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United Nations Office on Drugs and Crime



WOMEN WHO USE DRUGS IN NORTHEAST INDIA



Project RAS/H13: Prevention of transmission of HIV amongst drug users in SAARC countries





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**Project RAS/H13: Prevention of transmission
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FOREWORD

Societal pressures, changing roles, increased stress and alterations in lifestyle are making women in India vulnerable to newer problems. As is true for all societies, women in the Northeastern states of India are vulnerable to these changes. However, the lack of opportunities and development, and given the geographical proximity of these states to areas from where opioids and psychotropic drugs are sourced makes women in Northeast India doubly vulnerable.

As a matter of fact, health and social vulnerabilities amongst women particularly in northeast India are further magnified due to their central role as wives or mothers in families and societies.

Further and in this context, women who use drugs in northeast India have substantially different needs and face higher risks of disease (like HIV, HCV) and violence than do men who use drugs. Given this disparity, it is surprising to me that much of the evidence and responses on drug users do not distinguish between men and women when discussing prevalence, needs, risks and outcomes of illicit drug use. This has led to a possible under representation of the specific issues that women who use drugs face and a gap in appropriate policy development and understanding around their specific needs.

In the last decade or so, thanks to efforts from organizations like the UNODC, academic institutions of the Government of India and demand for women specific health and social services from community groups in India, the problem of drug use amongst women is being increasingly recognized. We should however not be complacent yet; since women who use drugs and their health and social problem do not often show up in official statistics on drugs and consequently do not result in formulating policies and programmes tailor made for their needs.

It is therefore important to also evolve alternate strategies to identify women with problems related to drug use in order to understand its impact both from the individual as well as from the gender perspective.

I congratulate UNODC for this report that underscores the significance of reaching out to women who use drugs and those who are affected/afflicted by it. The study makes a strong case for ensuring that the services for these women should be health centric and rights based.

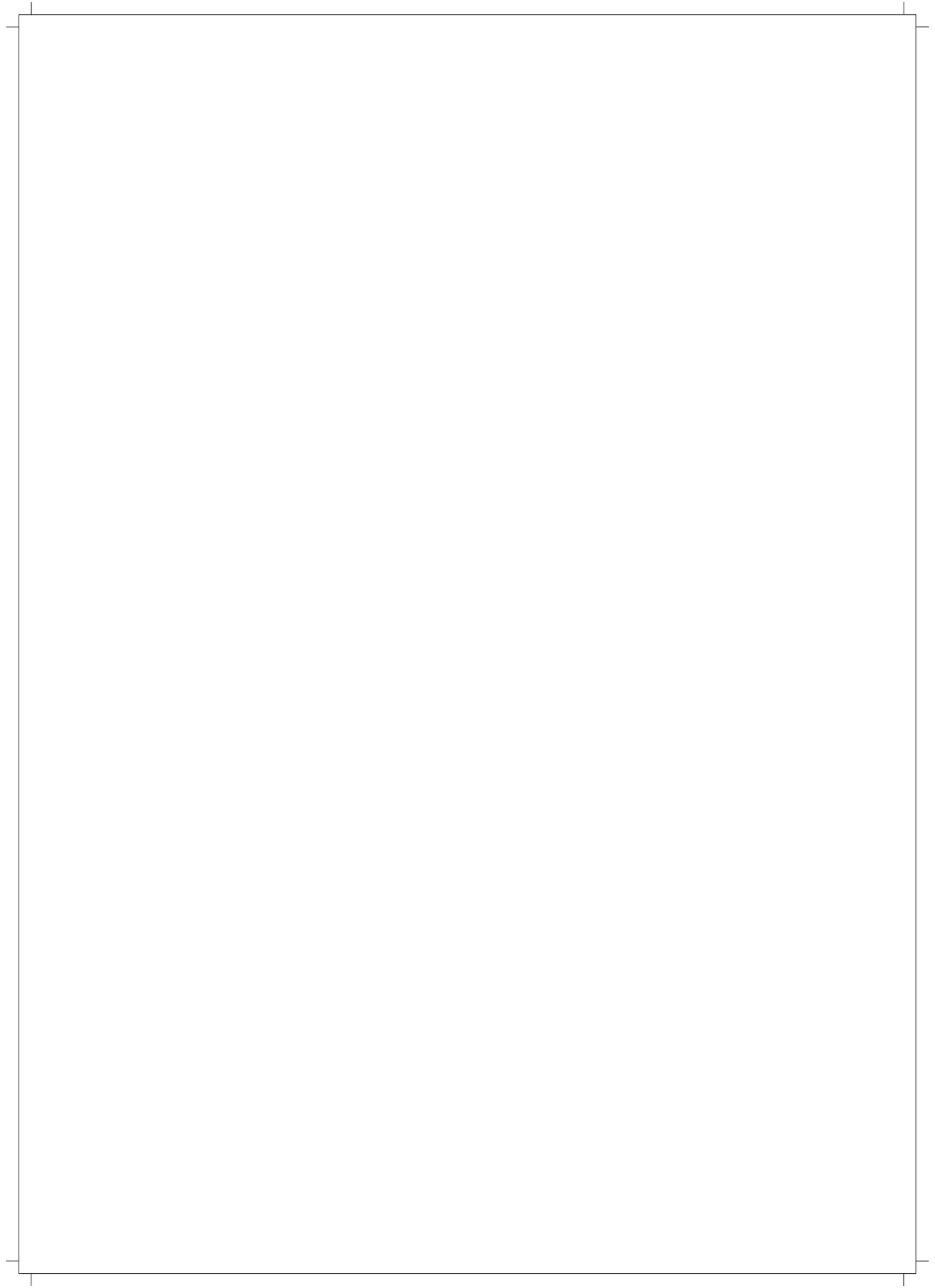
I am optimistic that this study will be used by our policy makers and programme implementers to work towards addressing the social and health needs of women who use drugs those who are affected/afflicted by it.



Dr. Kiran Bedi

IPS Officer (1972-2007)

Founder of Navjyoti & India Vision Foundation



PREFACE

The study **Women Who Use Drugs in Northeast India** was commissioned by the United Nations Office on Drugs and Crime under its regional initiative “Prevention of transmission of HIV amongst drug users in SAARC Countries”.

It was conducted in response to the gap of knowledge regarding women and drug use, including drug use patterns, adverse consequences related to drug use and impediments in accessing community-based services for women who use drugs. The study which was conducted in the eight states of Northeast India, also makes valuable policy recommendations following in-depth research, analysis and comparison of data related to the following aspects:

- a) Women who use drugs
- b) Women who inject drugs
- c) Comparison of relevant data for women who inject drugs and women who use drugs by non-injecting modes
- d) Women who use drugs and engage in sex work
- e) Comparison of relevant data for women who use drugs engaged in sex work vis-à-vis those not engaged in sex work

It is well-known that people who use and/or inject drugs are marginalized and stigmatized. This is even more true for women, who as a consequence remain a hidden population. Compounded by societal discrimination, they face serious adverse consequences to their health, safety and well being. In India, current programmes aimed at improving the health of people who use drugs including harm reduction programmes and services show significant gaps when it comes to reaching out to women who use drugs. This is why our Office undertook the present study **Women Who Use Drugs in Northeast India**.

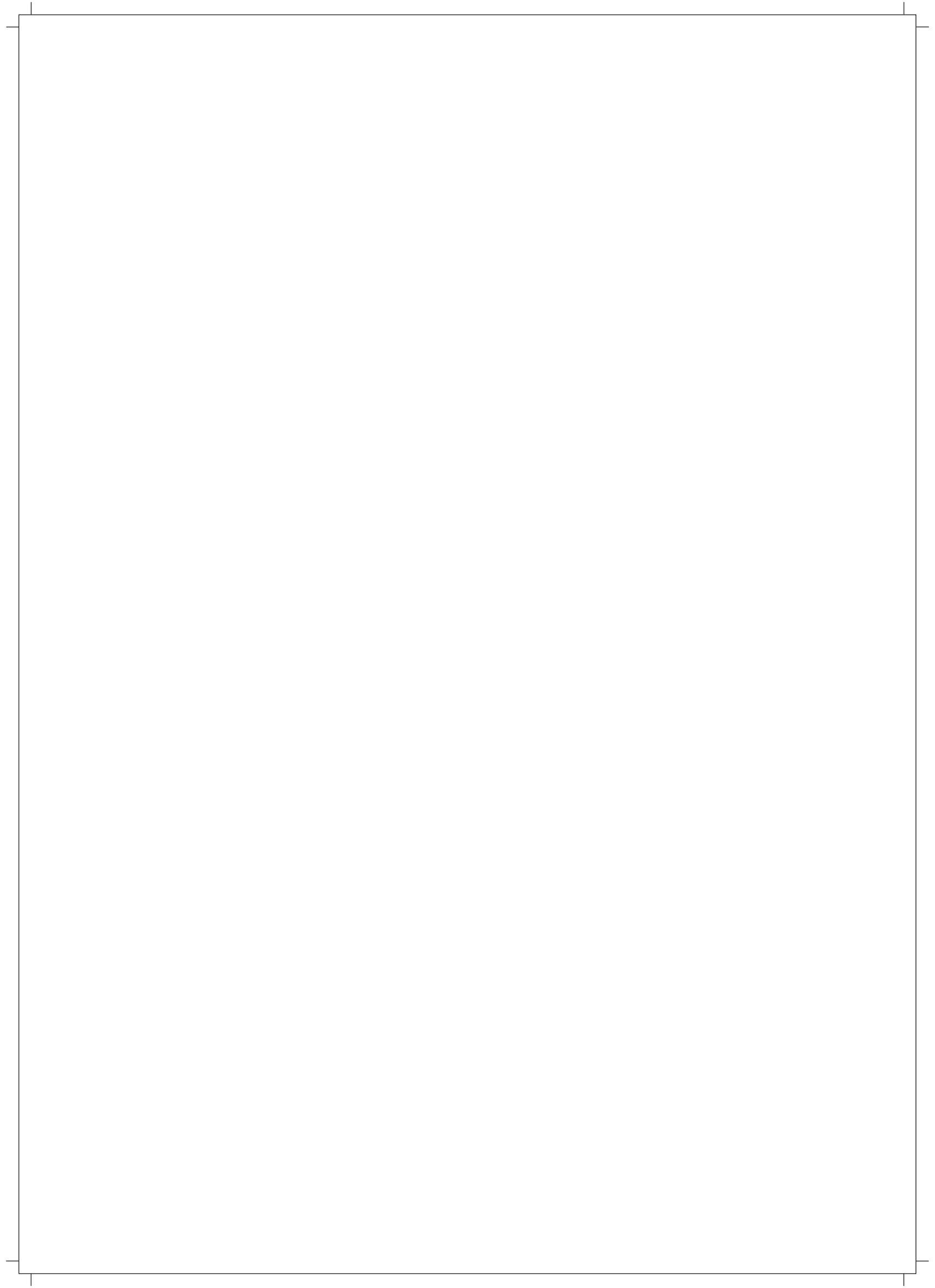
The research was undertaken employing the respondent driven sampling (RDS) method. Information on various characteristics and aspects was collected from 1150 women who use drugs in the 8 Northeastern States of India. It finds that women who use drugs face a greater likelihood of acquiring several health and social harms, increased HIV/HCV risk and yet encounter significant barriers in accessing social protection services, especially health care services, including for sexual, reproductive health and child care.

The present study is an attempt by the United Nations Office on Drugs and Crime to provide a scientific basis on the situation of women who use drugs as there is hardly any relevant information available in Indian literature. Its findings should help to better understand the situation of these women and most importantly allow law and policy makers to prioritize women who use drugs as a key population for policy and programme formulation with regard to the provision of services which are women-centric, need based and quality-assured.

It is our sincere hope that policy and law makers, programme implementers, development partners and most importantly the community groups of women who use drugs and those affected/afflicted by drug use and its consequences will find this study useful for the development and implementation of future policies and programmes.

Cristina Albertin

Cristina Albertin
Representative



ACKNOWLEDGEMENTS

This research report is the result of the efforts of several individuals, non-governmental organizations working with people who use drugs in the eight states of northeast India, various experts in the field and, most importantly, women who use drugs in northeast India.

Our sincere gratitude to the concerned state health departments of the eight states for their cooperation in conducting the study.

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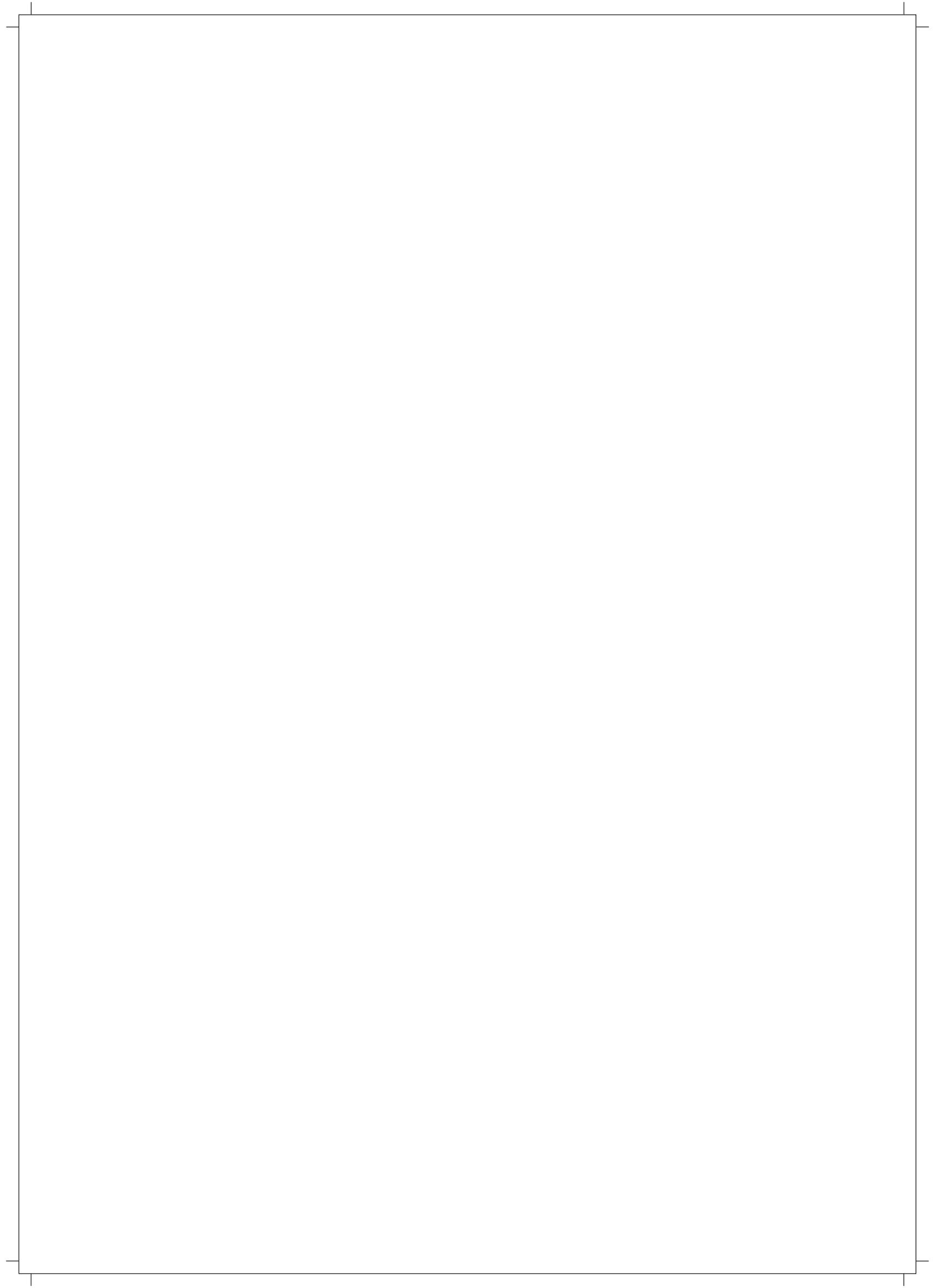


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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-Retroviral Therapy
BCC	Behaviour Change Communication
DIC	Drop-In Centre
DOTS	Directly Observed Treatment Strategy
FGD	Focus Group Discussion
FIDU	Female Injecting Drug User
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HR	Harm Reduction
ICTC	Integrated Counselling and Testing Centre
IDU	Injecting Drug User
IDU-TIs	Injecting Drug User Targeted Interventions
IEC	Information Education and Communication
MOH&FW	Ministry of Health and Family Welfare
MMT	Methadone Maintenance Therapy
MSJ&E	Ministry of Social Justice and Empowerment
MSM	Men Who have Sex with Men
NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NGO	Non-Governmental Organization
NSP	Needle Syringe Programme
OD	Overdose
ORW	Outreach Worker
OST	Opioid Substitution Therapy
PE	Peer Educator
PLH	People Living With HIV
PMTCT	Prevention of Mother-to-Child Transmission
PUD	People Who Use Drugs
PWID	People Who inject drugs
RCH	Reproductive and Child Health
RDS	Respondent Driven Sampling
SD	Standard Deviation
SHG	Self Help Group
SP	Spasmoproxyvon
STIs	Sexually Transmissible Infections
TB	Tuberculosis
TI	Targeted Intervention
UN	United Nations
UNAIDS	United Nations Programme on HIV and AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
UNODC-ROSA	United Nations Office on Drugs and Crime-Regional Office for South Asia
WHO	World Health Organization

EXECUTIVE SUMMARY

Women who use drugs are marginalized and, as a consequence of societal discrimination, this hidden population of women faces serious threats to their health, safety and well being. Current programmes aimed at improving the health of people who use drugs are riddled with significant gender inequality. An important step towards addressing this gap is to identify the problem and understand the factors related to drug use among women. The present study describes the pattern of drug use, its adverse consequences, and the barriers in accessing services, among 1,150 community-recruited women who use drugs from the eight states of Northeast India. Using a Respondent Driven Sampling (RDS) method over three to four months, survey information was obtained by centrally trained interviewers from women aged ≥ 18 years, who use opioid drug orally or by injecting, or any other drug use by injecting, or poly drug use orally or poly drug use through oral as well as injecting modes in the prior 12 months. All participants provided informed consent.

Major findings

Women who use drugs

The mean as well as median age of the participants is 27 years; 42 percent have completed higher secondary to college level education. For nearly a third of the respondents, the key source of income is selling drugs or sex. More than a fourth of the women are widowed or separated. The median age of initiation of tobacco, alcohol and other substances is 16, 17 and 20 years, respectively. Among nearly two thirds of the women, the first drug used other than tobacco/ alcohol is an opioid— either proxyvon or heroin. A little more than a third of the women who use drugs admit to a pathological pattern of alcohol use, and concurrent use of cannabis is reported by 35 percent. Among those who use drugs through a non-injecting mode, the prevalence of current use of proxyvon, sedatives and heroin is 52 percent, 56 percent and 13 percent, respectively; the current pathological pattern of proxyvon, sedatives and heroin use is 41 percent, 38 percent and 8 percent, respectively. Most (86 percent) women users have a family member or friend using the same drug.

Women who use drugs are sexually active, with only a fourth of them reporting no sex with a partner of the opposite sex during the prior six months. More than a third of the women have never used condoms with their primary sex partners during the prior six months. In 38 percent of the cases, the primary method of contraception with the primary partner is condoms. The median number of casual partners is six. More than half of the women having sex with their casual sex partners use condoms about half the time to always during the last six months. Among women with casual sex partners, 79 percent have engaged in paid sexual acts, and a little more than a third of them obtain drugs in exchange for sex.

A little more than half the women who use drugs reported their current health status as fair to poor. The proportion of women reporting a prior/current history of tuberculosis, mouth infections such as candida, hepatitis and malaria, is 11 percent, 11 percent, 16 percent and 20 percent, respectively. 60 percent of the women have been tested for HIV; a third of them have received hepatitis B vaccination; and only 14 percent have been tested for hepatitis C (HCV). More than a fourth of the women do not have any knowledge related to the transmission of HCV.

Forty percent of women who use drugs have been treated for drug use disorder and a little more than a fifth of the women report current drug dependence treatment. Nearly a fourth of them express difficulty in accessing treatment for drug use disorder, the primary reasons being: expensive treatment, unfriendly treatment services, ineffective treatment and geographical distance. More than a fifth of the women have been in jail/prison and more than half have been incarcerated more than once. Among those who have been incarcerated, a fourth have used drugs inside jail/prison and of these, more than a third have injected drugs.

Nearly two-thirds of women who use drugs have witnessed an overdose. Most (79 percent) of them have known someone who died of drug overdose. Among the respondents, 29 percent have overdosed and of these, nearly a third of them were alone at the time of overdose. Most (83 percent) persons who overdosed were helped by someone after the incident. Two thirds of the women believe that appropriate medical attention will be given to overdosed persons if medical help is sought, and more than a third state that in case of overdose, the law enforcement authorities will be informed by others. More than half the participants have been taught first aid. The most commonly injected drugs at the time of overdose is heroin (24 percent), followed by proxyvon (19 percent), while common non-injected drugs at the time of personal overdose are proxyvon (44 percent), alcohol (29 percent) and sedatives (24 percent).

Physical violence is common among women who use drugs, with nearly two thirds of the participants having been hit with a fist or kicked or beaten, at least once or more. The incidence of physical violence with a frequency of once or more by non-sex partners, sex partners, community/neighbours, police and casual sex partners is 62 percent, 54 percent, 28 percent, 27 percent and 26 percent, respectively. Among the respondents, a third have been sexually abused more than once. Sexual violence with a frequency of once or more has been experienced with casual sex partners (20 percent), sex partners (17 percent), police (14 percent), community/neighbourhood (13 percent) and non-sex partners (9 percent).

Just more than a third of the women became pregnant during the time of drug use. Of those who were pregnant, 40 percent of women cared for their last pregnancy. A majority (59 percent) of them continued to use drugs during pregnancy and only 28 percent stopped drug use after their pregnancy. Of those who did stop subsequent to their pregnancy, only a very small proportion did so with the assistance of opioid substitution therapy (OST). More than a third of the women report abortion, and nearly three fourths of them experienced adverse consequences following abortion; more than half of the abortions occurred in non-medical settings.

Women who inject drugs

Among the participants of the study, 41 percent admit to ever having injected substances. Injecting is more prevalent in the high HIV burden states of Manipur, Meghalaya, Mizoram and Nagaland. The transition from non-injecting to injecting mode occurred for more than half of the women participants. The median age at initiation to injecting is 22 years—two years later than the age at initiation in to using drugs other than alcohol and tobacco. At the time of their first injection, about two-thirds of women who inject drugs do not think of, or are not concerned about, the possibility of HIV/AIDS. The key reasons for injecting are greater euphoria, curiosity and peer influence.

Only 41 percent of women who inject drugs have never shared injection equipment—needles and syringes. Indirect sharing, such as taking from a common solution, front loading and squirting drugs, is also relatively common. Two thirds of the women obtain new needles and syringes for their use and the key sources for new needles and syringes include friends (48 percent) and the pharmacy (37 percent). A majority (61 percent) of these women do not receive OST and more than a third of them have never attended a needle syringe programme (NSP).

Comparison between women who inject drugs and women who use drugs through a non-injecting mode

A comparison has been made between women who inject drugs and women who use drugs through a non-injecting mode, to study the characteristics of both. Women who inject drugs have a higher mean age, lower levels of education, and they earn an income chiefly through selling drugs or sex. A significant proportion of women who inject drugs are widowed or separated, and a majority do not live with a partner; and a greater number live in brothels and lodges. There is significantly more pathological pattern of alcohol use among 43 percent of women who inject drugs, with unhealthy levels of alcohol consumption. Women in this subgroup are more sexually active, reporting greater frequency of sex with members of the opposite sex as well as with casual sex partners. Additionally, the use of condoms with their primary partners as the method of contraception is less frequent. The frequency of paid sex with casual partners is also greater among them.

The reported history of tuberculosis and cirrhosis of liver is more common among women who inject drugs. Most of them have been tested for HIV; a relatively greater number have been tested for HCV but a smaller proportion has been vaccinated for hepatitis B (HBV). More than half of this group of women report any drug use related treatment, and one third are currently on treatment. A significantly larger proportion of women who inject drugs have been incarcerated and more than a third of them have also used drugs while in prison. Overdose incidents are common among them. More than a third in this group have become pregnant and among these, about two thirds have continued to use drugs during pregnancy. The experience of violence and sexual abuse is common, as reported by 73 percent and 43 percent of women who inject drugs, respectively.

Comparison of women who use drugs in high and low HIV burden states

In the four high HIV burden states—Manipur, Meghalaya, Mizoram and Nagaland—more than a third of the women who use drugs are selling drugs or sex to earn their livelihood. Ever and current use of heroin is more prevalent in high HIV burden states, whereas ever and current use of proxyvon and sedatives is greater in low HIV states. In low HIV burden states, there is a greater frequency of paid sex as well as sex in exchange for drugs. In these states, a smaller proportion of women have been tested for HIV.

The proportion of women who inject drugs in high HIV burden states is more than double of those in low HIV states (53 percent vs 26 percent). Yet, in low HIV burden states, the age at initiation of injecting, and the age at regular injecting for women who

inject drugs are lesser as compared to those among women in high HIV burden states. In low HIV burden states, a significant proportion (57 percent) start injecting without transiting from non-injecting modes. The incidence of current direct sharing, such as lending and receiving used needles/syringes, is greater among women from low HIV burden states; similarly, indirect sharing (squirting from and into others' syringes) is more frequent among women from low HIV burden states.

Characteristics of women who use drugs and engage in sex work

More than a fifth of the women who use drugs are also engaged in sex work. A significant number hail from high HIV burden states. A majority (57 percent) of them exhibit a pathological pattern of alcohol use. Injecting drug use is common in this group (61 percent). More than half of them report their current health status as fair to poor. While 14 percent have had tuberculosis in the past, 19 percent of them report having been tested positive for syphilis. Among this subgroup of women, 29 percent have been to jail/prison. Overdose on narcotics has been experienced by 38 percent of them. Both physical violence and sexual abuse are prevalent in this group, with 83 percent reporting physical violence and 57 percent admitting to sexual abuse.

