

**A Rapid Situation Assessment of Sexual Risk Behaviour
and Substance Use Among Sex Workers and their
Clients in Chennai (Madras), South India**



**World Health Organization
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and Substance use in Sex Workers and Clients of Sex
Workers in Chennai (Madras), south India**

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TABLE OF CONTENTS

ABSTRACT	8
1. INTRODUCTION	9
2. BACKGROUND INFORMATION ABOUT THE LOCATION OF STUDY	11
2.1 TAMILNADU	11
2.2 CHENNAI (MADRAS)	11
2.3 BACKGROUND INFORMATION ABOUT INJECTING DRUG USE AND HIV/AIDS	12
3. STUDY DESIGN	13
3.1 AIMS AND OBJECTIVES	13
3.2 THE RAR TEAM	14
3.3 METHODS EMPLOYED IN THE STUDY	16
3.4 SAMPLE GROUPS	16
3.5 DATA COLLECTION PROCEDURES	17
3.6 ANALYSIS	21
3.7 ETHICS AND INFORMED CONSENT	21
3.8 COMMUNITY PARTICIPATION	22
4. EXISTING INFORMATION (SECONDARY DATA COLLECTION)	23
4.1 ASIAN MULTICITY EPIDEMIOLOGY WORKGROUP DATA FROM CHENNAI	23
4.2 DRUG TREATMENT CENTRES AT MADRAS	26
4.3 COMMUNITY BASED HIV INTERVENTIONS FOR DRUG USERS	27
4.4 BUPRENORPHINE ABUSE IN CHENNAI	35
4.5 SEX WORKERS	43
4.6 ALCOHOL AND SEX WORK	43
4.7 ALCOHOL AND HIV INFECTION	43
4.8 SEX WORKERS AND SUBSTANCE USE	43

5. FINDINGS	44
5.1 FEMALE SEX WORKERS AND THEIR CLIENTS	44
5.2 MALE SEX WORKERS AND ALCOHOL, DRUG AND SEX RISK	60
5.3 INJECTING DRUG USERS AS CLIENTS OF SEX WORKERS	65
5.4 INJECTING DRUG USERS SELLING SEX	69
5.5 SURVEY	71
6. DISCUSSION	74
6.1 INTERVENTION STRATEGIES	74
7. CONCLUSION	82
REFERENCES	85

LIST OF TABLES

TABLE (1)	Madras City census details
TABLE (2)	Categories of Key Informants
TABLE (3)	Demographic characteristics of drug abusers in treatment in Chennai
TABLE (4)	Types of drugs abused and route of administration. Chennai
TABLE (5)	HIV seroprevalence among injecting drug users
TABLE (6)	Risk behaviour and health consequences by primary drug use (Kumar et al, 2000)
TABLE (7)	Experience of sexual intercourse among unmarried respondents (N=117)
TABLE (8)	With whom had first sex
TABLE (9)	Age at first sexual intercourse
TABLE (10)	Sex with sex worker
TABLE (11)	Condom use
TABLE (12)	Likelihood of contracting HIV infection
TABLE (13)	Comparison of heroin and buprenorphine injectors for sex risk behaviours
TABLE (14)	Socio demographic characteristics
TABLE (15)	BASIC HIV AND IV AND STD KNOWLEDGE7
TABLE (16)	SEXUAL BEHAVIOUR
TABLE (17)	CURRENT HIV STATUS AND SEXUAL HEALTH
TABLE (18)	ATTITUDES ABOUT CONDOMS
TABLE (19)	ALCOHOL AND SUBSTANCE USE
TABLE (20)	PARTNERS

FIGURES

FIG – 1: THE INTERSECTING POPULATIONS OF SEX WORKERS, CLIENTS AND THE GENERAL POPULATION	86
FIG – 2: INTERSECT BETWEEN INJECTING DRUG USERS, SEX WORKERS AND GENERAL POPULATION	87

A Rapid Situation Assessment of Sexual Risk Behaviour and Substance use in Sex Workers and Clients of Sex Workers in Chennai (Madras), south India

Abstract

Objectives: To describe the relationship between substance use and high-risk sexual behaviour, among sex workers and their clients and to identify key features of the social, cultural and structural context, which influence sexual behaviour, substance use and sexual risk taking in order to develop appropriate interventions targeting substance use and sexual risk behaviour to minimize the adverse health consequences.

Methods: The Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour (SEX-RAR) developed by the World Health Organization (WHO), Geneva was utilized in this study. Apart from ethnographic mapping of sex work places and observation, 27 key informant (health providers, law enforcement persons, sex workers using drugs/alcohol, brothel owners) interviews and 16 focus groups with drug/alcohol using sex workers and their clients were conducted. Furthermore, using a structured survey 203 drug/alcohol using sex workers and 100 clients were interviewed.

Findings: The female sex workers were in the age group of 15 to 55 and the majority of them were between the ages of 25-35. Majority of the sex workers were poor, had low socio-economic background, often deserted by their husbands, with children and in the profession to sustain their families' lives. Drug and/or alcohol related intoxication and the aggressive behaviour were the most important factors influencing safer negotiations for condom use. The male injecting drug users selling sex were reluctant to use condoms, expressed embarrassment and fear that use of condoms would prevent clients preferring them. Some settings like wine shops and brothels influenced sexual behaviour and risk. Use of condoms by sex workers was less with regular sexual partners, steady partners and pimps.

Conclusion: The norms relating to drug/alcohol use and sexual behaviour, in particular, aggressive behaviour under the influence of intoxicants must be addressed. There is an urgent need to establish interventions in settings like wine shops and brothels that facilitate rapid exchange of partners. The interventions for sex workers as well as the drug users should be broad based and consider many structural factors that have potential implication for HIV prevention issues.

1. Introduction

In March 1986, the first HIV infection was documented in Chennai, India (NACO, 1996) and since then the HIV epidemic has been spreading rapidly in many parts of the country. Currently, nearly 4 million people are HIV-infected in India, the world's second highest figure after South Africa. The majority of HIV infections are heterosexually acquired, due in part to male patronage of female sex workers (FSWs). However, male-to-male sex, injection drug use and transfusion of unscreened HIV-infected blood products account for a substantial proportion of HIV infections, especially in urban settings like Chennai (Mastro, 1998). These factors are contributing to a more generalized epidemic; HIV prevalence among women attending antenatal clinics is higher than 1% in several regions, including Tamil Nadu where Chennai is situated. The prevalence of sexually transmitted infections (STIs) in the community in Tamil Nadu was estimated to be approximately 5% (Kantharaj, 1992). In a recent survey of three randomly selected districts of Tamil Nadu, community prevalence of HIV and hepatitis B infection was 1.8% (CI: 1.7-1.9) and 5.3 (CI: 5.1-5.5); community prevalence of STIs excluding HIV and hepatitis B was 8.3% (CI: 7.9-8.6) [Thomas et al, 2002].

In India, the first phase of the National AIDS Control Programme focused on the following: awareness creation, blood safety, surveillance, control of STIs, and collaboration with NGOs. It was recognised that interventions for HIV/AIDS prevention required dealing with extremely sensitive aspects of interpersonal behaviour and relationships, as well as with marginalized groups such as substance users, sex workers and men having sex with men (NACO, 2001). Sexual behaviour is complex and there is evidence that sexual behaviour of the above groups as well as the clients of sex workers is influenced by substance use, including alcohol use. In the next phase, the National AIDS Control Organization is supporting the interaction between substance use programmes and HIV prevention programmes.

The relationship between substance use and sexual activity is complex and influenced by many factors including pharmacological property of the substance, behavioural disinhibition, social learning and social setting, personality factors and fear of performance. The association between alcohol consumption and HIV infection has been documented (Mbulaiteye et al, 2000) and use of alcohol by groups at high risk for HIV infection such as commercial sex workers, truckers, migrant workers is common. Most of the targeted interventions for sex workers, men having sex with men, injecting drug users seem to have concentrated on specifics rather than overall social development. Therefore, though a significant proportion of the high-risk groups seem to be using condoms, many of them have alcohol dependence problems and in some cases they are dependent on others substances (NACO, 2002). There is a need to understand the links between substance use and sex work. It is also known that intersect between sex work and injecting drug use has fuelled the HIV infection in Northeast India (Panda et al, 2001). Injecting drug users with sexually transmitted diseases transmit HIV efficiently to their non-injecting spouses (Panda et al, 2000). Injecting drug users exhibit high levels of sexual risk behaviours and especially non-condom use, in particular with regular sexual partners is low in many cities of India including Chennai (UNDCP, 2001).

Alcohol consumption and intoxication is associated with high-risk behaviour, and this issue needs to be addressed in HIV prevention among substance users (Latkin et al, 1994; Rhodes et al, 1996). A third of the injecting drug users in Chennai had a history of sexually transmitted infection in the past year (Kumar et al, 2000) and sexual risk behaviour among IDUs is difficult to change (Kumar et al, 1998). Risk factors for HIV seroconversion among male IDUs in Baltimore included homosexual activity and among females, factors consistent with high-risk heterosexual activity outweighed drug-related risks (Strathdee, 2001). Hence it is important to study the relationship between substance use and sexual risk behaviour in order to develop appropriate interventions that target risky sexual behaviour in substance users and reduce adverse health consequences.

In order to understand the links between substance use and sex work as well as the sexual behaviour of injecting drug users, the study utilized the SEX RAR - Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour developed by the Department of Mental Health and Substance Dependence, World Health Organization, Geneva.

In this report the terms "drug" or "substance" imply a psychoactive substance and thus the terms are used interchangeably. However it is important to note that alcohol and tobacco are also considered as psychoactive substances even though they are legalized.

2. Background Information about the location of study

2.1 Tamilnadu

The study was conducted at Chennai, the capital of the state of Tamil Nadu in south India. Geographically situated on the eastern side of the Indian Peninsula, Tamilnadu has an estimated area of 1,30,058 sq.km. With the population of 63 million, Tamilnadu is the seventh most populous state in India. The literacy rate of Tamilnadu is quite high at 63% as against an all India average of 52.2%. The male literacy rate is 63.78% and the female literacy rate is 44.60%. Tamilnadu is the second most urbanized state in India. Tamilnadu is the third largest economy (NSDP US \$ 24.5bn); has the second largest number of factories (18,522); and, is third largest by gross industrial output.

2.2 Chennai (Madras)

Chennai, *the capital city of the State of Tamilnadu* is the fourth largest city of India formerly known as Madras. Chennai is situated on the northeast end of Tamil Nadu on the coast of the Bay of Bengal. It lies between 12° 9' and 13° 9' of the northern latitude and 80° 12' and 80° 19' of the southern longitude on a 'sandy shelving breaker swept beach'. It stretches nearly 25.60 kms., along the Bay coast from Thiruvanmiyur in the south to Thiruvottiyur in the north and runs inland in a rugged semi-circular fashion. It is bounded on the east by the Bay of Bengal and on the remaining three sides by Chengalpattu district. The city of Chennai symbolised the rise of British power in South India by setting up and consolidation of the East India Company in the seventeenth century with its headquarters at Fort St. George in Chennai and now has emerged as a cosmopolitan city playing an important role in the historical, cultural and intellectual development of India, representing still the distinct components of the highest form of Dravidian civilization. In addition, it holds out an interesting fare of South Indian architecture, music, dance, drama, sculpture and other arts and crafts. Chennai is one of the leading cities in India today from trade and commercial point of view and the fourth largest port in the country. Chennai is also one of the most important industrial cities of the sub-continent. The city enjoys an eminent position in the country in film industry and Kodambakkam, known as the Hollywood of Chennai, has a number of studios engaged in the production of Tamil, Telugu, Kannada, Malayalam, and Hindi movies which are quite popular. Chennai has a number of world-class modern hospitals and super specialty clinics. Chennai is well connected to all major cities in India by rail and road. It is a major seaport, and has an international airport served by leading international airlines. Excellent railway transportation connects Chennai to many cities and towns of India. The broad-gauge lines connect Chennai with such important cities like Calcutta, Delhi, Bombay, Bangalore, Hyderabad and the major towns of the west coast viz., Mangalore and Cochin. The urban transport in Chennai is predominantly dependent on bus transportation operated by a Transport Corporation and in addition, there is a good railway transportation in the city.

Demographic characteristics:

Table (1) Madras City census details (1991)

Characteristics	Male	Female	Total
Area in kms.	172		
No. of occupied residential houses	794, 322		
No. of households	798, 279		
Total population (including institutional and homeless population)	1, 986, 278	1, 855, 118	3, 841, 396
Total Literates	1, 535, 351	1, 216, 990	2, 752, 341
Total Population - (0 - 6) years	238, 782	229, 726	468, 508
Scheduled Caste	271, 549	258, 163	529, 712
Scheduled tribe	4, 087	3, 843	7, 930
Total main workers	1, 015, 704	156, 035	1, 171, 739
Marginal workers	822	501	1, 323
Non - workers	969, 752	1, 696, 582	2, 668, 334

2.3 Background information about Injecting Drug Use and HIV/AIDS

Psychoactive Substance Use and Injecting Drug Use

The substances that are commonly used in Chennai are: alcohol, cannabis, heroin, injectable buprenorphine, pain-killers like dextropropoxyphene (Proxyvon) and hypnosedatives like nitrazepam, diazepam. Furthermore, the abuse of tobacco products like Mawa, Zardha and Paan Masala is very prevalent in the population.

Injecting drug use introduced in the late 1980s has escalated during the 90s and at present it is estimated that there are about 15000 injecting drug users in Chennai. The substances that are injected include: heroin, buprenorphine, diazepam, promethazine and chlorpheneramine maleate (Avil). Drugs like buprenorphine, diazepam and Avil are injected together as cocktails.

HIV and other blood borne pathogens

HIV infection is increasing among injecting drug users and the latest sentinel surveillance report indicates a sero prevalence of 30% among injecting drug users in Chennai (Sentinel Surveillance Chennai report, 2001). Among the long-term injectors, the sero prevalence of HCV is very high and almost all the injectors are infected with HCV (Kumar et al, 2000). About a third of the long-term injectors are infected with HBV (Kumar et al, 2000). Sexually transmitted infections (STIs) are also common. In a study among long term injectors 32% of them reported STIs (Kumar et al, 2000). Given the fact

that many injectors are married, the sexual transmission of HIV to sexual partners of injecting drug users requires special attention.

The intersection between substance use and sex work is obviously critical in terms of epidemic spread (for both HIV and STIs). Hence it is important to study the relationship between substance use and sexual risk behaviour in order to develop appropriate interventions that target risky sexual behaviour in substance users and reduce adverse health consequences.

3. Study Design

3.1 Aims and Objectives

Overall Project Aims

- To increase knowledge and understanding of the relationship between substance use and sex work in Chennai.
- To study the relationship between substance use, sex work and HIV transmission
- To develop appropriate interventions to minimize the adverse health consequences of drug use, sex risk and commercial sex.

Objectives

1. To describe the relationship between substance use and high-risk sexual behaviour, among sex workers and their clients.
2. To identify key features of the social, cultural and structural context, which influence sexual behaviour, substance use and sexual risk taking, including factors influencing negotiation of safer norms, the satisfaction of sexual and other needs.
3. To map key factors influencing sexual risk and substance use reduction.
4. To develop appropriate interventions targeting substance use and sexual risk behaviour to minimize the adverse health consequences.
5. To offer a constructive critique on the existing RAM methodology and to make suggestions concerning its improvement for use in India.
6. To empower female sex workers and substance using clients to carry out HIV prevention activities.
7. To identify key factors that influence sex work among substance users, in particular, injecting drug users.

3.2 The RAR Team

Recruitment of Staff

The researchers for the project were recruited based on the following selection criteria:

1. Interview Skills
2. Ability to do field work
3. Experience in interviewing and dealing with sex workers and/or drug users
4. Data recording and management skills
5. Willing to undergo training in qualitative and quantitative methods of research
6. Observation and Writing skills
7. Ability to work in a team

A team of five field researchers was selected and all of them have a good background in research with sex workers/substance users. The field workers had earlier worked with projects involving sex workers or injecting drug users. They possessed excellent interview skills and formed good rapport with the clients. All of them were willing to be engaged in fieldwork and get trained in rapid assessment methodology.

The team members:

1. Mr. Mahendran
2. Mr. Ashok Kumar
3. Mr. Kumaresan
4. Ms. Kalavathy
5. Mr. Raj Baboo

The field workers have earlier worked with a non-Governmental organization Community Health Education Society (CHES) and have been involved with developing interventions for sex workers. They helped to identify the sex work locales, sex workers and the clients of sex workers. The outreach workers and the intervention team of the SAHAI Trust helped in identifying the locations where substance use takes place, substance users involved in sex work and recruiting them for study.

The following cultural experts had extensive knowledge about the substance using communities and had good links with the social networks of drug uses, assisted the field-work team.

1. Mr. Eardley Rigley
2. Mr. Gasper

Two senior level researchers with wide experience in the mental health field coordinated the research.

Training for the field researchers

The training programme for the field workers was organized at Chennai and the training was done over four days by the following faculty:

1. Dr. M. Suresh Kumar MD DPM MPH
2. Dr. Shakuntala Mudaliar MBBS DPM
3. Dr. R. Raj Kumar
4. Dr. Arun Selvanayagam

Training Programme

Day 1

Introduction to Rapid Situation Assessment Methods
Organising Rapid Situation Assessment
Community Participation
Existing Information (Secondary Data Collection)
Introduction to Qualitative Methods

Day 2

Methods

Ethnography and Mapping
Observation
Focus Groups
Interviews
 Unstructured Interviews
 Structured Interviews
Sampling

Day 3

Assessment

City Information
Context Assessment
Drug Use Assessment
Risk Behaviour Assessment
Health and Social Consequences Assessment
Treatment / Intervention Assessment

Day 4

Data Analysis

Qualitative Data Analysis
Quantitative Data Analysis

Key Findings and Development of Action Plan

Advocacy

The sessions were organized in such a way that the participants were oriented to rapid assessment methods and each session had exercises to ensure that the field researchers adequately comprehended the methods. The training was carried out using the manual developed specifically for this purpose by Department of Mental Health and Substance

Dependence, World Health Organization “ SEX-RAR: The Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour”.

