Drugs seller.....10 Needle exchange program.....11	

310	What do you usually do with your used needle/ syringe?	Disposed ……..…1 Gave to friend……..2 Kept/carry safely for another use…….....…3 Hide in public places ……...4 Threw anywhere (please specify)….....5	Section 4
310.1	If disposed, how did you do?	Returned to DIC outreach.....1 Public place …….....2	

4.0 SEXUAL HISTORY

O.N.	Questio	Coding Categories	Skipto
401	How old were you at your first sexual Intercourse?	Years old ……..☐☐ ***(Write completed years)*** Never had sexual intercourse.....0 Don't know.....98 No response 99	
402	Have you had sexual intercourse in the last 12 months?	Yes.....1 No.....2 No response 99	403.1
403	In total, how many different sexual partners have you had sex in the last12 months?	Number……. ☐☐	
403.1	Have you ever had sex in exchange of money/food/cloths?	Yes …….....…..1 No…….....2	→ 406
404	**IF Yes with whom**	Male ……1 Female……2	
405	Have you ever been involved in: (Multiple answer possible)	Kissing .....1 Foundling .....2 Masturbation .....3 Oral Sex .....4 Anal Sex .....5 Vaginal Sex .....6 Have not been involved in any..7 Other (specify) 96	
406	Have you ever been involved in sexual intercourse forcefully?	Yes .....1 No 2	→408

407	age of sexual partner (Male or Female	Male age ……. Female age ……..	
408	The last time you had anal/vaginal/oral sex with partner did you and your partner use a condom?	Yes.....1 No.....2 Don't Know.....98 No response.....99	→

5.0 USEANDAVAILABILITYOFCONDOM

501	Have you ever used a condom?	Yes.....1 No.....2 Don't know.....98	→ 601
502	Do you know of any place or person from which You can obtain condom?	Yes.....1 No.....2 No response.....99	→ 504
503	From which place or people, can you obtain condoms? **(Multiple answer possible. Don't read the list but probe)**	Shop.....1 Pharmacy.....2 Clinic.....3 Hospital.....4 Family planning center.....5 Bar/Guesthouse/Hotel.....6 Health worker.....7 Peer Educator/Outreach doctor.....8	
503.1	Did any organization give you condom in the Last12months?	Yes, free of cost.....1 Yes, by taking money.....2 No.....3	
504	Do you usually carry condom with you?	Yes.....1 No.....2	

6.0 KNOWLEDGEANDTREATMENTOFSTIs

O.N.	Questio	Coding Categories	Skipto
601	Have you ever heard of diseases that can be transmitted through sexual inter course?	Yes.....1 No.....2 No response.....99	603

602	Can you describe any symptoms of STIs in women? **(Do not read possible answers, multiple answers possible.)**	Lower abdominal pain.....1 Genital discharge.....2 Foul smelling.....3 Burning pain on urination.....4 Genital ulcers/sore.....5 Swelling in groin area.....6 Itching.....7	
603	Have you had genital discharge/ burning Urination during the last 12 months?	Yes.....1 No.....2 Don't know.....98	604
603.1	Currently, do you have genital discharge/burning urination problem?	Yes.....1 No.....2 Don't know.....98 No response.....99	
604	Have you had a genital ulcer/sore blister during The last 12months?	Yes.....1 No.....2 Don't know.....98	605
604.1	Currently, do you have genital ulcer/sore blister?	Yes.....1 No.....2 Don't know.....98 No response.....99	
605	Last time you had a genital discharge/burning Urination or a genital ulcer/sore blister, where did you go for	Did not seek treatment.....1 With private doctor.....2 In hospital.....3 Other health care.....4	

7.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV

O.N.	Questio	Coding Categories	Skipto
701	Have you ever heard of HIV or the disease called AIDS? **(Probe if the response if No)**	Yes.....1 No.....2 No response.....99	
702	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes.....1 No.....2 No response.....99	704
703	Do you have 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 No response.....99	