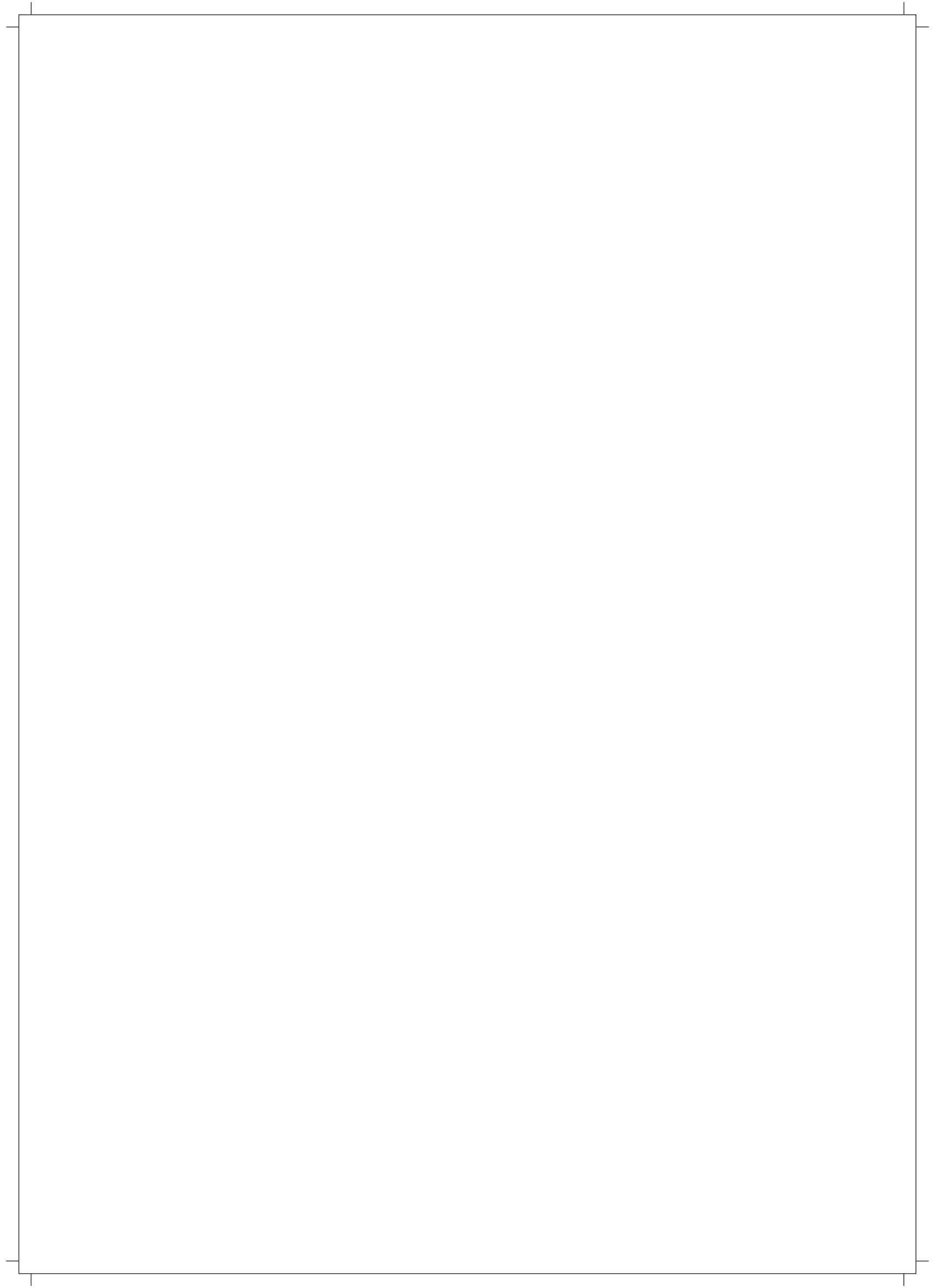
Comparison of women who use drugs engaged in sex work and those who are not engaged in sex work

In comparison to women drug users who are not engaged in sex work, women who use drugs and who are engaged in sex work are less educated (73 percent vs 53 percent), unemployed (95 percent vs 87 percent), hail from high HIV burden states (72 percent vs 52 percent), inject drugs (61 percent vs 36 percent), exhibit a pathological pattern of alcohol use (57 percent vs 27 percent), report a history of syphilis (19 percent vs 6 percent), have undergone HIV testing (84 percent vs 54 percent), receive less HBV vaccination (22 percent vs 37 percent), attend NSP more (53 percent vs 21 percent), have been incarcerated more often (29 percent vs 21 percent), report more overdose incidents (38 percent vs 27 percent), have been subjected to physical violence more often (83 percent vs 57 percent) and have been sexually abuse (57 percent vs 26 percent).

Recommendations

The key is to allocate exclusive financial and human resources for services targeting women who use drugs and to collect systematic data on them periodically, in order to help devise appropriate interventions. Coordination between the Ministry of Women & Child Development, Ministry of Social Justice & Empowerment and Ministry of Health & Family Welfare is obligatory to provide integrated as well as comprehensive services for them. Income generation interventions and social protection measures targeted at women who use drugs, particularly for those engaged in sex work and selling drugs, are important. Prevention interventions need to address transitions from non-injecting to injecting modes and should include alcohol use disorder education, counselling, identification and treatment referrals.

Women-centric targeted interventions (TIs) need to be expanded in high HIV burden states and immediately established in low HIV burden states. NSPs should distribute new needles and syringes through secondary/satellite exchanges. A top priority is establishing OST clinics in Northeastern states to provide opioid substitution top regnant women dependent on opioids, and to advocate OST for all women who are dependent on opioids irrespective of the mode of administration. HCV education and counselling has to be integral to the harm reduction package. Periodic screening for hepatitis B and C and mental health problems needs to be carried out among women who use drugs. They need to be educated on reproductive and child health (RCH) services. In order to achieve good pregnancy care through the ante-natal and post-natal period and prevention of mother-to-child transmission (PMTCT), effective linkages must be formed between harm reduction, drug dependence treatments such as OST, and RCH services. Designing and implementing interventions that target women who use drugs and engage in sex work is necessary in order to reduce HIV vulnerability and risks. These interventions should be integral to wider social actions that facilitate their right to health and safety and ensure their empowerment. The gender disparity in drug dependence treatment requires urgent attention. Exclusive, women-friendly drug dependence centres are the need of the hour. The development and implementation of evidence-based interventions that incorporate prevention of violence, and target women who use drugs is likely to promote better health outcomes. Advocacy with law enforcement, religious leaders and community opinion leaders will be beneficial in reducing violence and sexual abuse against women. Trauma counselling, legal support, crisis support, self-help groups (SHGs) and safe shelters can be organized for women. Building, strengthening and sustaining the capacity of various categories of service providers who work with women who use drugs is essential to develop an effective, efficient and sustainable response. The current training programme on harm reduction can be enhanced with inputs related to substance use among women. Service delivery and implementation need to be strengthened through accessible yet discrete service locations; establishing women-only spaces for pro-social activities; employing women healthcare workers; ensuring collaborative linkages between TI services for women who inject drugs and female sex workers; and an effective relationship between harm reduction, drug dependence services and RCH services. The issues of stigma and discrimination should be effectively addressed. Women who use drugs should be engaged from the time of planning and design, implementation, monitoring/ evaluation and redesign of the services. A national coordination mechanism comprising of different ministries, civil society, UN agencies, international agencies and community group representatives needs to be set up to devise the national level planning for establishing comprehensive services for women who use drugs.





1. BACKGROUND

People who use drugs (PUD) and people who inject drugs (PWID) comprise a stigmatized population. Even more marginalized among them are women who use drugs and inject drugs, forcing this sub population to remain hidden. As a consequence of discrimination by society, this invisible population of women faces serious threats to its health, safety and well being. Current programmes aimed at improving the health of people who use drugs, including harm reduction programmes, are riddled with significant gender inequality. The first step towards addressing this gap may be to identify the problem and understand the various factors related to substance use among women.

There is a paucity of literature related to drug use among women in India and the available data indicates the emerging nature of the problem. A rapid assessment study conducted in India during 2000–2001 found that 8 percent of 4,648 people who use drugs recruited from the community across 14 cities were women and the drugs they used included heroin and pharmaceutical opioids; among women recruited from Imphal, about three fourths were injecting drugs (Kumar, 2002; Kumar & Sharma, 2008). Among 1,865 women drug users recruited from various states of India, one third were lifetime heroin users, one fourth were lifetime proxyvon users and 22 percent were lifetime users of sleeping pills (Murthy, 2008). A household survey conducted in the state of Arunachal Pradesh found that 2.1 percent of the females were opium users (Chaturvedi et al., 2013).

A majority of women opium users in Arunachal Pradesh were introduced to opium by their husbands after marriage (Chaturvedi et al., 2013). Substance use among women is associated with early initiation to sex, sexual abuse, a greater number of sexual partners, exchange of money for sex, and the infrequent use of condoms with sexual partners (Murthy, 2008). Secondary data analysis of female injecting drug users (FIDUs) registered with intervention services in northeast India revealed that 40 percent report selling sex often, one fourth have engaged in regular sex work, 31 percent are highly mobile, and most have admitted to high levels of alcohol consumption (Murthy, 2012). In-depth interviews of women who use drugs reveal that the service uptake among women drug users in the northeast is inadequate and there is a mismatch between the expressed health and service needs of the women who use drugs and the actual HIV prevention services offered by service providers (Kermode et al., 2012).

Evidence indicates that women who use drugs have an increased likelihood of acquiring several harms, including a heightened HIV risk, and yet have significant barriers in accessing services, specifically health care, such as sexual and reproductive health and child care (Pinkham et al., 2012). The process of developing appropriate multi-disciplinary interventions for women who use drugs requires systematic data collected from them on various factors. The present study aims to describe the drug use pattern, adverse consequences and impediments in accessing services among community recruited women who use drugs living in the eight states of Northeast India.



2. OBJECTIVE

The objectives of the present study pertaining to community-recruited women who use drugs in the eight states of Northeast India, are as follows:

1. **To describe their demographic characteristics and drug use pattern;**
2. **To explore drug injecting and HIV related injection risk behaviours;**
3. **To assess their sexual behaviour;**
4. **To evaluate their medical history, incidents of overdose and reproductive health;**
5. **To describe their experience of violence; and**
6. **To explore service utilization and related challenges.**

3. METHODOLOGY

Methodological approach: A mixed methods design was employed to gather the necessary data for this study. The study was conducted in all eight states of Northeast India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura). Initial ethnographic work was carried out in the eight states through consultations with groups of women who use drugs, focus group discussions with these women, and in-depth interviews with major stakeholders. This ethnographic work helped to understand the demographic characteristics of women who use drugs; local substance use behaviours; size and overlap of regional drug using networks; barriers to recruitment; stigma and discrimination; health-seeking behaviour among women who use drugs, availability of substance use and HIV-related services in the area; and identification of respondent driven sampling (RDS) seeds.

The RDS method was employed to collect survey information on various characteristics from women who use drugs in these states. Participants in the baseline RDS satisfied the following criteria:

- 1) ≥ 18 years old;
- 2) history of one of the following:
 - a) opioid drug use orally,
 - b) opioid drug use by injecting;
 - c) any drug use by injecting;
 - d) poly drug use orally; and e) poly drug use through oral as well as injecting modes in the prior 12 months; and
- 3) informed consent.

RDS was initiated at each site by drug using women participants ('seeds') who were selected during the ethnographic phase. Three to four seeds were selected per site to represent demographic, geographic and drug-related diversity (e.g., heroin vs other opioid use, daily vs < daily use, ethnic diversity, those engaged in sex work vs those not engaged in sex work) among the local population. Seeds were asked to recruit up to three members of their drug-using networks who satisfied the study eligibility criteria. The new waves of eligible participants were enrolled using identical procedures and were asked to recruit the next wave of participants. This process continued until the desired sample size was reached. The RDS procedure spanned three to four months, across the eight Northeastern states of India and included 1,150 participants.



Fig 1: Northeastern States of India

Women who use drugs	Sample size
Recruitment state	
Arunachal Pradesh	100
Assam	100
Manipur	150
Meghalaya	150
Mizoram	200
Nagaland	150
Sikkim	150
Tripura	150

TABLE I

Distribution of women who use drugs by States (N =1150)

Qualitative data: In addition to the survey administration through RDS, three case studies were conducted in the states of Manipur, Sikkim and Mizoram. In Manipur an in-depth interview utilizing a semi-structured interview schedule specifically developed for this case study was carried out with a woman who administered heroin through the rectum. An in-depth case study was done in Sikkim with a woman victim of a gang rape to highlight the hazards faced by women who use drugs in the community. Finally, a focus group discussion was held in Mizoram with a group of women who use drugs having same-sex partners.

Data collection and analysis: The interviewers for the survey from each of the eight states were trained by the Principal Investigator and the UNODC ROSA team in Guwahati. These trained interviewers administered a face-to-face survey that captured the following information: socio demographics, drug and alcohol use related characteristics, drug use related risk behaviours, sexual behaviour, adverse health and social consequences, legal issues, pregnancy and child care related issues, and service needs. The data collection across the various states was monitored by the UNODC ROSA team. The collected data was entered into excel sheets and analysed using Epi Info™ 7 (CDC, 2014) and IBM SPSS Statistics for Windows 19 (IBM Corp, 2010).

Ethics and consent: First, the purpose of the research and the potential risks to the subjects were made explicit to all participants; the participants had the right to choose whether or not to take part in the survey interviews, and could withhold any information that they might not want to divulge or even withdraw at any time. Second, the researchers determined that no harm should come to individual study subjects as a result of their participation in the assessment. Third, consent was obtained from all participants. Finally, the researchers ensured that the resulting findings and publication(s) would not be used in a way that they could harm the participants as a group.

Sample characteristics: Of the 1,150 women use drugs, there are three transsexuals (0.26 percent). The median age of the sample is 27 years and the mean age is 27.4 years (Mean ± SD: 27.4 ± 6.9).

4. FINDINGS

4.1. Characteristics of women who use drugs in the Northeastern states

The survey conducted across eight north-eastern states collected information from 1,150 participants recruited through RDS design. First, the characteristics of women who use drugs from all these states are described.

4.1.1. Demographic characteristics

Demographics: The median and mean age of women who use drugs is 27 years and 27.4 years (mean \pm SD: 27.4 \pm 6.9), respectively. A significant proportion of the participants (42.4 percent) have completed higher secondary to college level education. For nearly a third (31.2 percent) of the respondents, the key source of income is by selling drugs or sex. Among the participants, 18.8 percent are married and 43 percent are unmarried.

Demographic characteristics	Mean \pm SD or n / Proportion (%)*
Age, years	
Mean \pm SD	27.4 \pm 6.9
Median	27
Level of education	
Elementary	166 (14.4%)
Middle School	483 (42%)
Higher Secondary	317 (27.6%)
College level	170 (14.8%)
Employment status	
Employed	128 (11.1%)
Unemployed	995 (86.5%)
Main source of income	
Regular or temporary work	477 (41.5%)
Family or spouse income	281 (24.4%)
Selling drugs/ sex for money	359 (31.2%)
Marital Status	
Legally married	216 (18.8%)
Live in partner	112 (9.7%)
Single/Unmarried	501 (43.5%)
Widowed / Separated / Divorced	310 (26.9%)

TABLE 2

Demographic characteristics of women who use drugs in Northeast India

* Calculated on valid responses

Living status: Only a small proportion of women who use drugs live alone (9 percent); while 45.3 percent of the women who use drugs currently live with their parents, 21.7 percent live with opposite sex partners. About a third (32.6 percent) of the participants live for some time or full time with their partner or spouse and a majority (52.8 percent) of them live in their own or a rented residence.

Living status	n / Proportion (%)*
Living alone	
Yes	104 (9%)
No	1019 (88.7%)
Living with whom	
With parents	521 (45.3%)
With own and other children	279 (24.3%)
With opposite sex partners	
With relatives	249 (21.7%)
With friends	213 (18.5%)
With same sex partners	186 (16.2%)
With strangers	65 (5.7%)
	70 (6.1%)
Living with partner/ spouse	
No	645 (56.1%)
Yes	314 (27.3%)
Live some of the time with partner/spouse	61 (5.3%)
Residence, last six months	
Own / rented residence	607 (52.85%)
Others' residence	382 (33.2%)
Lodging & Brothels	91 (7.9%)
No fixed address	29 (2.5%)

TABLE 3

Living status of women who use drugs in Northeast India

* Calculated on valid responses

Demographic characteristics of women who use drugs in the eight states:

Demographic characteristics of the women who use drugs in the eight states reveal that in most demographic variables the sample is comparable. Women recruited from Mizoram are relatively younger when compared with the women sampled from Nagaland. In Manipur and Arunachal Pradesh, the prime source of income is through selling drugs or sex among more than half of the women who use drugs. While in Tripura more than half of the sample (54 percent) lives with a partner/spouse, the proportion of women living with a spouse/partner is low in Manipur (12 percent).

Demographic characteristics of women who use drugs in eight states of Northeast India

TABLE 4

Demographics	High HIV burden states				Emerging States			
	Manipur n = 150	Meghalaya n = 150	Mizoram n = 200	Nagaland n = 150	Arunachal Pradesh n = 100	Assam n = 100	Sikkim n = 150	Tripura n = 150
	Mean ± SD or n / Proportion (%)*							
Sample Size	150	150	200	150	100	100	150	150
Age, in years	29.2±6.1	27.6±5.6	23.7±6.5	32.1±7.3	24.7±2.8	26.8±4.7	24.6±5.3	31.1±8.6
Level of education, middle school & higher secondary	89 (60.5%)	97 (65.1%)	162 (81.4%)	81 (55.1%)	70 (72.9%)	62 (62.6%)	103 (69.1%)	136 (90.7%)
Employed	1 (0.7%)	42 (28.6%)	35 (17.6%)	9 (6%)	3 (3.2%)	7 (7.2%)	25 (17.5%)	6 (4%)
Main source of income, selling drugs/ sex for money	109 (58.7%)	42 (28%)	29 (15%)	54 (36%)	55 (55%)	20 (20%)	47 (32.2%)	3 (2%)
Living alone	11 (7.5%)	9 (6.1%)	32 (16.2%)	8 (5.4%)	14 (14%)	3 (3.2%)	27 (18.4%)	0 (0%)
Legally married	15 (10%)	25 (16.7%)	18 (9%)	35 (23.3%)	6 (6%)	20 (20.2%)	23 (15.3%)	74 (49.3%)
Living with spouse/ partner	18 (12.4%)	42 (28.2%)	33 (17%)	57 (38%)	27 (27.6%)	23 (23.2%)	33 (22%)	81 (54%)

* Calculated on valid responses

4.1.2. Drug use related characteristics

Initiation of substance use: The median and mean age at initiation of tobacco use among the respondents is 16 years (mean \pm SD: 16 \pm 7.2). The median and mean age at starting alcohol use is 17 years (mean \pm SD: 16.7 \pm 5.8), whereas the median and mean age at initiation of substance use other than tobacco, alcohol and cannabis is 20 years (mean \pm SD: 20.2 \pm 4). Propoxyphene (Proxymon and spasmoproxyvon) is the common first substance used by 42.1 percent, followed by sedatives (24.2 percent) and heroin (21.2 percent).

Drug use initiation related characteristics	Mean \pm SD or n / Proportion (%)*
Age at initiation of tobacco use, years	
Mean \pm SD	16 \pm 7.2
Median	16
Age at initiation of alcohol use, years	
Mean \pm SD	16.7 \pm 5.8
Median	17
Age at initiation of substance use other than tobacco/ alcohol/cannabis years	
Mean \pm SD	20.2 \pm 4
Median	20
First substance used	
Spasmoproxyvon and Proxymon	484(42.1%)
Sedatives	278 (24.2%)
Heroin	244 (21.2%)
Inhalants	15 (1.3%)

* Calculated on valid responses

TABLE 5

Drug use initiation amongst women who use drugs in Northeast India

Alcohol and cannabis amongst women who use drugs: Only a small proportion (13.3 percent) of women who use drugs have never used alcohol. A third (33.7 percent) of the respondents have used pathological levels of alcohol during the prior six months, whereas about half of them (49 percent) report social use of alcohol. Just more than a third (35 percent) of the participants have used cannabis in the prior six months.



Life time drug use related characteristics	n / Proportion (%)*
Frequency of alcohol use, last six months	
Never used alcohol	153 (13.3%)
Social use	563 (49%)
Pathological pattern of alcohol use	387 (33.7%)
Use of cannabis, last six months	403 (35%)

* Calculated on valid responses

TABLE 6

Alcohol and cannabis use amongst women who use drugs in Northeast India

Mode of administration: Forty-one percent (41 percent) of respondents report ever having injected drugs, and a majority (58.1 percent) of the participants administer drugs through a non-injecting mode only.

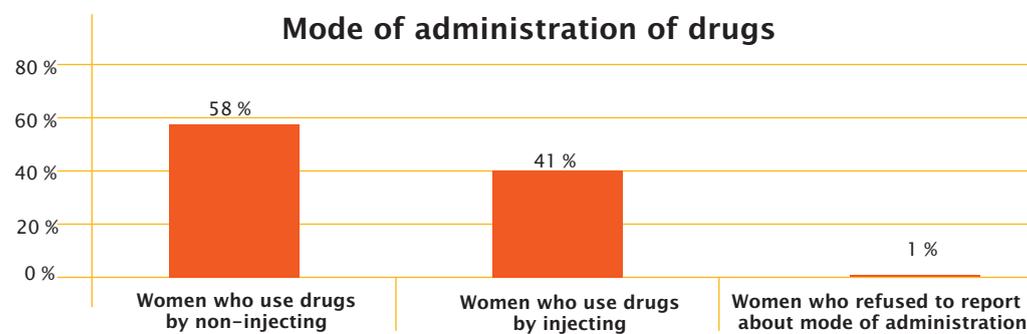


Fig 2: Injecting and non-injecting amongst women who use drugs

4.1.3. Drug use related characteristics of women who use drugs through non-injecting modes

Age at initiation of drug use: Among women who use drugs through non-injecting (N = 668), the median age at initiation of sedatives, proxyvon and heroin use is 19, 20 and 21 years respectively.

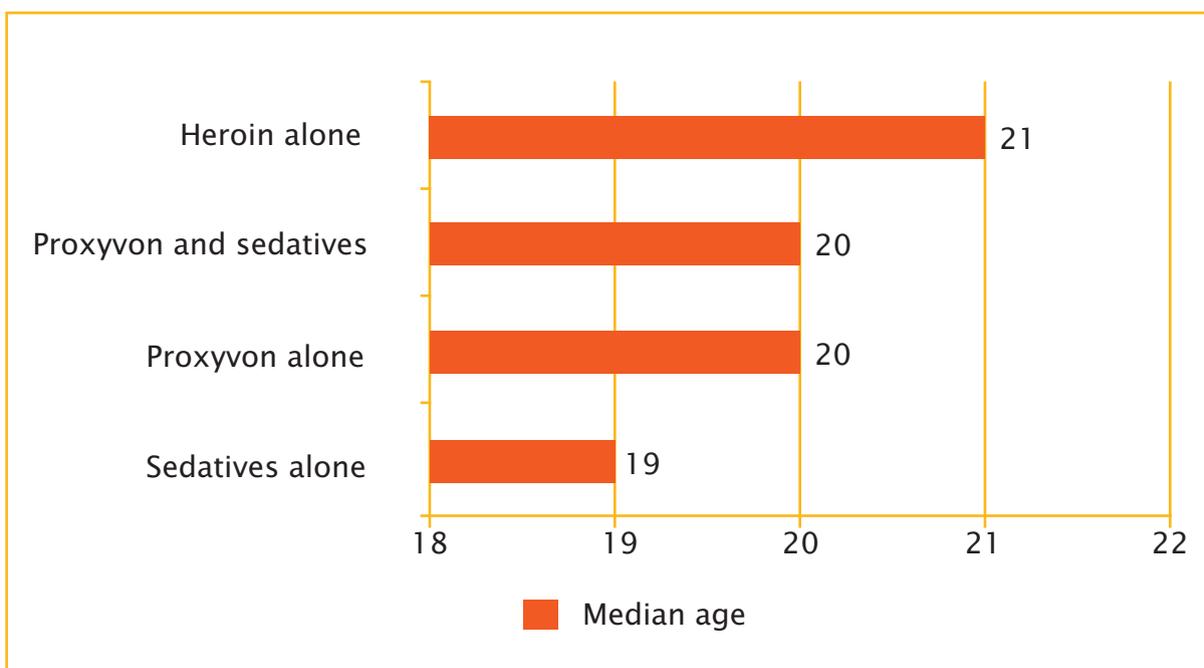
Age at initiation of drug use	Mean ± SD
Age at sedative use alone, years Mean ± SD	19.6 ± 3.7
Age at proxyvon use alone, years Mean ± SD	20.4 ± 6.3
Age at heroin use alone, years Mean ± SD	21.6 ± 3.8

* Calculated on valid responses

TABLE 7

Age at initiation of drug use amongst women who use drugs by non-injecting in Northeast India

Fig 3: Median age at drug use initiation amongst women who use drugs by non-injecting in Northeast India



Life time substance use: Sedatives, proxyvon and heroin are the drugs used during their lifetime by women respondents who use drugs through a non-injecting mode. Among these, 52.2 percent have ever used proxyvon; and 40.9 percent exhibit a pathological pattern of proxyvon use. A majority of (58.5 percent) the respondents have ever used sedatives and 41.2 percent exhibit a pathological pattern of sedative use. While 16 percent have ever used heroin, only 6.4 percent exhibit a pathological pattern of heroin use.