3.3 Methods employed in the Study

Qualitative methods:

1. Ethnographic mapping and participant observation
2. In-depth interviews with sex workers (female and male) and their clients
3. Key Informant interviews
4. Focus Group interviews

Quantitative methods:

Surveys with sex workers (female and male) and their clients

3.4 Sample Groups

Sample groups were selected for in-depth interviews and focus group interviews. Key informants (N=27) were selected from health providers, law enforcement agencies, NGOs working with sex workers and drug users, sex workers using drugs, drug users in sex work, clients of sex workers who use drugs and alcohol, community key informants, brothel owners and pimps.

Table (2) Categories of key informants

<i>Category of Key Informant</i>	<i>Number</i>
1. Health Providers	2
2. NGOs	2
3. Law Enforcement Agencies	2
4. Lawyers	2
5. Sex workers using drugs/alcohol	5
6. Drug Users in Sex work	2
7. Clients of sex workers using alcohol/drugs	2
8. Community key informants	2
9. Brothel Owners	2
10. Pimps	2
11. Wine shop patrons	2
12. Wine shop owner/ bar boys	2
Total	27

Focus group interviews (N =16) have been conducted with the following groups:

- sex workers using drugs (N=2)
- sex workers using alcohol only (N=2)
- Male sex workers using drugs only (N=2)
- IDUs doing sex work (N=2)
- other drug and alcohol users engaged in sex work (N=2)

- clients of sex workers using injectable drugs (N=2)
- clients of sex workers using non-injectable drugs and / or alcohol (N=2)
- wine shop patrons frequenting sex workers (N=2)

3.5 Data collection procedures

Ethnographic mapping and participant observation

The main goals of the ethnographic mapping were to identify the geographical areas where sex work occurred, to explore the drug use patterns and adverse consequences among sex workers and the clients of sex workers. It involved mapping the physical as well as the social infrastructure by geographic area. The data was collected through participant observation and informal conversations. The first decision involved selecting the geographical locations for the study. The locations were selected using the data relating to sex work venues and the outreach data, enforcement data and previous research data helped to decide the geographical locations. A list of sites was drawn and the sites were: Kodambakkam, T.Nagar, Saidapet, Virugambakkam, Adambakkam, Perambur, Royapuram, Vyasarpadi, Alandur, St. Thomas Mount, Thondiarpet, Washermanpet, Porur, Thiruvottiyur, and Anna Nagar. The list was presented to our community advisory board and the board endorsed this. Members of the research team started the mapping process by conducting an observational study of the neighbourhood. Local cultural experts including sex workers, pimps, community and youth leaders were engaged in informal conversations. This process facilitated the development of basic knowledge about the sex work and substance use patterns and allowed the establishment of contact with the sex workers and the clients.

Participant observation is a major component of ethnographic mapping and as knowledge and understanding increases, the observations become more focused. Having different people conduct ethnographic observation in the same location reduced the potential for biased data collection. Weekly meetings with the research team and the team debriefings helped to sort out the differences and to validate the findings.

In-depth interviews with sex workers and the clients

In-depth interviews were conducted with some sex workers and the clients. These interviews were different from the survey-based interviews in that the researcher did not use a structured instrument with standardized questions. Instead an interview guide with open-ended responses was used for the study. By focusing on selected issues, the interviewer is able to get an insider's perspective of the sex worker and the clients. This approach required the interviewer to be skilful listener, probing for elaboration whenever necessary, constantly integrating information and testing that his/her interpretations are correct.

Key Informant interviews

Information was obtained from the key informants like STI treatment professionals, law enforcement agencies, lawyers, community workers, brothel owners, pimps and drug injectors.

Focus Group interviews

The focus group addressed patterns of sexual practices, substance use in sex work, sexual health and safe sex behaviours. A focus group guide was developed that addressed the perception of sex under the influence of drug and/or alcohol as well as the possibilities of behaviour change towards risk reduction. The following issues were addressed:

- expectations of the effects of alcohol and other substances commonly used on sexual behaviour
- patterns of alcohol/drug use
- settings of use
- substance use and commercial sex encounters
- beliefs concerning male and female sexual behaviour and condom use
- beliefs concerning alcohol, other substance use and sexual activity
- substance use and violence in sex
- substance use and condom negotiations
- substance use and choices in sex
- factors inhibiting and enabling reductions in drug/alcohol use
- factors inhibiting and enabling condom use
- safer sex negotiations
- substance use and personal safety
- acceptable risks and perceived risks
- gendered risk
- experiences on STIs/HIV/AIDS and sexual activity

In carrying out the focus groups and in-depth interviews, the following mechanisms were ensured:

- A. The general invitation to participate in the study was made through dissemination of leaflets and freely accessible information sessions where potential participants were briefed in detail on the background, purpose, and procedures of the study. Individuals who were interested in participating in the study provided whatever names they choose, real, fictitious or pseudonyms.
- B. The study participants provided written consent for participation in the focus groups or in-depth interviews by signing the consent form and participants signed with initials, fictitious names, pseudonyms or real names if they desired so.
- C. Time and place of focus groups and in-depth interviews were arranged in a way that interviewees did not have to disclose the fact of further participation to other sex workers / drug users if they do not wish so.

Criteria of exclusion

In order to guarantee absolute confidentiality and the commitment of the participants to this principle some additional steps were followed. Once the letter of consent was explained and signed, a trained researcher held an interview with each participant. The purpose of this interview was to explain the meaning of confidentiality, check if each person understood the concept. People who were psychotic, aggressive or hallucinatory were excluded.

SAHAI Trust has access to the targeted populations and they reached the researchers any time they were in need of any service.

Recruitment of study subjects

The principles of equity, voluntarism, anonymity, confidentiality and safety were strictly followed in the recruitment of study subjects. Only participants aged 18 years and over were recruited for the study. All study participants were invited to participate on the basis of informed consent, and they were free to refuse to answer any question, or withdraw at any time. Equity means that out of the total study sample, each individual had the same chance to be invited to participate in the study. Voluntarism is an important principle of the present study. Therefore, emphasis was laid on communicating to potential participants that non-participation or withdrawing from the study at any time would not lead to any disadvantages. Confidentiality was assured by carefully avoiding personal identifiers. Moreover, all information given by an individual in interviews, focus groups or questionnaires, which had the potential for revealing their identity will be erased immediately. Highest possible level of confidentiality for all study subjects was ensured. All research staff were briefed on how to identify especially vulnerable participants who may experience negative psychological consequences from being interviewed/taking part in a focus group discussion. Those participants were excluded from the research for their own safety. Individual participants were excluded from the study if they were disruptive of the study, abusive to members of the research team, or discouraged other individuals from participating.

Sampling plan for the quantitative survey

The strategy consisted of the following steps: 1) initial mapping of city-level indicators of sex work; 2) ethnographic mapping of certain neighbourhoods and geographical locations identified to have high prevalence of sex work 3) development of a recruitment plan for each site.

Initial mapping

The purpose of initial mapping was to assemble indicators of sex work among populations in Chennai (Madras) city. These indicators were then analysed to identify the neighbourhoods with greater concentrations of sex work. The present study used the following indicators: data collected by the outreach team of a non-Governmental agency, CHES, Chennai; police records; data collected by social work agencies; previous research data on sex workers. Using the above data, selected geographical locations with a high prevalence of sex work were identified. These areas were selected for more intensive ethnographic observation and study. The areas identified were: Kodambakkam, T.Nagar, Saidapet, Virugambakkam, Adambakkam, Perambur, Royapuram, Vyasarpadi, Alandur, St. Thomas Mount, Thondiarpet, Washermanpet, Porur, Thiruvottiyur, and Anna Nagar.

Ethnographic mapping

Ethnographic mapping is intended to help establish sample quotas according to such characteristics as type of sex work. It helps to identify and cultivate contacts with social networks of sex workers in each of the location. It is also useful to develop an in-depth

understanding of major networks in terms of type of sex work, type of services, clientele, substance use practices, sexual practices and knowledge and beliefs about HIV/AIDS. The principal tools used in this stage were participant observation and semi structured interviews with key informants. In addition, life history was obtained from in-depth interviews with the sex workers.

Field reports were produced for each section. Initial daytime observation was followed by observation during the weekends and evening hours. After sufficiently establishing the safety and security of the researchers, the researchers carried out observations during evening/night hours. In each of the identified locations, semi-structured qualitative interviews were carried out with sex workers. These interviews addressed several issues including current and past sexual practices, general health issues, sexual health issues, alcohol and drug use patterns, arrests, HIV/AIDS knowledge and characteristics of the location. Multiple snowball samples were started and directed to involve overlapping and non-overlapping social circles of sex workers and the clients.

Recruitment plan

During the quantitative data collection, potential respondents were screened to ensure that that the sample represented the targeted populations of sex workers and the clients. After establishing eligibility, the respondents were asked to provide informed consent for an interview using a structured interview schedule. Through quota sampling procedure, a total of 300 were recruited for the study (200 sex workers using alcohol and/or drugs; 100 clients of sex workers using alcohol and or drugs). The initial mapping exercise helped us to describe the different important categories. For example, the sex workers could be divided into “street based sex workers”, “brothel based workers”, “mobile sex workers”, and “sex workers operating from apartments/houses”. The research team decided on how many of the proposed 200 sex workers using drugs and/or alcohol would be included from each category. Similarly, one hundred clients of the sex workers would be recruited from each of the category mentioned above.

3.6 Analysis

Analysis and Interpretation of Qualitative Data

The human fieldwork experience itself produces important and vital data. From the field experience evolves a hierarchy of field instrumental acts, with the primary act being that of preparing the field notes. Indeed, fieldwork is not considered as research experience unless it is considered as a field note. As a rule, for every one day in the field, two days were spent in the office writing field notes, analytic memos and preparing analyses. Transcripts were then made in accordance with specific rules. Coding of qualitative data was done as follows, as an act of translation that required a process of forward and backward cross-checking. Coding scheme was developed after 15 cases of coding and recoding. Qualitative data processing combined most of the difficulties that were encountered with quantitative data with the added burden of dealing with connotative words rather than denotative numbers. In the research group's experience data collection, processing, coding and oftentimes analysis took place on a case by case basis. The group worked with an observational protocol that systematically guided the field-work and was complimented by the field notes. The researchers employed an objective style of writing the field notes by focusing on the details of the event and people they were observing rather than on subjective reactions to them. This was achieved by rigorously separating the objective facts from the subjective impressions. Objective observations were taken for writing the qualitative report. A possible weakness in these analyses is linked to the proximity of the researcher to the daily lives of the research participant. The finding was given weightage if it occurred in independent observations. This improved the confidence in the data for interpretation and conclusion.

3.7 Ethics and Informed Consent

Because appropriately conducted qualitative methods are highly invasive of intimate aspects of peoples' lives, great care was taken in the protection of research participants. First, the purposes of the research and potential risks to the subjects were made explicit to the research participant; in addition, people were given the right to choose whether or not to participate. Second, the researcher determined that no harm could come to the individual study subjects as a result of their participation in the research. Third, the researcher ensured that the resulting research and publications could not be used in such a way that they might bring harm to the participants as a group. In our study, all the three guidelines were adhered to and the research carried out after obtaining consent from the participants.

In the case of participant observation situations in which the qualitative methodologist is interacting with people in more public settings, it is incumbent upon the researcher to make the objectives clear, to respect an individual's wish not to participate, and to leave the scene if necessary. Accordingly, this was followed. Compensating participants for the time devoted to answering research questions was an important consideration and small gifts and food were given to the participants.

3.8 Community participation

Constituting a community advisory board comprising key stakeholders representing various constituencies of differing groups of religion, caste, politics, gender and welfare ensures community involvement. The board comprised of members, including: a religious leader; a community worker; a police official; a physician; NGO representative; an advocate; drug user representative; and representative from the community council. This group was representative of diverse and varying interests and truly reflected the community's mandate. The board was empowered to generate ideas for the present study and was entirely responsible for the evolution and implementation of the RAR. The decision-making process was seen entirely as negotiations around priority issues for assessment and intervention. The ways of accessing the unreached, winning the trust of the targeted communities and their families, methods of dealing with legal issues and resistance from the community or threat from anti social elements are some of the crucial issues that were addressed by the community board. We believe that community mobilization and ownership ensure that the assessment is reliable as well as comprehensive.

Rules to guarantee confidentiality

The Community Advisory Board established by SAHAI Trust was responsible for ensuring community support and confidentiality issues. Nevertheless, an independent Ethical Committee of the Institutional Review Board from SAHAI Trust ensures that its present rules are also enforced and that human rights are protected. The rules are:

- Prior to undertaking the research the participants are informed of its objectives and goals and a written form submitted to them. They are informed on their right to withdraw from the study, to keep information, which is not deemed to be shared, and to be able to be provided professional support for crisis related to their involvement in this project.
- Information on HIV status is included in the interviews only if the participant is willing to share it under a written consent. This status will not be revealed to anyone. It only will be used to study a correlation between drug use and HIV infection. No files will be kept including this information.
- Interviews are taped only if the interviewees provide written consent. All personal identifying information is erased from any tape-recording.
- Research staff is forbidden to share any information that could reveal information on individual study participants' behaviour and attitudes with anyone, including prison staff or brothel owners.
- Quantitative questionnaires data will remain confidential and all personal identifier information will be removed.

Group discussions are held under strict confidentiality. Cassettes are used only if participants are willing to consent under a written form. These cassettes are transcribed under the research team's supervision and all personal identifying information will be destroyed. The participants' names will be changed in the final written report.

4.Existing Information (Secondary Data Collection)

4.1 Asian Multicity Epidemiology Workgroup Data from Chennai

The initial consultation was done to assess the local situation with regards to drug use patterns and the associated health consequences, the potential sub-populations and samples to be included in the assessment and the methodological and practical parameters of the rapid situation assessment. Existing information was reviewed systematically and the existing treatment and law enforcement data were reviewed. An umbrella organization called Society for Prevention, Research, Education on Alcohol and Drugs (SPREAD) consisting of all agencies working in the field of drug abuse has been formed in Chennai and this body facilitates data collection periodically. Biannual treatment indicator data are reported to the Asian Multicity Epidemiology Workgroup (AEWG) and this data is published annually in the International Monograph Series on Drug Use in Asian Cities by Universiti Sains Malaysia, Pulau Penang. The data are collected using a structured reporting instrument that includes the following: drug treatment indicators, law enforcement indicators, health and social indicators. The report is useful in understanding the drug trends and the demographic profile of drug users.

Table (3) Demographic characteristics of Drug Abusers in Treatment - Chennai*

	1996	1997	1998	1999
Period	Jan - Dec	Jan - Dec	Jan - Dec	Jan - June
Participating agencies	1	1	1	3
Number of addicts	1778	1757	1516	1212
Sex				
Males	97.6%	96.53%	97.92%	95.60%
Females	2.4%	3.47%	2.08%	4.40%
Age				
<15 years	4.7%	-	-	-
15-19	19.6%	5.85%	7.05%	9.24%
20-34	40.5%	38.05%	39.71%	42.41%
35+	35.2%	56.09%	53.24%	48.35%
Marital Status				
Single	40.7%	41.4%	47.08	50.74%
Married	59.3%	58.6%	52.92%	49.26%
Occupation				
Professionals	0%	2.04%	2.28%	87.79%(emp)
Administrators	0%	1.10%	0.60%	11.8%(unemp)
Sales and clericals	0%	17.85%	22.94%	0.41(students)
Drivers	16.6%	19.69%	23.14%	
Cultivators	3.3%	5.17%	3.52%	
Unemployed	9.1%	7.76%	6.73%	
Small Business	13.1%	22.34%	27.38%	
Students	0%	1.33%	0.84%	
Others	57.9%	22.73%	12.57%	
Years of education				
0	8.8%	4.69%	2.84%	0.74%
<6 yrs.	34.4%	28.23%	24.94%	20.54%
6-12 yrs.	48.2%	63.76%	67.97%	75.66%
>12 yrs.	8.7%	3.33%	4.24%	3.05%
Religion				
Hindus	67.2%	60.65%	54.04%	
Christians	26.0%	28.74%	34.75%	
Muslims	5.1%	8.66%	9.85%	
Others	1.7%	1.94%	1.36%	

*Source: Report of the Asian Multicity Epidemiology Workgroup - Reports 11, 13 and 15

Table (4) Types of drug abused and route of administration - Chennai*

	1996	1997	1998	1999
Period	Jan - Dec	Jan - Dec	Jan - Dec	Jan - June
Participating agencies	1	1	1	3
Number of addicts	1778	1757	1516	1212
Primary drug of abuse				
Opiate type				
Heroin	14.7%	11.09%	13.77%	11.72%
Other opiates	-	-	-	-
Buprenorphine	5.2%	3.65%	5.28%	10.15%
Cannabis	12.7%	7.6%	6.45%	6.93%
Sedatives	-	-	-	-
Alcohol	67.1%	77.56%	74.18%	69.80%
Others	0.3%	0.1%	0.32%	1.4%
Poly drug use	32.9%	16.68%	40.5%	27.31%
Route of administration (for drugs other than alcohol)				
Inhalation	-	-	-	-
Injection	52.3%	53.03%	57.21%	66.12%
Smoking / Chasing	40.5%	39.63%	33.49%	28.96%
Sniffing	-	-	-	-
Others	7.2%	7.35%	9.30%	4.92%

**Source: Report of the Asian Multicity Epidemiology Workgroup - Reports 11, 13 and 15*

4.2 Drug Treatment Centres at Madras

The State Government of Tamil Nadu provides the following treatment services.

1. Deaddiction Centre, Institute of Mental Health, Chennai.
2. Deaddiction Centre, Stanley Medical College and Hospital, Chennai
3. Department of Psychiatry, Madras Medical College and Research Institute, Chennai

Private Medical College

Deaddiction Centre, Sri Ramachandra Medical College Hospital, Porur, Chennai

Non- Governmental Organizations

1. TTK Hospital and Rehabilitation Centre, Chennai
2. TTK Outreach Community Clinic, Chennai
3. SAHAI (Society for Aid and Help for Addictive Illness) Treatment and Rehabilitation Centre, Chennai
4. SAHAI Community Outreach Centres (Operational at two places - Perumbur, St. Thomas Mount)
5. Punarjeevan Drug Treatment Centre, Chennai
6. St. Paul Deaddiction Centre, Chennai
7. Turning Point, Chennai
8. ADDRESS Treatment and Rehabilitation Centre, Chennai
9. Deaddiction Centre, Voluntary Health Services, Chennai

Private Deaddiction Centres

Aashiana Drug Deaddiction Centre, Chennai

Many medium sized hospitals and many private psychiatrists in the city provide detoxification services to drug users.