Q.N.	Questions	Coding Categories	Skipto
704	Can a person protect himself/herself from HIV, the virus that causes AIDS, by using a condom correctly during each sexual act? **(C)**	Yes.....1 No.....2 Don't know.....98	
705	Can a person get HIV, from mosquito bites? **(E)**	Yes.....1 No.....2 Don't know.....98 No response.....99	
706	Can a person protect himself/herself from HIV, By having only one un infected faithful sex partner? **(B)**	Yes.....1 No.....2 Don't know.....98	
707	Can a person protect himself/herself from HIV, by abstaining from sexual intercourse? **(A)**	Yes.....1 No.....2 Don't know.....98 No response.....99	
708	Can a person get HIV, by sharing a meal with someone who is infected? **(F)**	Yes.....1 No.....2 Don't know.....98	
709	Can a person get HIV , by getting injections with a needle that was already used by someone else?	Yes.....1 No.....2 Don't know.....98 No response.....99	
710	Can a person who inject drug protect himself/herself from HIV, the virus that causes AIDS, by switching to non-injecting drugs? **(Oral or inhaling drugs)**	Yes.....1 No.....2 Don't know.....98 No response.....99	
711	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes.....1 No.....2 Don't know.....98 No response.....99	713
712	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? **(Do not read the possible answers, multiple answer possible)**	Take medication (Antiretroviral)..1 Others(Specify)_____96 Don't know.....98 No response.....99	
713	Can women with HIV transmit the virus to her new born child through breast-feeding?	Yes.....1 No.....2 Don't know.....98 No response.....99	

713.1	Do you think a healthy-looking person can be infected with HIV? **(D)**	Yes.....1 No.....2 Don't know.....98	
713.2	Can a person get HIV by shaking hand with an infected person?	Yes.....1 No.....2 Don't know.....98	
713.3	Can blood transfusion from an infected person to the other transmit HIV?	Yes.....1 No.....2 Don't know.....98	
714	Is it possible in your community for someone to have a confidential HIV test? **(By confidential, I mean that no one will know the result if you don't want him or her to know it.)**	Yes.....1 No.....2 Don't know.....98 No response.....99	
714.1	Do you know where to go for HIV test?	Yes.....1 No.....2	
715	Have you ever had an HIV test?	Yes.....1 No.....2 No response.....99	801
716	Did you voluntarily take up the HIV test, or were you required to have the test?	Voluntary.....1 Required.....2 No response.....99	
717	When did you have your most recent HIV test?	Within the past 12 months...1 Between 13-24 months.....2 Between 25-48 months.....3 More than 48 months.....4 Don't know.....98 No response.....99	
717.1	How many times have you undergone for HIV test within the last 12 months?	……. Times	
718	Did you find out the result of your HIV test?	Yes.....1 No.....2 No response.....99	801
718.1	What was the result of your last test?	Positive…….....……1 Negative…….....……2 Uncertain……..…..3 Result not received…….4 Don't know……98 No response……...99	801 719 801

718.2	Did you go to HTC for HIV care once you knew you were HIV positive?	Went……..…….1 Did not go……...……2 Don't know……...98 No response……...99	→ 801
718.3	Why didn't you go to HTC for HIV care even after knowing you were HIV positive?	Felt I was healthy…….....1 Others might know…….....2 Had to pay……..…...3 Bad attitude of healthcare provider.....4 Long waiting time/Could not manage with Clinic opening time…….....5 Others (Specify)……...96 Don't know……...98	801
719	Why did you not receive the test result?	Sure of not being infected..1 Afraid of result.....2 Felt unnecessary.....3 Forgot it.....4 Others(Specify) _____96	