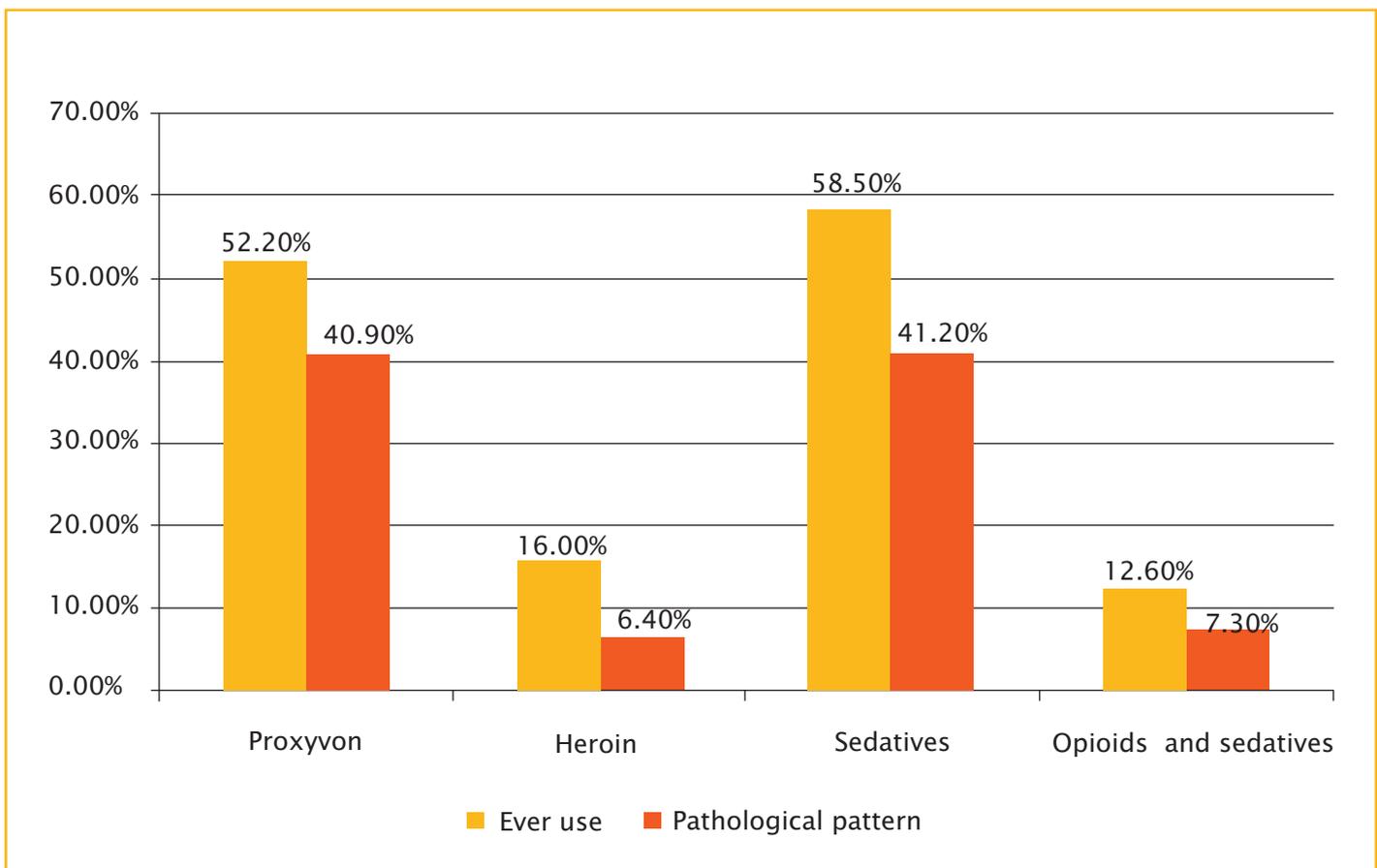


Fig 4: Life time ever and pathological pattern of substance use amongst women who use drugs by non-injecting in Northeast India

Drug use in the prior six months: All of the participants who use drugs through a non-injecting mode admitted to substance use other than cannabis and alcohol in the prior six months. About two thirds (65.1 percent) of the participants had used drugs during all the six months, while more than a fourth (26.4 percent) had used substances for three to five months during the prior six months.



Current drug use related characteristics	n / Proportion (%)*
How many months in last six months drug was used	
One month	38 (5.7%)
Two months	22 (3.3%)
Three months	51 (7.6%)
Four months	75 (11.2%)
Five months	51 (7.6%)
Six months	435 (65.1%)

* Calculated on valid responses

TABLE 8

Current drug use characteristics of women who use drugs by non-injecting in Northeast India

Current drug use related characteristics: Sedatives, proxyvon and heroin are used alone in the prior six months by 55.8 percent, 51.5 percent and 12.9 percent of respondents respectively. Pathological pattern of use of sedatives, proxyvon and heroin during the prior six months is observed among 38 percent, 40.7 percent and 8.1 percent of the participants, respectively.

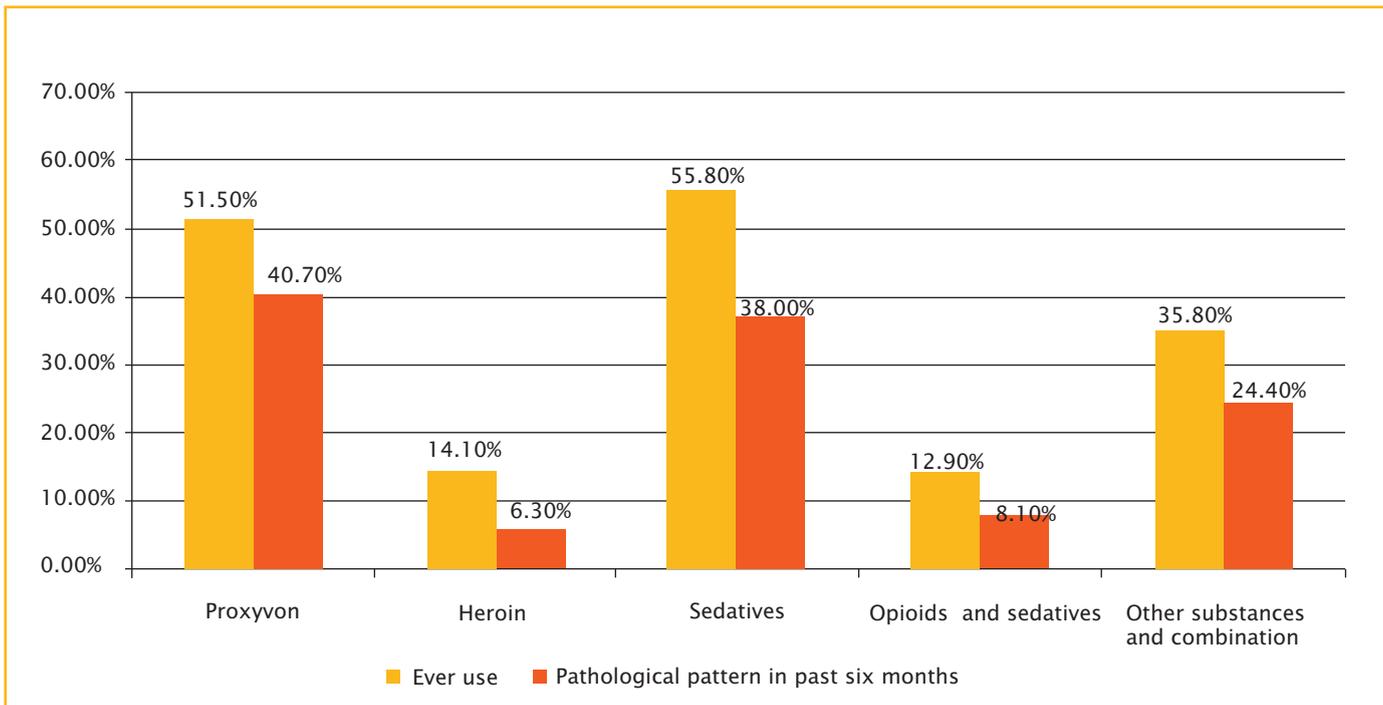


Fig 5: Current use and pathological pattern of substance use in the past six months amongst women who use drugs by non-injecting in Northeast India



Drug use among friends and family: Most (86.4 percent) of the respondents state that their friends or family members use substances. Among the majority (56.7 percent) of participants, there are three or more family members/ friends who use substances. In more than three fourth (77.8 percent) of the cases, close friends are using substances, thereby signifying peer influence.

Drug use among family/friends	Mean ± SD or n / Proportion (%)*
Family member or friend use drugs	577 (86.4%)
Number of family members or friends using drugs	
One person	54 (8.1%)
Two person	148 (22.2%)
Three or more	379 (56.7%)
Person using drugs	
Sex partners	123 (18.4%)
Family members	148 (22.2%)
Close friends	520 (77.8%)

* Calculated on valid responses

TABLE 9

Drug using persons among friends and family of women who use drugs by non-injecting in Northeast India

Reasons for non-injecting drug use: During the prior six months, more than one fourth (26.9 percent) of the women participants who use drugs through a non-injecting mode used the drug in the same place where someone else was also injecting. There are many reasons as to why a significant proportion of the study population use drugs only through a non-injecting route. The key reasons for non-injecting include: worry about adverse health consequences of injecting (69.6 percent), fear of needles (65.6 percent), satisfaction with non-injecting mode (63 percent), easy to use non-injecting modes (59.3 percent), used to non-injecting mode of administration (58.2 percent), and not seeing oneself as an injector (57.8 percent). The other reasons for non-injecting are: concern about HIV/AIDS (45.4 percent), stigma related to injecting mode of administration (38.2 percent), to avoid overdose (37.9 percent), and positive peer pressure to stay with non-injecting modes (30.7 percent).

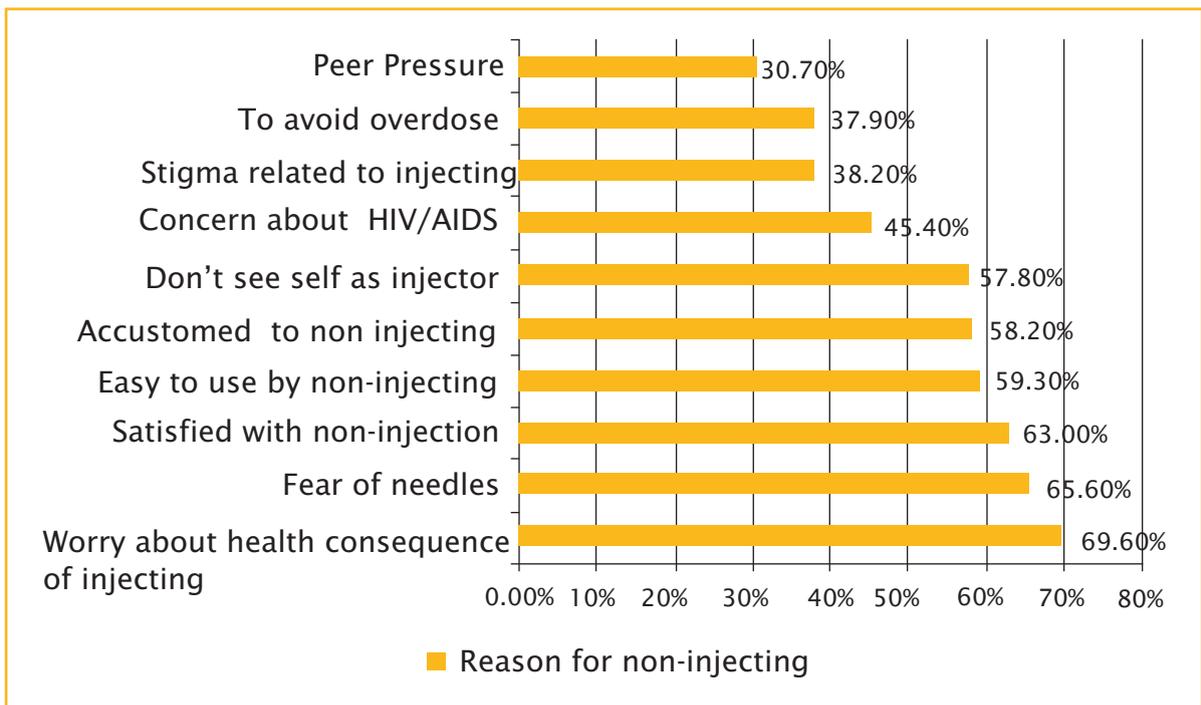


Fig 6: Reasons for non-injecting amongst women who use drugs by non-injecting in Northeast India

4.1.4. Injecting drug use related characteristics

Injecting drug use in various states of northeast India: Among the participants of the study, 471 (41 percent) report ever injecting drugs. The distribution of injecting drug use across the eight states is: Manipur (28.2 percent), Mizoram (17.4 percent), Nagaland (14.9 percent), Meghalaya (12.1 percent), Assam (10.2 percent), Sikkim (9.8 percent), Arunachal Pradesh (6.4 percent) and Tripura (1.1 percent). A majority (60.5 percent) of the participants belong to the states of Manipur, Mizoram and Nagaland, where HIV prevalence among people who inject drugs is high.

Women who inject drugs	n / Proportion (%)
Recruitment state	
Arunachal Pradesh	30 (6.4%)
Assam	48 (10.2%)
Manipur	133 (28.2%)
Meghalaya	57 (12.1%)
Mizoram	82 (17.4%)
Nagaland	70 (14.9%)
Sikkim	46 (9.8%)
Tripura	5 (1.1%)

* Calculated on valid responses

TABLE 10

State wise distribution of women who inject drugs in Northeast India

Transitions from non-injecting to injecting mode of drug intake: The first injected drug is initially taken through a non-injecting mode by more than half (53.3 percent) of the women who inject drugs. Many women who inject drugs have used proxyvon (46.7 percent) and heroin (41.1 percent) through non-injecting method in the month prior to their first injection episode. The median age and mean age at initiation of injecting drug use is 22 years (mean \pm SD: 22.2 \pm 4.4). The median and mean age of consuming the injected drug by a non-injecting mode of administration is 20 and 21 years (mean \pm SD: 21.1 \pm 4). Thus there is a lag period between the initiation of non-injecting drugs and injecting drugs.

Transitions from non-injecting to injecting Used the injected drug through non-injecting mode before injecting	Mean \pm SD or n / Proportion (%)*
	251 (53.3%)
Drugs used 30 days prior to injecting:	
Heroin	188 (41.1%)
Proxyvon	214 (46.7%)
Sedatives	107 (22.7%)
Heroin + Proxyvon	18 (3.8%)
Heroin + Proxyvon + Sedatives	37 (4.9%)
Age at initiation of injected drug by non-injecting mode use, years	
Mean \pm SD	21.1 \pm 4
Median	20
Age at initiation of injecting drug use, years	
Mean \pm SD	22.2 \pm 4.4
Median	22

TABLE 11

* Calculated on valid responses

Transitions to injecting drug use amongst women who inject drugs in Northeast India

First injection drug use related characteristics: Drugs that are commonly used while injecting for the first time are: heroin (56 percent), proxyvon (38.3 percent), synthetic opioids (2 percent), and sedatives (2 percent). In 56 percent of the cases of injecting drugs, a close friend administered the first injection, followed by a primary sex partner (15 percent). The worrisome finding is that in 44.9 percent of these cases, the first injection is through a used needle. HIV/AIDS is not a concern for most persons while injecting for the first time, with about two thirds (65.2 percent) not thinking about HIV at the time of the first injection and only a very small proportion (6.6 percent) believes that HIV is probable and very likely due to injecting drugs.

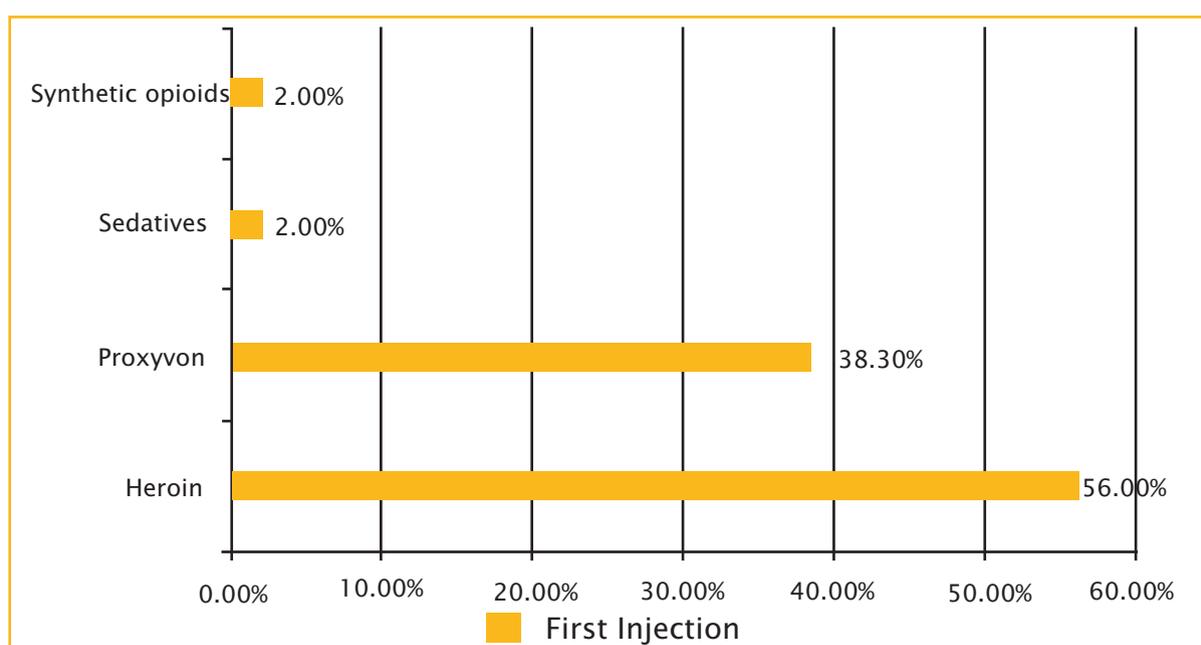


Fig 7: First injected drug amongst women who inject drugs in Northeast India

First injection drug use related characteristics	n / Proportion (%)*
Who injected the drug?	
A close friend	258 (56%)
Primary sex partner	69 (15%)
Self	52 (11%)
Acquaintance	30 (6.5%)
Other sex partner	16 (3.5%)
Dealer	15 (3.3%)
Sex of the partner	
Male	223 (52.5%)
Female	188 (44.2%)
First injection through a used needle	
Yes	207 (44.9%)
Before first injection thought about HIV/AIDS	
Didn't think about HIV	307 (65.2%)
Possibly, not very likely	85 (18%)
Probably, very likely	31 (6.6%)

TABLE 12

First injection drug related characteristics amongst women who inject drugs in Northeast India

* Calculated on valid responses

Reasons for injecting: The key reasons for injecting are: better high (59.5 percent), curiosity (58.8 percent), other friends are injecting (52.9 percent), pressure from friends (26.3 percent), depression (24 percent), everyone around is injecting (20.8 percent), and the quality of the drug is inadequate for non-injecting (15.9 percent).

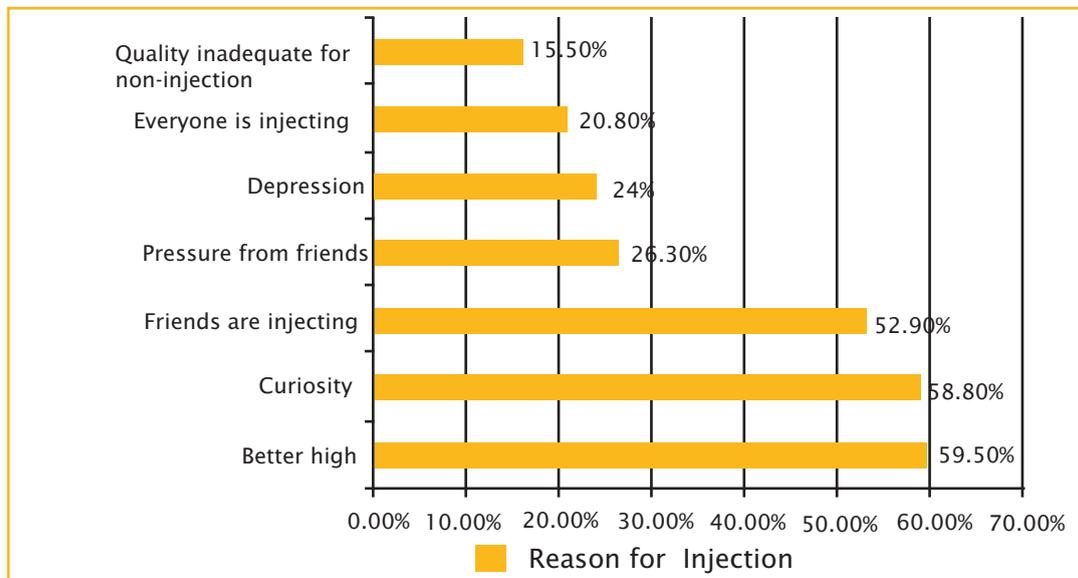


Fig 8: Reasons for first injection amongst women who inject drugs in Northeast India

Injection related characteristics: The current primary mode of drug use is injection among 62.4 percent of the women who inject drugs and a small proportion (9.1 percent) of respondents use the drug both through injecting and non-injecting modes. In 62.8 percent of the cases, the last injection was taken a month ago, and 44.4 percent of the women had injected drugs during each of the prior six months. About one third (32.3 percent) of the women who inject drugs have initiated others into injecting.

Injection related characteristics	Proportion (%)*
Current primary mode of drug use	
Injection	294 (62.4%)
Non-injection	112 (23.8%)
Both ways	43 (9.1%)
Last injected drugs, how many months ago	
One month ago	296 (62.8%)
2 months ago	16 (3.4%)
In how many of the last six months you injected	
All six months	209 (44.4%)
Initiated others to injecting	
Yes	152 (32.3%)

TABLE 13

Injection related characteristics amongst women who inject drugs in Northeast India

* Calculated on valid responses

Injection sharing behaviours during the last six months: While 40.9 percent of the participants report never having shared injections during the last six months, 21.4 percent shared injections less than a month to once a month; only a small proportion (4.7 percent) shared injections two to six times a week, or daily (3.2 percent). Among those who share injection with others the common sharing partner is a friend/relative, with 18.3 percent sharing occasionally and 15.5 percent sharing about half the time to always. The perception that the person with whom they share is okay is a key reason for sharing (41.5 percent), and for 31.4 percent of those who inject drugs, not having a new needle is the reason for sharing injections. Indirect sharing is also prevalent among the respondents with about a third (32.3 percent) sharing cookers and a fourth (25.5 percent) drawing drugs from a common drug solution used by others. About half (49 percent) of the participants used the injectable drug in locations/settings in which several other people who inject drugs congregate and use drugs.

Injection sharing behaviours: six months	n / Proportion (%)*
Frequency of sharing in the past 6 months	
Never	193 (40.9%)
Less than a month to once a month	101 (21.4%)
2-6 times a week	22 (4.7%)
Daily once to several times daily	15 (3.2%)
People sharing with, occasionally: (n = 278)	
Primary sex partner	22 (7.9%)
Relative/Friend	51 (18.3%)
Acquaintance	10 (3.6%)
Dealer	10 (3.6%)
Stranger	5 (1.8%)
People sharing with, about half the time to always: (n=278)	
Primary sex partner	19 (6.8%)
Relative/Friend	43 (15.5%)
Acquaintance	6 (2.1%)
Dealer	29 (10.4%)
Frontloading / backloading / splitting	
Yes	67 (14.2%)
Sharing cooker	
Yes	152 (32.3%)
Drawing the drug from common solution	
Yes	120 (25.5%)
Injection drug use in common drug using locations	
Yes	231 (49%)

* Calculated on valid responses

TABLE 14

Injection sharing behaviours during the past six months amongst women who inject drugs in Northeast India

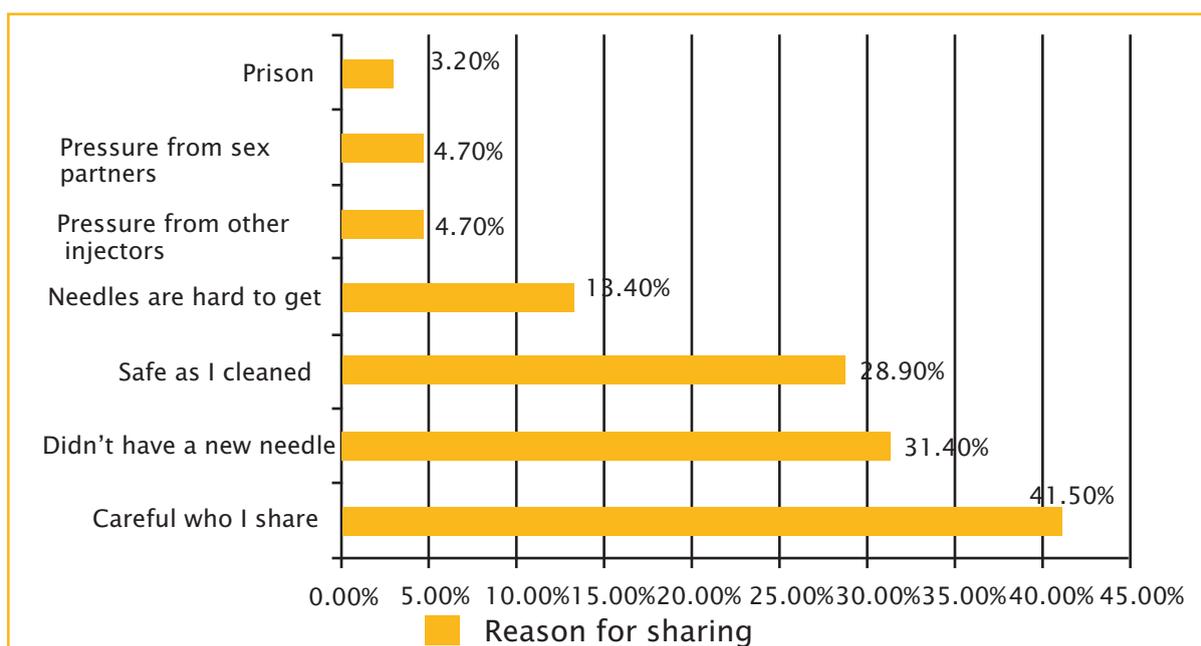


Fig 9: Reasons for sharing injection equipment amongst women who inject drugs in Northeast India

Needles and syringes: Two thirds (66.7 percent) of the women respondents who inject drugs had obtained new needles and syringes during the last six months. While for most (86.3percent) of them the primary source of new or unused needles/syringes during the last six months was targeted intervention sites and outreach, about half (48.4 percent) of them source injection equipment from their friends, and more than a third get their syringes/needles from the pharmacy. Other sources include drug dealers (26.1 percent) and other drug users (25.2 percent). Among women who inject drugs, 8.7 percent report having had their needle/syringe confiscated by the police during the last six months; only 1.9 percent of the women admit to militants confiscating their injection equipment.

Needles and syringes: six months	n / Proportion (%)*
Frequency of sharing in the past 6 months	
Yes	314 (66.7%)
Source of new or unused needle and syringe (N=314)	
TI/NSP/Outreach	271 (86.3%)
Friends	152 (48.4%)
Pharmacy	117 (37.3%)
Drug dealers	82 (26.1%)
Other drug users	79 (25.2%)
Sex partner	37 (11.8%)
Doctor/hospital	7 (2.2%)
Secondary outlets	18 (5.7%)
Family	7 (2.2%)
Police confiscated needle/syringe in the last six months	
Yes	41 (8.7%)
Militants confiscated needle/syringe in the last six months	
Yes	8 (1.9%)

TABLE 15

* Calculated on valid responses

New needles and syringes use during past six months amongst women who inject drugs in Northeast India

Current injection sharing behaviours: Direct as well as indirect sharing behaviour during the last injection episode is not uncommon among the study participants. While 16.8 percent of the respondents report lending injection equipment during the last injection episode, 14.9 percent have received needles/syringes from others. One in nine (11.2 percent) participants squirt drugs from their syringe into someone else's, and 12.7 percent have received squirted drugs from another's syringe. Among those who share injection equipment, the key sharing partner is a close friend (47.9 percent) or sex partner (23.2 percent). In more than half (51.4 percent) of the women who inject drugs, males are sharing partners while 35.9 percent have female sharing partners.