Counselling Services

Sangamam, Stella Maris College, Chennai

Arogyam Counselling Centre, Chennai

Madras Christian Counselling Centre, Chennai

Many other counseling centers also provide drug counseling services.

Drug / HIV Care Counselling services

SAHAI HIV Research Centre (HIV testing and counseling services)

YRG Treatment Centre, Voluntary Health Services (HIV testing and counseling; Care)

Treatment Services and relapse

The treatment provided in most settings is detoxification. TTK Hospital and SAHAI Trust offer detoxification, rehabilitation, after care, vocational rehabilitation, community outreach and substitution treatment with sublingual buprenorphine for drug users.

Opiate use among youth in Madras city is causing serious public health concern and the extent and quality of care available to the drug users are pathetically inadequate and there is an urgent need for providing comprehensive services for drug users (Anthony et al, 1994). Failure to provide adequate treatment for drug related problems is likely to prove costly to the health services and the community. For example, those engaged in the harmful use of drugs will, if untreated, continue to cause costs to health and social services of every kind, put strain on prisons through their inappropriate diversion to the penal services and cause indirect social costs through loss of productivity. A public opinion survey conducted in Madras (Kumar et al, 1993) indicated that the treatment services are proving costly and provide no apparent benefit to the user due to lack of follow up care resulting in unacceptably high rates of relapse. Public opinion is in favour of community-based initiatives and their prime concern is drug related problems, particularly, HIV issues rather than drug abuse per se. There is growing evidence that community participatory process in treatment for alcohol and drug users is yielding substantial benefits (Ranganathan, 1994) in Indian settings.

4.3 Community based HIV interventions for drug users

HIV/ AIDS scenario in Chennai and Tamilnadu

Sentinel surveillance was done in Chennai during August - October 2000 for the following groups: Injecting Drug Users, STD Clinic attendees, Men having sex with Men (MSM) and ANC. The general population HIV prevalence is indicated as 1%.

In Chennai, the seroprevalence for the various groups are:

	HIV seoprevalence*	
	Tamil Nadu	Chennai
STD Clinic attendees	24.4%	6%
IVDUs	-	26.7%
ANC	1.59%	1%
MSM	-	4%
TB Patients	10%	-

*Source: TNSACS (Tamilnadu AIDS Control Society) Sentinel Survey Report, 2000

HIV prevalence among injecting drug users in Madras City

HIV infection was first documented in Madras, India in 1986, in a commercial sex worker and since then the infection rates for HIV is showing a spiraling trend. Though heterosexual transmission of HIV is the predominant mode, escalating drug use, in particular, injecting drug use in Madras is causing concern. The absence of denominator populations of drug users, in particular, drug injectors clearly limit the methodological validity and reliability of HIV prevalence estimates in Madras. It is guesstimated that there are about 15000 injecting drug users in Madras and they are predominantly seen in certain geographical locations of the city. The areas have been identified using treatment data, ex-users' knowledge, outreach work, arrest records and narcotic raids and seizures. Prevalence estimates have been carried out on non-randomized convenience samples from treatment centers, voluntary testing from drug users and unlinked anonymous sero-surveillance data from the not -in-treatment community based samples.

Table (5) HIV Seroprevalence among Injecting Drug Users

Sample	Sample size	Prevalence estimate
Convenience sample from treatment centers		
Institute of Mental Health, Madras (Joseph, 1996)	100	16%
SAHAI Treatment Center, 1996	50	19%
Voluntary testing		
SAHAI Field station (Kumar et al, 1995)	138	17.4%
RAR Study, 1999 (Kumar et al, 2000)	100	20%
TNSACS Sentinel Surveillance, 2000	45	26.7%

Also it is important to observe that the prevalence of HBV is also high among injecting drug users and is estimated at 33% in a community-based sample (Kumar et al, 1995). Findings from the community based research initiatives show that many drug users are unaware of the existing HIV testing facilities at Madras and majority of them are reluctant to test themselves. The number of agencies involved in testing and counseling is low and existing facilities do not attract, access and help the drug users. There are at present no HIV positive drug users' support groups.

HIV risk assessment for Injecting drug users at Madras

In response to the escalating drug abuse and its health consequences, outreach services for drug users were established in 1993 in two geographical locations namely Vepery and Royapuram. These locations were chosen because of the following reasons: high prevalence of drug abuse in these locations as indicated from the treatment records and street knowledge; greater involvement of Church based community development activities in the above locations. The services were established and maintained by SAHAI Trust, a Non- Governmental Organization involved in prevention of drug abuse and treatment of drug abusers and the trust is supported by the Catholic Churches of Madras Dioceses. A comprehensive assessment of HIV risk behavior among street recruited injecting drug users was carried out in the year 1994 (Kumar & Daniels, 1994) using ethnographic techniques, focus group interviews, and some in-depth interviews with drug users. Also, studies assessing the risk behavior have been done on treatment population (Joseph, 1996). The following are based on the findings from the above studies:

Injection risk behavior

Drug transitions

The prevalence of injecting as the chief mode of administration for opiates, in particular, heroin has been recent and certain factors have facilitated the transition from chasing heroin to injecting heroin. Street scarcity of heroin following the crackdown on Tamil militants in Madras following the assassination of the former Prime Minister of India, Mr. Rajiv Gandhi near Madras in the year 1991 made heroin users to shift to the easily available injectable preparation buprenorphine. The use of buprenorphine by some physicians to treat the withdrawal symptoms of heroin abusers facilitated the belief that buprenorphine is a good substitute for heroin and moreover, the drug was economical and easily procurable. Since that time buprenorphine abuse escalated among opiate users and when heroin was available in the illicit market again, many preferred to use heroin by injecting. At present, majority of the opiate users are injecting drug users and it can be said that about three fourths of the current users of opiates are injecting drug users. Also most of the persons are getting initiated to opiates by injecting.

Levels of sharing

All the assessment studies on the out-of-treatment as well as treatment population suggests that sharing of syringes and needles is very common. More than two-thirds of the injectors interviewed admitted to sharing the injecting equipment in the past month (Kumar & Daniels, 1994; Joseph, 1996). At times needles are not shared but the syringes are shared. Sharing is usually common among friends and indiscriminate sharing has become infrequent.

Indirect sharing

Indirect sharing is very common; use of common spoon and solution, common cotton swab, frontloading are all common among heroin users and dipping the needles into the ampoules is common among buprenorphine users.

Frequency of injection

Heroin injectors injected frequently and on an average they used the drug 2 to 4 times daily as opposed to the buprenorphine users who injected less frequently because of the long acting nature of the drug.

Social context of drug use

The heroin networks in Madras are more cohesive and functionally reinforcing. Most heroin users were in touch with other drug users, at least for purely functional reasons, such as procurement of the illicit substance. Their networks were also larger in size and there were some dense relationships. Even though the ties and bondage changed over time, at any point of time, the heroin users had at least one or more drug user with whom he had a reciprocal relationship. In contrast the buprenorphine networks are smaller and most persons had only one or two drug using persons in their network. Most drug users lived with the families and the mother; the sister or the spouse was always supportive of the drug user and the family ties continued in spite of heavy drug use. The heroin users take the drug in chaotic street-scenes and the purchasing venues facilitate sharing practices. The heroin users purchased the drug in the dealer's places and it is also the place where many drug users congregate to use the drug. The setting encourages needle sharing. There are also some common shooting locations like abandoned buildings, public places and public toilets where drug users gather to shoot drugs and these settings influence risk behavior.

Sex risk behavior

The heroin users reported spending most of the time in the search for the drug and their reported interest in sex was low. But a good many of them admitted to sex in the past month. Casual sex and commercial sexual encounters were frequent. Most were reluctant to use condoms and the use of condom during the last sexual encounters was alarmingly low. STD infections were frequent and buprenorphine users reported more risky sexual behavior compared to heroin injectors (Kumar et al, 1995; Mudaliar & Kumar, 1996).

Outreach Model

The outreach team comprising primarily of ex-users and professional social workers forms the backbone of the HIV intervention activity. The outreach workers access and recruit injecting drug users from the street and provide various interventions at the street level. Apart from the face-to-face communication, educating about AIDS and its transmission, the individuals are provided with information on decontamination of syringes. The outreach team distributes bleach and condoms. The team also provides advise on medical and social problems. Service information is provided and outreach workers facilitate the use of deaddiction services by the drug users. The outreach activities are concentrated in two geographical locations with a high prevalence of drug abuse in the city, namely, Royapuram and Vepery. Special programs like network intervention also are carried out by the team. Though most outreach interventions were focused on individuals and targeted changes in individual knowledge, opinion and behavior, of late the focus is shifting slowly to changing the peer and social norms about risky behavior. Instead of targeting the individuals the drug networks are being targeted increasingly.

Community Outreach Activities

Participants: A total of 250 injecting drug users, 125 consecutive injecting drug users, from each of the locations were recruited through the street outreach at the two geographical locations. Baseline data were collected and this sample was followed up and after 18 months, 161 persons were available for the follow-up assessment. Semi annual follow up assessments were done.

Intervention: The following outreach service components were provided to all of them:

- Outreach AIDS Education (HIV transmission, Decontamination of syringes)
- Bleach Distribution
- Condom Distribution

Control group: A control group of injecting drug users was recruited from locations where no outreach services were available and a sample of 150 injecting drug users completed the baseline assessment. The primary means of recruitment was by word-of-mouth. After 18 months, 87 persons were available for follow-up assessment.

Measures: Baseline assessment was done for both the groups and the following data were collected: socio-demographic; pattern of drug abuse and HIV related risk behavior, both injecting and sexual. After 18 months, follow-up data were available on drug use patterns, HIV risk behavior and behavior change for 161 clients from outreach locations and 87 from the control group.

Results: At baseline, there were no significant differences between the participants from the outreach locations and the other locations for demographic data. Comparisons were made between the two groups for drug use patterns, HIV related risk behavior and significant differences were observed at baseline for needle use frequency ($p = 0.02$), needle use frequency among daily injectors ($p = 0.009$), and commercial sex ($p = 0.02$). At 18 months follow up, data were available for 161 injection drug users from outreach locations and 87 injection drug users from other locations where there are no outreach services. Comparison was made using the change in risk behavior at follow up and this revealed that the participants from the outreach locations engage in significant protective behavior and practice injection risk reduction behaviors. Needle use frequency has declined significantly ($p = 0.01$) and sharing has also reduced significantly ($p = 0.01$) among those participants from outreach locations. Alcohol misuse increased significantly among those from the outreach locations ($p = 0.04$). At 18 months follow up whereas only 10.3 % of the persons recruited from locations where there are no outreach services always cleaned the syringes and needles with bleach before using them, 29.8 % of persons from outreach locations always cleaned the syringes and needles before use. There was no significant change in the sexual risk behavior in the two groups.

Personal Network Intervention

Participants: Participants were non-treatment sample recruited from street outreach and they were asked to report at the field station in the outreach location. Upon arriving at the field station, the potential participants were screened for eligibility, namely that they are at least 18 years old, had injected in the last month and shared drugs within the last six months, has a drug sharing network, have a willingness to bring their drug sharing network into the clinic and willing to participate in six group intervention sessions. Those who were eligible were given a baseline assessment and an interview about their personal networks. Participants were asked to list the names of individuals with whom

they had regularly interacted during the past six months including with whom they shared drugs. They were then asked if they would bring the listed people with whom they shared drugs (drug network) into the study. Participants who said they would were randomly assigned to either a control group or experimental condition.

Intervention: Both the probands (Experimental condition) and controls continued to receive the informational outreach intervention provided by SAHAI trust. Individuals who were assigned to the intervention were asked to bring to the station persons with whom they had shared drugs within the past six months. The network intervention was completely based on the intervention procedure developed and evaluated at the SAFE study in Baltimore. The network intervention utilized a self-help peer-led group model. Highly scripted exercises led by recovering addict facilitators trained specifically for the intervention provided a facilitative context for cognitive and behavioral learning using self-efficacy enhancement exercises, clarification of knowledge, exposure of members' risk behavior, and enhancement of behavioral skills involved in AIDS preventive behaviors. The intervention was scripted with components designed to respond to the following sources of resistance: defensive denial of risk, belief that safe partners can be identified, inadequate information about risk reduction techniques, inadequate decision making procedures, lack of detailed behavior planning skills, failures in managing relapse inducing scenes, and failure of the social network to censor the risky behaviors by members. The addict facilitator first focused on the mutual concerns of the network members, identifying health risks to their group and personal risks to each member. The network was involved in a group decision process about reducing risky behaviors and preventing relapse for those risky behaviors that they had already reduced or eliminated. This was followed by step-by-step planning of safer behaviors and plans for group monitoring and reinforcement of safer behaviors of each member with role play to reinforce learning. The group discussed potential impediments to altering risky behavior and methods of addressing these impediments. Each session included activities to enhance skills needed for safer practices and relapse control. The proband has to be present with at least two previously listed members of his drug network for the completion of a successful intervention session. Only those completing a minimum of three such successful sessions were considered for follow up assessment and comparison with the control group. Post-test interviews occurred six months after the completion of baseline interview.

Measures: Probands, network members, and controls were administered on the following: Demographic data, Drug Use patterns and HIV related behaviors. In addition, the social network questionnaire asked participants to list their social network, by giving the names of the individuals in response to specific questions. Participants were asked to list individuals who provided functional support in the last six months in the domains of intimate interaction (sharing personal feelings), material assistance, socializing, physical assistance, positive feedback, and health information. Participants were asked to name individuals with whom they shared drugs in the past six months. We examined the self-reported behavioral outcomes of 97 injection drug users 6 months after the baseline interview. Data from the proband individuals (N=36) were compared with those individuals in the control condition (N=61).

Results: The participants in this study reported a range of drug sharing network members from 1-14. The participants on an average had 4.7 drug sharing network members with a

median of 5. Almost all of this sample of injection drug users have social support networks in addition to their drug sharing networks. There were no statistically significant differences in demographic characteristics at baseline between all controls and all probands indicating that randomization was successful. Injecting drug users were able to induce drug sharing network members into preventive interventions and 36 succeeded in inducing at least 2 drug sharing partners to come in to the study and complete the study in experimental condition. There were no statistically significant difference between the experimental and the control group for self reported drug use and some important HIV related risk behaviors at baseline interview. The two groups were compared at six months follow up and there were statistically significant differences between them in the following: needle sharing and sharing cookers. The experimental group participants shared needles and cookers less than the participants from the control group.

HIV risk reduction counseling intervention (individual level, community based)

Participants: Participants were recruited from locations where outreach services have not been instituted and recruitment was done primarily by word-of-mouth. The idea was to provide community based HIV risk reduction counseling and to evaluate the effectiveness of it. Two standard sessions aimed at HIV risk reduction were organized at the community level and 76 participants completed the two standard sessions. One half of the sample were randomly selected after the second session and received an additional enhanced session focusing on STD counseling intervention. The participants were followed up and the final size completing the 12 month trial design was 67, with 35 in the standard intervention group and 32 in the enhanced group.

Intervention: Standard session: The standard session provided the following: Information on HIV infection and transmission; HIV testing and counseling and training in condom use and needle cleaning and decontamination of syringes.

Enhanced session: This in addition to the components of the standard session provided information on STD risk reduction.

Measures: The baseline assessment included demographic data, drug use pattern and HIV related risk behavior. The follow up data included HIV risk behavior, both injecting and sexual and risk reduction behaviors.

Results: At baseline both the standard and the enhanced group exhibited high levels of risk behavior. There were no statistically significant difference between the two groups for demographic data drug use pattern, drug and sex related HIV risk behavior. After 12 months, in both the groups the participants showed significant decline over the twelve month period in drug related practices and not in sexual risk behavior. Between the two groups there were no differences over time for drug related and sexual risk behavior. Results indicate that standard intervention is as effective as enhanced and additional information on STD risk reduction did not contribute to behavior change.

Maintenance treatment with Sublingual Buprenorphine

Two organizations SAHAI and TTK Hospital have established clinics, which provide maintenance treatment for the established injecting drug users. SAHAI has initiated services at Perumbur in North Chennai and at St. Thomas Mount in South Chennai

following the Rapid Assessment study done in 1999. This initiative is supported by EC and the clinics provide a comprehensive care programme that includes assessment of injecting drug use, primary health care, STD treatment, abscess management, referral to specialist services, HIV prevention counseling and substitution treatment with sublingual buprenorphine.

In a study titled "Drug Use and HIV risk behaviours among injecting opiate users on treatment with sublingual buprenorphine before entering and during treatment" by Mudaliar et al, (2001) presented at the 12th International Conference on Reducing Harm related to Drugs the authors discuss the potential benefit of substitution therapy with sublingual buprenorphine.

The purpose of the study was to examine differences in drug use, sex and other high-risk behaviours among the injecting opiate users recruited for buprenorphine treatment, during and prior to entering treatment. The study was conducted in a clinic supported by European Communities and DOH International offering community based treatment and care for injecting drug users. Current injecting drug users who consent for sublingual buprenorphine treatment provided information on their risk behaviours (past 30 days) before entering treatment as well as the current risk behaviours (past 30 days) during the treatment. Data obtained from 150 clients between the two times were analysed. Subjects were all males, majority hailing from low socio-economic status (92%) and the mean age =29; mean sublingual buprenorphine dose = 3.4 mg; mean weeks in sublingual buprenorphine treatment =25 weeks. Significant declines were observed for illicit heroin use, injection drug use and for those continuing to inject declines were noted for the frequency of injection, needle sharing, visit to common shooting locations and indirect sharing. Significantly more number of drug users in treatment used condom during the last sexual encounter but the number of sex partners was more in the treatment group. Declines were also reported for drug, property and violent crime; percent of subjects engaged in any crime significantly declined. Significant differences were elicited for adverse health consequences like abscesses. Overall, the results support buprenorphine treatment as a harm reduction strategy.