8. KNOWLEDGEANDPARTICIPATIONINSTIANDHIVPROGRAMS

O.N	Question	Coding Categories	Skip
801	Have you met or discussed or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilizes(CM)or Community Educators(CE) in the last 12 months?	Yes.....1 No.....2 No response.....99	→ 803
802	What activities did these PE or OEs involve you in when you met them? **(Multiple answers. DO NOT READ the possible answers)**	Discussion on how HIV/AIDS is/isn't transmitted.....1 Discussion on how STI is/isn't transmitted….....2 Discussion on safe injecting behavior.....3 Regular/non-regular use of condom.....4	

803	Have you visited or been to any outreach center (DIC, IC or CC)in the last 12 months? Drop-In Center(DIC),Information Center(IC),Counseling Center(CC)	Yes.....1 No.....2	→ 805

804	What did you do when you went to the outreach center (DIC, IC or CC)inthe 12 last months? **(Multiple answers. DO NOT READ the possible answers)**	Went to collect condoms.....1 Went to learn the correct way of using condom.....……2 Went to learn about the safe Injecting behavior.....3 Went to watch film on HIV/AIDS…….....4 Participated in discussion on HIV transmission.....5 Went to have new syringe.....6	
805	Have you visited any STI clinic in the last 12 Months?	Yes.....1 No.....2 →	807
806	What did you do when you visited such STI clinic? **(Multiple answers. DO NOT READ the possible answers given below)**	Blood tested for STI.....1 Physical examination conducted for STI identification.....2 Discussion on how STI is/isn't transmitted.....…3 Discussion on safe injecting behavior.....4 Regular/non-regular use of Condom.....5	
807	Have you visited any HTC (HIV testing and counseling center) ?	Yes.....1 No.....2	
808	What did you do when you visited such HTCs ? **(Multiple answers. DO NOT READ the possible answers)**	Received pre-HIV/AIDS test counseling.....1 Blood sample taken for HIV/AIDS test.....…2 Received post HIV/AIDS test counseling.....3 Received information on safe injecting behavior.....……4 Received HIV/AIDS test result.....……5 Received counseling on using condom correctly in each sexual intercourse.....6 Received information on	

END

Annex – 5: Clinical Form

Integrated Biological Behavioral Surveillance Survey (IBBS) Among Street Involved Children and Youth Kathmandu Valley-2016

NCASC/Save the Children/GF/INTREPID Nepal

Participants Received General Checkup

Site _____ District _____

SN	Date	ID No.	Treatment Received for(symptoms)	Medicine and Quantity Provided

Annex – 6: Lab Test Result Register

IBBS among Street Involved Children and Youth In Kathmandu Valley-2016NCASC/Save the Children/GF/INTREPID Nepal

Laboratory Test Result Register-HIV

District: **Cluster:** **Name of Lab Technician:**

S. No	Date	Client ID	Rapid HIV Testing				Remarks
			Determine HIV 1/2	Uni-Gold HIV	Stat Pak HIV 1/2	Final Result	

Annex – 7: EQAS Form for HIV

IBBS among Street Involved Children and Youth of Kathmandu valley, 2016

SAVE THE CHILDREN/GF/ NCASC/INTREPID Nepal

EQAS Form for HIV

District:	Test 1:	Lot#	Exp. Date:	**For NPHL Staff Only**
Date:	Test 2:	Lot#	Exp. Date:	Received Date:
	Test 3:	Lot#	Exp. Date:	Examination Date:
	Total No. of Specimen :			Examined by:
	Completed By:			

SN.	Date of collection	Client id	Sample type	Remarks

Annex – 8: Formative Assessment

Formative Assessment (IBBS Survey on Street Children)

Background

Intrepid Nepal in coordination with NCASC, Save the Children pool fund US is conducting IBBS survey among street children/youths of Kathmandu valley. The objective of the survey is to determine of HIV prevalence and to assess HIV related risk behavior among Street-involved children and youth in Kathmandu, Lalitpur and Bhaktapur Districts. Among street children in Nepal, since there has been no official census carried out on the population of street children in for the last decade. For this reason they have not yet been included among the country's key affected populations. The true prevalence of HIV and other sexually transmitted diseases and other co-morbidities among street children in Nepal is virtually unknown, while information on behavioral risks in this population is non-existent. A previous study among street children of Kathmandu helped identify HIV infection prevalence in the population (Karmacharya et al., 2010) However, a larger representative sampling based study for Kathmandu has never been conducted among street children population in city. For this reason, there is a need for IBBS to understand risk behavior and its determinants and causal relationships to plan for evidence based successful behavioral and social interventions among street children.