Last injecting episode	n / Proportion (%)*
Last injection episode, needle/syringe lent	
Yes	79 (16.8%)
Last injection episode, needle/syringe received	
Yes	70 (14.9%)
Last injection episode, squirted drug from your syringe to someone	
Yes	53 (11.2%)
Last injection episode received squirted drug from someone's syringe	
Yes	60 (12.7%)
Sharing partner (n =142)	
Close friend	68 (47.9%)
Primary sex partner	33 (23.2%)
Others	30 (21.1%)
Sex of sharing partner (n =142)	
Male	73 (51.4%)
Female	51 (35.9%)

* Calculated on valid responses

TABLE 16 Injection and sharing behaviours during last injecting episode amongst women who inject drugs in Northeast India

4.1.5. Current sexual behaviour related characteristics

Current sexual behaviour with primary partners: About half (49.4 percent) the women who use drugs have had sex once a week to several times daily during the last six months. Among more than a fourth (27.4 percent) of the participants, the frequency of vaginal/anal sexual intercourse with the primary partner is once a week to several times daily. Condom use with primary sex partners is infrequent and only 22.9 percent of the women who use drugs use a condom with their primary sex partners almost half the time to always. In the case of more than a third (37.5 percent) of women who use drugs, the primary mode of contraception with the primary partner is condoms, followed by oral contraceptives (8.6 percent).

Sexual behaviours with primary sex partner during the past six months	n / Proportion (%)*
Frequency of sexual intercourse with opposite sex, past six months	
Less than a month to 1-3 times a month	256 (22.3%)
Once a week to several times a week	415 (36.1%)
Once daily to several times daily	153 (13.3%)
Frequency of vaginal/anal intercourse with primary partner, past six months	
Less than a month to 1-3 times a month	320 (27.8%)
Once a week to several times a week	304 (26.4%)
Once daily to several times daily	14 (1.2%)
Frequency of condom use with primary partner, past six months	
Occasionally	199 (17.3%)
Almost half the time to always	263 (22.9%)
Methods of contraception with primary partner, past six months	
None	147 (12.8%)
Condoms	431 (37.5%)
Female condoms	10 (0.9%)
Oral contraceptives	99 (8.6%)
Injectable contraceptives	12 (1%)
Intrauterine device	13 (1.1%)
Sterilisation	4 (0.4%)

* Calculated on valid responses

TABLE 17 Sexual behaviour with primary sex partner during past six months amongst women who use drugs in Northeast India

Current sexual behaviour with casual partners: In one fourth (24.7 percent) of the cases, the frequency of vaginal/anal sexual intercourse with casual partners is once a week to several times daily. The median number of casual partners is six. In a majority (63.2 percent) of the cases the frequency of paid sex with the casual partner is once a week to several times daily. Nearly one in eight (12.1 percent) participants get drugs from their casual partners in exchange of sex at a frequency of once a week to several times daily. More than half (52.3 percent) of the women who use drugs use a condom with their casual sex partners, at a frequency of almost half the time to always.

Sexual behaviours with casual sex partners during the last six months	n / Proportion (%)*or Median
Frequency of vaginal/anal intercourse with casual partner, past six months	
Less than a month to 1-3 times a month	165 (14.4%)
Once a week to several times a week	182 (15.8%)
Once daily to several times daily	102 (8.9%)
Number of casual partners	Median: 6
Frequency of paid sex with casual partner of opposite sex (n =622), past six months	
Less than a month to 1-3 times a month	137 (22%)
Once a week to several times daily	393 (63.2%)
Frequency of getting drugs for sex from casual partner of opposite sex (n =622), past six months	
Less than a month to 1-3 times a month	137 (22%)
Once a week to several times daily	75 (12.1%)
Frequency of condom use with casual partner of opposite sex (n = 622), past six months	
Occasionally	88 (14.1%)
Almost half the time to always	325 (52.3%)

* Calculated on valid responses

TABLE 18 Sexual behaviour with casual sex partners during past six months amongst women who use drugs in Northeast India

4.1.6. Medical history

Nearly one fourth (24.5 percent) of the participants perceive their current status of health to be poor. Malaria (20 percent) and hepatitis (16.3 percent), mouth infections such as candida or thrush (10.8 percent), and tuberculosis (10.7 percent) are the common illnesses experienced by them in the past. Besides these, 29.5 percent of women who inject drugs have had abscesses at the site of injection, and 24 percent have had collapsed veins due to injection related injury. Among the 59.8 percent of respondents who have tested for HIV, most (96.5 percent) obtained their HIV test results and 14.8 percent are HIV+. A third (33.1 percent) of the participants have received hepatitis B vaccine. More than one fourth (27.4 percent) of the women who use drugs do not have knowledge related to hepatitis C (HCV) transmission; the common reasons cited for transmission of HCV are: sharing of needles and syringes (65.1 percent), blood transfusion (57.7 percent), contact with infected blood (55.4 percent), mother to child transmission (50.5 percent), unprotected sex (49.3 percent), and tattooing (36.3 percent). Only 13.7 percent of the sample has ever been tested for HCV and of those tested, most (96.8 percent) got their test results.

Medical history	n / Proportion (%)*
Current status of health	
Good - Excellent	494 (43%)
Fair - Poor	590 (51.3%)
Had any of the following:	
Tuberculosis	117 (10.7%)
Malaria	230 (20%)
Hepatitis	187 (16.3%)
Cirrhosis of liver	72 (6.3%)
Mouth infections such as candida or thrush	124 (10.8%)
Syphilis	98 (8.5%)
Genital warts	67 (5.8%)
Genital herpes	46 (4%)
Pelvic inflammatory disease	39 (3.4%)
Gonorrhoea	27 (2.3%)
Cervical cancer	7 (0.6%)
Had any of the following (n=471):	
Abscesses at injection site	139 (29.5%)
Collapsed veins due to injury related to injection	113 (24%)
Have ever been tested for HIV virus?	
Yes	688 (59.8%)
Have you received the test results for HIV (n=688)?	
Yes	664 (96.5%)
Have you been tested positive for HIV (n=688)?	
Yes	102 (14.8%)
Have you ever received Hepatitis B vaccine?	
Yes	381 (33.1%)
Ever been tested for hepatitis C?	
Yes	158 (13.7%)
Did you get the test results for hepatitis C? (n = 158)	
Yes	153 (96.8%)

* Calculated on valid responses

Medical history of women who use drugs in Northeast India **TABLE 19**

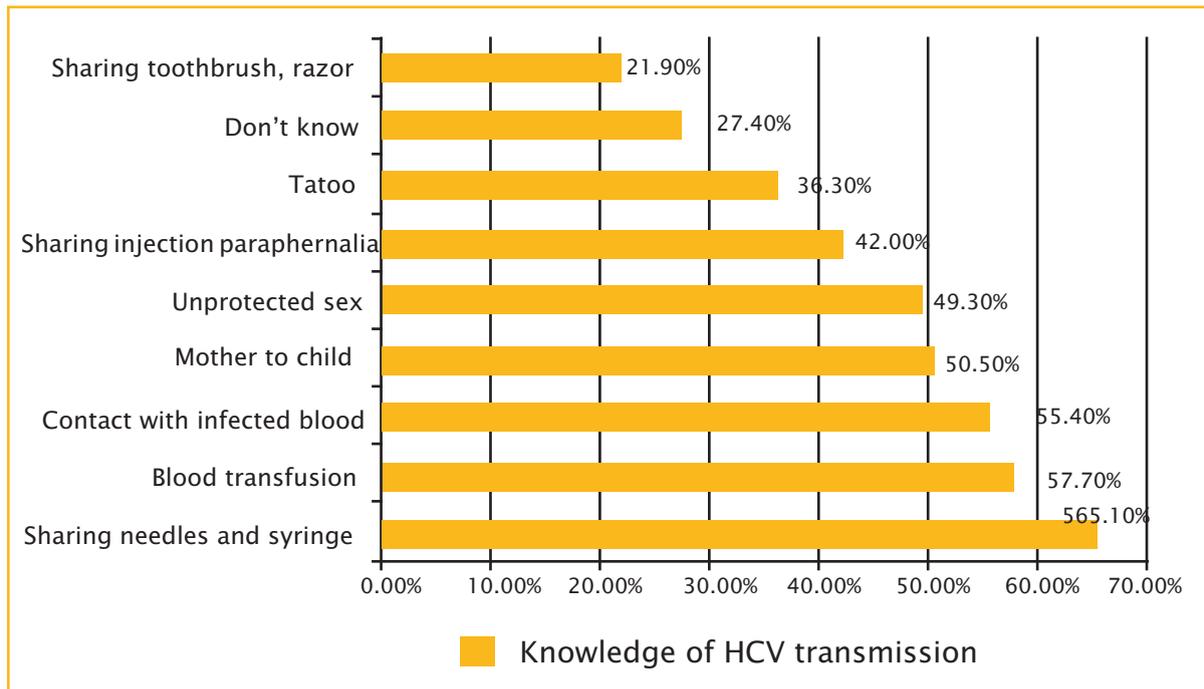


Fig 10: Knowledge of HCV transmission amongst women who use drugs in Northeast India

4.1.7. Service utilization related characteristics

Medical treatment utilisation and challenges: Overall, 15.6 percent of the participants report having faced difficulty in accessing treatment when needed, and among 15.2 percent, the fear of police or militant interference is the key factor preventing access to medical or drug use treatment. The reasons for the difficulty in accessing medical treatment are: unfriendly treatment services (77.7 percent), treatment that does not help (52.5 percent), females not being admitted for treatment (47.5 percent), painful treatment (31.3 percent), absence of services nearby (30.7 percent), inconvenient operational hours (30.2 percent), and the inability to pay for treatment (23.5 percent).

Service utilisation and challenges	n / Proportion (%)*
Didn't access medical help or drug use treatment due to fear of police or militant interference Yes	175 (15.2%)
Difficulty accessing medical treatment, if needed Yes	179 (15.6%)
Reasons for difficulties in accessing medical treatment, if needed (n=179)	
Unfriendly treatment services	139 (77.7%)
Treatment that does not help	94 (52.5%)
Females not accepted in treatment	85 (47.5%)
Painful treatment	56 (31.3%)
No service nearby	55 (30.7%)
Inconvenient hours	54 (30.2%)
Cannot pay for treatment	42 (23.5%)
No way to get there	6 (3.3%)

* Calculated on valid responses

TABLE 20

Medical treatment utilisation and challenges amongst women who use drugs in Northeast India

Drug use treatment service utilisation and challenges: Amongst the women who use drugs covered by this study, 39.8 percent have ever received any treatment for substance use. More than a third (34.7 percent) of the participants have received outpatient treatment and 17.5 percent have received inpatient treatment. More than one in five (21.4 percent) respondents are currently under treatment for drug use disorder. Overall, 22.8 percent of the participants perceive difficulty in accessing drug use treatments when needed, and the reasons for this are: inability to pay for treatment (41.2 percent), unfriendly treatment services (40.1 percent), treatment that does not help (38.9 percent), no service nearby (36.6 percent), inconvenient hours (27.1 percent), and painful treatment (21.8 percent).

Service utilisation and challenges	n / Proportion (%)*
Ever received any treatment for drug use?	
Yes	458 (39.8%)
Ever received outpatient treatment for drug use?	
Yes	399 (34.7%)
Ever received inpatient treatment for drug use?	
Yes	201 (17.5%)
Are you currently on treatment for drug use?	
Yes	246 (21.4%)
Any difficulty in accessing treatment if you needed?	
Yes	262 (22.8%)
Reasons for difficulties in accessing treatment for drug use (n = 262)	
Cannot pay for treatment	108 (41.2%)
Unfriendly treatment services	105 (40.1%)
Treatment that does not help	102 (38.9%)
No service nearby	96 (36.6%)
Inconvenient hours	71 (27.1%)
Painful treatment	57 (21.8%)
Females not accepted in treatment	50 (19.1%)
No way to get there	51 (19.5%)
No service exists	23 (8.8%)

* Calculated on valid responses

Drug use treatment utilisation and challenges amongst women who use drugs in Northeast India

TABLE 21

Targeted intervention utilisation and challenges among women who inject drugs:

Amongst 471 women covered in this study, who inject drugs, 22.1 percent have never received individual counselling and 57.1 percent have been counselled less than a month to one–three times a month. From the TIs, 31.4 percent of the participants have never received information, education and communication (IEC) and more than half (52.7 percent) have received IEC less than a month to one–three times a month. Forty percent of women who inject drugs have never benefitted from street outreach activities; 21.7 percent were seen in outreach less than a month to one–three times a month, and a fourth (25.9 percent) of participants, once a week to several times in a week. One fourth of the study sample (24.8 percent) has never received peer support and more than 60.1 percent have received peer support less than a month to one–three times a month.

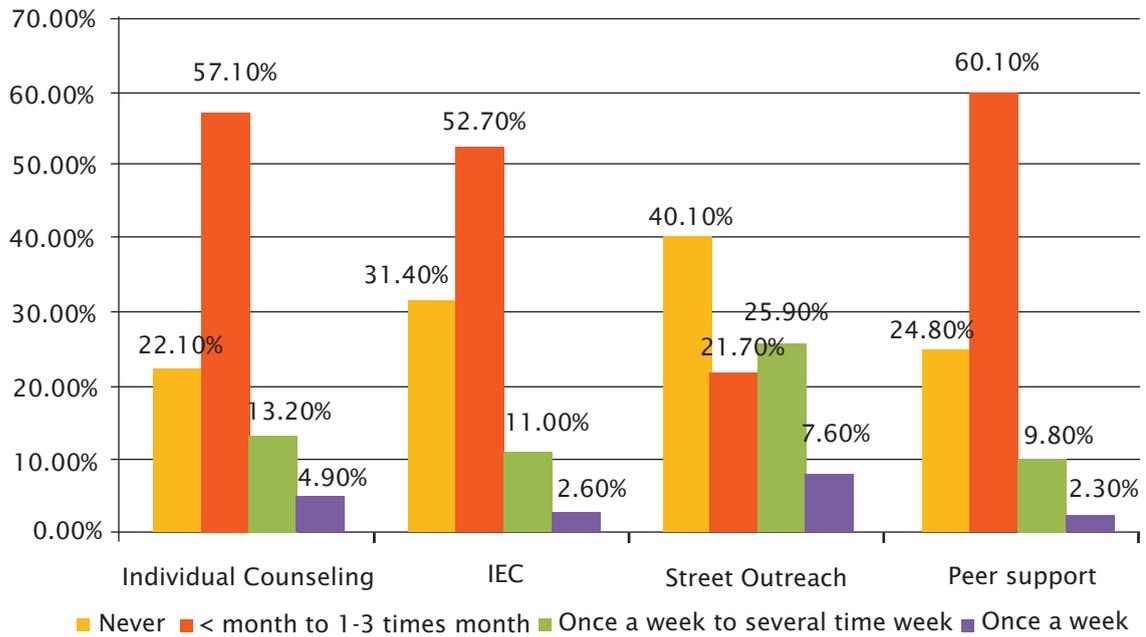


Fig. 11: Targeted intervention utilisation amongst women who inject drugs in Northeast India

Core harm reduction intervention utilisation and challenges: Among the women who inject drugs, 39.9 percent have never received needles and syringes from TIs, and 46.3 percent of them receive needles/syringes once daily to several times daily. A majority (61.2 percent) of the women who inject drugs have never attended opioid substitution therapy (OST) and more than a fourth (27 percent) have received OST daily.

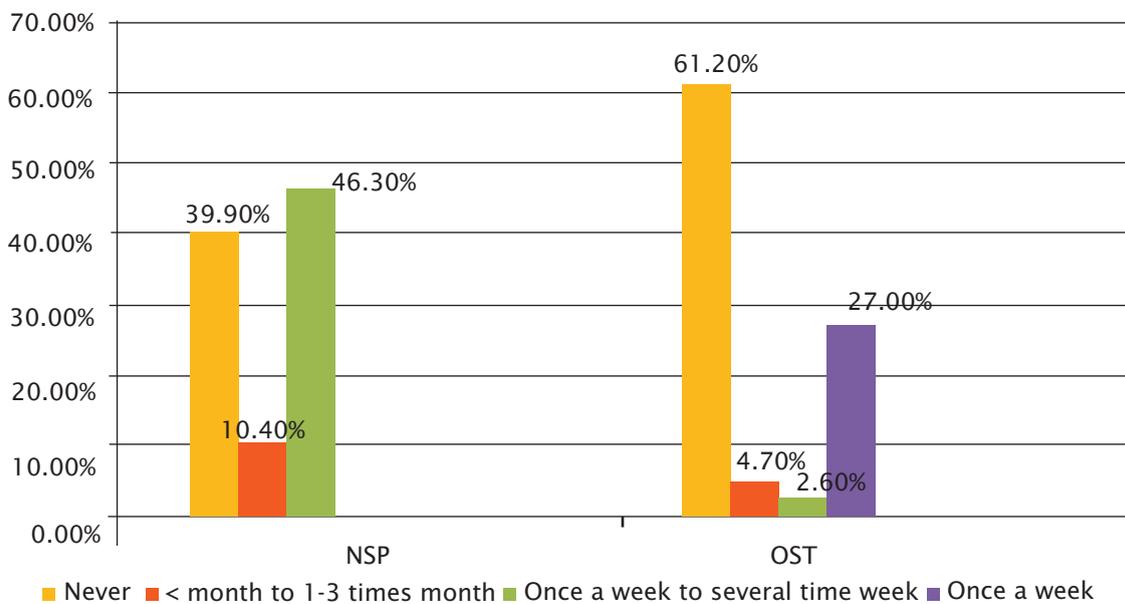


Fig.12: Core harm reduction interventions utilisation amongst women who inject drugs in Northeast India

History of incarceration: More than a fifth (22.3 percent) of the participants have been in prison/jail. Of those incarcerated, 45.3 percent have been so once, about a third (32 percent) have been so twice, and 22.7 percent to jail three or more times. About one in four (24.2 percent) incarcerated women have used drugs while in prison/jail, and of these, more than a third (35.5 percent) have injected substances.

Prison/Jail history	n / Proportion (%)*
Have you ever been in jail/prison?	
Yes	256 (22.3%)
Number of times in jail/prison (n =256)	
Once	116 (45.3%)
Twice	82 (32%)
3 or more times	58(22.7%)
Used drugs in jail/prison? (n =256)	
Yes	62 (24.2%)
Injected drugs in jail/prison? (n =62)	
Yes	22 (35.5%)

* Calculated on valid responses

TABLE 22 Prison/jail history amongst women who use drugs in Northeast India

4.1.8. Overdose related characteristics

Witnessed overdose: About two thirds (65.3 percent) of the respondents have witnessed an incident of overdose. While a fifth (20.5 percent) haven't known anyone who died of overdose, another fifth (20.2 percent) have known one person who died of overdose, 29.2 percent report knowing two overdose deaths, and an almost equal proportion (29.3 percent) have known three or more persons dying of drug overdose.

Witnessed overdose related characteristics	n / Proportion (%)*
Ever witnessed overdose?	
Yes	742 (65.3%)
Known anyone who died of overdose	
None	228 (20.5%)
One	225 (20.2%)
Two	325 (29.2%)
Three or more	327 (29.3%)

* Calculated on valid responses

TABLE 23 Witnessed overdose amongst women who use drugs in Northeast India

Response to witnessed overdose: The commonly reported good responses to witnessed overdose are: placed person in 'open airway' position (31.8 percent), informed relatives (19 percent), performed mouth to mouth resuscitation (18.8 percent), took person to the hospital (12.5 percent), administered CPR (10.5 percent), injected naloxone (6.4 percent), and called an ambulance (5.7 percent). Other commonly reported responses are: used ice, cold shower and shouting (32.1 percent), hit, pinched, slapped the person (26.4 percent), used home remedies (17.9 percent), walked the person around (13 percent), injected salt (9.9 percent), and left the place immediately (5.7 percent).

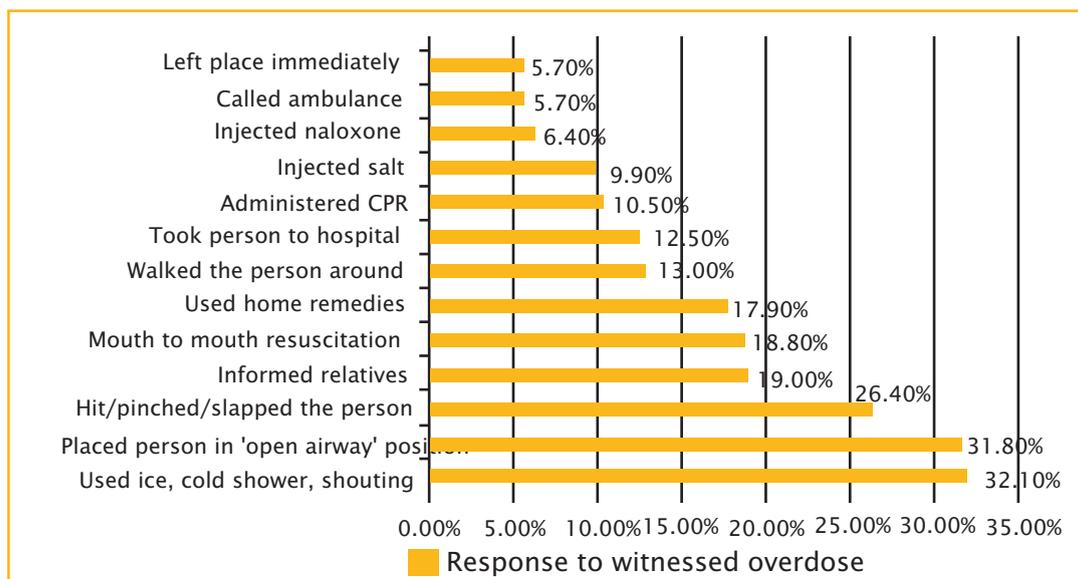


Fig. 13: Response to witnessed overdose amongst women who use drugs in Northeast India

Personal overdose: Among the respondents 29.4 percent have overdosed. Nearly a third (31.6 percent) of those who have were alone at the time of overdose. Most (82.7 percent) of the women who have overdosed have been helped by someone at the time of overdose. More than two thirds of the participants (67.3 percent) feel that appropriate medical attention will be given to overdosed persons if medical help is sought and more than a third (35.5 percent) believe that law enforcement authorities will be informed in case of overdose. More than half (55.8 percent) of the respondents have ever been taught first aid.

Personal overdose related characteristics	n / Proportion (%)*
Ever overdosed?	
Yes	329 (29.4%)
Alone at the time of personal overdose (n =329)	
Yes	104 (31.6%)
Anyone helped at the time of personal overdose (n =329)	
Yes	272 (82.7%)
Appropriate medical attention will be given if sought medical help for overdose	
Yes	742 (67.3%)
Law enforcement will be informed if sought medical help for overdose	
Yes	398 (35.5%)
Even been taught first aid ?	
Yes	631 (55.8%)

* Calculated on valid responses

TABLE 24 Personal overdose amongst women who use drugs in Northeast India

Personal overdose: Among those who have overdosed (n =329), the common injected drugs at the time of overdose include: heroin (24 percent), proxyvon (19 percent) and buprenorphine or pentazocine (1.8 percent). The prevalent non-injected drugs used at the time of overdose include: proxyvon (44.4 percent), alcohol (29.2 percent), sedatives (24 percent), and heroin (8.5 percent).

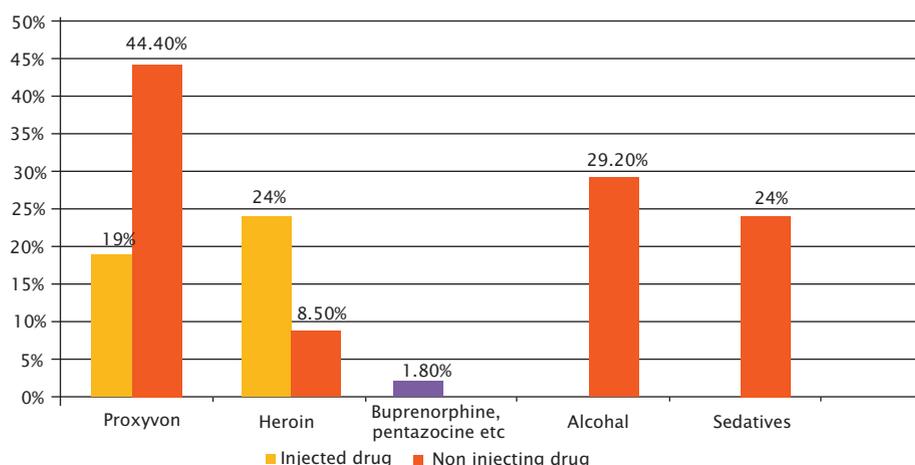


Fig 14: Injected and non-injected drug at the time of personal overdose amongst women who use drugs in Northeast India

Help for personal overdose: Persons who have helped the women participants at the time of overdose include: drug using friends (61.1 percent), other drug users (26.7 percent), drug using sex partners (24 percent); drug using relatives (11.6 percent); non-drug using relatives (10 percent), non-drug using partners (9.1 percent), strangers (7.3 percent), outreach workers (6.1 percent), non-drug using friends (5.8 percent), and unknown persons as the overdosed persons were unconscious (4.9 percent).