In another paper presented at the same conference, Srivastava (2001) characterised the IDU sample seeking treatment at TTK outreach clinic for substitution treatment with sublingual buprenorphine and emphasized the significant changes in risk behaviour following treatment.

4.4 Buprenorphine Abuse in Chennai

Extent of Buprenorphine Abuse

Since the introduction of buprenorphine into the addicts' network, the drug has become a very popular drug among opiate users. That this phenomenon is not confined to only Madras is revealed by the fact that the abuse of buprenorphine has become widespread in India and reports of its abuse is reported and observed in many parts of India. In Madras, opiate users extensively use the drug.

Since the availability of buprenorphine has become scarce as well as costly, drug users try combinations to enhance the effect of buprenorphine. The misuse of other drugs like injectable diazepam (Inj. Calmpose) and diphenhydramine (Inj. Avil) were very common among the buprenorphine users. The buprenorphine users have learnt over the years that the drug by itself is good in controlling the craving for opiates and one is able to function well with the drug. It is reported by many that the drug by itself does not produce a high and it only helps them to normalize. Since many desire and long for a high, they have learnt that a combination of drugs helps them to achieve the desired effect. The drugs combined are popularly called CAT (Calmpose, Avil and Tidigesic). The drug users generally buy an ampoule of each and the combination of these drugs yielding 6 ml is shared by two or taken by the same individual twice, 3 ml. each time. Another drug used in combination, though not frequently is Inj. Promethazine (Inj. Phenargan). The drugs like Avil and phenargan can be bought in the pharmacies for the actual cost and they are given in most pharmacies even without a prescription. Buying Inj. Calmpose without a prescription may be a problem but a number of pharmacies issue the drug without insisting on a prescription. Also the drug users in Chennai buy the vials containing 10 to 20 ml. of avil from wholesale distributors of drugs in North Madras.

Studies on Buprenorphine abuse from Madras

In a study conducted by Kumar et (1998), a comparison was made between the heroin (N=100) and buprenorphine (N=100) injectors. The findings are summarised below:

Of the 100 heroin injectors, 78 consented for HIV antibody testing and among the 100 buprenorphine injectors 86 consented for testing. The HIV antibody testing was done with pre and post test counseling for the consenting 78 heroin injectors and 86 buprenorphine injectors. 14 of the 78 heroin injectors were HIV +ve and 13 of the 86 buprenorphine injectors were HIV +ve. The seroprevalence rates for the heroin and buprenorphine injectors were 17.9% and 15.1% respectively and comparison of the serostatus of the two groups revealed no statistically significant difference (O.R. 1.23; 95% confidence limits 0.5, 3.03).

The two groups did not differ in age distribution, gender, religion, education, marital status and current employment. They differed only in their places of residence as majority of heroin users in treatment program came from Vepery and majority of buprenorphine users were from Royapuram and this may be to do with the availability of drugs in these geographical locations.

The two groups were studied for drug related characteristics like arrests and imprisonment, previous history of treatment for drug abuse; past 30 days alcohol misuse, cannabis abuse and other injectable drugs (e.g., diazepam, avil and pentazocine) use. There was no statistically significant difference between the two groups for arrests and imprisonment and cannabis abuse. Compared to the heroin injectors the buprenorphine injectors were misusing alcohol ($p < 0.005$) and abusing other injectable drugs, in particular, diazepam and avil ($p < 0.001$). The heroin injectors had more often been in treatment programs compared to the other group ($p < 0.001$).

The drug injectors were assessed for injection related risk behavior and comparison was made for the past 30 days behavior. Majority of the heroin and buprenorphine injectors in treatment were daily needle users and among the daily needle users the heroin injectors inject more frequently ($p < 0.005$) than the buprenorphine injectors. Sharing of needles were more among the heroin injectors ($p < 0.01$) and going to shooting locations was more frequently observed among the heroin group compared to buprenorphine injectors.

Sex-related risk behavior was also compared among the two groups and there was no statistically significant difference between them for number of sex partners, anal sex and sex with commercial sex workers in the past one year. STD infection was reported for the past year more among the buprenorphine injectors compared to the heroin group ($p < 0.05$). There was no significant difference between the two groups for reported condom use during the last sexual act.

In a study on rapid assessment and response to injecting drug use at Madras, Kumar et al (2000) compared the buprenorphine and heroin injectors and found them different in many risk behaviours.

Table (6) Risk behaviour and health consequences by primary drug of use (Kumar et al, 2000)

<i>Variable</i>	<i>Heroin Injectors</i> <i>N = 58</i>	<i>Buprenorphine Injectors</i> <i>N = 42</i>	<i>p Value</i>
Sharing of injecting equipment	47 (81%)	22 (52.3 %)	$\chi^2 = 9.35;$ p 0.0022
Frequency of injection			
1 - 3 times daily	38 (65.5%)	39 (92.8%)	$\chi^2 = 10.28;$
4 & more times daily	20 (34.4%)	3 (7.1 %)	p 0013
Visit shooting locations regularly	17 (29.3%)	2 (4.7 %)	$\chi^2 = 9.54;$ p 0.002
Injecting in dealer's place	21 (36.2 %)	7 (16.6 %)	$\chi^2 = 4.61;$ p 0.0317
Threats of arrests	19 (32.7 %)	3 (7.1 %)	$\chi^2 = 9.31;$ p 0.0023

+ 2 Sex Partners	20 (34.4%)	27 (64.2%)	$\chi^2 = 8.69;$ p 0.0032
Commercial Sex	18 (31%)	19 (45.2%)	$\chi^2 = 2.11;$ p 0.1465
Sexually Transmitted Infections	14 (24.1%)	18 (42.8%)	$\chi^2 = 3.92;$ p 0.0476
Network members 4 & more members	30 (51.7 %)	11 (26.1 %)	$\chi^2 = 6.57;$ p 0.0104
HIV Prevalence	15 (25.8 %)	5 (11.9 %)	$\chi^2 = 2.97;$ p 0.085
HbSAg	18 (31 %)	14 (33.3 %)	$\chi^2 = 0.06;$ p 0.8078
HCV	54 (93.1 %)	34 (80.9 %)	$\chi^2 = 0.36;$ p 0.5495

Sexual risk behaviour among injecting drug users

At Chennai, we conducted a rapid assessment survey of drug use and three hundred injecting drug users were administered a survey that characterized the risk behaviours of them.

Sexual Risk Behaviour

Table (7) Experience of sexual intercourse among unmarried respondents (N=117)

Intercourse	Frequency	Percent
Yes	53	45.3
No	64	54.7
Total	117	100.0

About a half of the unmarried injectors had experienced sexual intercourse.

Table (8) With whom had first sex

Sex partner	Frequency	Percent
Spouse	91	30.3
Friend	16	5.3
Sex Worker	111	33.3
Relative	18	6.0
Total	236	78.7
No sex	64	21.3
	300	100.0

A third of the individuals (33.3%) have had their first sex with a commercial sex worker and about a third of the respondents (30.3%) had first sex with their spouse. A small number of had their first sex with a relative or friend.

Table (9) Age at first sexual intercourse

	Age at Sexual intercourse
N	236
Mean	21.9167
Median	21.0000
Std. Deviation	2.6501
Range	15.00-30.00

The mean age at first sex was 22 years, the median age was 21 years and the range was 15 to 30 years.

Table (10) Sex with Sex Worker

Commercial Sex	Frequency	Percent
Yes	132	55.9
No	104	44.1
Total	236	100.0

Just more than half of the respondents have had sex with a commercial sex worker.

Table (11) Condom Use

Condom use	Frequency	Percent
Condom use	21	8.9
No Condom Use	215	91.1
Total	236	100.0

Only a small proportion (8.9%) of injectors have used condoms during sexual acts.

Table (12) Likelihood of contracting HIV Infection

Risk perception	Frequency	Percent
Likely	87	29.0
Unlikely	204	68.0
Don't know	9	3.0
Total	300	100.0

Of the injecting drug users interviewed, more than a fourth (29%) perceived to be at-risk for contracting the HIV infection and more than two-thirds of the IDUs admitted that they were unlikely to contract the HIV infection.

Table (13) Comparison of Heroin and Buprenorphine injectors for Sex Risk Behaviours

<i>Variable</i>	<i>Heroin Injectors N = 138</i>	<i>Buprenorphine Injectors N = 162</i>	<i>p Value</i>
Sexual Intercourse among unmarried respondents	30/59 (50.8%)	23/58 (39.7%)	NS
Age at first sex	21.8±2.4	22±2.9	NS
Sex Partner at First Sex Sex Worker	43/92 (46.7%)	68/144 (47.2%)	NS
Sex with Sex Workers Condom use Ever	58/92 (63%) 5/92 (5.4%)	74/144 (51.4%) 16/144 (11.1%)	$\chi^2 = 3.1$; p=0.08 NS

The two groups of injectors were comparable for age at first sex and sex partner during the first sexual act. More number of heroin injectors engaged in sex with a sex worker and both the groups had only few injectors whom have used condoms.

Almost all published surveys among injecting drug users indicate continued reductions in injecting risk behaviour, yet little or no evidence of sexual behaviour change. Such research has repeatedly shown that the majority of drug injectors are sexually active; that rates of partner change are relatively high and that there is a high degree of sexual mixing between injectors and non-injectors. Most importantly, surveys show that the majority of drug injectors report never using condoms with their casual partners and their reported levels of sexual risk behaviour are similar to those in non-using populations. Researchers have got as far as exchanging knowledge about the fact that there is a considerable amount of unsafe sex going on but have made few attempts to systematically understand how these risky behaviour may be changed.

4.5 Sex workers

Studies by WHO in 1992 and in the year 2002 by Tamil Nadu AIDS Control Society, assessed the sex workers' networks and their sexual practices (Kantharaj, 1992; TANSACS, 2002). Currently it is estimated that there are about 6300 sex workers engaged in the sex industry in Chennai. Most of the sex workers operate from houses, streets and brothels. Compared to 1992, there are positive changes in behaviour among the sex workers. Their risk perception about HIV is high (71%); their condom use has increased (68% admitted to condom use during the last sexual encounter); and more are in contact with non-Governmental organizations. Similarly, the behavioural surveillance studies conducted by APAC (2001) demonstrate positive behaviour change among the high-risk groups including sex workers. Condom use has considerably soared among the sex workers and the help seeking behaviour has increased among them.

4.6 Alcohol and Sex Work

In the ongoing multi-site NIMH HIV prevention trial on the efficacy of community opinion leader approach for preventing HIV among slum residents in Chennai, it is found from the pre-baseline study findings that visit to the commercial sex workers by the slum youth is often preceded by heavy drinking in the wine shops. It was found that nearly 90% male clients of sex workers come to them after consuming varying quantities of liquor. Ethnographic observations and focus group discussions reveal the close links between alcohol and other drug abuse and risky sexual behaviour.

4.7 Alcohol and HIV infection

Nearly 70% of the male HIV positive persons seen in YRG Care center for AIDS, Chennai have admitted to history of alcohol use. Long distance truck drivers, a high-risk group for HIV infection in India, drink alcohol and the mushrooming of beer bars and wine shops on the highways has facilitated this habit.

4.8 Sex workers and substance use

The sex workers in Madras (Chennai) operate from homes, brothels, cinema houses, parks, beach, railway platforms and autostands. In addition, the use of alcohol and other substances is not uncommon among them. Substance abuse, and in particular alcohol use is very prevalent among clients of sex workers. There is no published work on substance use among sex workers but anecdotal reports indicate that many of the sex workers drink alcohol.

5. Findings

5.1 Female sex workers and their clients

5.1.1 Mapping of sex industry in Chennai, India

Types of Sex workers

The sex industry is widely scattered throughout the city of Chennai. The study established that the sex workers were distributed through clusters in geographical locations. More than about a hundred such clusters have been described during the observation phase of the study. There are no red light areas like in other metropolitan cities like Mumbai or Calcutta.

There were different types of sex workers:

Street based sex workers: Operating from the street, they pick up their clients mostly by themselves. They served their clients in various places – in the cars, houses, apartments, lodges or hotels. Street based sex workers served 1-3 clients per day.

Brothel based sex workers: The sex workers working from brothels had contact with the clients through the part time or full time brokers. There were secret brothels whose identity was not known to the police and anti-vigilance squad, popularly referred to as AVS. The police and AVS knew certain brothels' operation and they were referred as declared brothels. The brothels changed their operational sites often to escape police harassment. Operating regularly, they served about 7-10 clients per day.

Apartment or house based sex workers: Here the sex workers were staying in a small group of 2-3 and an older woman or man stayed with them. This group of sex workers constituted the majority of sex workers in Chennai. They operated in a way that the neighbours did not know their identity and work. They disguised themselves as night shift workers in a hospital, export industry or an enterprise. At times, they kept changing the apartments to avoid police raids. About 10-15 clients visited the house based sex workers in a month. The clients took them to their houses, lodges or hotels.

Mobile sex workers: These sex workers moved about in the vans and/or cars. They contact the brokers or the clients by mobile phone and visit the clients in the lodges or hotels. Sometimes, they even used some residential houses for few hours on a rental basis. Mobile sex workers earned relatively more than the street based, house based and brothel based sex workers.

Brokers

The trend has changed over the years relating to the role the pimps played in sex industry. The street based sex workers have less dependence on brokers and even house based sex workers started to contact their own clients independently. This is mainly to avoid paying a third to two-thirds of money collected to the brokers. At present, there are more part time brokers than full time brokers. The part time brokers were often auto (three wheel vehicles used for transportation) drivers and the clients paid them a small fee. In addition, they shared the drinks with the clients of sex workers and this was a major incentive for them in their part time job. The brokers were locally connected to the sex workers'

networks and operated in certain geographical locations. Majority of brokers – full time and part time were abusing alcohol.

Places of sex work

The sex workers had sex in the following places:

- clients' houses
- hotels and lodges
- the houses of sex workers
- the brothels
- cars and vans
- dark alleys and places not frequented by people

5.1.2 Socio Economic Characteristics of the Sex Workers

The sex workers were in the age group of 15 to 55 and the majority of them were between the ages of 25-35. Majority of the sex workers were poor, had low socio-economic background. Many were married with children. Often they have been deserted by their husbands and needed to support their children and the family. Their monthly income on an average was between Rs. 300-6000 per month and majority of them struggled for their daily lives. Though unhappy with their lifestyle and their profession, they found no meaningful alternative to sustain their and their families' lives. They were living under fear of harassment by police and AVS and many got arrested during their carriers. The frequent change in the residences was an important matter of concern for them.

Primary concerns of the sex workers

- Child care
- Housing
- Finance
- Police
- Health
- HIV/AIDS
- Brokers

The law and policy environment

In India, sex work is illegal. Sex workers can be arrested and punished under Prevention of Immoral Sex and Women Trafficking. The public opinion is also not favourable for a safer sex industry and environment.

5.1.3 Alcohol and Drug Using Women in prostitution

Characteristics of the Women in prostitution

Life history interviews helped to understand the lives of women in prostitution better. Women in prostitution are not a homogeneous category. “Street based prostitutes” occupy the bottom rung in the hierarchy. They are referred as “items”. The individuals on the street represent a huge range in age, education, living status, caste, religion and drug/alcohol involvement. At the bottom of the street scale are the children, neglected and emotionally battered, who are put on the street by their pimps or by the mother or family members. There are prostitutes who operate from the apartments. Many of them are middle class and are helped by an older woman who facilitates in identifying and bringing in customers. Brothel based prostitutes are usually controlled by the brothel owners and pimps help in getting the customers. There are parlours and dance clubs and the parlour girls and the dancers offer services to customers. The dancers tend to change the clubs and hotel frequently and they see themselves as selling recreational sex as opposed to women in prostitution. At the higher level are the people engaged in movies as side actresses and actresses and serve selected customers for a high price. There are women who are short on money and get money by temporarily prostituting.

It is also important to recognize that many women in prostitution are mothers. Whether loved or not, wanted or not, many of the women in prostitution whom we interviewed in the in-depth interviews and focus groups, have children. Often, their only aspirations are for their children. Even the woman, who cared nothing about the body or her future, expressed concern and guilt over her children. Some of the women in street prostitution limited their prostitution to the daytime, not only to avoid the dangers of the street at night, but to be home with their children.

“My only hope is my child. I came to ‘work’ for the sake of the child. I want her to go to a boarding school and get educated. She shouldn’t be like me. I want a good life for her.”

“All my girls have children. They work hard for them. The husbands and/or lovers have deserted them. My girls love the children. They will do anything for their welfare”

A brothel owner’s account

Women sex workers have been often sexually/emotionally and physically abused. They have also been subjected to gross neglect by their family. As children, many of them lacked love, attention, affection and acceptance. Another common factor, both cause and effect of their activities, is an overwhelming lack of ego, sense of self-worth, and perception of any alternative way of life. This characteristic is important in understanding their attitudes about sex, professionally and personally.

“I was raped by own uncle. None cared for me at home. My mother was ill and father deserted us. My friend introduced to me at a time I was desperate for money for my living and basic needs”

“ I am nothing. My body is everyone. I get beaten up. People abuse me and call me a whore. They have money in the purse and I am like a dog begging for their money. I can't do any job. I am incapable and I know nothing except this.”

The concern for their children, for the health and well-being of existing and future children, may be an important element in promoting behavioural change. It is important to take this into consideration in researching and designing programmes for sex workers.

Perceived Roles of the Women in Prostitution

The sex workers interviewed perceived their most important sexual function as providing what spouses, other sexual partners and friends do not like or refuse to provide. A sex worker is expected to satisfy certain needs of the men. While other sexual partners refuse or do not like some types of sexual acts on moral, religious or intimidating grounds, the sex worker accepts the very kind of behaviour professionally. Typically, clients who had alcohol and/or other drugs demanded more often oral sex and anal sex. Also, the clients expected the sex workers to swallow the ejaculate.

“They all say this.. ‘my wife is sick .she will refuse if I ask her to put mine in the mouth. She says it is disgusting. I come only for this’. They want from us what normal girls don't give. Do we have a choice?”

“They are all drunk and say ‘I want to come in the mouth’. They are ready to pay extra cash and it suits us.”

Many clients degraded, humiliated and intimidated the sex workers. They wanted to control the sex worker during the sexual encounter. The exercise of power over the sexual worker was important for many clients and alcohol played a significant role in this type of behaviour.