And thus Intrepid Nepal is in preliminary phase assessment of organizations working for the welfare of street children so that this process can enable further in the process of determining the social networks, sampling procedures and data collection. We are conducting formative assessment to address the following issues at the beginning of the IBBS survey to decide whether respondent driven sampling (RDS) is an appropriate sampling method for the population being studied identify subpopulations of interest and help select subsets for seedsidentify individual seeds, define logistical issues (appropriate incentive, interview locations), inform materials development e.g. coupons, survey questions.

Objectives of Formative Assessment

- To determine the social networks of the street children within themselves in Kathmandu valley.
- To assess the feasibility of sampling method (RDS/ Cluster sampling) for the study.
- To assess the method feasible for test results dissemination, incentive provision to street children.

Methods

Used following methods to gather information to answer for mentioned issues:

i. In-depth interviews with possible responsible organization persons

ii. Key informant (or expert) interviews. For example: Key officials of organizations visited.
iii. Observation
iv. Review of existing information.

Organizations Visited

i. CWIN (Child workers in Nepal), Ravi Bhawan Kathmandu
ii. CCWB (Centre Child Welfare Board), Harihar Bhawan, Kathmandu
iii. NOASC- Nepal (National Alliance of Organization working for the street Children), Anamnagar, Kathmandu
iv. CPCS (Child Protection Centre and Services), Dillibazar, Kathmandu
v. APC-Nepal (Association for Protection of Children Nepal), Dallu, Kathmandu

Key Informant of the Organizations Visited

i. Swastika Kasaju (Program Manager, CWIN)
ii. Rabi Gautam (Child Protection Officer, CCWB)
iii. Santa Maharjan (Program Manager, NOASC)
iv. Hikmat Maskey (Program Officer, CPCS)
v. Anita Karki (Program Coordinator, APC)

Major Findings

There are two types of Street children in Kathmandu Valley. They are:

i. Establishment based
ii. Street Based

Annex Table 6: Information about Establishment Street Based Children (DIC centres) in Kathmandu Valley

S.N	***Name of DIC***	***Location***	***Street children Number***
1	Voice of Children (VOC)	Sanepa	37
2	Association for the Protection of Children (APC-Nepal)	Dallu	30
3	Kopila Ghar	New Chhetrapati	35
4	Child Protection Centre and Services (CPCS)	Dillibazar	39
5	Bal Batawaran	New pati	30
6	Saath Saath	Baneshwor	30
7	Richmond Fellowship	Chovar	35
8	UCEP	Sano Thimi	40
9	Yuwa Samudayik Sewa Kendra	Kalimati	34
10	Child Workers in Nepal (CWIN)	Ravi Bhawan	42
Total			**352**

Annex Table 7: Street Based (Hot spot) Children in Kathmandu Valley

S.N	*Name of Hot Spot Centre*	*Street Children Number*
1	Pashupati Area	15
2	Thamel	10
3	Bashantpur	15
4	Teku Dobhan	5
5	Kalimati	5
6	Kalanki	8
7	Tilganga	5
8	Lagankhal	10
9	Balaju	5
10	Mahankal	5
11	Kalimati	10
12	Putalisadak	5
13	Sundhara	10
14	Baudha	7
15	New road	10
16	Swayambhu	7
17	Darbarmarg	5
18	Ratnapark	18
19	Koteswor	10
20	Jaulakhel	5
Total		**170**

The major findings of the assessment of the organizations working in street children are discussed with following topics.