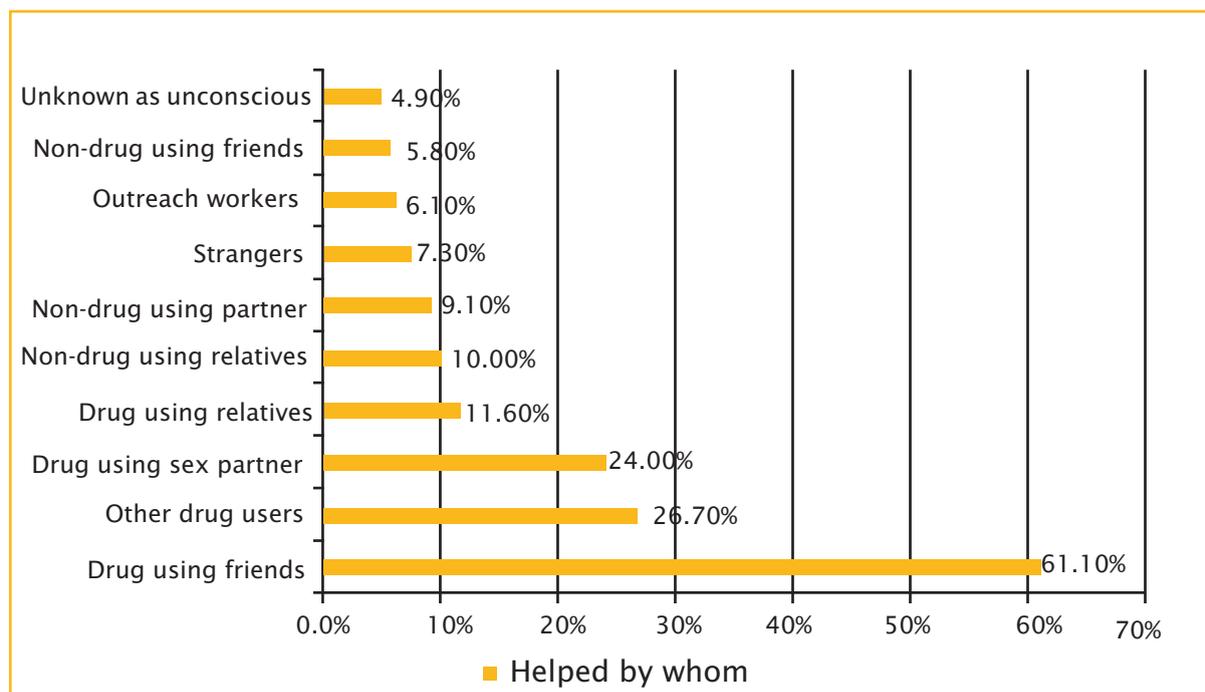


Fig 15: Help for personal overdose amongst women who use drugs in Northeast India

4.1.9. Physical and sexual violence related characteristics

Physical violence: Physical violence is common, with nearly two thirds (62.4 percent) of the participants reporting ever been hit with a fist or kicked or beaten once or more. More than half (53.6 percent) of the respondents report physical violence by sex partners and 62.2 percent admit to physical violence by a non-sex partner, once or more. Physical violence by casual sex partners, once or more, is reported by more than a fourth (25.9 percent) of the participants, whereas 28.3 percent admit to physical violence, once or more, by neighbours or the community. Physical violence by police, once or more, has been reported by 26.6 percent of women in this study.

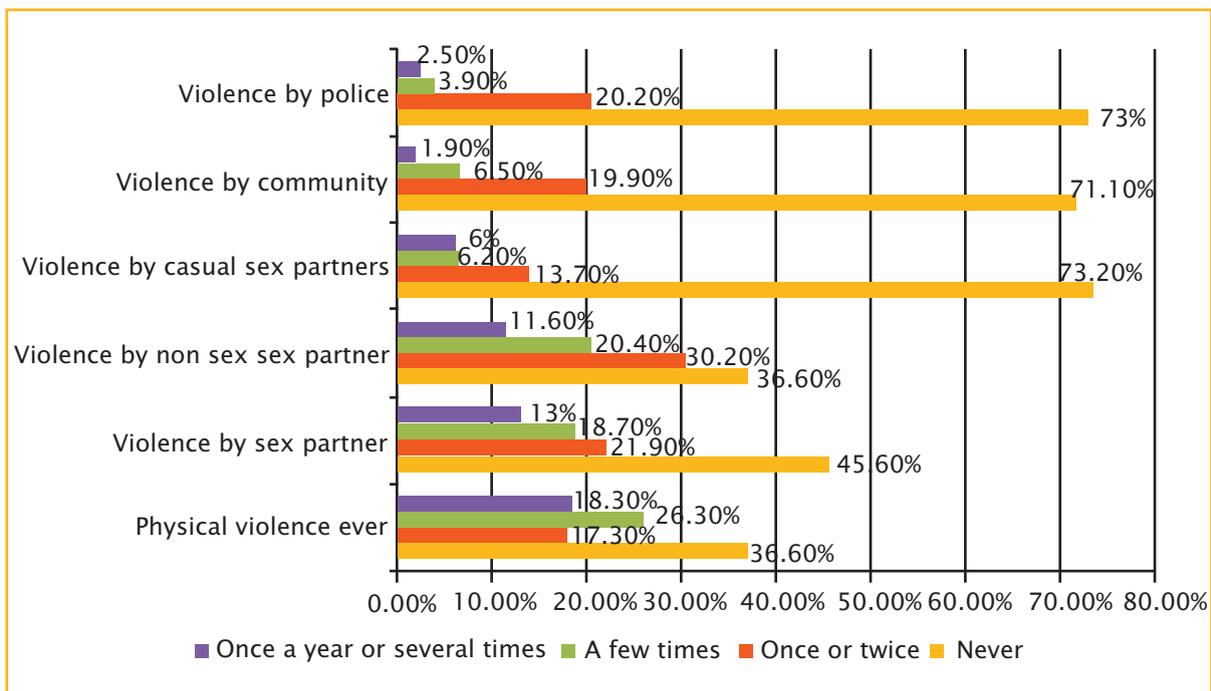


Fig16: Physical violence experience amongst women who inject drugs in Northeast India

Sexual abuse: One third (33 percent) of the respondents have been sexually abused more than once. Sexual violence by sex partners more than once has been experienced by 17.4 percent of the participants; 20.4 percent have been abused by casual partners, while 9.2 percent have been abused sexually by non-sex partners. Sexual abuse with a frequency of more than once by the community/neighbourhood and police is reported by 13.1 percent and 13.7 percent, respectively.

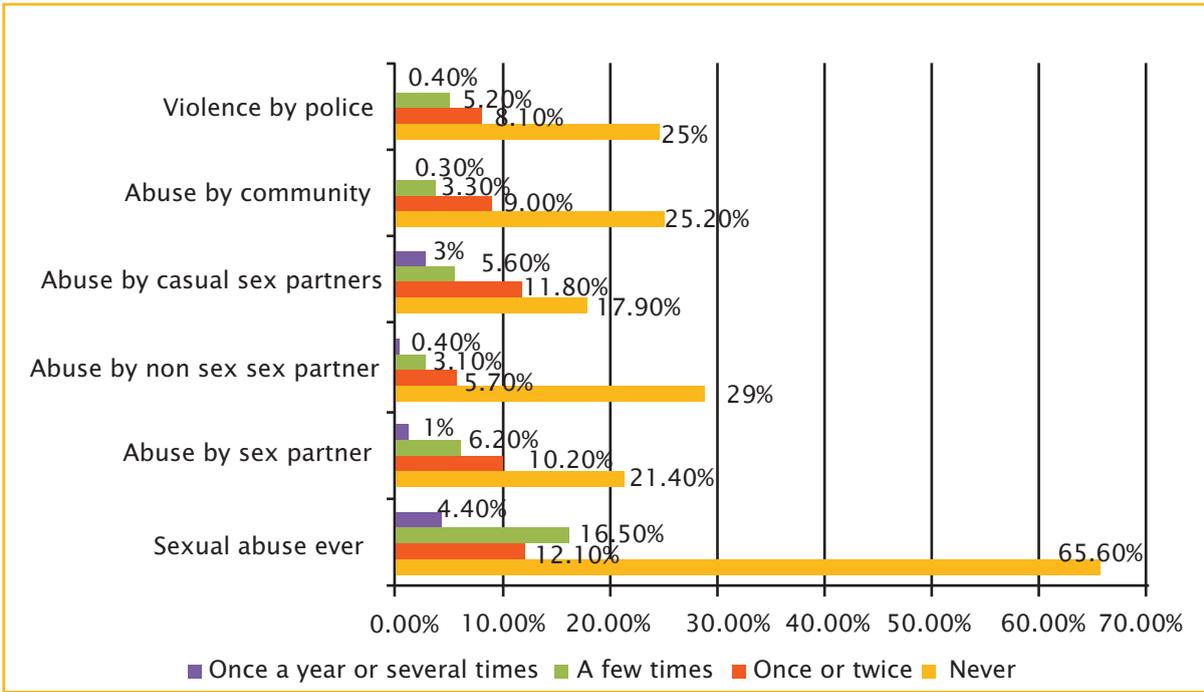


Fig17: Sexual abuse experience amongst women who inject drugs in Northeast India

4.1.10. Reproductive health related characteristics

Reproductive health: A little more than a third (34.4 percent) of the women covered under the study have been pregnant during the time of using drugs. The median number of pregnancies during the drug-using period is 1 (mean \pm SD: 1.6 \pm 0.84) and the median number of unplanned pregnancies is 1 (mean \pm SD: 1.1 \pm 0.88). The outcomes of pregnancies in the case of women who became pregnant during their drug-using time are: born alive (47.3 percent), abortion (38 percent), natural abortion (24.7 percent), and still birth (9.5 percent). Among participants who became pregnant, 39.6 percent received pregnancy care. During the time of pregnancy, 59.1 percent participants report having used drugs. More than one fourth (28 percent) of the respondents stopped using drugs during pregnancy and only a small proportion (4.6 percent) of women who stopped using drugs during pregnancy used opioid substitution therapy (OST) to stop drug use. At present, of all the participants, 1.6 percent of women are pregnant.

Reproductive health related characteristics	Mean \pm SD or n / Proportion (%)*
Pregnant during the time of using drugs?	
Yes	389 (34.4%)
Number of pregnancies during drug-using period	Mean \pm SD: 1.6 \pm 0.84; Median: 1
Number of planned pregnancies during drug-using period	Mean \pm SD: 0.6 \pm 0.82 Median: 0
Number of non-planned pregnancies during drug-using period	Mean \pm SD: 1.1 \pm 0.88; Median: 1
Care for last pregnancy (n =389)	
Yes	154 (39.6%)
Drug use during the period of pregnancy (n =389)	
Yes	239 (61.4%)
Stopped drug use during the period of pregnancy (n =389)	
Yes	109 (28%)
Stopped drug use with OST (n =109)	
Yes	5 (4.6%)
Currently pregnant	
Yes	18 (1.6%)

* Calculated on valid responses

TABLE 25 Reproductive health amongst women who inject drugs in Northeast India

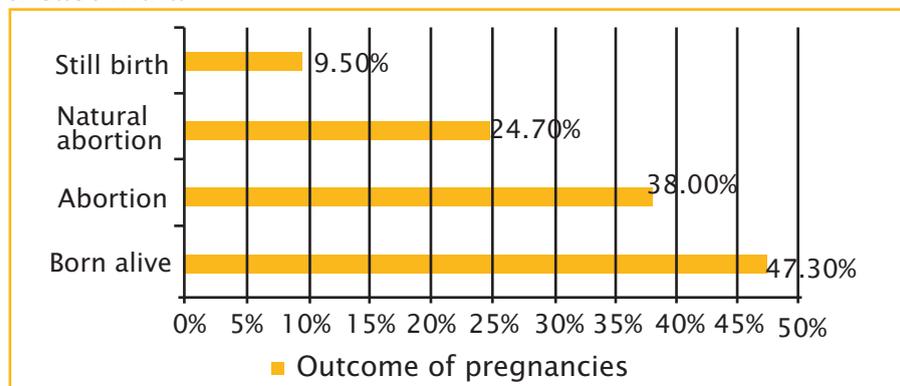


Fig 18: Outcome of pregnancies during drug using period amongst women who inject drugs in Northeast India

Abortion: Abortion is reported by 38 percent of women who use drugs. The places for abortion are: medical settings (44.6 percent), non-medical settings with unqualified persons (43.2 percent), and non-medical settings with qualified persons (33.8 percent). About three fourths (73.6 percent) of the participants have experienced adverse consequences after abortion.

Reproductive health related characteristics	n / Proportion (%)*
Abortion during the time of using drugs (n = 389)	
Yes	148 (38%)
Place of abortion (n = 148)	
Medical settings	66 (44.6%)
Non-medical settings	82 (55.4%)
Adverse consequences after abortion (n = 148)	
Yes	109 (73.6%)

* Calculated on valid responses

TABLE 26 Abortion amongst women who inject drugs in Northeast India

4.1.11. Expectations amongst women who use drugs

Expectations amongst women: The women who use drugs covered by this study have the following expectations of the next year: change in health status (85.1 percent), change in social status (77.3 percent), change in level of drug consumption (71.8 percent), change in main source of income (71.5 percent), change in mode of administration (64.7 percent), and change in employment status (64.6 percent).

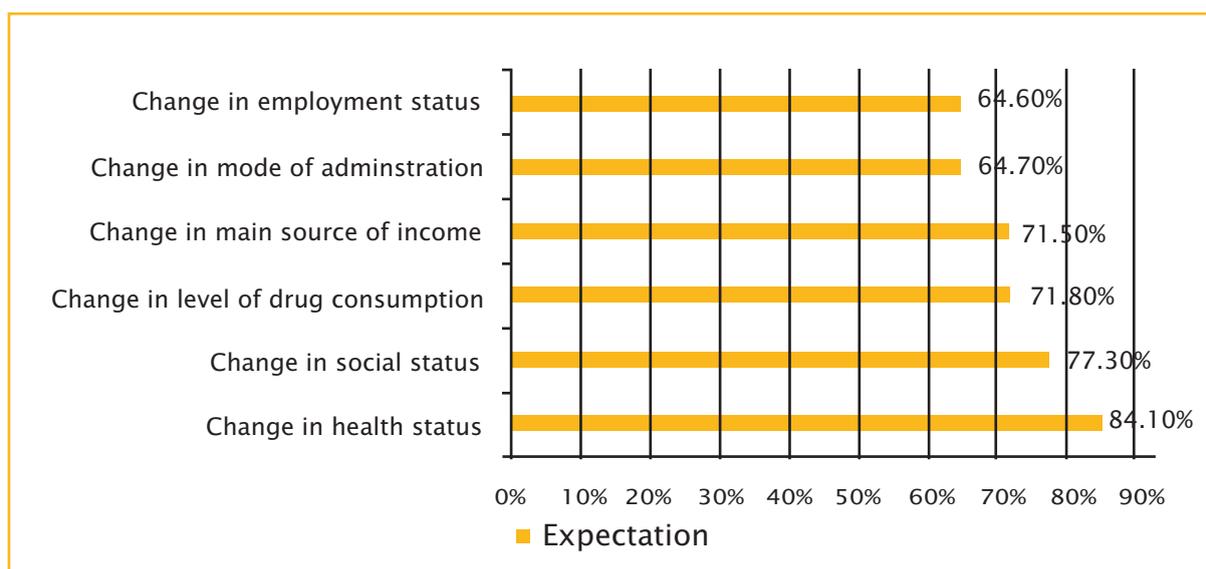


Fig 19: Expectations amongst women who use drugs in Northeast India

4.2. Comparison Of Women Who Inject Drugs And Women Who Use Drugs By Non-injecting Mode Of Administration

4.2.1. Comparison of demographic characteristics

A comparison has been drawn between women who administer drugs by injecting (n =471) and those who use a non-injecting mode (n =668) in terms of the following demographic characteristics: age, sex, educational level, employment status and main source of income. There is a statistically significant age difference between injectors and non-injectors—injectors have a higher mean age. There is no statistically significant difference in sex and employment status of the two groups. Overall, the non-injecting women have higher levels of education compared to women who inject drugs, and this is statistically significant. Compared to the participants who do not inject, the main source of income among a majority (44.8 percent) of the women who inject drugs is selling drugs and/or sex, and the difference is statistically significant. In both the groups, temporary or regular work is reported by less than one fourth of the participants.

Demographic characteristics	Injectors (N=471) N or Mean ± SD	Non injectors (N=668) N or Mean ± SD	P value*
Age	29.3 ± 6.3	26.2 ± 7.1	0.015
Education			
Up to Middle School	283 (60.1%)	363 (54.3%)	0.044
Higher Secondary-College level	182 (38.7%)	299 (44.8%)	
Employment			
Employed	50 (10.6%)	78 (11.7%)	0.72
Unemployed	405 (86%)	579 (86.7%)	
Main source of income			
Regular or temporary work	109 (23.1%)	142 (21.3%)	0.000
Family or spouse income	134 (28.5%)	368 (55.1%)	
Selling drugs/ sex for money	211 (44.8%)	148 (22.2%)	

* Calculated on valid responses

TABLE 27 Comparison of Injectors and Non-injectors for demographic characteristics

Even though most women who use drugs do not live alone, when compared with women who do not inject drugs, a relatively greater proportion of women who inject drugs live alone. The majority (53.1 percent) of women who use drugs through an on-injecting mode are single/unmarried, whereas the majority (42 percent) of women who inject drugs are widowed/separated or divorced. Nearly two thirds (63.5 percent) of the women who inject drugs do not live with a partner/ spouse, whereas a little more than half (50.7 percent) of the women who have never injected drugs do not live with a partner/spouse. Among the two groups, most women (93.3 percent) who do not inject live on their own or in a rented residence, while about one in five women (19.9 percent) who inject drugs live in lodges, brothels or have no fixed address.

Living status related characteristics	Injectors (N=471)	Non injectors (N=668)	P value*
Living alone			
Yes	58 (12.3%)	44 (6.6%)	0.0009
No	403 (85.6%)	607 (90.9%)	
Marital Status			
Legally married / Live in partner	127 (26.9%)	199 (29.8%)	0.000
Single/Unmarried	139 (29.5%)	355 (53.1%)	
Widowed/Separated/Divorced	198 (42%)	110 (16.5%)	
Living with partner / spouse			
No	299 (63.5%)	339 (50.7%)	0.0003
Yes	132 (28%)	241 (36.1%)	
Residence, last six months			
Own, rented residence & others' residence	358 (76%)	623 (93.3%)	0.000
Lodging & Brothels & No fixed address	94 (19.9%)	26 (3.9%)	

* Calculated on valid responses

TABLE 28

Comparison of Injectors and Non-injectors for living status related characteristics

4.2.2. Comparison of drug use related characteristics

While there is no statistically significant difference between the age at initiation of tobacco and alcohol use between the two groups of women, there is a significant difference between the two groups when it comes to the age at initiation of drugs other than alcohol and tobacco in that women who inject drugs exhibit a higher age at onset (20.8 ± 4.3 vs 19.8 ± 3.7). A significant proportion (42.5 percent) of women who inject drugs report a pathological pattern of alcohol use, compared with 27.5 percent of the women who do use drugs by non-injecting. The use of cannabis in the prior six months is reported in both the groups among just more than a third of the women.

Drug use related characteristics	Injectors (N=471) N or Mean \pm SD	Non injectors (N=668) N or Mean \pm SD	P value
Age at initiation of tobacco use, years	15.5 \pm 5.6	16.3 \pm 8.2	0.176
Age at initiation of alcohol use, years	17.2 \pm 5.8	16.3 \pm 5.7	0.538
Age at initiation of drugs other than alcohol, tobacco use, years	20.8 \pm 4.3	19.8 \pm 3.7	0.000
Frequency of alcohol use, last six months			
Never use	54 (11.5%)	96 (14.4%)	0.000
Social use	196 (41.6%)	365 (54.6%)	
Pathological pattern of alcohol use	200 (42.5%)	184 (27.5%)	
Use of cannabis, last six months			
Yes	163 (34.6%)	237 (35.5%)	0.602
No	302 (64.1%)	411 (61.5%)	

* Calculated on valid responses

TABLE 29

Comparison of Injectors and Non-injectors for drug use related characteristics

4.2.3. Comparison of sexual behaviour

Sexual behaviour with primary sex partners: Amongst women who inject drugs, 60.5 percent have had sexual intercourse with an opposite sex partner at a frequency of once a week to several times daily during the past six months. More than one fourth (28.9 percent) of the women who inject drugs and 26.8 percent of the women who use drugs by non-injecting had vaginal/anal sexual intercourse with the primary partner once a week to several times daily in the past six months. Occasional condom use in the past six months is reported by women who never inject drugs (22.6 percent), whereas just more than a fourth (25.9 percent) of the women who inject drugs use condoms almost half the time to always with the primary partner. The use of condoms as the primary method of contraception with primary partners is found to be more frequent among women who use drugs through non-injecting modes (40.9 percent), compared to women who use drugs by injecting (32.9 percent), and this is statistically significant.

Sexual behavior	Injectors (N=471)	Non injectors (N=668)	P value*
Frequency of sexual intercourse with opposite sex, past six months			
Less than a month to 1-3 times a month	74 (15.7%)	181 (27.1%)	0.000
Once a week to several times daily	285 (60.5%)	269 (40.3%)	
Frequency of vaginal/anal intercourse with primary partner, past six months			
Less than a month to 1-3 times a month	116 (24.6%)	204 (30.5%)	0.0745
Once a week to several times daily	136 (28.9%)	179 (26.8%)	
Frequency of condom use with primary partner, past six months			
Occasionally	47 (10.0%)	151 (22.6%)	0.000
Almost half the time to always	122 (25.9%)	139 (20.8%)	
Method of contraception with primary partner, none			
Yes	53 (11.3%)	94 (14.1%)	0.1652
No	239 (50.7%)	325 (48.7%)	
Method of contraception with primary partner, condoms			
Yes	155 (32.9%)	273 (40.9%)	0.0185
No	93 (19.7%)	109 (16.3%)	

* Calculated on valid responses

TABLE 30 Comparison of Injectors and Non-injectors for sexual behavior with primary partners

Sexual behaviour with casual sex partners: More than one third (35.9 percent) of the women who inject drugs have sex with casual sex partners once a week to several times daily, compared to 15.3 percent of the women who use drugs through non-injecting modes. The use of condoms almost half the time to always with casual partners is reported by 41.6 percent of the women who inject drugs, compared to 18.9 percent in the case of non-injectors.

A significant proportion (45.4 percent) of women who inject drugs report sex once a week to several times daily with a casual partner who paid money in exchange for sex, compared to 25.6 percent amongst women who have never injected. Among women who inject drugs, 41.6 percent use condoms with their casual sex partners almost half the time to always, whereas 18.9 percent of non-injecting women use condoms with their casual partners at this frequency.

Sexual behavior	Injectors (N=471)	Non injectors (N=668)	P value
Frequency of vaginal/anal intercourse with casual partner, past six months			
Less than a month to 1-3 times a month	54 (11.5%)	110 (16.5%)	0.000
Once a week to several times daily	169 (35.9%)	102 (15.3%)	
Frequency of condom use with casual partner, past six months			
Occasionally	21 (4.5%)	65 (9.7%)	0.000
Almost half the time to always	196 (41.6%)	126 (18.9%)	
Frequency of sex with casual partner who gave money for sex, past six months			
Less than a month to 1-3 times a month	37 (7.9%)	98 (14.7%)	0.000
Once a week to several times daily	214 (45.4%)	171 (25.6%)	
Frequency of sex with casual partner who gave drugs for sex, past six months			
Less than a month to 1-3 times a month	52 (11.0%)	83 (12.4%)	0.0765
Once a week to several times daily	36 (7.6%)	34 (5.1%)	

* Calculated on valid responses

TABLE 31 Comparison of Injectors and Non-injectors for sexual behavior with casual partners

4.2.4. Comparison of medical history

Medical history: Almost half (48.2 percent) of the women who use drugs through non-injecting modes report their current health status as good to excellent, compared to 35.2 percent of women who inject drugs, and this difference is statistically significant. Between women who inject drugs and those who don't, a larger proportion of the injectors exhibit a history of tuberculosis (14.4 percent vs 7.2 percent) and cirrhosis of liver (9.1 percent vs 4.3 percent). Most women (84.7 percent) who inject drugs have been tested for HIV, compared with only 42.2 percent in the case of women who use drugs through non-injecting modes. The majority (61.6 percent) of women who inject drugs haven't received HBV vaccination, while in the case of non-injectors, this is true for half (50.4 percent). About one fourth (24.4 percent) of the women who inject drugs have been tested for HCV, compared with only 6 percent amongst women who use drugs through non-injecting modes.

Medical history	Injectors (N=471)	Non injectors (N=668)	P value
Current health status			
Good to excellent	166 (35.2%)	322 (48.2%)	0.000
Fair	165 (35%)	140 (21%)	
Poor	93 (19.7%)	187 (28%)	
Ever had TB			
No	401 (85.1%)	568 (85%)	0.0003
Yes	68 (14.4%)	48 (7.2%)	
Ever had Cirrhosis of liver			
No	422 (89.6%)	585 (87.6%)	0.0032
Yes	43 (9.1%)	29 (4.3%)	
Ever had Hepatitis			
No	382 (81.1%)	525 (78.6%)	0.7189
Yes	81 (17.2%)	105 (15.7%)	
Ever tested for HIV			
No	69 (14.6%)	382 (57.2%)	0.000
Yes	399 (84.7%)	282 (42.2%)	
Received HBV vaccination			
No	290 (61.6%)	337 (50.4%)	0.000
Yes	122 (25.9%)	256 (38.3%)	
Ever tested for HCV			
No	302 (64.1%)	539 (80.7%)	0.000
Yes	115 (24.4%)	40 (6%)	

* Calculated on valid responses

TABLE 32 Comparison of Injectors and Non-injectors for medical history

4.2.5. Comparison of service utilization

Treatment for drug use disorder: More than half (52.4 percent) the women who inject drugs have had treatment for drug use disorder, compared to only 31.1 percent in the case of non-injecting women. A third (33.1 percent) of the women who inject drugs are currently under drug use treatment, whereas this figure is 13.2 percent among women who never inject.

Service utilization	Injectors (N=471)	Non injectors (N=668)	P value
Treatment for drug use: Ever			
No	222 (47.1%)	448 (67.1%)	0.000
Yes	247 (52.4%)	208 (31.1%)	
Current treatment for drug use			
No	91 (19.3%)	120 (18%)	0.000
Yes	156 (33.1%)	88 (13.2%)	

* Calculated on valid responses

TABLE 33 Comparison of Injectors and Non-injectors for service utilization

Incarceration: A significantly larger proportion (30.1 percent) of women who inject drugs have ever been in prison or jail, compared to those who do not inject (16.6 percent). A greater proportion of women who inject drugs have used drugs inside the prison/jail, compared with their non-injecting counterparts (9.8 percent vs 2.2 percent).

Incarceration	Injectors (N=471)	Non injectors (N=668)	P value
Ever been in prison/jail			
No	317 (67.3%)	544 (81.4%)	0.000
Yes	142 (30.1%)	111 (16.6%)	
Number of times in prison/jail			
Once	61 (12.9%)	53 (7.9%)	0.4639
Twice	44 (9.3%)	38 (5.7%)	
3 or more times	37 (7.9%)	20 (3%)	
Used drugs in prison/jail			
No	96 (67.6%)	96 (86.5%)	0.0004
Yes	46 (32.4%)	15 (13.5%)	

* Calculated on valid responses

TABLE 34 Comparison of Injectors and Non-injectors for incarceration

4.2.6. Comparison of overdose related characteristics

Overdose: A comparison between the two groups of women—injectors and non-injectors—reveals that a significantly larger proportion of women who inject drugs have ever overdosed on narcotic substances (38.4 percent vs 22 percent). A smaller proportion of women who inject drugs (31.2 percent), compared with those who never inject drugs (37 percent), believe that law enforcement will be informed if help is sought in case of overdose. The majority of women who inject drugs (60.9 percent) and half (50.3 percent) of the non-injecting women have ever been taught first aid, and this difference is statistically significant.