“ All of them drink and come. Some are bad after a drink. They are like animals. They attack us and want me to do everything. They want to get the best for the money. They burn me with the cigarette bud. We are all afraid of these thugs but we have to face them all the time. You can't escape if you are in business”

Intimacy

Sex workers did not want to become emotionally close to the clients. Some sex workers admitted to use of drugs and alcohol to numb themselves below the umbilicus so that they can take their partners without emotional involvement. They would act as if they were involved in the act but drugs and alcohol helped them to remain distant emotionally.

“I drink because I want to avoid the pain. I am fine with drinks and I don't feel anything there. I let them do what they want. I don't care. It is impossible for us without the drink. All of us need this. Clients are too willing to get us the drink to get us into the ‘mood’. It helps me to forget my pain and worries.”

They promoted clients drinking or using at times so that they can cheat the clients and send them off soon. Collecting money was also easy if they had drinks.

“ I like my clients to drink. Drinking guys are more generous. For them all the notes in the pocket are the same. We get more than we bargained from the clients after drinks. Even the stingiest fellow will get us the best drink we ask for. “

“ I like drunks and they sleep off. Less work and more pay.”

Sex workers did not like to kiss the clients as it was regarded as an act of intimacy and affection.

“ I don't allow them to kiss me and I want only my lover to kiss me”

At times when they were dealing with some regular clients, they got involved emotionally more than with others. Paradoxically, alcohol was used in these encounters to facilitate enjoyment and involvement.

“This guy visits me regularly and when he comes, brings me foreign liquor and we drink, chat, and then have sex. It is always fun - drinks and sex with him.”

Power and control

The subject of control and power in the dynamic between the female sex worker and the male client arose spontaneously in all in-depth and focus group interviews. Sex workers reported that some clients debased them and asserted control physically, sexually, and economically.

“The fact they paid us make them feel superior and they insult us in many ways.”

“They keep demanding more than we negotiated for. We can't do anything, they can be dangerous. I give in and what else to do?”

“We run the risk of being taken away and raped, assaulted and people take all the money also.”

This was more among clients who were drunk. Sexual violence is often related to transmission of HIV as tear of mucosa can facilitate transmission of blood borne pathogens. There was also the risk of sex workers being attacked by a bang of thugs. Many sex workers, particularly the ones working from the street complained that the thugs harassed them. The brothel owners interviewed admitted that they feared the thugs than the police.

“I was standing in the street when a group of people came in the auto and forcibly took me. They were drinking in the auto and they were all smelling of arrack. They took to an abandoned building and one fellow gave a whiskey bottle to drink. While I hesitated, he kicked me and abused me. I drank.. the guys raped me and God, it was a horrible 2-3

hours and I thought I would die..... None used condoms and that was not my concern at all. I was afraid of my life as these rowdies were carrying knives with them. My dresses were torn, I was half naked and they left me there and went off in the auto. I found my way to a nearby hut and requested the woman for a saree to cover myself..”

Money first

On the other hand, women in prostitution admitted to situations in which they were totally in control of the encounters. Drunk clients were ripped of money first and they were happy to have drunks. Many drunks slept off without disturbing the sex workers.

“Most often we know what to do and we get what we want.. the first thing we assess is whether the client has the money and we are too keen to get it first. When he is drunk, many of use would empty the purse.. after all we are in the business for money..”

In other situations, they felt that they were in total control and in a position to manipulate the situation to their own advantage.

“I talk to the client and find out his want and need.. I know how to handle men, that is what we are good at.. most often, we can sense.. we are all experts at that.. when we see danger, we escape. It is not easy to cheat us.. at least those in ‘work’ for a while.. we get cheated in the beginning, not now. I get the best from my client. Talk sweet, get him to drink and I have my way..”

The tricks of the trade and the cardinal rules are:

- Get your money first
- Finish the act as fast as you can

“We don’t like clients taking long time to come. I don’t like the ganja boys.. some youth come and smoke and they don’t come.. how long to do.. it is painful. To get erection itself, they take long time. I demand more money from these clients as they waste time.”

“The other day a youth came and he started injecting something in my presence. He offered me but I refused. I told him I am okay with drinks and cigarettes. He was so wild.. he did come for a long time... he told me that the drug he injected helps him to hold back for a long time.”

“Some people regret that they took the drug.. they don’t get it.. they wait and go, disappointed.”

Types of sexual acts

The sex workers performed several sexual acts to please the customers.

Oral sex

This was the act that was frequently demanded by the customers. There were varied perceptions about oral sex by sex workers and their clients. Many clients believed it is the safest form of sex and most enjoyable. Often cited as a reason for visiting sex workers,

the clients observed that their spouses would not co-operate for and dislike oral sex compelling them to gratify the need with the sex worker. Clients desired to ejaculate into the mouths of the sex workers and were willing to pay more for this. Some sex workers believed that the risk of HIV is more by oral sex. They were reluctant to swallow the sperm unless rewarded with more money. Many sex workers admitted to condom use during oral sex. Only drunk clients, regular clients and aggressive clients like the thugs, police refuse condoms for oral sex and often ejaculated in the mouths. Many sexual workers used 'Mava', a chewable tobacco. The belief is that Mava chewing numbed their mouths and they preferred oral sex following the 'numbing'.

“ The thing in Chennai is everybody wants oral sex.. it is the most important thing for the customer. You refuse it, you have no business.... It is disgusting at times with some clients.. we chew Mava and you know it is very good.. many of do this to tolerate the client and then we start liking it. Now I can't do without it.”

Vaginal sex

Vaginal sex was very common and condom use was normative during the vaginal sex encounters. Drunk clients, violent clients, regular clients refused condoms. At times, the sex worker was drunk and did not insist or negotiate for condom. Some people believed that they have acquired some new skills that would help them in preventing infections. They would prevent clients from ejaculating inside, clean themselves after the act and use soda wash and choose clients for condomless acts. Some sex workers believed that an injection after the sexual act would ensure that they would be free from diseases.

“I forgot the condom as we were both drunk. I realized as soon as I had it with him. Then, I washed with soda and friends tell me that is fine.”

“Clients refuse condoms.. they are too drunk to be told.. the next day I will go to my doc and get an injection to be free from disease.”

Anal sex

Anal sex was another act that clients demanded with the sex workers. Clients believed that their spouses resented when asked for anal sex and they were approaching sex workers for anal sex. Clients felt that anal sex was more satisfying – compared to vagina that was 'loose', the anus was 'tight' enhancing the sexual pleasure. Sex workers did not prefer anal sex, as it was painful, awkward and uncomfortable. They yielded as they obtained more money for the act from the clients. Sex workers believed that in the recent years, the demand for anal sex and oral sex has tremendously increased as the clients watch 'blue movies' and these movies have taught them about new sexual acts and experiences.

“He swallowed something and said he wanted sex through back side.. it was painful for me.. but I got more money.. I didn't think it was necessary to use condom.. but you I know I got a problem.. I go to GH then the doc tells me I have STD..”

“ The drunks, particularly the cops after drinks would come and ask for this.. they only like this..the only time police gives me money is when he asks for my back.”

Group sex

Few clients, usually friends after drinking would take a single sex worker and have sex with her serially or even together. While one performed, others would watch or have oral sex. Condom use was often a problem in these group sex settings. At times, two or three sex workers served a single client in a hotel. Surprisingly, the sex workers preferred this situation as the demand of the client could be met by them easily as well as get paid well for this. Alcohol and other drug use, notably cannabis smoking was invariably associated with these group sex acts.

Talking filth

Many clients just came and talked filth and asked the sex workers to talk filth to them. Sex workers did not mind the act, as they believed they were safe with the customers and got paid as well as for an act. Some sex workers did not like and preferred to have a sexual act and felt it was unethical to charge someone without performing an act.

5.1.4 Sex in various settings

Sex in the street

Street based sex workers had to perform many times in the dark alleys and in places frequented by less number of people. This could be dangerous and the sex workers faced significant dangers from thugs, auto-drivers and at times unsuspected clients often. The street sex workers require the skills to pick up proper clients and in spite of years of street experience still are vulnerable and face potential dangers. They have to protect themselves against rape, robbery and physical assault. Their personal safety and police harassment were more important to them than health concerns and condom negotiations. They always took risk when clients had money in their purse and they believed the risk was necessary for their street survival.

“ I have to take that risk.. you know when he has the cash and I want it desperately, I have to take that chance... I can't avoid saying that he is drunk or like that, because everyone who come to us is drinking or taking something.. we can't ask them not to do it.”

“ When I know it is dangerous to refuse, I accept anything from my client and escape from the situation”

Sex in apartments and house

House based prostitutes were picked up by the clients and taken to their houses or at times clients visited the houses of the women in prostitution. Alcohol was available in most of these places and condom use was a problem with the regular clients. Approximately, one third of the clients to the house based prostitutes were regular clients.

“This fellow keeps coming to my house.. I know him too well. He does not sleep with anyone except me.. he says he loves me.. often tells that when he has enough money, he will marry me.. after drinks, he will share all sorrows with me. I don’t use condoms with him..he is not like everybody who come to me..”

Sex in lodges and hotels

The clients picked up the sex workers and landed in hotels and lodges. The lodge boy was always ready to supply the clients alcohol. Indeed, the lodge boys were too keen to supply all kinds of alcoholic beverages; as this was the main source of income for them. They depended more on the clients and their tips as the hotel management paid them very little. The boys also preferred drinking clients, as drinking clients were more liberal in parting with money.

Sex in brothels

The brothel based sex workers served many clients on a daily basis and worked on almost all the days. The brothels were changed very often to escape raids. Controlled by brothel owners, the sex workers got their clients through the part time and full time brokers. There was a rapid exchange of partners in the brothels and the efficiency of HIV and STI transmission is very high in these places. Alcohol was available in the brothels and the nearby places and clients came to brothels after drinking.

“Bars have the brokers and send the guys to us.. many of our clients come from a nearby wine shop”

5.1.5 Condom use and safer negotiation

Tools of the trade –the condoms

Commonly referred to us “Urai” in the vernacular, the condom use is prevalent with the sex workers. Almost every sex worker interviewed admitted to condom use. It appears that it is a norm to use condom among the sex workers. The sex workers insisted on condom use with the clients – more so with the new clients. While it was normative, the group norms were deviated by some sex workers always and many sex workers at times. It is difficult for majority of the sex workers to use condoms consistently with all the clients and others. There were several situations in which the condom was not used.

Negotiating with clients high on alcohol or drugs

The most important reason cited by the sex workers was intoxication. Most clients drank alcohol before, during and after the act. It was almost a norm that alcohol use facilitates and helps in sexual encounters and this perceived norm is responsible for many clients to consume alcohol before the commercial sex encounter. Alcohol may also serve to disinhibit clients and helps them to approach the brokers and sex workers easily. While intoxicated, they forgot to procure condoms. They cared less now and despite knowledge, indulged in risky behaviours. Previous skills and knowledge was not helpful as we know clients who did not use condoms following intoxication were previously involved in HIV prevention activities including condom distribution. Intoxicated sex workers engaged in high-risk sexual activities and did not insist on condoms. Aggression was another factor often related to alcohol use and in our settings, it is again an accepted norm to be

aggressive and masculine under the influence of alcohol. Aggressive clients forced sex and condom was not used in these aggressive situations. Negotiating for condoms with the clients 'high on alcohol and/or drugs and behaving aggressively and peculiarly' can be difficult. Choice between safe sex and personal safety ends with a compromise on condoms.

"The problem is drinking.. I was drunk the last time and then I told him, come and let's have.. I cared less for condoms.. you know I served as a peer educator for several months.. it is a shame but you can't help it when you are high.. you teach people like us about drinks ... drinks is going to kill us in all possible ways."

The condom use can only be facilitated in these settings by working at many levels. The wine shops can have condoms for the drinking client to procure it easily when he suddenly decides about sex. The broker can begin conversation about alcohol and hand over the same as often the brokers too share alcohol with the client before he has the appointment with the sex worker. The lodge boy is in a position to give the condoms to the client who has forgotten to bring in a condom. Finally, the sex worker should be in a position to insist on condom with her partner.

Pay more money

More money is attractive to the economically starved sex worker and condom use can be traded for the extra cash. Clients believing that condoms interfere with sexual pleasure were willing to pay more money to avoid condom use. Myths and wrong beliefs about safe sexual behaviour and protective acts placed the sex workers in potential danger by not adopting safer sex norms and not insisting condom use all the time.

"When he tempts me with money and drinks, I compromise on the rubber"

Bad quality condoms

Bad quality condoms 'tear' and bad experience with a poor quality condom made sex workers to become skeptical about condoms themselves. Assuring quality control was extremely important.

No condom for certain sexual acts

Many myths and misbeliefs surrounded the sex workers and the clients. Oral sex was considered to be safe sex by clients and many clients did not know the dangers involved in anal sex.

" My madam told me I can him in the mouth .. don't need condom she told me.. I believe her.. she knows what she is talking.."

Condom and affection

Condom use with regular clients

Affection and condom use have inverse relationship. Regular clients were thought of as 'close' and 'affectionate' and this increased the bondage. The level of intimacy was greater and the sex workers did not think it to be 'right' to use and insist on a condom

with these regulars. The risk perception was also low with them and their appearance and behaviour did not suggest to them they have any disease.

Condom use with regular sexual partner / spouse / pimp

The sex workers lived often with a sexual partner or a spouse or at times the pimp himself. They did not believe in using condoms with them. They were their 'men' and condom interfered with their intimacy and trust. Condom use is not acceptable if you love a person. "You share with him love, roof, food and children and so why bother about a barrier like condom" was the reply often heard from the sex workers when enquired about condom use with spouses and regular sexual partners. "To us sex with the others is 'work' and the real pleasure in sex is with our men – condom use is not okay with them- why use it with your men" was the answer we heard from the sex workers. Their knowledge that their men were sleeping with other women did not deter them from not using condoms. It was not uncommon for them to have drinks with the sexual partners. The spouses of injecting drug users who sell sex to support their disrupted and often chaotic lives also did not use condoms with their active injection drug-using partner.

Knowledge, Attitudes and Behaviours related to AIDS

The levels of awareness about HIV/AIDS were high among the sex workers. The risk perception was also high and condom use is more prevalent among sex workers. About ten organizations are working with sex workers in Chennai and their work has positively impacted on the behaviours of sex workers. About a fifth of the street recruited sex workers we interviewed in the study have been in touch with the non-Governmental organizations. Since the sex workers were scattered in the city rather than being concentrated like in Mumbai or Calcutta, it is a challenge to plan effective interventions that can reach all of the hidden populations.

5.1.6 Social networks of sex workers

Role of the pimp

Many pimps are able to recruit many young women and lure them into sex work. They promise love, security, protection, money, comfort and concern... everything denied to the abused or battered person. Their keeping-power is said to be any combination of fear, affection, sexual attention, and the fathering and control of a prostitute's children.

The women who belong to a pimp vie for his attention and sexual favours, competing to be his "main woman". In spite of abuse, some women in prostitution cling on to the pimp for want of security. It is difficult to explain the sexual relationship and attachment with the pimp. The woman has no attachment whatsoever with her stream of customers, but the pimp belongs to her. They often drink with them and enjoy sex with them. Many pimps were addicted to alcohol and/or drugs and the only source for them is the women in prostitution. Pimps needed them to get the money for the drinks and drugs.

" All of us are addicted to something or other... we get a new woman, first we test them and then only send for others. It is us who teach them the trade and we ask them to drink.

We begin them with beer and then they go further on.. I know all girls drink at some point. Many are addicted also..”

Role of peers in disseminating information

Many of the women in prostitution interviewed opined that they would be willing to get information from the following: peers, health professionals and doctors. They were most comfortable talking to a peer about sexual behaviour and practices and were most willing to learn from their peers about safer behaviours and practices. The women in prostitution themselves are an important resource in developing a community based strategy. Their information and suggestion have to be used in conjunction with the information and advise of local health officials, NGO representatives and law enforcement personnel.

5.1.7 Settings of alcohol use

Wine Shops

Wine shops are analogous to bars/pubs in the western context. Spread across the entire city, there are about six hundred registered and licensed wine shops in Chennai city.

- Wine shops are enclosed units in an average area of 300-400 square feet
- Alcohol is the primary commodity sold in the wine shops. However, most wine shops also offer snacks and more elaborate food items. These are served in bars adjacent to the wine shop or in a section of the enclosed wine shop area.
- Often, food kiosks and small convenience stores (selling soft drinks, cigarettes and sometimes condoms) are located near the wine shops. There are also auto-rickshaw (three wheel vehicles for transportation) stations near the wine shops.

Observations were carried out in wine shops that were proximate to the sex work places. In these settings, wine shop workers/auto-rickshaw drivers/vendors served as part time brokers.

In order to understand the context and determinants of alcohol-related HIV risk in wine-shops in Chennai, we conducted participant observations, in-depth interviews with wine-shop customers, sex workers, and clients of sex workers, bar-boys and wine-shop owners. Overall, we found that wine shop customers have drinking networks, often engage in extramarital or premarital unprotected sex and that alcohol increases sexual risk behavior. We divide our findings into two main sections: 1) Social interactions in the wine shop; 2) Evidence of HIV risk behaviors.

Social Interactions in the wine shop

Findings revealed that over three-fourths of the patrons reported either coming to the wine shop with friends or meet friends at the wine shop. Most of the patrons know many patrons at the wine shop. Typical topics of conversation include cinema and entertainment/sports, personal matters or nothing of importance. Other than their friends, they talk primarily with the bar boys. When asked who they would prefer to discuss

personal and sexual matters, they reported their friends. With respect to expenditures on alcohol, many spent disproportionate portions of their daily income on drink.