Social network properties

Although there is no formal network among the street children, internal networking of street children in DIC is likely. The drops in centres are places where in the street children sheltered and are limited in the frequency of outside movement compared to what they are usually used to in the streets. The estimated street children within the valley range between 500-1500 in number according to interactions with various key informants. The age groups of street children vary from 10- 24 years in different DIC centres of Kathmandu.

Acceptability of RDS to the survey population

There is no good network among the street children/youth of different places of Kathmandu valley. Due to this fact, the method of cluster sampling in the study seems more feasible. The

key informants do not agree that sending this vulnerable group to external clinics is a good idea. Therefore, the drop in centres should be identified as clusters. Clinic set up within drop in centres might be a good option compared to external sites.

Seed selection

Due to lack organized network of street children, RDS method might not be suitable method for participant recruitment. Therefore, cluster sampling might be an alternative method for this particular population.

Survey procedures

The tools will be shared with key informants and modified as per suggestions. For the process selection, all drops in centres will be included in the study and other hot spots where in the highest numbers of street children are expected to occur will be selected. The clinics are to be set up at each drop in centres for data collection. Survey approach may require providing some incentive to the children who might be better in kind rather than cash (Example: Clothes, stationary etc). As much as possible, drop in centre personnel must be involved in providing results.

Conclusion

This IBBS survey among the street children is important to fill gaps related to the extent of HIV infection and risk behaviour present in street children population of Nepal's capital city. With the implementing government line agency, NCASC would be able to utilize results of the study to develop necessary policies and programs targeting the street children of not only Kathmandu but also other parts of Nepal.

Through the different rounds of meeting with stakeholders' and research experts (6 May meeting at NCSC, 9 May Meeting at Trade tower and 11 May meeting at Intrepid Nepal) advised the facilities based sampling and cluster sampling technique to recruit the survey participants.

In the facilities based sampling techniques and cluster sampling techniques, we will list out the all the available facilities and information on the estimated size of the Street-involved children and youth will collated by focusing on government organization (GO) and Non-government Organization (NGOs) working with Street-involved children and youth.

Recommended approach

- Clinic can be setup at Drop in centre.
- Nearby hot spots (where street children usually congregate) can also be utilized as centre to get the target population as street children. (Eg: Pashupati area, Teku area nearby waste disposal site, Kalanki area, Basantapur area, Ratnapark area, Tilganga area and Thamel area)

- Provide the money to DIC centre to mobilize the funds towards welfare of the street children.
- Provide clothes, or other useful material to children rather than cash
- HIV test results to be carefully disseminated, keeping in mind the risks of stigma and other negative impacts to the street children.

Cluster sampling method will be suitable approach for recruiting study population.

Annex – 9: Mapping List

Selection of Sample size of Street Children and Youth in Kathmandu Valley-2016							
S. N	**Cluster - Facility Based (Age 10-18 Years)**	**No. Of Population**	**Selection of Sample**	**Street Based (Age 10-24years)**	**Street Based Cluster**	**No. Of Population**	**Selection of Sample**
1	YCSC	43	38	Swoyambhu	Swoyambhu+Balaju	23	11
2	UCEP	45	40	Balaju	Naya Baupark+NayaBazar	24	12
3	VOC	43	35	Nayabazar	Thamel	26	12
4	CPCS	46	42	Ratnapark	Ratnapark+Sundhara	25	13
5	CWCN	44	40	Kalanki	Kalanki+Balkhu	25	13
6	Welcome to My Yard	45	40	Pashupati	Pashupati+Gaushala	25	10
7				Balkhu	Koteswor+Lagankhel	26	11
8				Lagankhel	Teku+Kalimati	25	13
9				Koteswor	Bhandarkhal	24	12
10				Thamel	Sinamangla+Nayabaneswor	25	10
Total		**266**	**234**		**Total**	**248**	**116**