Overdose related characteristics	Injectors (N=471)	Non injectors (N=668)	P value
Ever overdosed on drugs			
No	276 (58.6%)	495 (74.1%)	0.000
Yes	181 (38.4%)	147 (22%)	
If sought medical help for overdose proper attention will be provided			
No	121 (25.7%)	197 (29.5%)	0.0597
Yes	326 (69.2%)	410 (61.4%)	
If sought help for overdose law enforcement will be informed			
No	308 (65.4%)	375 (56.1%)	0.0127
Yes	147 (31.2%)	247 (37%)	
Ever taught first aid			
No	178 (37.8%)	314 (47%)	0.0008
Yes	287 (60.9%)	336 (50.3%)	

* Calculated on valid responses

TABLE 35 Comparison of Injectors and Non-injectors for overdose

4.2.7. Comparison of violence related characteristics

Physical violence: About three fourths (73 percent) of women who inject drugs and 54.5 percent of women who use drugs through a non-injecting mode admit to physical violence. A significantly larger proportion of women who inject drugs report violence at the hands of a sex partner (45 percent vs 29.9 percent), whereas violence used by a casual sex partner is reported more by injectors than by non-injectors (24.4 percent vs 19.7 percent).

Physical violence related characteristics	Injectors (N=471) N or Mean ± SD	Non injectors (N=668) N or Mean ± SD	P value
Physical violence			
No	123 (26.1%)	291 (43.6%)	0.000
Yes	344 (73%)	364 (54.5%)	
Physical violence by sex partner			
No	148 (31.4%)	203 (30.4%)	0.0104
Yes	212 (45%)	200 (29.9%)	
Physical violence by non-sex partner			
No	153 (32.5%)	129 (19.3%)	0.0009
Yes	199 (42.3%)	276 (41.3%)	
Physical violence by causal sex partner			
No	264 (56%)	297 (44.4%)	0.0041
Yes	93 (19.7%)	163 (24.4%)	
Physical violence by community			
No	254 (53.9%)	291 (43.6%)	0.6965
Yes	105 (22.3%)	113 (16.9%)	
Physical violence by police			
No	263 (55.8%)	294 (44%)	0.7080
Yes	98 (20.8%)	103 (15.4%)	

* Calculated on valid responses

TABLE 36 Comparison of Injectors and Non-injectors for physical violence

Sexual abuse: Women who inject drugs report significantly more sexual abuse than those who don't inject (40.6 percent vs 25.9 percent). Amongst women who inject drugs, sexual abuse by a non-sex partner (13 percent vs 6.4 percent), sexual abuse by neighbourhood or community members (17.4 percent vs 9.9 percent) and sexual abuse by police (19.7 percent vs 9.4 percent) are more prevalent.

Sexual abuse related characteristics	Injectors (N=471) N or Mean ± SD	Non injectors (N=668) N or Mean ± SD	P value
Sexual abuse			
No	261 (55.4%)	462 (69.2%)	0.0000
Yes	191 (40.6%)	173 (25.9%)	
Sexual abuse by sex partner			
No	111 (23.6%)	132 (19.8%)	0.0735
Yes	110 (23.4%)	93 (13.9%)	
Sexual abuse by non-sex partner			
No	150 (31.8%)	182 (27.2%)	0.0164
Yes	61 (13%)	43 (6.4%)	
Sexual abuse by casual sex partner			
No	90 (19.1%)	113 (16.9%)	0.1238
Yes	119 (25.3%)	111 (16.6%)	
Sexual abuse by community			
No	127 (27%)	158 (23.6%)	0.0322
Yes	82 (17.4%)	66 (9.9%)	
Sexual abuse by police			
No	119 (25.3%)	160 (23.9%)	0.0006
Yes	93 (19.7%)	63 (9.4%)	

* Calculated on valid responses

TABLE 37 Comparison of Injectors and Non-injectors for sexual abuse

4.2.8. Comparison of pregnancy related characteristics

Drug use and pregnancy: More women who inject drugs have become pregnant during their drug using time, as compared to those who do not inject drugs (38 percent vs 31 percent). In both the groups, the majority of women have continued to use drugs during their pregnancy.

Incarceration	Injectors (N=471)	Non injectors (N=668)	P value
Pregnant during drug using time			
No	285 (60.5%)	450 (67.4%)	
Yes	179 (38%)	207 (31%)	0.0141
Continued drugs during pregnancy			
No	67 (37.4%)	86 (41.5%)	
Yes	112 (62.6%)	118 (57%)	0.346

* Calculated on valid responses

TABLE 38

Comparison of Injectors and Non-injectors for pregnancy

4.3. Comparison of women who use drugs in high HIV prevalent and low HIV prevalent Northeastern states

4.3.1. Comparison of demographic characteristics of women who use drugs in high and low HIV prevalent Northeast states

Women who use drugs from the four states of the northeast with high HIV burden, namely Manipur, Meghalaya, Mizoram and Nagaland (n = 650), are compared with those from low HIV burden states—Arunachal Pradesh, Assam, Sikkim and Tripura (n = 500). The women from the high HIV burden states are slightly older (mean age: 28 vs 27), more of them tend to be widowed/separated/divorced (32 percent vs 20 percent) and a smaller proportion live with a partner/spouse (26 percent vs 41 percent). Many women from the high HIV burden states are engaged in selling sex or drugs to sustain their lives (36 percent vs 25 percent).

Demographic characteristics	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N=500) N or Mean ± SD	P value
Age	27.8 ± 7.1	26.98 ± 6.7	0.0468
Education			
Up to Middle School	359 (55.9%)	290 (58.7%)	0.3469
Higher Secondary to college level	283 (44%)	204 (41.3%)	
Employment			
Employed	87 (13.6%)	41 (8.5%)	0.0072
Unemployed	552 (86.4%)	443 (91.5%)	
Main source of income			
Selling drugs/ sex for money	234 (36.3%)	125 (25.2%)	0.000
Other sources of income	389 (63.7%)	369 (74.8%)	
Marital status			
Married / Live in partner	160 (24.6%)	168 (33.6%)	0.000
Widowed/separated/divorced	209 (32.2%)	101 (20.2%)	
Single	276 (42.5%)	225 (45%)	
Living with a partner			
No	361 (55.5%)	284 (56.8%)	0.000
Yes	172 (26.5%)	203 (40.6%)	

* Calculated on valid responses

TABLE 39 Comparison of women who use drugs from high and low HIV burden states for demographics

4.3.2. Comparison of drug use related characteristics of women who use drugs(Injector and Non injectors) in high and low HIV prevalent Northeast states

The age at initiation of tobacco use is significantly lower among the women recruited from high HIV burden states, compared to those from low HIV burden states. Similarly, the age at onset of alcohol use is lower among women who use drugs from high HIV burden states. A significantly greater (36 percent vs 30 percent) proportion of women from high HIV burden states report a pathological pattern of alcohol use. The use of cannabis in the prior six months is more prevalent (46 percent vs 27 percent) amongst the women sampled from low HIV burden states. More than half (52.6 percent) the women who use drugs from high HIV prevalent states report injecting drugs, in comparison to a fourth (25.8 percent) of women from low HIV burden states, and this difference is statistically significant.

Drug use related characteristics	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N=500) N or Mean ± SD	P value
Age at initiation of tobacco use, years	14.8 ± 5.1	17.5 ± 9.1	0.000
Age at initiation of alcohol use, years	16.2 ± 6.0	17.2 ± 5.4	0.0028
Age at initiation of drugs other than alcohol, tobacco use, years	20.2 ± 4.4	20.3 ± 3.4	0.6167
Frequency of alcohol use, last six months			
Never use	88 (13.5%)	65 (13%)	0.000
Social use	292 (44.9%)	271 (54.2%)	
Pathological pattern of alcohol use	235 (36.2%)	152 (30.4%)	
Use of cannabis, last six months			
Yes	174 (26.8%)	229 (45.8%)	0.000
No	468 (72%)	251 (50.2%)	
Injected drugs			
Yes	342 (52.6%)	129 (25.8%)	0.000
No	304 (46.8%)	364 (72.8%)	

* Calculated on valid responses

TABLE 40 Comparison of women who use drugs from high and low HIV burden states for drug use related characteristics

4.3.3. Comparison of drug use related characteristics of women who use drugs by non-injecting in high and low HIV prevalent Northeast states

Non-injecting drug use: Among women who use drugs only through non-injecting modes, those recruited from high HIV burden states report more ever as well as current use of heroin, less ever and current use of proxyvon, less ever and current use of sedatives, than those from low HIV burden states, and these differences are statistically significant. A greater proportion of family members and friends of non-injectors themselves use drugs in the case of low HIV burden states. A worrisome fact is that more proportion of women who use by non-injecting are using venues in which others are injecting the drug in low HIV burden states compared with high HIV burden states (34 percent vs 17 percent).

Non-injecting drug use related characteristics	High HIV burden states (N=304) N or Mean ± SD	Low HIV burden states (N=364) N or Mean ± SD	P value
Ever use of heroin			
Yes	84 (27.6%)	22 (6%)	0.000
No	197 (64.8%)	289 (79.4%)	
Ever use of proxyvon			
Yes	139 (45.7%)	198 (54.4%)	0.0007
No	142 (46.7%)	115 (31.6%)	
Ever use of sedatives			
Yes	144 (47.4%)	243 (66.8%)	0.000
No	148 (48.7%)	120 (33%)	
Family members / Friends use drugs			
Yes	251 (82.6%)	326 (89.6%)	0.0312
No	43 (14.1%)	33 (9.1%)	
Use of drug where someone is injecting			
Yes	52 (17.1%)	122 (33.5%)	0.000
No	237 (78%)	232 (63.7%)	
Current use of heroin			
Yes	75 (24.7%)	17 (4.7%)	0.000
No	204 (67.1%)	293 (80.5%)	
Current use of proxyvon			
Yes	136 (44.7%)	196 (53.8%)	0.0002
No	144 (47.4%)	113 (31%)	
Current use of sedatives			
Yes	126 (41.4%)	243 (66.7%)	0.000
No	160 (52.6%)	118 (32.4%)	

* Calculated on valid responses

TABLE 41

Comparison of women who use drugs through non-injecting from high and low HIV burden states for current drug use related characteristics

4.3.4. Comparison of drug use related characteristics of women who inject drugs in high and low HIV prevalent Northeast states

Injecting drug use: Women who inject drugs from low HIV prevalent states initiate drug injecting as well as start injecting on a regular basis at a lower age, as compared with women recruited from high HIV burden states. The majority (61.2 percent) of women who inject drugs from high HIV states used the injection drug through non-injecting method before starting to inject, whereas, in low HIV prevalent states, 56.6 percent of the women start injecting drugs directly. For more than two-thirds (68.3 percent) of the women who inject drugs from high HIV states, the primary mode of drug administration is injecting.

Injecting drug use related characteristics	High HIV burden states (N=342) N or Mean ± SD	Low HIV burden states (N=129) N or Mean ± SD	P value
Age at initiation of injecting drug use	21.9 ± 7	19.4 ± 7.5	0.001
Age at initiation of regular injecting drug use	22.7 ± 4.5	20.8 ± 3.7	0.0001
Used the injected drug by non-injecting			
Yes	202 (61.2%)	49 (43.4%)	0.0009
No	128 (38.8%)	64 (56.6%)	
Initiated anyone into injecting			
Yes	106 (31.3%)	46 (38.3%)	0.3318
No	203 (59.9%)	66 (55%)	
Primary method of using drugs			
Injecting	231 (68.3%)	63 (52.5%)	0.004
Non-injecting	75 (22.2%)	37 (30.8%)	
Both ways	29 (8.6%)	14 (11.7%)	

* Calculated on valid responses

TABLE 42 Comparison of women who inject drugs from high and low HIV burden states for injection drug use related characteristics

Injection sharing: Direct sharing, such as lending needles and syringes to others and receiving them from others, is more prevalent among women who inject drugs from low HIV burden states. Similarly, indirect sharing, such as squirting drugs from others' syringes as well as squirting drugs into others' syringes, is more frequent among women who inject drugs recruited from low HIV states.

Injection sharing related characteristics	High HIV burden states (N=342)	Low HIV burden states (N=129)	P value
Lent the needle, syringe, last time			
Yes	51 (20.3%)	28 (32.9%)	0.0001
No	195 (77.7%)	48 (56.5%)	
Received the needle, syringe, last time			
Yes	43 (17.1%)	27 (31.8%)	0.003
No	207 (82.5%)	56 (65.9%)	
Squirted drugs into others syringe			
Yes	28 (11.2%)	25 (29.4%)	0.0000
No	222 (88.4%)	48 (56.5%)	
Squirted drugs into your syringe			
Yes	33 (13.2%)	27 (31.8%)	0.0000
No	217 (86.8%)	54 (63.5%)	

* Calculated on valid responses

TABLE 43

Comparison of women who inject drugs from high and low HIV burden states for injection sharing related characteristics

4.3.5. Comparison of sexual behaviour of women who use drugs in high and low HIV prevalent Northeast states

Sexual behaviour: More than a third (36 percent) of women who use drugs from low HIV burden states use condoms with a primary partner almost half the time to always, while this proportion is less than a fourth (24.4 percent) among those from high HIV burden states. The number of casual sex partners is higher (median number: 6 vs 3) among women from low HIV states, compared to those from high HIV burden states. Almost half (45.3 percent) of the women from high HIV burden states report use of condoms with casual sex partners almost half the time to always during the prior six months; in comparison, a little more than a third (34.8 percent) of women from low HIV burden states have used condoms at this frequency. The frequency of both paid sex and sex in exchange for drugs is greater amongst women recruited from low HIV burden states.

Sexual behavior	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N= 500) N or Mean ± SD	P value
Frequency of condom use with primary partner, past six months			
Occasionally	54 (11.6%)	145 (35%)	0.000
Almost half the time to always	114 (24.4%)	149 (36%)	
Number of casual sex partners, last six months: Median number	3	6	0.0242
Frequency of condom use with casual sex partner, past six months			
Occasionally	13 (3.9%)	75 (18.5%)	0.000
Almost half the time to always	151 (45.3%)	174 (34.8%)	
Frequency of paid sex casual sex Partner, past six months			
Less than a month to 1-3 times a month	27(4.2%)	110 (22%)	0.000
Once a week to several times daily	185 (28.5%)	208 (41.6%)	
Frequency of sex with casual sex partner for drugs, past six months			
Less than a month to 1-3 times a month	51(7.8%)	86 (17.2%)	0.000
Once a week to several times daily	27 (4.2%)	48 (9.6%)	

* Calculated on valid responses

TABLE 44 Comparison of women who use drugs from high and low HIV burden states for sexual behavior with primary partners

4.3.6. Comparison of medical history of women who use drugs in high and low HIV prevalent Northeast states

Medical history: The history of tuberculosis is similar among women in both high and low HIV burden states. A significantly larger (74 percent vs 42 percent) proportion of women from high HIV burden states have been tested for HIV, where as, in the case of hepatitis C testing, there is no difference between the low and high HIV burden states. More women from low HIV burden states (52 percent vs 20 percent) have received hepatitis B vaccination.

	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N= 500) N or Mean ± SD	P value
Medical history			
Had Tuberculosis			
Yes	78 (12.1%)	39 (8.7%)	0.0776
No	569 (87.9%)	409 (91.3%)	
Tested for HIV			
Yes	478 (73.7%)	210 (42.3%)	0.0000
No	169 (26%)	285 (57.3%)	
Received HBV vaccination			
Yes	128 (20.1%)	253 (52.3%)	0.0000
No	424 (66.6%)	209 (43.2%)	
Tested for HCV			
Yes	88 (13.7%)	70 (14.3%)	0.3935
No	441 (68.5%)	407 (82.9%)	

* Calculated on valid responses

TABLE 45 Comparison of women who use drugs from high and low HIV burden states for medical history related characteristics

4.3.7. Comparison of service utilization of women who use drugs in high and low HIV prevalent Northeast states

Service utilization: A significantly larger proportion of women who use drugs sampled from low HIV burden states have received treatment for drug use disorder, than those from high HIV states (51 percent vs 32 percent). More than half (51.6 percent) of the women who have been in treatment have received outpatient care for drug dependence in low HIV burden states, compared with just more than a third (34.6 percent) in the case of high HIV burden states.

Service utilization	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N= 500) N or Mean ± SD	P value
Received drug use treatment			
Yes	208 (32.4%)	250 (50.5%)	0.0000
No	434 (67.6%)	242 (48.9%)	
Received inpatient treatment			
Yes	180 (86.5%)	219 (87.6%)	0.1256
No	38 (18.3%)	31 (12.4%)	
Received outpatient treatment			
Yes	72 (34.6%)	129 (51.6%)	0.0002
No	136 (65.4%)	121 (48.4%)	
Current drug use treatment			
Yes	115 (55.3%)	131 (52.4%)	0.537
No	93 (44.7%)	119 (47.6%)	

* Calculated on valid responses

TABLE 46

Comparison of women who use drugs from high and low HIV burden states for service utilization related characteristics

Incarceration: While 21.5 percent of women who use drugs from high HIV burden states have been in jail/prison, this figure is 24.4 percent among women recruited from low HIV burden states. About two thirds (64.7 percent) of women who use drugs who have been incarcerated in low HIV burden states have been in jail/prison more than once, compared to 46 percent in the case of high HIV burden states.

Comparison of women who use drugs from high and low HIV burden states for incarceration related characteristics	Incarceration	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N= 500) N or Mean ± SD	P value
	Ever been in jail/prison			
Yes		137 (21.5%)	119 (24.4%)	0.3537
No		499 (78.3%)	368 (75.6%)	
Number of times in prison				
Once		74 (54%)	42 (35.3%)	0.0026
More than once		63 (46%)	77 (64.7%)	
Used drugs in jail/prison				
Yes		35 (25.6%)	27 (22.7%)	0.5944
No		102 (74.4%)	92 (77.3%)	

TABLE 47

* Calculated on valid responses

4.3.8. Comparison of overdose characteristics of women who use drugs in high and low HIV prevalent northeast states

Overdose: Significantly more women who use drugs from low HIV burden states have ever overdosed on narcotics (39 percent vs 22 percent). Most of these women have received help from others in both low and high HIV burden states. There is no difference in the levels of first aid training amongst women from both the settings.

Overdose	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N= 500) N or Mean ± SD	P value
Ever overdosed on narcotics			
Yes	137 (21.9%)	192 (39.2%)	0.0000
No	484 (77.2%)	295 (60.2%)	
Received help for overdose			
Yes	114 (83.8%)	158 (82.7%)	0.7912
No	21 (15.4%)	30 (15.7%)	
Ever been taught first aid			
Yes	346 (54.6%)	285 (57.3%)	0.0822
No	287 (45.3%)	207 (41.6%)	

* Calculated on valid responses

TABLE 48

Comparison of women who use drugs from high and low HIV burden states for overdose related characteristics

4.3.9. Comparison of violence related characteristics of women who use drugs in high and low HIV prevalent Northeast states

Violence and sexual abuse: The majority of women who use drugs from high and low HIV burden states have been victims of physical violence (63 percent vs 61 percent). The proportions are similar (31 percent and 33 percent) in the case of sexual abuse in high and low HIV burden states.

Violence and sexual abuse	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N= 500) N or Mean ± SD	P value
Ever been a victim of physical violence			
Yes	410(63.1%)	303 (60.6%)	0.3692
No	229 (35.2%)	189 (37.8%)	
Ever been sexually abused			
Yes	201 (30.9%)	166 (33.2%)	0.9059
No	413 (63.5%)	316 (63.2%)	

* Calculated on valid responses

TABLE 49

Comparison of women who use drugs from high (n = 650) and low (n =500) HIV burden states for violence and sexual abuse related characteristics

4.3.10. Comparison of reproductive health of women who use drugs in high and low HIV prevalent Northeast states

Reproductive health: Among the women who use drugs from low HIV burden states, 43.7 percent have been pregnant during the time of drug use, where as 27.2 percent of women from high HIV states have become pregnant during the time of drug use. A greater proportion (69.5 percent) have continued to consume drugs during the time of pregnancy in high HIV burden states, compared to those (54.9 percent) in low HIV burden states.

Reproductive health	High HIV burden states (N= 650) N or Mean ± SD	Low HIV burden states (N= 500) N or Mean ± SD	P value
Pregnant during the time of drug use			
Yes	174 (27.2%)	215 (43.7%)	0.0000
No	465 (72.8%)	277 (56.3%)	
Continued drug use during pregnancy			
Yes	121 (69.5%)	118 (54.9%)	0.00289
No	53 (30.5%)	97 (45.1%)	

* Calculated on valid responses

TABLE 50

Comparison of women who use drugs from high and low HIV burden states for reproductive health related characteristics

4.4. Description Of Special Populations Of Women Who Use Drugs In North-eastern States

4.4.1. Description of Women who use drugs and engage in sex work in Northeast states

In this study 245 women who use drugs and are engaged in sex work have been recruited. This subgroup constitutes more than a fifth (21.3 percent) of the study sample. With the dual risk of drug use and sex work this segment of population is at greater risk than other women who use drugs, of acquiring and transmitting blood-borne pathogens such as HIV. Hence the characteristics of this sub group are described.

Demographic characteristics	Mean ± SD or n / Proportion (%)*
Age, years	
Mean ± SD	27.9 ± 5.3
Median	27
Level of education	
Elementary	54 (22.2%)
Middle School	124 (51%)
Higher Secondary	50 (20.6%)
College level	15 (6.1%)
Employment status	
Employed	13 (5.5%)
Unemployed	224 (94.5%)
Marital Status	
Legally married	216 (18.8%)
Live in partner	112 (9.7%)
Single/Unmarried	501 (43.5%)
Widowed / Separated / Divorced	310 (26.9%)
Living alone	
Yes	28 (11.6%)
No	213 (88.4%)
Place of residence	
ArunachalPradesh	31 (12.7%)
Assam	11 (4.5%)
Manipur	88 (35.9%)
Meghalaya	31 (12.7%)
Mizoram	16 (6.5%)
Nagaland	42 (17.1%)
Sikkim	23 (9.4%)
Tripura	3 (1.2%)
HIV burden state	
High HIV burden state	177 (72.2%)
Low HIV burden state	68 (27.8%)

* Calculated on valid responses

TABLE 51

Demographic characteristics of women who use drugs and engaged in sex work in Northeast India (N = 245)

Demographic characteristics: The median age of women who use drugs and engage in sex work is 27 years and about three fourths (73.2 percent) of them have elementary or higher secondary level education only. Most (94.5 percent) do not have formal employment and hence raise their income primarily through sex work. A majority (70.4 percent) of them are single or divorced. More than a third (35.9 percent) of this subgroup belong to the state of Manipur, followed by Nagaland (17.1 percent); a majority (72.2 percent) of them have been recruited from high HIV prevalent states.

Drug use characteristics: In this subgroup, the median age at initiation of tobacco, alcohol and other drugs is 15, 17 and 20 years, respectively; the age of first heroin use is 21 years. Majority (56.7 percent) of them exhibit a pathological pattern of alcohol use. Injecting drug use is reported by 60.5 percent of them and the median age at first injection is 22 years.

Characteristics	Mean ± SD or n / Proportion (%)*
Age at first tobacco use, years	
Mean ± SD	15.7 ± 4.6
Median	15
Age at first alcohol use, years	
Mean ± SD	17 ± 5.3
Median	17
Pathological pattern of alcohol use	
No alcohol use	8 (3.3%)
Social use of alcohol	88 (35.9%)
Pathological pattern of alcohol use	139 (56.7%)
Age at drugs other than tobacco and alcohol use, years	
Mean ± SD	20.6 ± 4.1
Median	20
Cannabis use, past six months	
Yes	88 (36.7%)
No	152 (63.3%)
Age at heroin use, years	
Mean ± SD	22.1 ± 4.3
Median	21
Injecting drug use	
Yes	147 (60.5%)
No	96 (39.5%)
Age at first injection, years	
Mean ± SD	22.1 ± 3.5
Median	22

* Calculated on valid responses

TABLE 52 Drug use related characteristics of women who use drugs and engaged in sex work in northeast India (N = 245)

Medical characteristics: More than half (55.4 percent) of these women report their current status of health as ranging from fair to poor. While 13.9 percent have had tuberculosis in the past, 19.3 percent report having tested positive for syphilis. Most (84 percent) have been tested for HIV but only 11.7 percent have been tested for hepatitis C. More than a fifth (22.1 percent) have received HBV vaccination. More than a third (38 percent) have undergone drug dependence treatment. While more than half (52.6 percent) have attended the needle syringe programme of a TI, more than a fifth (22.1 percent) have attended OST.

Medical history	n / Proportion (%)*
Current status of health	
Good - Excellent	85 (35.1%)
Fair - Poor	134 (55.4%)
Had any of the following:	
Tuberculosis	34 (13.9%)
Syphilis	47 (19.3%)
Have ever been tested for HIV virus?	
Yes	204 (84%)
Have you ever received Hepatitis B vaccine?	
Yes	53 (22.1%)
Ever been tested for hepatitis C?	
Yes	28 (11.7%)
Ever received any treatment for drug use?	
Yes	92 (38%)
Attended NSP	
Yes	129 (52.6%)
Attended OST	
Yes	54 (22.1%)

* Calculated on valid responses

TABLE 53 Medical characteristics of women who use drugs and engaged in sex work in Northeast India (N = 245)

Other characteristics: Among this subgroup of women who use drugs and are involved in sex work, 28.8 percent have been to jail/prison. Overdose on narcotics has been experienced by 37.6 percent. Both physical violence and sexual abuse are prevalent in this group, with 83.2 percent of them reporting physical violence and 57.1 percent admitting to sexual abuse. A third (33.5 percent) of them have been pregnant during the time of drug use and of these women, more than three fourths (77.5 percent) continued to use drugs during pregnancy.

Other Characteristics	n / Proportion (%)*
Even been to jail/prison Yes	69 (28.8%)
Ever overdosed on narcotics Yes	89 (37.6%)
Even been subjected to violence Yes	202 (83.2%)
Ever been subjected to sexual violence Yes	137 (57.1%)
Even been pregnant during the period of drug use Yes	80 (33.5%)
Continued using drugs after being pregnant(N =80) Yes	62 (77.5%)

* Calculated on valid responses

TABLE 54

Other characteristics of women who use drugs and engaged in sex work in Northeast India (N = 245)

4.4.2. Comparison of women who use drugs engaged in sex work and not engaged in sex work in Northeast states

Women who use drugs and engage in sex work have been compared with those who are not engaged in sex work, and in terms of several characteristics, there is a statistically significant difference between the two groups. Women who use drugs and engage in sex work are less educated than those who don't (73 percent vs 53 percent), are unemployed (95 percent vs 87 percent), hail from high HIV burden states (72 percent vs 52 percent), inject drugs (61 percent vs 36 percent), exhibit a pathological pattern of alcohol use (57 percent vs 27 percent), report a history of syphilis (19 percent vs 6 percent), undergo HIV testing (84 percent vs 54 percent), receive HBV vaccination less (22 percent vs 37 percent), attend NSP more (53 percent vs 21 percent), have been incarcerated more (29 percent vs 21 percent), report more incidents of overdose on narcotics (38 percent vs 27 percent), are subjected more often to physical violence (83 percent vs 57 percent) and face sexual abuse (57 percent vs 26 percent).