The wine shop is a venue for meeting and socializing with friends. Wine shop patrons often have a group of friends with whom they go drinking and engage in post-drinking activities like commercial sex on a regular basis. The following characteristics emerged from interviews:

- Most personal social networks are formed outside wine shops and use wine-shop as a place to socialize.
- Networks consist of neighborhood friends, colleagues, schoolmates and less frequently, family members.
- Men go to pimps and sex workers on friends' referrals.
- For unmarried males, going to sex with sex workers is often a group activity.
- There is higher frequency of soliciting sex work when people drink together.
- Unmarried men often get drunk with friends before going to sex workers, since with drinks, "we get that extra courage."
- Groups sometimes drink alcohol with a sex worker. According to respondents, 'Getting her drunk' facilitates their sexual desires and fantasies since sex workers may not agree to everything in a sober state.
- Sometimes, friends go to the same prostitute together: "when one finishes the other person goes in." The cost for the sex worker is shared among the group.
- Peer pressure encourages risky behavior. Men often encourage each other to engage in riskier sex in order to get "more for the money." Such activities include group sex, unprotected sex, continuing to have sex even if after a condom tears.
- Wine shop patrons report that often alcohol makes an individual or group of individuals more aggressive. Groups who drink together may attack an individual (personal vendetta). Individuals may take out their aggressions in sex and have forced sex with female sex workers or wives.

Sexual behavior

Every patron whom we approached gave a history of ever having had sexual intercourse, whether married or single. The most recent partner with whom they had last had sex with was a wife; casual partner; steady partner, a sex worker, or other.

Sex workers serving the wine shop patrons

- Sex workers who live near the wine shop are often connected to wine shop gatekeepers (wine shop sellers, auto rickshaw drivers, nearby lodge owners).
- As these networks take time to establish and sustain, sex workers are usually loyal to certain wine shops. Thus there are cluster-specific sex workers.
- Sex work is largely territorial. However, a prostitute also caters to other clients such as married men who are not wine shop patrons.
- Soliciting clients occurs directly and indirectly: through pimps "there are brokers hanging around the wine shops to facilitate this." Or by hanging out at bus stops and lodges near a wine shop.

- While most sex workers emphasized the importance of using condoms in order to prevent HIV/AIDS, condoms are not always used.
- Although sex workers are aware of AIDS and STDs, they ‘prevent’ this by taking ‘injections’ from doctors the day after an episode of unprotected sex.
- Inebriated clients may force sex workers to have non-consensual and violent sex.
- Some wine shop clients bring alcohol to sex workers to get them drunk.
- Sex workers report drinking often – to ‘withstand’ their work, to ‘overcome shyness’ (SW: *“This is because only if I drink could I have sex with some man without inhibition”*).
- Sex workers report a range of STD symptoms – burning, foul smell itching, sores in their genital area. They report seeking treatment for these symptoms.

Extra-marital sex among wine shop customers

- Sex workers are the primary partners of men who seek extra-marital sex.
- Reasons for infidelity are feeling “bored” with wife: “he was eating at home and now they eat at a hotel” or that “his wife is not satisfying him in bed.”
- Wine shop patrons distinguish between ‘good’ women and ‘bad’ sex workers. Good sex workers are those who have families and work in the sex trade in order to support families. They do not have sex with many people, usually have sex in their home and do not oblige non-normal sexual needs (i.e. oral, anal sex). “Bad” sex workers have many clients, consider sex work as their primary income and will freely indulge the patron’s sexual needs for money.
- Sex with good women need not be protected. Sex with ‘bad women’ is often unprotected.

Condom use

Majority stated they had never used a condom with their wife; many never used condoms with casual partners, ‘steady’ partners, but only a few reported never using a condom with a sex worker, although many were not consistent condom users.

Men

- Most men are aware that condoms can be used to protect themselves from HIV/AIDS.
- A few men stated that condoms could also be used to prevent pregnancy and create spacing between births
- Although men indicated that condoms, in general, were “good” perceptions of when condoms are needed, varied by partners. Overall, men believed that condoms should always be used with risky partners.
- There is a tendency to downplay potential risk of sexual partners: “she is homely” “I know when I see them if they are risk party or not” “she is nice.”
- All married men stated that they never used condoms with wives.
- Most men do not use condoms with non-commercial partners, since they are perceived to be “safe.”

- The vast majority of men felt that condoms should always be used with sex workers: “Some [sex workers] may be sick, some may be infected. To such people we have to necessarily wear the condom”
- Of those stating that they used condoms with sex workers, many admitted that they did not use condoms consistently.
- The most common explanation for not using condoms was the spontaneous nature of a sexual drive: “Suddenly when the mood comes I will go.. that's all. Rather I may not know that I will be going (to have sex) today. If I had known probably I would have purchased it (condom) in advance. By the time I go it will be 11 or 12 in the night and where to search for condom at that time. There is no chance of purchasing it anywhere at that time.”
- The reluctance to use condoms also stems from the feeling that condoms reduce pleasure: “When two people's body touch each other the heat will be there. If ‘that’ is worn that heat will not be felt.”
- Some complained that condoms were uncomfortable to wear: “I did not like the feeling of sex wearing a condom and it did not set well...since its soft and slippery, I do not like the idea of wearing it on me.”
- When condoms were used with sex workers, it was often at the sex workers’ initiation: “When I go they will ask me to wear...If I don't listen to them they won't oblige to me, so I will wear”
- A few men explained that they only used condoms with “a third rate prostitute” (cheaper is equated with riskier).

Sex Workers

- Almost all sex workers stated they try to use condoms with new customers to prevent HIV/AIDS.
- Most do not use condoms with “regular” clients or partners.
- Some sex workers stated that occasionally they were forced to have sex without a condom.

Domestic Violence

These male wine shop patrons quite commonly reported violence. Many reported that they had beaten their primary partner and stated that they had been drunk at the time. Some reported that they had forced their partner to have sex without their consent and reported ‘violent sex.’

Communication about sex and sexual health matters

Discussions about sexual matters and AIDS/STD and condoms are also rare.

5.1.8 Perceptions about drugs by sex workers and clients

Perceptions about Alcohol

Clients

- The community accepts occasional drinking among men; however, excessive drinking is considered inappropriate. Drinking is considered excessive if it interferes with family and work obligations or is disruptive to the community (e.g., results in street fights).
- All men had drunk alcohol, at least once; drinking among men of all ages is considered common. It is very common to go to a wine shop after work daily to “get rid of the pain” from work: “It is the culture to drink.”
- Most men consumed alcohol between four and seven days a week. A few men stated that they drank less frequently- between a few times a year to once or twice a month.
- For frequent drinkers, drinking often interfered with their family obligations: “I spend all my earnings of the day on this. My people at home suffer but when I drink I do not realize all this.”
- Frequent or regular drinkers stated that drinking was out of sadness or frustration and a way to reduce “mental worries” and “body pain.” Sources of mental worries included: unsuccessful love affairs, family problems, marital problems, and financial problems. “Whatever the problem we have we will forget it”
- Occasional drinkers only drank when they had sufficient funds and did not drink when they had other obligations: “I never drink during my work timings.”
- Occasional drinkers referred to drinking as a social activity that allowed men to have fun with their friends and celebrate—to be “jolly.”
- Alcohol is believed to increase sexual drive and to enhance sexual stamina: “Only when I drink do I get that sexual urge.” Although, several men stated alcohol had the opposite effect on them.
- After drinking, men will be more likely to visit sex workers: “I have been to prostitutes at least thrice and this is due to my drinking or else I would not have gone.”

Sex workers

- Women do not purchase alcohol or drink in public.
- Most sex workers drank occasionally.
- A few women, all sex workers, drank on a daily or regular basis
- Most sex workers drank daily, specifically if they were with customers. These women stated that they drank when their customers asked them or offered to buy them liquor: “If throughout the month the customers take me then I will drink the full month. If not, I will not go that much... If they buy me something I will drink.”
- Sex workers attributed their drinking to their need to relax when they were with their customers: “The customers are coming, if it is our own person then it is ok. If it an outsider whom we have not interacted with, we have not spoken before they come suddenly. Then I will get the shy. If we drink then we will not feel anything”

Perception about heroin and buprenorphine

Clients

- Immediately following treatment, many heroin and other opiate users had an increased sexual desire and they fear to have sex with their regular sex partners, instead, visit sex workers.
- Even while on drugs, opiate dependents often worry about their sexual potency and want to test their potency by a visit to a sex worker.
- In the early phases of their addiction career, many dependents admitted to excessive sexual desire with better performance under the influence of drugs. It was suggested many a times, this was a critical factor in the continued use of drugs. Sex and drug use was linked closely in the early stages.
- Many opiate users indulged in sex after consuming alcohol.
- Buprenorphine injectors reported intact sexual desire even after continued use and they also abused many other drugs including alcohol.
- Their lack of sexual interest made them to try different sexual acts – in the belief that these acts would help them to achieve desire and orgasm.
- They admitted to bartering sex for money to get the drugs. Even though they were not gay, they didn't mind indulging in homosexual acts like oral sex and anal sex to get money for drugs.
- The marginalized dependents lived in the streets where they were proximate to the street based sex workers.
- Some dependents reported that they had experienced homosexual acts while in prison and police custody.

Sex workers

- Opiate use was relatively uncommon among the sex workers in Chennai.
- Few sex workers admitted to opiate use. Their clients or pimps had introduced them to the habit.
- A number of sex workers in certain locations are spouses of injecting drug users.
- Among the sex workers opiate injecting was considered as a deviant act whereas alcohol use was normative.
- Few female sex workers were addicted to heroin and they bartered sex for drugs.

Perception about Cannabis

Clients

Clients using cannabis and visiting sex workers believe that smoking ganja (cannabis) would enhance sexual desire and performance.

They perceive intensified orgasm under the influence of cannabis.

They prolong the sexual act and are able to delay the ejaculation for a long period.

Sex workers

- Clients took long time “to come” after using ganja (cannabis).
- Cannabis users were not aggressive and violent unlike the alcohol users but demanded different types of sexual acts.

5.2 Male sex workers and alcohol, drug and sex risk

Male sex workers are of different types:

Alis (Hijras): Biological males who have changed their gender role to be females. These have many times undergone operations to change their external genitalia. They have strong community ties live cohesively in groups. It is estimated that there are more than three hundred Alis in Chennai and most of them are entirely dependent on sex work. Alis have a high number of paid sexual encounters with 'heterosexual' men. They also tend to travel to other parts of the state and country often.

Kothis: These are men who have sex with other men and they haven't undergone any operations for changing the genitalia.

Bisexuals: These men with bisexual orientation sell sex to male clients and often are married and live with their spouses.

5.2.1 Characteristics of male sex workers

The male prostitutes are selling sex primarily for money and unlike the women in prostitution many of them seemed to like what they were doing. A good proportion of them experienced a homosexual act early in their life and the initiation to a sexual act happened at an earlier age, i.e., 10-13. Some of the interviewed opined that their schoolteachers and close relatives initiated the first homosexual act, triggering interest in same sex. Having experienced many homosexual acts during the early adolescence, the youth have learnt that this could in addition to pleasure bring them money to look after their lives. They are usually in the age group of 18-40 and belong to lower socio-economic groups. Some of held some part time jobs like salesmen and working in enterprises and shops. They used the workplace to pick their clients.

The different types of men having sex with men (MSM) selling sex to other men are:

Donga: With a feminine characteristic, these men prefer receptive anal sex and perform fellatio for the other men.

Panthi: Men with masculine identity undergo fellatio and are inserters in anal intercourse. Often they pay the dongas for sex. Some Panthis also at times sell oral sex.

Double Decker: These men like sex with other men and are both receptive and inserting partners in anal sex. These men also have sex with Alis.

5.2.2 Settings and clients

They usually hang around alone near some specified locations known as cruising points (eg., near the Marina beach). They were referred as 'Nine' or 'Pottai'. The clients take them to hotels and lodges mostly. At times the acts take place in the houses of the clients. Cars and vans are also used frequently for sexual acts. Some of the workers operated from the houses where they rented and lived. The neighbours did not know what the bachelor was doing and it was relatively easy for him to bring his guests home without nay hassles. Quick acts, in particular, oral sex was performed in public places like behind some big buildings, beach and in dark alleys. The clients easily identified them from the way they 'looked and walked'.

There are different types of clients. The clients are from the ages of 15-70. As one sex worker remarked 'as long as they had erections, they kept coming – the last one I had was easily +60s and he wanted more and more. He was demanding passive anal sex'. The clients are from all socio-economic groups, religions, professions and places. The clients included Africans studying in Chennai, businessmen traveling from other States, rich upper class persons, ordinary workingmen and migrants. Some of the workingmen, in particular, working in the shops sold sex to their owners and rewarded with gifts and less work in the jobs. Some people were hired by the owners solely for this purpose as one worker remarked that he was being employed in a jeweler shop and he was expected to be in the shop at the closing hours. He was recruited as an accountant to verify the accounts at the end of the day for others, but with the shutters down in the night, the owner had sex with him on a daily basis.

5.2.3 Types of sexual acts

The types of sexual acts performed by the male sex workers were varied:

Oral Sex

Oral sex was sought by the clients frequently. Most clients demanded them to perform oral sex on them. The clients wanted the sex workers to 'drain them' and 'suck them'. The expectation was that they would swallow the ejaculate. Most clients have used some form of psychoactive substances. Cannabis, heroin were cited often other than alcohol. There was sharing of drugs between the client and the sex worker. Both drank, smoked cannabis often. Many sex workers felt that with cannabis the ejaculation was delayed considerably and the orgasm was more enjoyable. Condom use for oral sex was inconsistent.

Anal sex

Anal sex was the next common act desired by the clients, in particular, in the ages of 25-35. Condom use was more common with this act. Receptive anal sex was more common than passive anal sex. Sex workers observed that many clients came under intoxication and some tended to become aggressive and performed violent sexual acts on them. Some of them have beaten them and caused physical bleeding injury.

Thigh Sex

Some of the clients only wanted thigh sex and would insert the penis between the thighs and no condom was insisted for this act. Alis refer to this act in their circuits as *sapti* sex.

Group sex

Compared with the women in prostitution, there were more narrations about group sex. Male sex workers at times handled many clients at the same time. They performed oral sex on several friends serially. At times a group of male sex workers were invited to a house or lodge with groups of males or males and females and group sex happened in such settings. In these settings, drugs or alcohol use was always associated. Many a times, these were very high-risk settings, with rapid exchange of partners and unprotected sex.

Other sexual activities

One of the interviewed described a scenario in which some clients preferred to take male sex workers to their homes and asked him to have sex with him as well as his wife. All of them drank heavily and this repeated for many occasions. The reason for preferring a sex worker instead of other woman was that the man believed that sex workers do not exploit the situation and blackmail to demand money.

5.2.4 Reasons for preferring male sex workers

There is no problem taking a man to a hotel: Many clients believed that it is easy to pick up a male sex worker and go to a hotel. It is considered as normal and nothing deviant if two males checked into a hotel for a night or for a few hours. Similarly, a male visiting the male sex worker's house also did not raise the eyebrows of the neighbours. Whereas picking up a woman posed a lot of problems, this process was easy and did not attract attention from others.

Some men desired men only: Some men were having clear gender preference and sought the male sex workers. These men preferred both receptive and passive sexual acts and oral sex. Many of these men are married, and they came long distances to gratify their sexual needs.

Desire for oral sex and anal sex: Men preferring oral and anal sex found it difficult to negotiate with female sex workers for these acts. They were reluctant or demanded more money. The clients believed that the male sex workers conceded to their needs happily as well as satisfactorily.

Flexibility: The clients believed that the male sex workers were flexible and willing to experiment.

Drug use: Whereas drug use was not easy with the female sex workers, the drug using clients could safely use drugs in the presence of male sex workers as well as share with them. The smoked cannabis together, injected or chased heroin jointly. In group settings, drug use was easy with male sex workers.

Hanging in the street: The male sex workers hang around longer than the female sex workers making it easier for some clients who come late.

Experimentation and comfort: Male sex workers were considered to be comforting and taught the new clients the nuances of sex. Some unmarried men visited Alis before the marriage to gain experience in sex to satisfy the prospective wife.

Handling shyness: Some men were shy and inhibited with women and these men were at ease by the male sex workers.

5.2.5 Condom use

Condom use was inconsistent for oral sex. Though the trend is changing, many sex workers admitted to non-use in many settings. Notable among the situations is intoxication of either the sex worker or client. All the barriers noted in the section on female sex workers hold true for male sex workers too. Condom use with the regular partner or boyfriend was low.

5.2.6 Substances used by the male sex workers

- Alcohol
- Cannabis
- Heroin
- Buprenorphine
- Sedative hypnotics
- Mava- chewable tobacco

Majority of clients used alcohol and / or other substances.

Use of substances jointly during the sexual encounter is common.

5.2.7 Power and Control

The issues of power and control are important among the male sex workers also. The sexual encounters with thugs, groups of aggressive often intoxicated men and the police can be unsafe and dangerous for the health of the male sex workers. One of our interviewees narrated the following:

“ I was in the beach at nine in the night looking for a customer. After all it was a bad day and I have no money left with me and desperately looking for someone from five in the evening. Suddenly a policeman appeared and started asking several questions. That led to a search operation and found that I had about ten condoms in my possession. That was enough for him to beat me and drag me to the police station and booked me in the Prevention of immoral act section. I was severely beaten by him and left in the cell in the police station. Feeling sick and exhausted, I was lying down only to be woken up by another policeman on duty. I was nervous and was not ready for another round of bashing. Strangely, he was kind to me and offered me food and a drink (whiskey). I was totally stunned by this nice behaviour from a cop. Then came the big surprise. He promised me that he would get me out the next morning withdrawing the case. He requested me to make him happy for the night. We had anal sex – of course unprotected (all the condoms I had had been seized by the policeman who arrested me) through the night. Next morning as promised I was released before the sun set.”

5.2.8 Channels of communication

The behaviour change with this group has been remarkable over the time. Non-Governmental organizations working with this group have established very good rapport with the community. Many of the men having sex with men have been recruited as outreach workers and they are doing excellent job in reaching out to the hidden population.

5.3 Injecting drug users as clients of sex workers

5.3.1 Risk perception

For the injecting drug users the priority was not sexual risk. In the context of their daily life, the sexual risk was assigned less significance. The heroin users were most worried about withdrawals, police harassment, overdose and daily problems of life.

The daily life of opiate users

Drug users spent many hours of each day locating and purchasing illicit drugs and procuring drugs can be a tedious and time consuming activity. Even on a good day, many hours are expended chasing the elusive quality drugs or else waiting around for the dealer to materialise.

