Impact of Buprenorphine Opioid Substitution Therapy Program in Nepal

December 2014

Youth Vision
Since 1985
Dedicated to People Living with HIV and People Who Use Drugs

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Foreword

Firstly, I congratulate Youth Vision for successfully producing the impact study report on the Buprenorphine Substitution Therapy (OST). It is an ideal report for being the first document to highlight the result of the Buprenorphin therapy in Kathamandu Valley. Although the service of Buprenorphin was started in 2007 AD by the Youth Vision in close collaboration with Ministry of Health and the Ministry of Home Affairs, the report is expected to be meaningful to build new strategy and formulate programs on the harm reduction for people who use drugs in Nepal.

I found the study inclusive, which has incorporated the response of diverse population that ranges from the age, sex, castes, ethnicity, education, and occupations. According to the report the Buprenorphin Substitution Therapy (OST) has been found meaningful to improve different aspects of human life like: respect of human rights, rate of detention, standard of health and hygine, practice of saving and safe sex, maintaining of family relation and courtesy, support of peer to quit drugs, involvement in income generating activities and socialization.

Considering the impact of the study, one can state that the Buprenorphin has offered safest substitute to the people who use drugs, most importantly to minimize the harm among people who uses drugs. In my view it has also contributed to some extent to materialize the aspiration of National Centre for AIDS and STDs Control Centre (NCASC), Government of Nepal's strategy plan 2011-16, which aspires zero new HIV infection, zero HIV related death and zero stigma and discrimination.

Moreover, the engagement of the core stakeholders like NCASC, MoHA, MoH, Save the Children, GIZ as a technical/guiding body of the impact study and the involvement of professional researchers and application of scientific tools and techniques are the basis of the validity and the credibility on the outcome of the study.

Finally, I thank the Mainline Foundation for supporting the lunching of the Buprenorphin in Nepal and everyone involved on the impact study.

Best Wishes

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FOREWORD

Eight years ago Youth Vision got permission from the Nepali authorities to distribute buprenorphine in Nepal to people who use opiates, such as heroin. Youth Vision implemented their pilot project with financial and technical support of Mainline, the Netherlands .Mainline is honoured to write an introduction to the study that was conducted on the effectiveness of the buprenorphine programme of Youth Vision. This study supports our claim that Opioid Substitution Therapy (OST) is an effective harm reduction strategy to improve the health and quality of life of People who Use Drugs (PWUD).

This is not the first study proving the effectiveness of harm reduction. HIV and Hepatitis C (HCV) infections can be prevented with an integrated package of harm reduction strategies, of which OST is an essential component. The pragmatic harm reduction approach, which builds on an attitude of acceptance and fits perfectly in a human rights narrative, directly benefits the health and rights of PWUD. To name a few of the results that are less obvious: injecting drug use can be reduced, which results in less abscesses and other risk taking behaviour; overdose risks can be better managed; and survival crime that is often a consequence of the stigmatisation and criminalisation of drug use in societies can be effectively decreased.

Since people are all different, the medication that can be used as an effective substitute for heroin can differ per individual. That is why it is so important that PWUD have the choice to find the right medicine for them, for example methadone versus buprenorphine. And as the study shows; for some people buprenorphine can be used as maintenance treatment and for others it is an effective substance to gradually reduce substance use and in the end quit altogether. Access to health care at the highest attainable standard is a right of every human being. The distribution of buprenorphine has been an essential and invaluable step to ensure access to health care and to increase the standard of care in Nepal.

Mainline is very proud that Youth Vision, with hard work and persistence, managed to continue the distribution of buprenorphine in the past 8 years. They have succeeded by working closely together with the PWUD community in Nepal. Mainline is even more proud to see Youth Vision's work to be proven effective, as an embedded part of a full continuum of care of services for drug users and the broader community. This study revealed significant changes

in various aspects of life of the opioid dependent population. The use of OST can decrease drug use, change injecting behaviour, improve personal behaviours, save money, improve family relations and help people to engage in work again.

The collaboration between a Nepali NGO and the national government of Nepal is an essential next step in improving the health and quality of life of drug users. Each has a specific role to play. The NGO is best placed to reach the community and make buprenorphine and other OST available for their clients. The Ministry of Health is responsible for monitoring service delivery and to develop the policies and facilitate health interventions in Nepal. This study gives a strong argument to further upscale the buprenorphine distribution as an integral part of the harm reduction and HIV strategy of Nepal.

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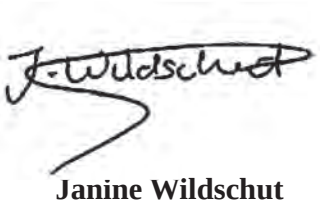
[1]*In the past four years Youth Vision was Mainlines central partner in Nepal within the* ***Briding the Gaps – Health and Rights for Key Populations****, programme that is financed by the Dutch Ministry of Foreign Affairs.*



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"Dedicated to People Living with HIV and People Who Use Drugs."
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ACKNOWLEDGEMENT

It gives immense pleasure for me to present the "Impact Study Report on the Buprenorphine".

We primarily conducted this study to assess the implications of the Buprenorpbhine and introspect level of accountability towards service and target population. Consequently, the finding has shed light on the strengths and motivated us to scale up programs by improvising some weakness too.