Comparison of women who use drugs and engaged in sex work and not engaged in sex work in Northeast India

TABLE 55

Characteristics	Women who use drugs and engaged in sex work (N=245) N or Mean \pm SD	Women who use drugs and not engaged in sex work (N= 905) N or Mean \pm SD	P value
Education			
Up to Middle School	178 (73.3%)	471(52.7%)	0.000
Higher Secondary to college level	65(26.7%)	422 (47.3%)	
Employment			
Employed	13 (5.5%)	115 (13%)	0.001
Unemployed	224(94.5%)	771(87%)	
HIV burden state			
High HIV burden state	177(72.2%)	473(52.3%)	0.000
Low HIV burden state	68 (27.8%)	432(47.7%)	
Injecting drug use			
Yes	147(60.5%)	324(36%)	0.000
No	96 (39.5%)	572 (63.6%)	
Pathological pattern of alcohol use			
Yes	139 (56.7%)	248(27.4%)	0.000
Social use or never use	96 (39.2%)	622 (68.8%)	
Ever had syphilis			
Yes	47 (19.3%)	51 (6%)	0.000
No	192 (79%)	789 (92.7%)	
Ever tested for HIV			
Yes	204 (84%)	484 (53.6%)	0.000
No	38 (15.6%)	416 (46.1%)	
Ever received HBV vaccination			
Yes	53 (22.1%)	328 (37.2%)	0.000
No	153 (63.8%)	480 (54.5%)	
Ever attended NSP			
Yes	129 (52.6%)	193 (21.2%)	0.000
No	112 (45.7%)	588 (65%)	
Ever been to jail/prison			
Yes	69 (28.8%)	187 (21.2%)	0.013
No	171 (71.3%)	696 (78.7%)	
Ever overdosed on narcotics			
Yes	89 (37.6%)	240 (27.3%)	0.002
No	147 (62%)	632 (71.8%)	
Ever been subjected to physical violence			
Yes	202 (83.2%)	518 (56.8%)	0.000
No	37 (15.2%)	381 (42.3%)	
Ever been subjected to sexual abuse			
Yes	137 (57%)	230 (26.4%)	0.000
No	94 (39.2%)	635 (72.8%)	

4.5 Qualitative Data

Administration of heroin through the rectum: One of the case studies deals with a woman from Manipur who uses heroin anally. While most women who use drugs in northeast India either inject or chase heroin (inhale the vaporized form), the field research team identified a 40-year-old woman who has been administering heroin through her rectum for four years. In addition, she has been injecting heroin for the past six months. After developing a painful case of piles, she had been advised by a friend to insert heroin powder through the rectum to relieve pain. Having found good relief, she continued the practice over time and currently administers heroin through her rectum several times daily.

“I had piles for a long time and the pain was difficult to tolerate...a friend from the police service suggested that I apply heroin powder through my anus to get relief from the pain. I put the heroin on a wet piece of cotton and inserted it into my anus. I was relieved of the pain and that made me continue using it. I buy heroin regularly and now need to apply it up to eight times daily. Without this, I’d have to go through excruciating pain.”

Experience of sexual violence: Women who use drugs often experience sexual violence and are forced into sex. The case study of a 32-year-old woman from Sikkim who has sustained her drug habit over eight years by selling drugs and sex has been analysed to understand the issues of forced sex. She was forced into having sex with strangers by her husband and this was repeated thrice. Fearing stigma and discrimination, she hasn’t approached the police for help. She feels helpless as her husband, a drug user himself, has forced her to have sex with a group of persons to make money. She is haunted by these traumatic experiences and feels depressed and is suicidal.

“One day my husband took me to a place saying that there is a party. After reaching the place I figured that there was no party but I found two men who claimed to be my husband’s friends. My husband forced me to have sex with them in front of him. I was under the influence of drugs and didn’t have the energy to fight those men and was forcefully raped throughout the night. I had no one to help me. There was no way to inform people as they would only blame my drug habit. I was afraid to go to the police as the man who forced me is my husband.

I keep this to myself and silently suffer every day. This incident has aggravated my drug habit and I have not only increased the frequency of use but also started to inject drugs after the incident. I am not alone in this; I have many friends who have had similar experiences of forced sex. When men find that we take drugs they take advantage and force us to have sex; we feel totally helpless.”

Focus group discussion among women who use drugs and have same sex partners: A focus group discussion (FGD) was conducted with four women who use drugs through injecting and non-injecting modes in Mizoram. During the discussion, it was established that these women have sex with same-sex partners. The commonly practiced sexual acts include fingering and licking the clitoris and vagina. A couple reported using a model of a penis to stimulate each other. The discussion also revealed that many young women are inclined to same-sex practice and while the attraction to members of the same sex began in childhood, it was strengthened during their teen age years. Substance use in the form of pills, notably sedatives, and others has often facilitated same-sex practices by removing inhibitions.

5. DISCUSSION

The study utilized RDS methodology to recruit women who use drugs in the eight states of northeast India. RDS is an ideal strategy suited for hidden populations such as women who use drugs and who are otherwise difficult to access for any assessment. Data was obtained from 1,150 women who use drugs and perhaps this is the largest assessment carried out with women who use drugs from northeast India. The findings of the study are helpful to understand the characteristics of women who use drugs in these states as information related to them is scanty in Indian literature so far.

Women who use drugs

Demographics: Women who use drugs from these settings are young (mean and median age:27 years) and most of them (84 percent) are educated, with middle school to college level education. For nearly a third (31 percent) of the women who use drugs, the main source of income is selling sex or drugs for money. More than a fourth (27 percent) of the women are widowed or separated. A third (33 percent) live with a spouse or partner. As most women who use drugs are literate, it is important to design appropriate substance use prevention/intervention related information, education and communication materials for them. Since a substantial proportion of women are engaged in sex work or peddling of drugs to sustain their lives, it is necessary to devise alternate economic opportunities for them. More than a fourth of the women are widowed or separated and they are the sole breadwinners for their families; hence this population needs special attention for their livelihoods. For women who use drugs and live with their partners/spouses, it is obligatory to include partners in order to make the HIV prevention efforts successful.

Drug use characteristics: Among women who use drugs, the median age at initiation of tobacco, alcohol and substances other than tobacco/alcohol is 16, 17 and 20 years, respectively. Thus there is a good opportunity to intervene and prevent transitions from licit to other substances. In nearly two-thirds (63 percent) of the cases, the first drug used other than tobacco/ alcohol is an opioid—propryvon or heroin. Thus prevention interventions educating young women on the hazards of opioids, including pharmaceutical opioids, are relevant. Just more than a third (34 percent) of the women who use drugs admit to a pathological pattern of alcohol use and hence interventions need to educate, counsel and provide treatment for alcohol use disorder. A qualitative study done in the two states on Manipur and Nagaland among women who use alcohol and drugs, describes the link between alcohol use and unsafe sex; the contribution of alcohol consumption to HIV vulnerability is highlighted (Kermode et al. 2013). The concurrent use of cannabis is relatively common (35 percent) and drug counselling interventions targeting women who use drugs can educate and counsel people about the adverse mental health effects of cannabis.



Among women who use drugs through a non-injecting mode, the prevalence of current use of proxyvon, sedatives and heroin is 52 percent, 56 percent and 13 percent, respectively; the current pathological pattern of proxyvon, sedatives and heroin use is 41 percent, 38 percent and 8 percent, respectively. Most (86 percent) women users have a family member or friend using the drug and peer influence is an important factor in drug use as more than three fourths (78 percent) of the women have a close friend using substances. The main reasons attributed to using substances only through non-injecting modes include: concern about the adverse health consequences of injecting, fear of needles and satisfaction with non-injecting modes of administration.

Injecting drug use: Among the women who use drugs, 41 percent admit to ever injecting substances. Injecting is more prevalent in the high HIV prevalent states of Manipur, Meghalaya, Mizoram and Nagaland. The transition from a non-injecting to injecting mode occurs in the case of more than half (53 percent) the women participants. The median age at initiation to injecting is 22 years—two years later than the age at initiation of drug use other than alcohol and tobacco. On injecting for the first time, about two thirds of the women who inject drugs do not think about or are not concerned about the possibility of HIV/AIDS. The key reasons for injecting substances are: to get a better high, and curiosity and influence by friends. Since there is a time lag between initiation of drugs by non-injecting and injecting in a number of persons, there is an opportunity to prevent transition to injecting. Consideration of OST for opioid dependent women who use drugs by non-injecting is of public health significance as this is bound to prevent transition to injecting. Outreach based interventions need to change norms related to injecting among peers and encourage prevention of the transition to injecting at times of drug droughts, impurity and escalating cost of substances. There are several organizations supported by the Ministry of Social Justice and Empowerment, which work with people who use drugs through non-injecting modes and provide drug use treatment, counselling and related interventions. Targeting this segment of drug users through outreach interventions that educate them on the hazards of injecting would assist in preventing transition to injecting.

Injection related risk behaviour: Only 41 percent of women who inject drugs have never shared injection equipment, i.e. needles and syringes. Indirect sharing, such as taking from a common solution, front loading and squirting drugs, is also relatively common. There are only few interventions that are exclusively addressing the concerns of women who inject drugs in northeast India and it is important to scale up such interventions. Nearly half (49 percent) of the women who inject drugs do so in common locations; these hot spots should become venues for intervention. Two-thirds (67 percent) of women who inject drugs obtain new needles and syringes for their use and the key sources for such equipment include friends (48 percent) and the pharmacy (37 percent). Thus, in order to better serve the hidden population of women who inject drugs, NSP should expand its reach through secondary or satellite exchanges.



Sexual risk behaviour: Women who use drugs in this study are sexually active, with only a fourth reporting no sex with an opposite sex partner in the past six months. More than a third (36 percent) of the women never used condoms with the primary sex partner during the past six months. For 38 percent of the women, the primary method of contraception with the primary partner is condoms. Relationship dynamics such as intimacy, trust and social norms usually act as obstacles for condom non-use with primary partners. Unprotected sex with primary partners greatly increases the risk of HIV transmission from and among women who use drugs and their primary partners. All efforts should be taken to address this in future interventions. For women who use drugs in this study, the median number of casual partners is six. More than half (52 percent) the women who have sex with casual sex partners used condoms about half the time to always during the last six months. Among the women with casual sex partners, 79 percent have paid sexual acts and more than a third (34 percent) obtain drugs in exchange for sex. Although condom use with casual sex partners is higher than with primary sex partners, interventions to reduce sexual risk need to emphasize on protected sex with every single sexual act. For the successful prevention of HIV, it is critical to empower women to make appropriate, safe sexual choices and to address their vulnerability in situations involving paid sex and exchange of sex for drugs.

Medical history: Just more than half (51 percent) of the women who use drugs report their current health status as fair to poor. The proportion of women who use drugs reporting past/current history of tuberculosis, mouth infections such as candida, hepatitis and malaria is 11 percent, 11 percent, 16 percent and 20 percent, respectively. It is essential to organize primary medical care for women who use drugs through TIs, in order to treat common medical ailments effectively. Sixty percent of the women under the study have been tested for HIV; a third (33 percent) have received hepatitis B vaccination; and only 14 percent have been tested for hepatitis C. More than a fourth (27 percent) of the women who use drugs do not have any knowledge related to the transmission of HCV. While HIV-related awareness is high among this population—perhaps due to the successful efforts of the National AIDS Control Programme (NACP)—only a small proportion have been tested for HCV, despite the fact that the prevalence of HCV is usually higher than HIV among populations who inject drugs. In future, TIs providing harm reduction components need to include HCV education and counselling as an integral part of the comprehensive package. There is an urgent need to establish affordable HCV testing facilities.

Treatment for drug dependence: Forty percent of women who use drugs have ever been for drug use disorder treatment, and more than a fifth (21 percent) of women are currently undergoing treatment for drug dependence. Nearly a fourth (23 percent) of the women express difficulty in accessing treatment for drug use disorder, and the primary reasons for difficulties in accessing treatment are: expensive treatment, unfriendly treatment services, ineffective treatment and geographical distance.



It appears that the prospect of treatment is not very attractive for women who use drugs for a variety of reasons. It is necessary to establish user friendly, free or affordable and effective evidence-based services for women who use drugs in the Northeast (Nebhinani et al. 2013), who in their study, observe the impact of substance use on the lives of women, including physical health, underscore the need for measures to improve access to drug dependence treatment services in the community for the hidden population of women who use substances. In their opinion, establishing accessible treatment services may well be a part of wider social action in the context of addressing special needs of women, support and empowerment.

Existing interventions for women who inject drugs: A majority (61 percent) of women who inject drugs haven't received OST and since this is a key evidence based intervention, organizing and providing OST for women who are dependent on opioids is important. Being an attractive option, the scaling up of OST so as to cover the majority of opioid dependent women is a public health priority. More than a third (40 percent) of the women who inject drugs have never attended NSP. Given that NSP is a core and evidence based intervention to prevent HIV among people who inject drugs, all efforts should be taken to provide new needles and syringes to women who inject drugs to cover every single injecting episode. It is also important to strengthen the basic services available through TIs for women who inject drugs, given that currently, 40 percent women who inject drugs are not covered by outreach services; about a third (31 percent) have not received any IEC material related to injecting drug use and HIV; and, one fourth (25 percent) of them have never received peer support.

Drug use and prison: More than a fifth (22 percent) of the women who use drugs have ever been in jail/prison, and more than half (56 percent) have been incarcerated more than once. Among those who have been incarcerated, one fourth (24 percent) have used drugs inside jail/prison, and, of those who have used drugs inside prison, more than a third (36 percent) have injected drugs. These findings signify the need to initiate drug use related interventions inside prison settings. Harm reduction interventions such as OST have to be established in prison settings in order to reduce drug use and injecting of drugs during incarceration. Such prison based interventions can be effectively linked with community based interventions, enabling seamless access for women to drug use treatment.

Overdose: Nearly two-thirds (65 percent) of women who use drugs have ever witnessed an overdose incident. Most (79 percent) of them have known someone who died of drug overdose. Among the respondents, 29 percent have overdosed and, of these, nearly a third (31 percent) were alone at the time of overdose. Most (83 percent) of those who have overdosed have been helped by someone after the incident. Two thirds of the women (67 percent) believe that appropriate medical attention will be given to persons who overdose if medical help is sought, and more than a third (36 percent) state that in case of overdose, law



enforcement authorities will be informed by others. More than half (56 percent) of the respondents have ever been taught first aid. Commonly injected drugs consumed at the time of overdose include heroin (24 percent) and proxyvon (19 percent), while common non-injected drugs consumed at the time of overdose include proxyvon (44 percent), alcohol (29 percent) and sedatives (24 percent). As cases of overdose are relatively common, it is essential to include overdose prevention/intervention in the core comprehensive package for substance users, notably opioid users. All women who use drugs need to be given factual information related to overdose, such as the negative impact of mixing various drugs and using drugs alone. As most who overdose seem to receive help, in particular, from other drug using friends, it would be helpful to organize and implement regular peer-based training on overdose prevention/management. Findings reveal that the use of naloxone as a response to overdose is negligible, and hence, the widespread availability of naloxone in the management of overdose in medical settings is a priority.

Violence and sexual abuse: Women who use drugs are commonly at the receiving end of physical violence, with nearly two-thirds (62 percent) of the participants reporting ever been hit with a fist or kicked or beaten once or more. Physical violence with a frequency of once or more by non-sex partners, sex partners, community/neighbours, police and casual sex partners is 62 percent, 54 percent, 28 percent, 27 percent and 26 percent, respectively. One third (33 percent) of the respondents have been sexually abused more than once. Sexual violence with a frequency of once or more has been experienced at the hands of casual sex partners (20 percent), sex partners (17 percent), police (14 percent), community/neighbourhood (13 percent) and non-sex partners (9 percent). Stigma, discrimination, norms, gender expectations, law and regulations also come together in perpetuating structural violence against women. In a review article on substance use, violence and HIV among women, Meyer et al. (2011) confirm the profound impact of violence, in the context of substance use, in terms of increased risk taking, adverse health consequences and poor decision making. Violence against women is a serious crime and interventions must be designed to completely eliminate this atrocity. The empowerment of women is central to this, and we need to work with women organizations to protect and ensure safety for women. Women who use drugs and experience violence could potentially be greatly helped by interventions such as safe shelters, including night shelters.

Reproductive health: A little more than a third (34 percent) of the women who use drugs became pregnant during the time of drug use. Of these, 40 percent cared for their last pregnancy. The majority (59 percent) continued to use drugs during pregnancy and only 28 percent stopped drug use after pregnancy. Of those who stopped drug use subsequent to pregnancy, only a very small proportion did so with the assistance of OST. More than a third (38 percent) of the women who use drugs report abortion; nearly three fourths (74 percent) of them have experienced adverse consequences following the abortion, and more than half (55 percent) the abortions occurred in non-medical settings.



Continued drug use results in significant adverse outcomes. Hence, it is important to consider the utility of OST, since it is the most recommended intervention for pregnant opioid-dependent women. Unfortunately, in northeastern India, the present availability of OST for women who use opioid drugs is limited. Women must be encouraged to use obstetric and gynaecological services at primary care centres and the abortions performed in non-medical settings should be discouraged. In order for women to use existing maternal services, it is necessary to ensure a non-discriminating treatment environment and this is possible through advocacy with health care professionals.

Expectations: Despite all the adverse consequences of continued drug use, women who use drugs in northeast India are optimistic about their future. Their expectations of the next year include significant positive changes in their health status (85 percent), social status (77 percent), level of drug consumption (72 percent) and main source of income (72 percent). In order for them to realize this optimism, it is essential to provide evidence-based, quality-assured, comprehensive services in a sustained manner to the majority of women who use drugs across northeast India.

Comparison of women who inject drugs with women who use drugs by non-injecting

Demographics: When compared with women who use drugs by non-injecting mode, the women who inject drugs have higher mean age, less levels of education and earn income chiefly through selling drugs or sex. Significant proportion of women who inject drugs are widowed / separated and majority do not live with a partner and relatively more of them live in brothels and lodges in comparison with women who use drugs by non-injecting. In their study on women drug users from northeast India, (Kermode et al. 2012) have found a significant proportion of women who use drugs in Manipur to be widowed/separated, while highlighting the vulnerabilities of this population, such as sexual vulnerability and their engagement in sex work. Women who inject drugs, therefore, need to be specially targeted with interventions that address the economic and social vulnerability of women who have lost their partners or are separated from them.

Drug use characteristics: Among women who inject drugs there is a significantly greater pathological pattern of alcohol use, with 43 percent of the women reporting unhealthy levels of alcohol consumption. It is important to offer interventions that reduce the levels of alcohol use and lead to abstinence, as continued pathological levels of alcohol use cause several health problems. Given that HCV transmission is highly likely among women who inject drugs, reducing or stopping alcohol use is critical as alcohol is seriously injurious to the liver. In IEC materials targeting women who inject drugs, it is necessary to include relevant information focusing on the adverse social and health consequences of alcohol use, particularly its role in liver damage and drug overdose related deaths.



Sexual risk behaviour: Women who inject drugs are more sexually active, reporting greater frequency of sex with the opposite sex as well as with casual sex partners, when compared with those who use drugs by non-injecting. While women who inject drugs use condoms less frequently with their primary partners as a method of contraception, the use of condoms with casual partners is very frequent when compared with women who use drugs by non-injecting. Similarly, the frequency of paid sex with casual partners is greater among women who inject drugs. Women who inject drugs stand at a great risk of acquiring and transmitting blood-borne pathogens, especially given that this group exhibits high risk sexual behaviours such as paid sex. The intersection between injecting drug use and sex work can fuel the HIV epidemic. A Nagaland-based study has found that injecting drug use among female sex workers is significantly associated with HIV (Medhi et al. 2011). HIV prevention interventions will be more effective if this group of women who inject drugs and engage in sex work is specifically targeted.

Medical history: In comparison to women who inject drugs, almost half of those who use drugs through non-injecting modes report their current health status as being between good and excellent. The reported history of tuberculosis and cirrhosis of liver is greater among women who inject drugs. On the other hand, most women who inject drugs have been tested for HIV; a larger proportion have been tested for HCV, but a smaller proportion have received HBV vaccination. Since health problems are relatively greater among women who inject drugs, it is important to organize primary health care for this population. As one in a seven women who inject drugs have admitted to tuberculosis, active case finding in this population is essential. The wide availability of HIV testing facilities and the successful harm reduction intervention programme under NACP have helped most women who inject drugs to get tested for HIV and obtain the results. The availability of hepatitis C testing facilities in the public health sector in Northeast India is crucial in order to attract more women who inject drugs for HCV testing.

Treatment for drug dependence: More than half (52 percent) and one third (33 percent) of the women who inject drugs report prior and current drug use related treatment, respectively. On the other hand, more than two thirds (67 percent) of the women who use drugs through non-injecting modes have not attended any treatment for drug use. The lack of women oriented and women friendly treatment facilities is an important obstacle in the case of northeast India. Often, existing facilities are found not attractive or expensive by women who use drugs. It is important to scale up drug treatment facilities for women who use drugs. Exclusive treatment facilities are required for women that are operated by women staff in a user friendly environment, and offer a comprehensive set of services including evidence based drug dependence treatment that is well integrated with other important components such as OST, NSP, condom provision, primary medical care, treatment for STIs, TB treatment, HIV testing and ART.



Incarceration: A significantly greater proportion of women who inject drugs have ever been incarcerated, when compared with those who have never injected. More than a third of women who use drugs by injecting have also used drugs while in prison. This finding illustrates the relevance as well as the need for prison based harm reduction interventions such as OST.

Overdose: Overdose incidents are common among women who inject drugs, compared to those who administer drugs through non-injecting modes. Given the prevalence of and the potential mortality associated with overdose, TIs should include overdose prevention and management for all women who inject drugs. Advocacy efforts must ensure the widespread availability of naloxone in all emergency care services across the northeast. Healthcare workers' training for overdose management is bound to reduce the morbidity and mortality associated with drug overdose.

Reproductive health: Given that a sizeable proportion (38 percent) of women in the northeast who inject drugs become pregnant, and about two thirds continue to use drugs during pregnancy, it is time to recommend and provide OST for these pregnant women. There is a pressing need to organize and provide adequate pregnancy care and ensure the safe delivery of children in such cases.

Violence and sexual abuse: The experience of violence is extremely common, with about three fourths (73 percent) of the women who inject drugs reporting physical violence ever, compared with 54 percent in the case of women who use drugs through non-injecting modes. Sex partners and non-sex partners are important perpetrators of violence in the case of women who inject drugs. Sexual abuse of women who inject drugs is also common (41 percent) and the perpetrators include casual sex partners, sex partners and the police. It is critical to safeguard women against sexual abuse, given the significant adverse health outcomes as well as increased risk of HIV. Strategies to reduce violence among sex workers have been successfully implemented in other parts of India (Biradavolu et al., 2008) and lessons learnt from these interventions can be adopted in the northeast for women who use drugs through injecting and non-injecting modes.

Comparison of women who use drugs in high and low HIV burden states

In the four high HIV burden states, more than a third (36 percent) of the women who use drugs are selling drugs or sex to earn their livelihood. A relatively smaller proportion of women are living with a partner in these states. Compared to women drug users from low HIV burden states, their age at initiation of tobacco as well as alcohol is less. More of them consume pathological levels of alcohol, but a smaller proportion have used cannabis in the prior six months. Ever and current use of heroin is more prevalent in high HIV burden states, whereas ever and current use of proxyvon and sedatives is greater in low HIV



states. These findings imply that alcohol use needs to be reduced in high burden HIV states, given its contribution to HIV risk as well as health hazards. The use of synthetic drugs is more prevalent in low HIV prevalent states and stricter drug control measures are required to contain the growing menace of pharmaceutical drugs in these states. Incidents of overdose are more frequent in high HIV burden states and this may be related to the more frequent use of heroin and alcohol in these states.

The proportion of women who inject drugs in high HIV burden states is more than double that of their counterparts in low HIV states (53 percent vs 26 percent). Yet, in low HIV burden states, the age at initiation of injecting as well as that of regular injecting among women who inject drugs is less, compared with women from high HIV burden states. Another alarming finding is that in low HIV burden states, a significant proportion (57 percent) of women who inject drugs start injecting without a transition from non-injecting. Current direct sharing, such as the lending and receiving of used needles/syringes, is greater among women who inject drugs in low HIV burden states; similarly, indirect sharing (squirting from and into others syringes) is more frequent among women from low HIV states. In low HIV burden states, women who use drugs exhibit greater frequency of paid sex as well as sex in exchange for drugs. A smaller proportion of women who use drugs have been tested for HIV in these states. These findings emphasize the importance of addressing the high levels of HIV related injection risk behaviours among women who inject drugs and the greater frequency of HIV related sexual risk behaviours among women who use drugs in low HIV burden states. At present, the HIV burden in the states of Arunachal Pradesh, Assam, Sikkim and Tripura is relatively less, but given the high HIV related risks among women who inject drugs in these states, it is imperative to mount and scale up harm reduction interventions for this population. Evidence based interventions such as NSP, OST and condom provision, HIV testing and ART, if implemented sufficiently early (before the HIV prevalence exceeds 5 percent), and with adequate coverage, will be immensely beneficial in halting the emerging HIV epidemic among this vulnerable population.

Characteristics of women who use drugs and engage in sex work

More than one fifth of the women who use drugs are also engaged in sex work. Compared to those who are not engaged in sex work, women with dual risks are less educated and earn their income chiefly through sex work. Since finances and looking after the family are the prime motivation for them to engage in sex work, it is imperative to address this economic issue. Advocacy with the Ministry of Women & Child Development and civil society organizations working for the economic empowerment of women are crucial to assist women involved in sex work. Several of them hail from high HIV burden states, reflecting their status as widowed, separated women who have often lost their spouses, perhaps due to HIV.