Ranga lives in Purasawalkam. He is using heroin for the past four years and he is injecting heroin. He describes his daily life:

"It is really tough. I just spend enormous amount of time hunting for the dealer. It was easy when the drug was available in Vepery. There wasn't any hassle getting the drug. It is becoming tough.. they keep shifting the place. I spend a lot of money on autos, it is costing a lot. Again, I need to wait long hours for the dealer to arrive in the scene. You know last week, I spent seven hours hunting for the drug. I was desperate at the end of the day. Some dealing places are not very safe. I am tired of it.. I cannot hold a meaningful job because of this".

Raising revenue for illicit drugs is an integral part of the drug user's daily routine.

Some traded on the streets, selling for instance "...clothes and shoes to buy drugs". It was common for drug users to sell their own possessions to finance their drug habits, as was the case with a heroin user from Ashok Nagar who had recently "...sold television, two-in-one music system and perfumes."

Similarly, individuals would exchange goods (either stolen or personal possessions) for drugs. This practice was confirmed by one dealer in Ayodhya Kuppam who said, "people offer me goods etc. (in payment for drugs). I might take something if it's sellable".

Given the high costs of maintaining a drug habit, it is hardly surprising that regular drug users resort to criminal activity. This can range from common activities such as shoplifting, burglary, vehicle thefts and credit card fraud, to less common activities such as robbery and mugging. Criminal activity also occurred between drug users.

It is important to note that not every drug user is involved in illegal activity to raise revenue for their drug use. However, as the case of Krishna illustrates, once drug use becomes regular and habitual, few are able to support the habit only with their earnings.

"Krishna is employed in an advertising agency as a creative artist. He has been using cannabis for the past fifteen years and heroin for the past eight years. He spends almost

all the money earned on heroin and he finds it difficult to maintain his habit with his salary. To support his habit, he supplies to some of his drug using friends heroin and makes money."

Some drug users used their jobs to cheat and extract money from the customers. Raju is an auto driver at airport and he confessed to cheating customers to get the extra money for drugs.

"I wait in the airport and look for to a customer arriving from a foreign land. I prefer the foreign tourists who arrive in Chennai airport. If they don't have a hotel pickup, I target them. To take them from the airport to a hotel in Chennai - normally it may cost only Rs. 150 - I cheat and charge the client twenty US dollars (Rs. 900)."

Although some individuals were established as drug dealers, user-dealing was the commonest means by which drug user would operate within the drug market to ensure their drug habits were satisfied. Simply, this would entail buying and selling drugs and accruing profits in the form of drugs that could then be used for personal consumption. Another means of purchasing drugs was by "scoring for others."

"Venkat is an opiate user who had been in the drug scene for over a decade. He is now using buprenorphine injections along with diazepam and avil injections. He does not have a regular job and he lives with his sister. He supports his habit by selling the drugs to his peers. He has a network of using friends who are also dependent on buprenorphine, diazepam injections. He travels to Thirupathi, a neighbouring town on a weekly basis and gets the injectable preparations from a pharmacy and gets back home. He makes profit by selling to his friends. He does not see himself as a drug dealer and he believes that he is helping his own set of drug using friends who otherwise would be running around and spend a lot of money to procure their regular supplies".

"David injects heroin and has a good contact with a drug dealer. He can call his dealer's cellphone and fix up time and place to collect the drug without much problem. He has his two-wheeler and he is mobile. He has been in the drug circuit for a long period. He has several friends who hail from middle and high socio economic groups. The boys are reluctant to go to the scoring places fearing harassment at times. David scores for them. He believes that he is not making great profit - just gets his drug free in the process"

The drug user lifestyle is fraught with dangers and pitfalls. Community-based interventions must take into account the many pressures on drug users and be aware of the types of lives they lead. Lifestyle factors such as employment will lead to different patterns of use and daily routines for drug users. This highlights the need for interventions, especially those aimed at encouraging protective strategies and healthy lifestyles, to provide services that are accessible and flexible to the needs of specific groups.

5.3.2 Sexual behaviour of injecting drug users

Our qualitative research among injecting opiate users in Chennai aimed to investigate the sexual behaviour of heroin users, paying particular attention to the negotiation of sexual safety. First, we aimed to describe the social meanings heroin users attached to risk and risky behaviour. This allowed us to examine risk perception associated with behaviours known to carry a risk of HIV transmission (e.g. unprotected sex) as well as risk perception associated with behaviours, which carried other dangers. Second, we aimed to better understand the social processes by which heroin users attached meaning to what they, and others, saw as risky behaviours. Taken together, we describe what heroin users perceived to be risky, but why and how, on a day-to-day basis, certain behaviours were perceived to be more risky than others. To achieve these aims, we undertook inductive interviews and observations with users of opiate drugs, the majority of whom used heroin and/or buprenorphine. Those participating in the study were male injectors, the majority of whom injected regularly or daily.

5.3.3 Sexual Risk

We noted during the qualitative research that in the context of everyday injecting drug use, the HIV risks associated with injection and sex may be seen to be less immediate or important than other risks, such as the risk of overdose, vein damage or addiction. For many drug users involved in the regular use and/or injecting of opiates, the health risks associated with sexual behaviour were often viewed as less important than the health risks associated with drug use.

Many drug users didn't attach much significance to sexual risk.

" I guess my sex interest is declining. My concern is about withdrawals and I am always looking for my fix. The last time I had sex was with a sex worker two weeks ago. I was worried about becoming impotent.. I wanted to test my potency.. how can I attempt with my wife. It is better to try and work it with a sex worker. I did that.. somehow she helped me to come through successfully. I am a bit relieved now."

" I don't have sex like before. I don't seek woman.. my erections are weak. Moreover, I am always running around for drugs.. no time to look for a woman. Also, I am not sure of my potency. I tested with a prostitute the other day –it was a disaster."

"We drug users are at risk because of dirty injections.. sex is no problem .. we guys don't have enough sex.."

5.3.4 Condom use

" Condoms .. it depends. I don't care to use with some of my partners. I know they are clean.. she is not skinny, not dirty, not looking sick, she is in fine health.. she is not a sex worker.. she is a family girl. Why should I fear. AIDS is all about sex with sex workers."
"Condoms are a barrier to good sex.. I hate them"

"I don't talk about condoms to my wife.. it is lack of trust. She will think that I am sleeping around..I use with prostitutes only"

5.3.5 Alcohol use among injecting drug users

Alcohol use was extremely common among injecting drug users. Many were polydrug users. The buprenorphine injectors abused alcohol more than the heroin injectors. "Binge drinking" was common and in intoxicated states, they desired sex. Majority reported that they visited prostitutes after consuming alcohol. Wives did not like them smelling of alcohol, hence they preferred to buy commercial sex. Some injecting drug users desired different sexual acts – oral and anal sex were the most desired acts- they could demand it from the sex workers only.

"Last time I had sex I was on alcohol.. always I slept with prostitutes and girlfriends when I was on alcohol.. On heroin I don't care for sex"

5.3.6 Sexual risk related to stages of addiction

The injecting drug users interviewed clearly indicated that the sexual behaviour was clearly linked to the various stages of addiction. In the early stages, the injecting drug users perceived that they were able to enjoy sex better. The erection was sustained and they performed better. Their women liked sex with them as they gave them 'immense pleasure'. This facilitated continuation of drug use and during the social use stage, the drug had significant recreational purpose and they always used the drug (heroin or buprenorphine) before the sexual act. During the regular use stage and compulsive stage, the sexual desire was low and the sexual frequency declined. But they experimented at this stage with sex workers and with different sexual acts. Some dependents enter treatment and following treatment, their sexual desires surface again. The desire provokes them to engage in sexual activities that could be risky at times. Visit to sex workers and alcohol use associated with visits to sex workers is common at this stage. Also, relapse in substance use can also escalate high-risk sexual risk behaviour.

5.4 Injecting drug users selling sex

We could interview male injecting drug users selling sex in in-depth interviews and focus groups. Few female injecting drug users selling sex were also interviewed.

5.4.1 Male injecting drug users selling sex

Majority of injecting drug users in Chennai are male injecting drug users. Many come from poor slums and are unemployed and unskilled. The growing addiction takes a heavy toll on the finance of the users. To support their drug habit, they resort to many ways – one of the ways is to sell sex. A number of them do not identify themselves as sex workers; they are bisexual and offer specified homosexual services for money.

Many of the injecting drug users do not reveal the fact that they are injecting drug users to their clients. They have found it easy to raise revenue by selling some specified sexual acts to their clients. They hang around in the cruising points where they pick up their clients and the common sexual act is oral sex and anal sex. A number of reported that they do not like homosexual acts but indulge in this for money. Some of the m offer only passive sex but refuse anal sex. We have not heard from any male injecting drug user who sells sex to women even though a few of them reported sex with other women – mostly older and divorced women for exchange of gifts and favours, like permission to use their place for their injecting acts.

“ The woman is around 45.. I understand the husband is an alcoholic and hurts her.. she was interested in me and invited me home... after the injections, I am very good at sex.. she enjoys it very much.. I didn't tell her about my habit in the beginning.. she knows now as I fix before I have sex with her.. she loves sex with me.. my drug money is completely from her. In addition, I get a lot of other things.. the other day, I invited my friends also to her place for a safe place to inject..”

5.4.2 Women injecting drug users selling sex

The women who were injecting drug users entered the sex work out of desperation. All of them admitted that their boyfriend or lover or spouse got them to this habit. When the addiction became severe, the money was difficult and sex work became inevitable. In their world, they saw a close nexus between drugs, crime and sex work. They would do anything to satisfy the customer. Compared to the other sex workers they always seemed desperate and cared less about the choice of the clients.

“My lover got me to this and he is gone.. I have to sell sex to look after myself, my mother and more importantly, I need money for smack. I go with anyone as long as I get money.. any act is okay, anything is possible with me.”

5.4.3 Condom use

The condom use was less with the injecting drug users selling sex. There were significant differences in the rates of condom use for different types of sexual behaviours, different partners, and different types of injecting drug users. While desperate for money to score

drugs, they were more likely to engage in unprotected acts. Any type of sexual service was acceptable at those times.

Condom use as a positive action: Compared with the other sex workers, asserting for condom use, as a safe sex behaviour was rare among the injecting drug users. Even the injectors who injected safely compromised on the sexual behaviour and involved in high-risk activities.

Condom use as a cue to embarrassment: Compared to the other sex workers, the injectors found it difficult to talk about condoms openly and expressed embarrassment. Unless the clients insisted on condoms, they were reluctant to discuss the issue.

Condom use as antithetical to good sex: Fearing clients would not like sex with condoms and that condoms would interfere with pleasure, they were reluctant to use condoms.

5.4.4 Sex risk and drug networks

In spite of selling sex, their primary association was with persons using drugs and dealers. It is acceptable in the drug risk networks to talk about the following: overdose, withdrawals, police action, drug availability, risk reduction, sharing behaviour, needle exchange sites, substitution treatment and drug treatment services. The talk about HIV testing services, STD services was less. Even worse was the discussion about sexual behaviour. There were not open discussions about sexual behaviour, sex risk and sexual health. In the community centers, condoms were available but the clients were comfortable to take the needles and syringes than the condoms. The drug treatment professionals were uncomfortable talking about sexual health related issues. Given the drug use background of many of these drug treatment personnel, it is understandable.

“I am going to the center for a long time.. they all talk about drugs, injecting, sharing and clean needles.. they are telling us about sex.. you see I got HIV in spite of using clean needles for long. The doc told me that it is my sex. I have been sleeping with a lot of prostitutes and I didn’t care about the condoms.. they must talk to us about sex.”

5.4.5 Spouses of injecting drug users

A number of injecting drug users involved in sex work are married. In the beginning of the marriage, the spouses were not aware of the drug use and injecting in the partners as the marriage in most instances is arranged. In most circumstances, the family thinks of marriage as an intervention for the drug user to correct him. By the time the spouse becomes aware of the husband’s addiction, the injecting drug use is usually well established with serious adverse consequences. Condom use is almost never used with the spouses. The spouse is not aware of the sero-status of the husband who is injecting. Also, they are unaware of the fact they also sex to other men to buy drugs and support their habit. Some of the spouses of the long-term injectors have resorted to selling sex to support the family and the children. The husband is usually a chronic injector, is in jail or suffering with serious adverse social and health consequences and is financially completely broke and unable to support the family. Sometimes the spouse doing sex work supports the husband including finance for his drug habit.

5.5 Survey

The survey questionnaire has been developed based on the inputs from qualitative data. The questionnaire is being administered to the following:

- 203 sex workers using alcohol and/or drugs (135 female sex workers and 68 male sex workers)
- 100 clients of sex workers using alcohol and/or drugs

The findings of the survey are as follows:

Table (14) Socio demographic characteristics

Characteristic	Female sex workers (N =135)	Male sex workers (N = 68)	Clients of sex workers (N = 100)
Age	30.4 ± 6.4 (mean)	24.4 ± 5.6 (mean)	30.2 ± 6.6 (mean)
Educational Level (mean number of years in education)	9.8 ± 5.6	8.6 ± 4.7	11.6 ± 5.3
Currently married	46%	16%	44%

Table (15) Basic HIV and STD Knowledge

Characteristic	Female sex workers (N =135)	Male sex workers (N = 68)	Clients of sex workers (N = 100)
Accurate knowledge about HIV transmission (all routes of transmission)	47%	63%	51%
Mention about condom as effective methods of HIV prevention	95%	94%	97%
Avoiding ejaculation during unprotected sexual act as effective methods of HIV prevention	27%	34%	44%
Started/ Increased condom use after hearing about HIV	82%	61%	51%

Place of buying condoms (health centre or hospital)	71%	67%	12%
From whom learnt about HIV/AIDS – Mention about NGO	88%	75%	24%

Table (16) Sexual behaviour

Characteristic	Female sex workers (N =135)	Male sex workers (N = 68)	Clients of sex workers (N = 100)
No or rare condom use before vaginal sex, last six months	16%	-	39%
No or rare condom use before anal sex, last six months	35%	19%	46%
No or rare condom use before oral sex, last six months	42%	29%	52%

Table (17) Current HIV status and sexual health

Characteristic	Female sex workers (N =135)	Male sex workers (N = 68)	Clients of sex workers (N = 100)
Had STI symptoms in the past	68%	61%	38%
Current STI symptoms	19%	20%	12%
Tested for HIV	33%	38%	10%
Know their HIV status (of those tested)	68%	62%	80%
Primary place for seeking sexual health advise - NGO	56%	56%	16%

Table (18) Attitudes about condoms

Characteristic	Female sex workers (N =135)	Male sex workers (N = 68)	Clients of sex workers (N = 100)
Condoms as HIV prevention	99%	94%	92%
Condoms interfere with pleasure	58%	71%	81%

Dislike using condoms	11%	27%	29%
Do not care about condom use	9%	18%	17%

Table (19) Alcohol and Substance use

Characteristic	Female sex workers (N =135)	Male sex workers (N = 68)	Clients of sex workers (N = 100)
Pathological pattern of alcohol use in the last six months	35%	57%	43%
Median age at first use	20	17	18
Alcohol use in sex work places	64%	68%	66%
Alcohol use before vaginal sex (mostly or always)	52%	-	43%
Alcohol use before anal sex (mostly or always)	64%	69%	72%
Less likely to use to condom after alcohol use	38%	58%	56%
Cannabis use	2%	28%	11%

Table (20) Partners

Characteristic	Female sex workers (N =135)	Male sex workers (N = 68)	Clients of sex workers (N = 100)
Alcohol / drug use during sex (last episode) with primary or regular partner	72%	-	18%
Alcohol / drug use during sex (last episode) with casual partner	-	-	24%
Alcohol / drug use during sex (last episode) with commercial partner	42%	48%	59%

6. Discussion

6.1 Intervention strategies

6.1.1 Female Sex workers

Key variable	Findings	Recommendations
Demographics	Median age 31 years; Poor; Low income; Many have children.	Initiating development activities (income generating activities and establishing cooperatives) to address economic concerns; care for the children of sex workers.
Basic HIV/STD Knowledge	Myths about HIV/STD transmission.	HIV interventions for sex workers to address the myths.
Sexual behaviour	Demand for anal sex and unprotected sex; substance using sex workers are desperate and yield to demand for money.	Peer education by trained sex workers aimed at normative changes.
Substance use and sex risk	Intoxication by sex workers leading to unprotected sex; drinking with regular sexual partners and having unprotected sex.	Issue of substance use, in particular, alcohol use in influencing safer sex to be included in all HIV prevention messages, education, interventions for sex workers.
Power and control	Violence by clients drunk or intoxicated. Sexual abuse by intoxicated policemen.	Alcohol, violence and sex risk to be addressed in HIV interventions for sex workers.
Negotiations for safer sex	Intoxication influencing ability to negotiate for safer sex.	Behavioural interventions to facilitate communication, negotiation with intoxicated clients.
Settings of use	Substance availability in brothels; wine shop-brothel nexus.	Interventions to target wine shops.
Condom use	Condom use common with clients; low condom use with intoxicated clients, regular partners and pimps	Condom use with regular partners to be promoted; behavioural interventions to increase self-efficacy to ensure condom use with substance using clients.

Female Sex workers

The interventions for sex workers as well as the drug users should be broad based and consider many structural factors that have potential implication for HIV prevention issues. Working with the law enforcement and policymakers is critical as the current laws relating to them are not helpful in HIV preventive efforts and indeed may be antithetical to our efforts.

Concern for children

The concern for their children, for the health and well-being of existing and future children, may be an important element in promoting behavioural change. It is important to take this into consideration in researching and designing programmes for sex workers.

Power and control among sex workers

The fantasy and reality of power and control in the relationship is a complex issue, one that is influenced by many cultural, psychological, and situational factors. The importance of this issue for education and outreach is in identifying audiences and messages for the promotion of protective and preventive behaviours. How can the sex worker use her abilities to manipulate and control a situation to ensure her safety? How can we, as health professionals utilise this information?

Settings of alcohol use and interventions

The results indicate that there is significant need in the wine shops for an HIV/AIDS intervention. Our data can be summarized as follows:

- High prevalence of unprotected sex
- Several barriers associated with condom use that lend themselves to intervention
- Many myths about risky behavior and HIV transmission exist which can be addressed in the intervention
- Our results show the link between alcohol use and domestic violence and how under the influence of alcohol, patrons practice unprotected sex
- Poor communication about sexual health and prevention matters is evident and this is a change that can be facilitated by the intervention.