Injecting drug use is common in this group and the intersection of injecting drug use and sex work fuels the HIV epidemic. Targeted interventions have to reach out to this hidden population and provide comprehensive HIV intervention services (NSP + OST + early ART for HIV infected). Female controlled safety devices such as female condoms can be considered for this special population. As expected, the prevalence of sexually transmitted infections such as syphilis is greater in this group and active screening, diagnostics and appropriate treatment for STIs should be implemented urgently among this subgroup. Most women from this subgroup are aware of HIV-related risks and have been tested for HIV; it is necessary to direct the HIV infected towards ART services and ensure that they adhere to the treatment regularly. If most HIV infected women manage to access ART at the earliest, significant public health gains can be achieved. While being at risk for hepatitis B through sexual activity as well as injecting, a smaller proportion of this subgroup has received the HBV vaccination; organizing vaccination services for those not yet infected must be made a priority as HIV/HBV co-infections complicate management. In a study conducted among Nagaland-based female sex workers who use drugs (Medhi et al. 2012), the authors have found that this group is more vulnerable to HIV and other STIs, and urge targeted interventions for this group. A number of them exhibit a pathological pattern of alcohol use, which has serious adverse implications for their physical and mental health. At present, addiction services for women are scanty, and women centric, women friendly alcohol/drug dependence services that offer evidence based treatments are an unmet need. A greater number of women who use drugs and engage in sex work have been incarcerated; hence the need for organizing harm reduction services within custodial settings. Given the frequency of overdose incidents among this group, it is essential to impart relevant information and training. The wide availability of naloxone in primary care settings will certainly reduce overdose related mortality. As more women in this subgroup are subjected to physical violence and sexual abuse, a lot of work needs to be done through women welfare organizations. Advocacy with law enforcement is an important step to reduce violence against women. Night shelters and a safe environment are likely to reduce incidents of violence and abuse.



6. RECOMMENDATIONS

Data related to women who use drugs: Often there is a lack of focus on women who use drugs as there is paucity of data related to them. Systematic collection of data related to women who use drugs is necessary as, without knowing the magnitude, pattern of substance use and related adverse consequences, it is difficult to plan and implement effective programmes.

Resources: The key to effective programming is allocation of exclusive funds and resources for strategies dealing with women who use drugs. Coordination between the Ministry of Women & Child Development, the Ministry of Social Justice & Empowerment and the Ministry of Health & Family Welfare is vital for the effective provision of comprehensive services to women who use drugs.

Women and non-injecting drug use: A significant proportion of women who use drugs administer substances primarily through a non-injecting mode. There is a lag period between the onset of drug use through the non-injecting and injecting methods and this provides an opportunity for interventions to prevent transitions to injecting. Several strategies could be recommended: addressing the peer norms surrounding injecting drug use, educating non-injecting drug users about the hazards of injecting and, more importantly, providing OST to non-injecting opioid dependent users. As pharmaceutical drugs such as proxyvon and sedatives are more frequently used by women who use drugs, young people have to be educated on the adverse health effects of pharmaceuticals consumed for non-medical reasons. Alcohol use is highly prevalent and a substantial proportion of women who use drugs concurrently consume pathological levels of alcohol, which is potentially injurious to their health. Education, counselling and early intervention for alcohol use disorder should be made available for women who use drugs. Women who use drugs through non-injecting modes exhibit sexual risk behaviours, such as having a greater number of casual sex partners, unprotected sexual acts and paid sex; hence, they require HIV sexual risk reduction counselling. Most women who use drugs through non-injecting modes are not currently undergoing treatment; this should be addressed by establishing exclusive, user friendly alcohol/drug use treatment services for them.

Women and injecting drug use: Given the high prevalence of a pathological pattern of alcohol use in this group, future IEC materials should include information about the negative influence of alcohol use in the rapid progression of liver diseases such as hepatitis C, the impact on poor adherence to long term treatments such as directly observed treatment strategy (DOTS), ART and hepatitis C treatment, and its role in overdose related morbidity and mortality. The frequency of paid sex with casual partners is higher in this group, an intersection of issues that can fuel the HIV epidemic. Punitive policy and the legal, oppressive environment often prevent this population from accessing essential services.



More than a third of women who inject drugs have never attended NSP and nearly a third of them have developed an abscess at the injection site. An urgent priority is to establish TIs for women who inject drugs in all north-eastern states with injecting drug use burden. TIs should be manned mainly by female staff, particularly female outreach workers, nurses and doctors—these will be more likely to attract and retain women who inject drugs. As women who inject drugs in low HIV burden states exhibit higher injection risk behaviours there is an urgent need to implement and scale up harm reduction interventions through women TIs in these states. HCV education and counselling needs to be integrated with a TI harm reduction package. Since the majority of women who inject drugs have never attended OST, importance should be accorded to the establishment of women specific OST centres at government hospitals as well as non-governmental settings. The only way to increase the current low HCV testing among this population is through establishing HCV diagnostics in the public health sector. Ways should be explored to ensure affordable hepatitis C treatment for HCV infected women who inject drugs.

Women and overdose: Overdose education, counselling and drug user training need to be made integral to the comprehensive harm reduction services package. Advocacy in the health sector, aimed at the wider availability of naloxone, would be decisive in reducing overdose mortality among women who use opioids. The organization and implementation of overdose management training programmes for healthcare workers engaged in emergency and medical services across northeast India are likely to reduce overdose related morbidity and mortality.

Women and sex work: Among the women who use drugs, those with the additional risk of engagement in sex work consume hazardous levels of alcohol, have greater health problems such as STIs, experience more overdose incidents, are exposed often to physical violence and sexual abuse. It is essential to design and implement interventions that target this population in order to reduce their HIV vulnerability and risks. These interventions should be integral to wider social actions that facilitate their right to health and safety and ensure their empowerment.

Women and treatment and interventions for drug use: Harm reduction programmes targeted at people who inject drugs have been implemented in northeast India quite successfully and effectively under the National AIDS Control Programme. A significant proportion of targeted interventions for PWID are located in Northeast India, particularly in the states of Manipur, Nagaland and Mizoram. Yet, gender inequalities continue to exist in the current harm reduction programming in northeast India, with few TIs being available for women who inject drugs. Similarly, women oriented and exclusive drug treatment programmes such as detoxification services through the public health sector and drug rehabilitation services under the Ministry of Social Justice and Empowerment are very few in the region.



This gender disparity in drug use related treatment requires urgent attention. OST is an important evidence based intervention that serves several purposes: a) HIV prevention, if it is administered to women who inject drugs but are not yet infected; b) important intervention to prevent transitions to injecting, if administered to women dependent on opioids but use through non-injecting modes; c) evidence based drug dependence treatment for women dependent on opioids; d) improves adherence to long term treatments such as ART, DOTS and HCV treatment; e) recommended intervention for pregnant women who are dependent on opioids.

Women and physical health: Current health status is a concern for a significant proportion of women who use drugs. It is important to ensure that appropriate primary medical care is available to them and common medical problems such as tuberculosis, malaria and mouth infections can be treated adequately through effective linkages between women TIs and primary healthcare facilities.

Sexual and Reproductive health: While condom distribution, HIV testing and STI treatment are accorded importance in the current harm reduction package, reproductive and child health (RCH) is often ignored. OST should be recommended and prompt and easy access to OST for pregnant women who use opioids needs to be guaranteed. Abortion is not uncommon; hence, it is necessary to promote prenatal care, which will also enable prevention of mother-to-child transmission (PMTCT). Preventing unplanned pregnancies, improving pregnancy outcomes and improved access to PMTCT are possible with the establishment of effective pregnancy care, prenatal, postnatal care and linkages between harm reduction services and reproductive services.

Women and violence, sexual abuse: The development and implementation of evidence-based interventions that incorporate prevention of violence, while targeting this vulnerable group of women, is likely to promote better health outcomes. Abuse, particularly by law enforcement may be related to punitive policies related to drug use and sex work. Advocacy with law enforcement, religious leaders and community opinion leaders will be beneficial in reducing violence and sexual abuse against women.

Women and incarceration: More than one fifth of the women who use drugs have been incarcerated, and those who are also engaged in sex work are more likely to be incarcerated. There is a need for establishing harm reduction services, in particular, OST for incarcerated women who use opioids. It is necessary to guarantee uninterrupted health access to essential services such as ART to women who use drugs, during incarceration as well as while in pre-trial detention.

Women and economic opportunities: As many of them are single, widowed/separated and do not live with a partner, it is crucial to address the economic and social vulnerability of women who use drugs. Strategies to empower women such as interventions that provide economic opportunities for women and mental health interventions could play an important role in engaging women to participate effectively in HIV/AIDS control strategies.



Capacity building for the staff working with women who use drugs:

Building, strengthening and sustaining the capacity of various categories of service providers working with women who inject drugs at TI sites and women who use opioids at women OST centres is essential to develop an effective, efficient and sustainable harm reduction response. The current harm reduction training programme does not adequately address the issue of women who use drugs. There is a need to include sessions focused on women drug use and women injecting drug use in the existing training modules for all the categories of service providers. In OST training programmes, the relevance and importance of OST in pregnant women should be emphasized. Service provider working with women especially those working with sex workers and in the fields of RCH, mental health, violence against women and women in conflict with the law should also be sensitized on the issues of drug use among women and be educated on the need for linkages to drug programmes for effective response.

Key implementation considerations: Women who use drugs should be engaged from the time of planning and design, implementation, monitoring/evaluation and redesign of the services. The service locations need to be discrete yet accessible to women who use drugs. Women-only services with spaces to carry out pro-social activities will be helpful. The presence of women outreach workers (ORWs) and peer educators (PEs), in order to specifically reach out to women who use drugs and for secondary or satellite needle/syringe distribution, will increase harm reduction service uptake. As many of the services for women are vertically delivered in different settings, integrating the services is an important challenge that requires urgent attention. There is a need for effective collaboration between harm reduction services for women who use drugs and TI services for female sex workers. Similarly, collaboration and cross linkages have to be worked out between drug detoxification, drug rehabilitation and harm reduction services. Without addressing the stigma and discrimination against women who use drugs, services for women who use drugs cannot be implemented successfully. Advocacy with various stakeholders is necessary for enhancing the quality of services. This will also help to remove or mitigate the various policy, legal and social barriers and obstacles in the implementation of services.



Summary of key recommendations

Resources

Collect systematic data related to women who use drugs;
Allocate exclusive funds and resources for strategies dealing with women who use drugs.

Coordination

Facilitate coordination between the Ministry of Women & Child Development, the Ministry of Social Justice & Empowerment and the Ministry of Health & Family Welfare for organizing and providing comprehensive services for women who use drugs.

Economic opportunities

Devise alternate economic opportunities and income generation interventions for women who use drugs, particularly for those engaged in sex work and selling of drugs; Provide social protection services for women who use drugs.

Drug use prevention interventions

Design and implement preventive interventions;
Design appropriate substance use prevention/intervention related information, education and communication materials;
Integrate interventions to educate, counsel and provide treatment for alcohol and cannabis use disorders in existing harm reduction programmes;
Educate on role of alcohol, especially among those infected with hepatitis C;
Design and implement interventions to prevent transitions from oral to injecting drug use;
Educate oral opioid users on the risks of injecting—emphasize the risks of sharing, including indirect sharing.

Core harm reduction interventions

Enhance coverage of women under NSP through satellite/secondary exchange programmes;
Recommend OST for opioid dependent pregnant women;
Advocate OST for women dependent on opioids, irrespective of the mode of administration.

Reproductive and child health

Educate about RCH services: reproductive health, pregnancy and contraception, abortion, child health and immunization;



Summary of key recommendations

Educate and ensure linkages for ensuring OST for those opioid users who are pregnant;

Encourage screenings for pregnancy and provide interventions at the early stages of a pregnancy;

Build a collaborative network between harm reduction, pregnancy services and child care services.

Medical and mental health interventions

Establish systems to conduct regular screenings for hepatitis B and C, tuberculosis and mental illnesses;

Education and counselling services for Hepatitis C to be built into the comprehensive harm reduction package.

Addressing dual risks

Design specialized interventions for women who inject drugs and also engage in sex work to reduce their enhanced dual risks;

Assess the extent and pattern of drug use among women engaged in sex work.

Drug dependence treatment

Establish specialized drug treatment services for women. Such centres should be women friendly and meet the needs of women who use drugs; e.g., they should have provisions for women with children;

Strengthen/emphasize on couples (both concordant and discordant), intimate partner counselling for prevention of HIV and drug use;

Develop protocols for treatment and counselling of couples where both partners are using drugs.

Establish drug treatment including harm reduction services among women in prison settings and link these with community based services to ensure a continuum of care.

Overdose prevention/management

Educate community members and service providers on prevention and management of overdose;

Establish effective supply chain management to ensure ready availability of Naloxone at government hospitals and primary health care centres;

Provide training on basic first aid.



Summary of key recommendations

Violence against women

Educate people about domestic violence and sexual abuse as well as the available legal protection against these;

Arrange to provide specialized counselling (including trauma counselling, counselling for legal support and couple counselling) and accompanied referral, including reporting to the police and legal aid services;

Create/establish SHGs and crisis support systems;

Organize support systems for continued legal services for court cases;

Advocate with the police on the rights of women who use drugs and/or engaged in sex work to reduce chances of discrimination against them while reporting;

Arrange for safe shelters for survivors of physical abuse and those who are vulnerable to such violence.

Capacity building

Capacity building of service providers to address gender issues affecting drug use and related health consequences;

Building the capacity of counsellors, ORWs/PEs on domestic violence and sexual abuse, legal issues;

Capacity building for RCH, pregnancy, abortion, contraceptives, OST for pregnant women.

Service delivery and implementation

Engage women who use drugs right from the planning stage to design, implementation, monitoring/evaluation and redesign of services;

Establish discrete yet accessible service locations for women who use drugs;

Employ women outreach workers, nurses and doctors for women TIs and drug dependence clinics;

Integrate various vertical services for women;

Address stigma and discrimination against women who use drugs;

Advocate for removing or mitigating the various policy, legal and social barriers and obstacles in the implementation of services.



7. CONCLUSIONS

This is the first study of women who use drugs recruited from all the eight states of Northeastern India. While the survey data, gathered through the RDS methodology from 1,150 women who use drugs across Northeast India, provides good information to devise appropriate strategies for them, there are limitations to this study. Being a cross-sectional study, temporal relationships between variables cannot be established. Sensitive data related to drug use and sexual behaviours in this study is self-reported and social acceptability bias needs to be considered while interpreting the study findings. Biological data such as that pertaining to HIV, HCV, STIs, is not part of the study and this limits our interpretations when it comes to risk behaviours and adverse health consequences of women who use drugs.

In this study women who use drugs are optimistic about their future in terms of health, substance use, social and economic status, as they expect the planned response to reduce their access challenges and to improve quality of life. In order to meet their expectations, it is necessary to design, implement and monitor evidence based interventions with the scope to enhance their quality of health, reduce the associated stigma and discrimination, and eliminate the violence they face; drug use needs to be diminished, while reducing the various harms associated with drug use. Additionally, they need to be provided with economic opportunities. This calls for a multi-disciplinary approach to address the key concerns of women who use drugs.

A national coordination mechanism needs to be instituted, comprising of the Ministry of Women & Child Development, Ministry of Social Justice and Empowerment, Ministry of Health & Family Welfare, Ministry of Law & Justice, civil society representatives, UN agencies (such as UNODC, UNAIDS, UN Women, UNICEF, UNDP), international agencies working with women empowerment, and community group representatives of women who use drugs, in order to direct the national level planning required to establish comprehensive services for women who use drugs. The findings and recommendations of this study could be considered during this national level strategic planning, to ensure that this hard-to-reach group of women who use drugs can have universal access to health and social welfare services.

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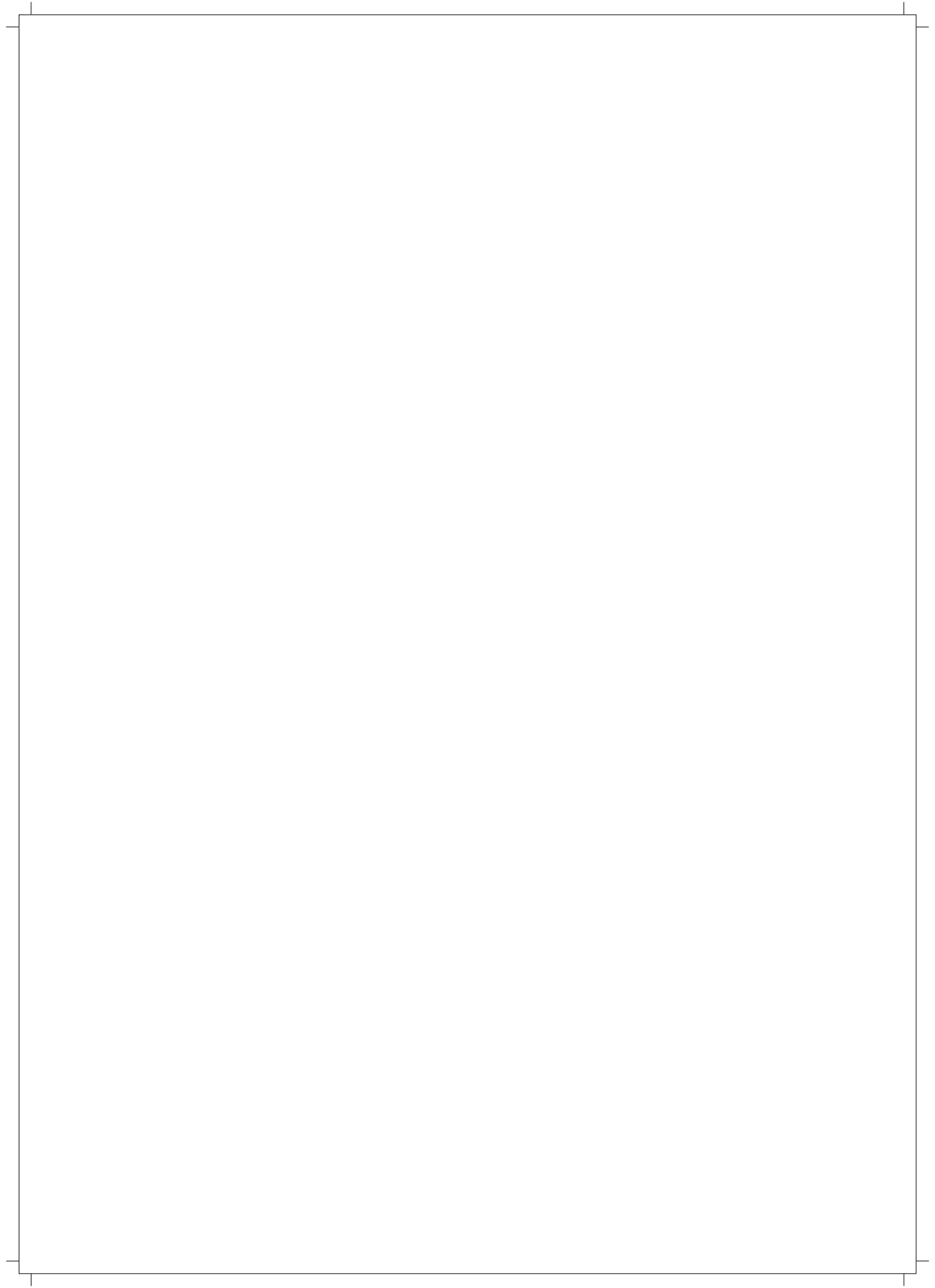
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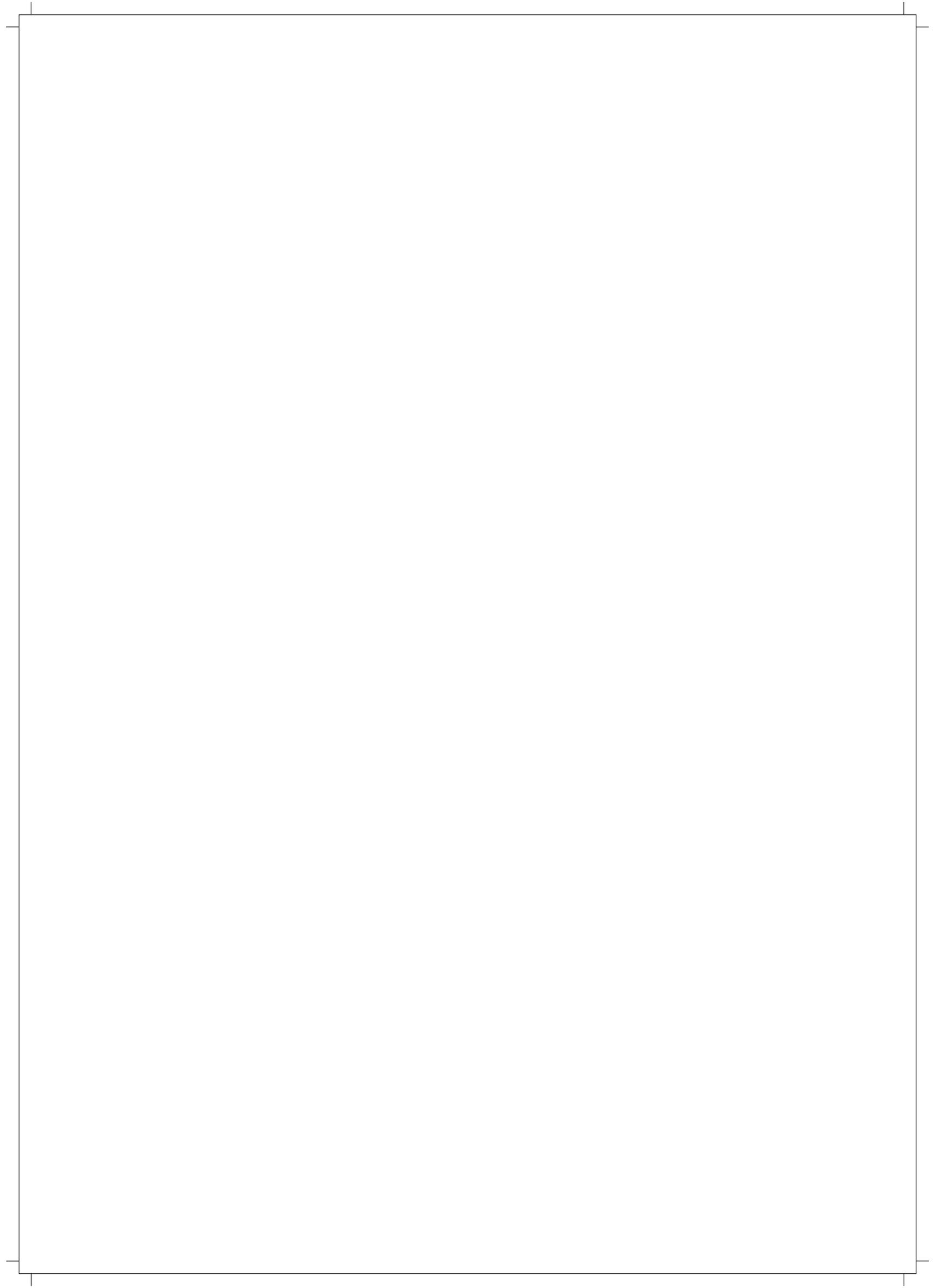
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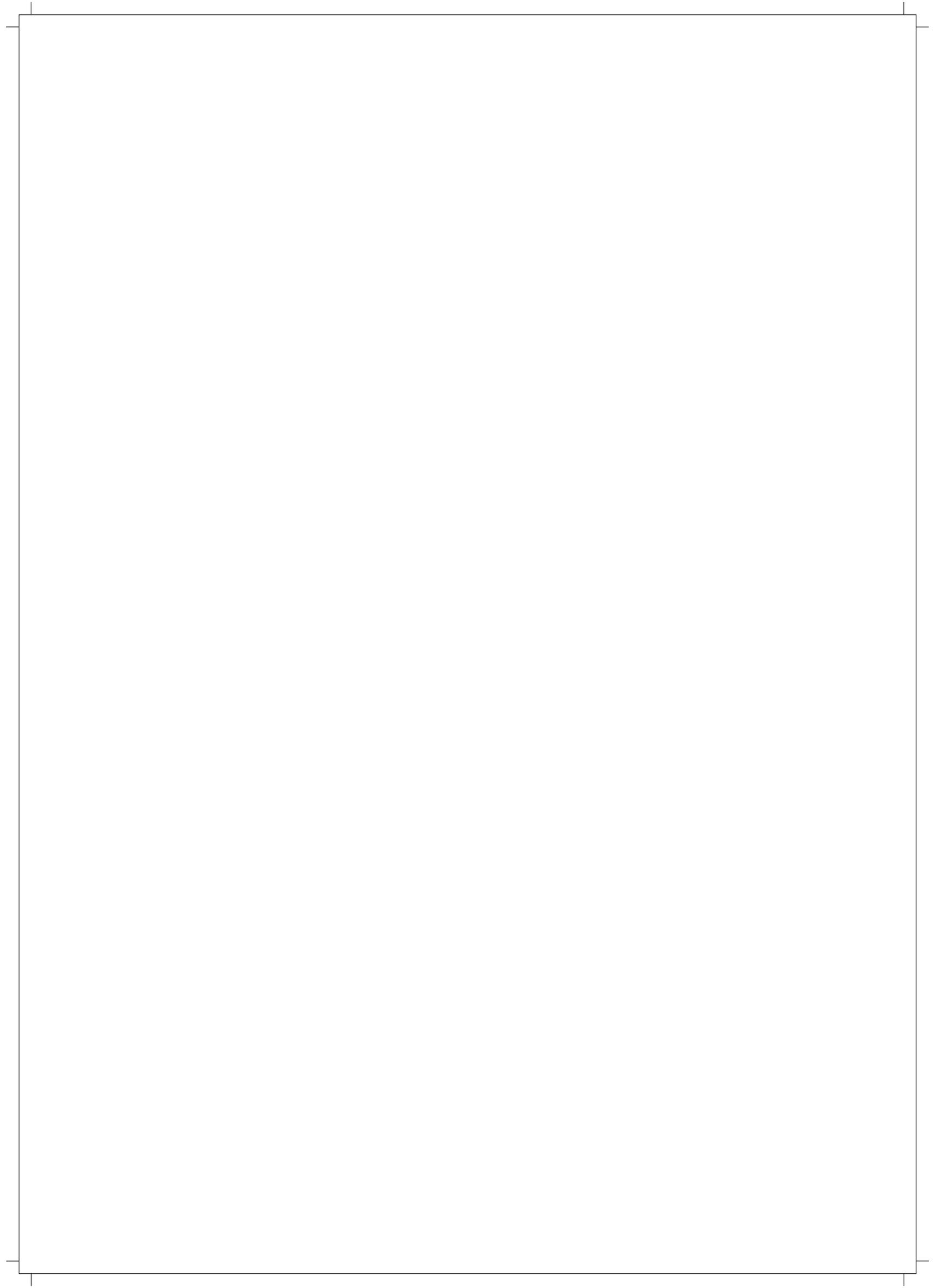
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