HIV prevention efforts may be directed at settings that facilitate rapid exchange of partners, like the brothels. It is important to include all the stakeholders including sex workers, clients, brothel owners, full time and part time brokers, lodge boys and wine shop boys in the design and implementation of interventions.

Interventions to consider the lifestyle of drug users

The drug user lifestyle is fraught with dangers and pitfalls. Community-based interventions must take into account the many pressures on drug users and be aware of the types of lives they lead. Lifestyle factors such as employment will lead to different patterns of use and daily routines for drug users. This highlights the need for interventions, especially those aimed at encouraging protective strategies and healthy lifestyles, to provide services that are accessible and flexible to the needs of specific groups.

Norms

The norms relating to alcohol use and sexual behaviour needs to be addressed in the interventions. At present, it is also normative to be aggressive under the influence of drinks and drugs. Changing the sexual norms and the norms relating to drug/alcohol use and sex risk is important to achieve significant behaviour modification to produce an impact on the HIV epidemic in our settings.

Suggested strategies for risk reduction relating to alcohol, sex risk

Many participants suggested ways to effectively intervene on this population. Some of the most common recommendations include:

- Peer counseling – using recovered alcoholics in a movie/video to educate men and women about the effects of alcohol.
- Using anecdotes as cues to conversation about prevention. “If I tell my friends directly no one would listen to me. So I need to tell them about an incident that happened recently where a person died of this disease that attacked him due to his contact with women. I could further tell them that if they die, how will their mothers be looked after and this fear will work in them”
- Street plays near wine shops
- Movies – shown in blue movie theater- about the links between sex and alcohol/drugs

6.1.2 Clients of Sex Workers

Key variable	Findings	Recommendations
Demographics	Young males; median age: 30; migrants; from all socio economic groups.	Sexual health interventions for migrants and young males in all socio economic groups.
Basic HIV/STD Knowledge	High levels of HIV/ STD awareness and good knowledge about HIV transmission.	
Substance use and sex	Desire for sex following alcohol use is socially learnt from peers.	Addressing peer norms towards alcohol and sex with appropriate interventions.
Substance use and sex risk	Inebriated clients demand unprotected sex; more likely to force sex; bring alcohol to brothels and compel the sex worker to drink along in order to ensure all types of sexual acts from them.	Interventions to address the influence of substance use on sexual risk behaviour.
Settings of use	Street based sex workers pick up clients from wine shops; wine shop-brothel nexus; middle men like auto drivers pick up clients from wine shops to certain brothels.	Interventions to target wine shops.
Condom use	Condom use only for vaginal sex; condom use as interfering with pleasure; substance use interferes with safer negotiation; condom use not required with regular sex worker.	Availability of condoms in wine shops and changing norms towards to safer sex.

6.1.3 Male sex workers

Key variable	Findings	Recommendations
Types of sex workers	Young males; different types of male sex workers - Alis (Hijras); men having sex with men; injecting drug users as male sex workers. Alis are organized in close community groups.	Interventions to target different types of male sex workers.
Basic HIV/STD Knowledge	High levels of awareness about HIV and fair levels of awareness about STD.	STD awareness to be enhanced.
Sexual behaviour	Preference for oral, anal and thigh sex.	Condom use to be promoted for all types of sexual acts.
Substance use and sex risk	Cannabis use by Alis; alcohol use common among male sex workers; mava (tobacco) use by male sex workers; intoxication interfering with safer sex.	Interventions to address the influence of substance use on sexual risk behaviour.
Settings of use	Beach, parks, trains, public toilets and rooms in hotels/lodges. Use of substances and alcohol.	Interventions to target quick sex, often unprotected under the influence of substance / alcohol use.
Condom use	Low condom use compared with female sex workers.	Behavioural interventions to promote condom use in all types of sexual acts.

6.1.4 Injecting drug users and sex work

Key variable	Findings	Recommendations
Demographics	Primarily males; young; living in slums; many married.	Interventions to target the spouses of injecting drug users.
Basic HIV/STD Knowledge	High levels of awareness related HIV transmission through injecting and low levels of awareness about STIs and sexual transmission of HIV.	HIV prevention education to focus on sexual transmission of HIV and STIs.
Sexual behaviour	Increased sexual activity in the early phase of drug using career and reduced sexual activity during the later stages of addiction.	Interventions to address the drug users in the early phases of use.
Substance use and sexual behaviour	Alcohol use associated with sexual activity.	Community-wide normative changes aimed at alcohol use and its association with sexual activity.
Substance use and sex risk	Trading sex for money to obtain drugs.	Sexual risk reduction strategies for injecting drug users.
Condom use	Low condom use with regular sexual partner; low condom use by IDUs with their clients compared to other male sex workers.	Targeting the regular sexual partners of injecting drug users. Condom promotion among injecting drug users.

Fig - 1: The intersecting populations of sex workers, clients and the general population

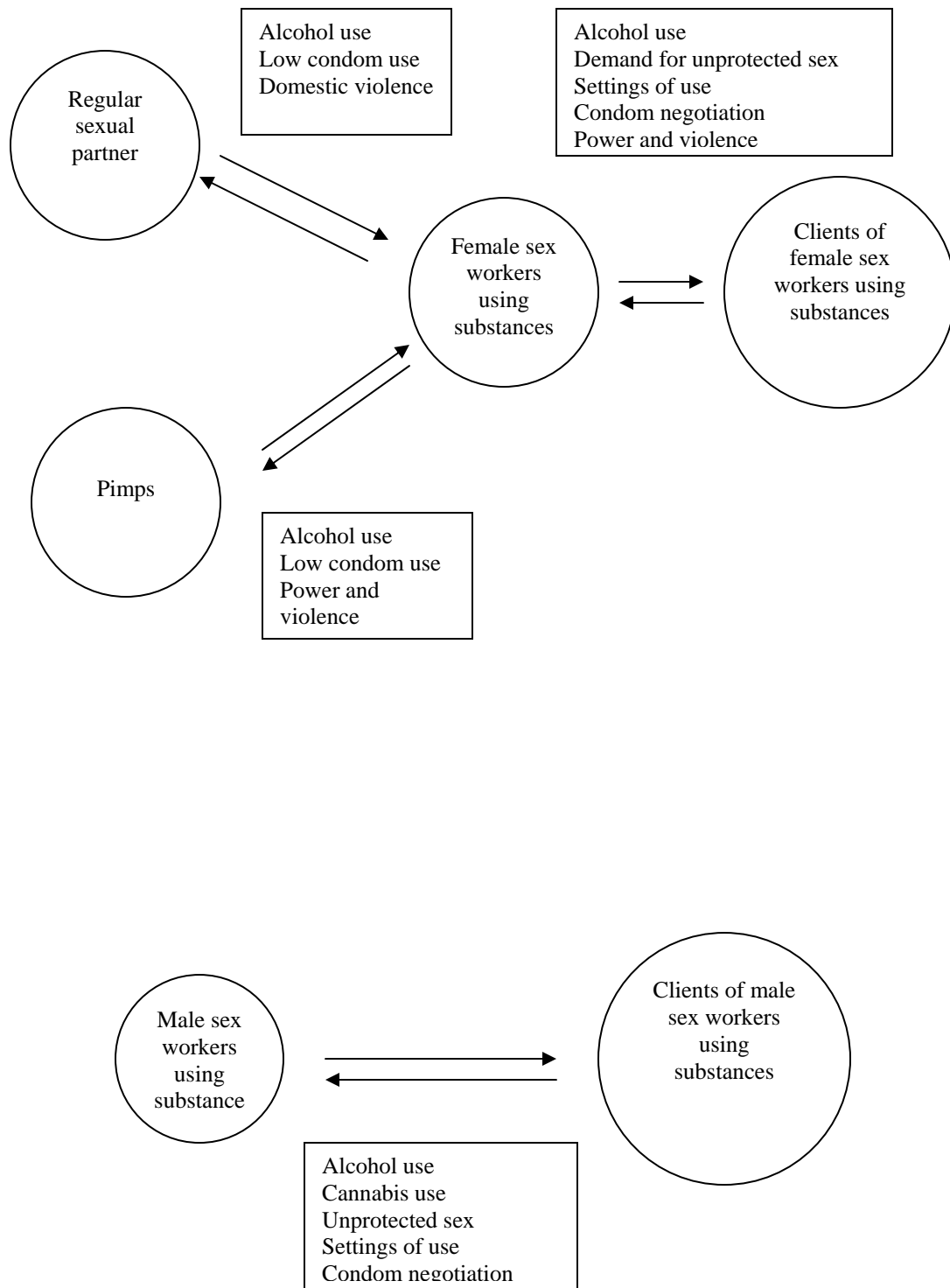
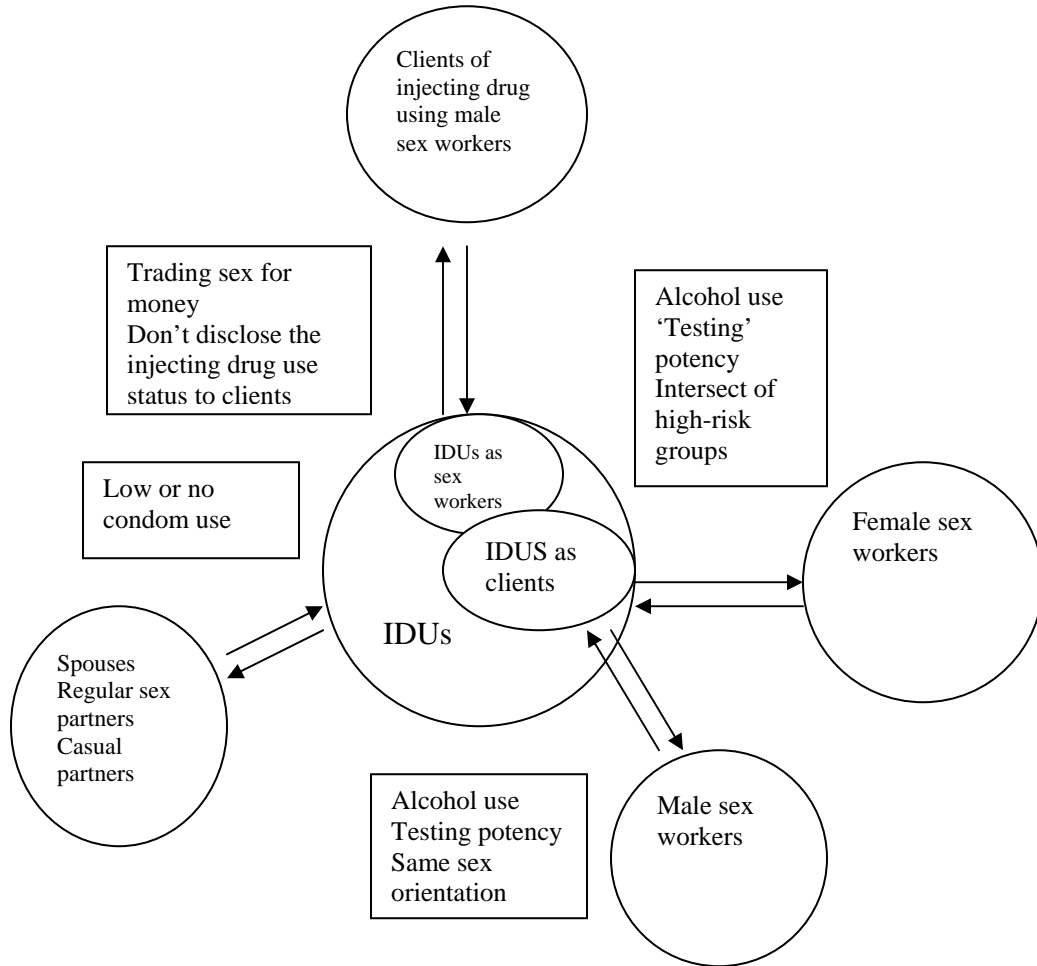


Fig - 2 : Intersect between Injecting drug users, sex workers and general population



7. Conclusion

Since the spread of HIV among the various risk groups, including sex workers and injecting drug users in Tamil Nadu, the Government as well as the Non Governmental organizations have carried out various HIV related prevention and intervention programmes. The behavioural surveillance survey carried out by National AIDS Control Organization (NACO, 2002) clearly indicates that the HIV prevention interventions are benefiting and helping to enhance the risk reduction efforts of the risk groups. Yet, there are a considerable proportion of sex workers and injecting drug users who have not modified their risk behaviours. The persistence of risk behaviours is due to several factors and substance use (including alcohol use) and the associated behavioural norms contribute significantly to the persistence of risky behaviours. The present assessment focused on the relationship between substance use and sexual behaviour; substance and sexual risky behaviour; and, substance use and risk reduction efforts.

The sex work industry operates through brothels, apartments, street pick-ups and mobile vans. Unlike in many other cities, most of the sex work is non-brothel based. The sex workers are a hidden population and difficult to access. Evidence exists that sex workers have modified HIV related risk behaviour and condom use is increasing with their clients in the recent years. Condom negotiation and safer sex is compromised by alcohol use among sex workers and the clients. If the HIV transmission among sex workers and their clients have to be controlled, this factor should be addressed in the future HIV prevention interventions.

Some social norms are favouring risk reduction among the risk groups: In Chennai, it is normative for majority of sex workers to use condoms in paid sexual encounters. Similarly, the prevailing norms among injecting drug users is towards non-sharing of injection equipment. But the norms towards protected sex have not been well established among the injecting groups.

Norm surrounding alcohol use and sexual behaviour: Only the disinhibitory effects of alcohol do not adequately explain the association between alcohol use and sexual behaviour. The norms surrounding alcohol use is important and the general belief is that alcohol enhances sexual pleasure and alcohol use is often linked to sexual activity. Such norms favour use of alcohol before sexual activity.

Settings of use: In the wine shops people often discuss about sex and sex selling places following alcohol use. The wine shop-brothel nexus assisted by middlemen operating near the wine shops contribute to the association between alcohol use and sexual activity. These settings help to further the strong association between alcohol use and sexual behaviour.

Alcohol use is common among sex workers: The sex workers' life is complex and they lead a chaotic lifestyle. Everyday life is stressful and at work they face many dangers including police arrest, harassment by thugs, intimidation by clients, threat from pimps and violence from their regular partners. Economic hurdles, child-care and daily life

problems are their urgent priority and they find their life distressing and depressing. Alcohol is often used as a stress coping agent and many are drinking to deal with distress, to alleviate fears, to drown depressive feelings. Alcohol use is common among sex workers and a good proportion of them exhibit pathological patterns of use.

Alcohol use is common among clients of sex workers and injecting drug users: Favourable norms towards alcohol use before sex and easy availability of alcohol in brothels or in places close to sex selling places ensures alcohol use by a large proportion of clients. Influenced by the same social norms, the injecting drug users also drink alcohol before visiting sex workers or indulging in sex work.

Alcohol use by sex workers and clients interferes with safe sex: Safety is a negotiated action between the sex worker and the client and the interpersonal interaction towards safer sex is negatively influenced by alcohol use. The disinhibitory effects of alcohol combined with favourable norms towards sex contribute to the demand for various unprotected sexual acts by the clients. Alcohol use also regulates communication and behaviour in sexual encounters negatively.

Power and gender: The sex workers' capacity to exercise choice in their commercial encounters depends on who has the control or power over the direction sexual encounters take. The intoxicated client has the power and this gender inequality impedes the safer sex negotiation by the sex worker.

Types of acts and safer sexual norms: Condom use is normative in commercial sexual encounters in vaginal sex but the norms for anal sex and oral sex, in particular following substance use is different. The unprotected oral and anal sex following alcohol / drug use is perceived as acceptable risk by sex workers. Again, many myths (e.g., avoiding ejaculation is protection against HIV/STD) prevail that need to be addressed.

Sexual norms in long-term relationships: The everyday normality and acceptability of unprotected sex with the long-term heterosexual partners in the general population is also applicable to the sex workers in their long-term relationships. While it is normal for the sex workers to talk about condom use in the paid encounters, the same is not true in their sexual relationship with regular partners and pimps. Despite their knowledge that these regular partners and pimps are 'risky', issues of trust, intimacy interfere with the practice of safer action. Substance use between them also helps them to throw caution in the wind and conform to the norm of unprotected sex with long-term partners. The same is true for the high levels of unprotected sex between the injecting drug users and their regular sexual partners.

Efficient mixing up of different populations at-risk: The diffusion of HIV is related to the ways in which various risk groups intersect and this sustains the epidemic in the general population. The existence of bridge populations between the two high risk groups of injectors and sex workers and the unprotected sexual practices between the risk groups and their clients, their regular partners play an important role in determining the nature of the HIV epidemic in Chennai.

Challenges in changing towards safer sexual norms: Sex workers and injecting drug users' individual choices are influenced by the sexual norms of the general population. The association between alcohol use and sexual activity is deep rooted and is influenced by existing social norms and settings that facilitate alcohol selling – sex selling nexus. Until these issues are addressed, it would be difficult to achieve sustainable protected sex by alcohol / substance using sex workers, clients and injecting drug users. The sex workers and IDUS often consensually determine sex with their partners and they are at times coerced to perform unprotected sex despite their individual choices towards safer practices. Encouraging normalized condom use in all situations, settings, sexual encounters and sexual acts is an important objective. Thus HIV prevention interventions must encourage changes in social norms and context so as to create the social conditions in which the individual attempts at behaviour change becomes possible. What is required is community-wide normative changes and research points to the success that gay community-oriented interventions have had in encouraging population changes towards safer sex (Kelly et al, 1992; Kelly, 1995).

Appropriate management of sexually transmitted diseases is critical to HIV prevention (Grosskurth et al, 2000) and all steps should be taken to diagnose STDs early and treat the infections adequately. Many other concerns take precedence over the health risk for the sex workers and IDUs. They have an array of urgent priorities that include economic problems, child-care, police and local mafia harassment, violence from clients, pimps and regular partners. Addressing these multiple needs are very important. A community development perspective is urgently needed and HIV prevention interventions should take cognizance of the environmental factors and the risk environment. Without the necessary political, economic, developmental, community changes targeted at the sex workers and injecting drug users it is not possible to reduce the HIV vulnerability of the populations.

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