The consensus and engagement of Ministry of Health and Population (MoHP), Ministry of Home Affairs (MoHA), National Centre for AIDS and STI Control (NCASC), United Nation Organization on Drug and Crime Control (UNODC) and GIZ on the proposal of Youth Vision to assess the impact of the Burprenorphine have been proved worthy and deserve tons of thanks and appreciations.

I also thank the study team, enumerators, respondents, clients and entire team of Youth Vision for their meaningful roles in successfully carrying out this study. My sincere appreciation goes to Mr. Rishi Tiwari, Under-Secretary of MoHA, Dr. Bhesh Raj Pokhrel OST Focal Person, and Dr. Khakindra Bahadur Bhandari of NCASC for their valuable inputs on the draft of the study. Likewise, I express hearty thanks to Mr. Shambhu Kafle, Senior Public Health Officer of NCASC, Mr. Chirinjibi Nepal, Section Officer of MoHA, Ms. Binija Goperma, Program Coordinator of UNODC, and Mr. Ujjawal Karmacharya, Program Officer of GIZ for participating in Key Informant Interview and closely contributing to make the study more valuable resource.

Most importantly, I extend my sincere gratitude towards the Ministry of Foreign Affairs of Netherlands and the Mainline Foundation Netherlands for supporting us through "Bridging the Gap Project" to run comprehensive program along with OST/Buprenorphine and in carrying out this impact study.

The study has largely uncovered positive impact in the lives of drug users and in the diverse aspects of society which have elated us extraordinarily. The outcome is the greatest reward we had dreamt since the beginning of our service.

Finally, I dedicate this impact study report to all stakeholders who are directly or indirectly dedicated to minimize drug use and bring positive changes in the lives of people who use drug.

YOUTH VISION
KATHMANDU
1988

Jagdish Lohani
Executive Director
Youth Vision

ACKNOWLEDGMENTS

The successful accomplishment of this study is an outcome of the collective efforts of the study team and Youth Vision.

We would like to express our sincere gratitude to Youth Vision for entrusting this important study to us. The study team would like to extend special thanks to Executive Director; Mr Jagadish Lohani, Executive Program Manager; Mr Rajendra Thapa, and Mr Anup Adhikari for providing active support and coordinating the research activities at various levels throughout the course of this study.

The study team would like to extend its heartfelt thanks to the technical team for its active support.

The strenuous effort put up by each and every member of the field team, coding members and data analysts have all contributed to give final shape to this report. We sincerely acknowledge their contribution.

Last but not the least, the study team acknowledges the contribution of the respondents who received the researchers with understanding and patience and who responded to the questions on very personal matters. The study would not have been possible without their voluntary participation.

The Study Team

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
FSW	Female Sex Worker
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug User
DU	Drug User
PWID	People Who Inject Drugs
KII	Key Informant Interview
KI	Key Informant
MDU	Male Drug User
MoHP	Ministry of Health and Population
MoHA	Ministry of Home Affairs
NCASC	National Centre for AIDS and STD Control
NGO	Non-Governmental Organization
NRs	Nepalese Rupees
OST	Opioid Substitution and Treatment (with Buprenorphine)
STIs	Sexually Transmitted Infections
STD	Sexually Transmitted Diseases
VCT	Voluntary Counseling and Testing
HCV	Hepatitis 'C'
DDA	Department of Drug Administration
BCC	Behavior Change Communication
UNODC	United Nations Office on Drugs and Crime
UNAIDS	United Nations-AIDS
UNDP	United Nations Development Program
GIZ	German Federal Enterprise for International Cooperation
NR	Not Response
DR	Don't Know

EXECUTIVE SUMMARY

This impact study of Buprenorphine substitution and treatment program (OST) is the first study of this kind carried out between June-July, 2014 in four OST centers in Kathmandu Valley. The study population consisted of drug users aged 18 years and above who were currently using OST from Youth Vision. The major objective of this study was to assess the impact of OST on the various aspects of life of opioid dependent population. The assessment study employed mixed research approaches. The qualitative research approach included semi-structured interviews with organizational key informants (6) and the quantitative research was based on individual interviews with 220 opioid dependent populations (OST users). Of these, 88 percent were male and 12 percent were female drug users.

Socio-demographic characteristics

Nearly two fifth of the OST users interviewed were aged between 25-29 years (38%) of which male (38%) formed the higher proportion than females (33%). The mean age of the respondent was 30.2 years. Higher proportion of respondent was comprised of Brahmin/ Chhetri ethnic community followed by mongoloid community. The proportion of Brahmin/ Chhetri was higher among male respondents while the proportion of mongoloid ethnic group was higher among female respondents. Relatively females had lower levels of education than males. A considerable number of female respondents (11%) had never attended school. More than half of the users (53%) were unmarried. About half of the female and two-fifth male were married and living together. Large proportion of the OST users lived with their parents and family members. The main occupation of the respondent's family was service (47%) followed by business (32%). A quarter of the respondents were unemployed. Like the main occupation of family, the main current occupation of the respondents was also service (37%) and business (21%). Before using OST, 25 and 13 percent were involved in service and business respectively.

Use of drug

A total of 59 percent drug users entered into drug habit during adolescence and 23 percent had initiated drug use even at a tender age (10-14 years). Brown sugar (32%) and marijuana - ganja, chares, bhang (31%) were almost common substances used by the male beginners as an entry into drug habit while brown sugar was relatively the common substance used by the

female beginners (61%) followed by white sugar (17%). Marijuana (ganja, chares, bhang) was less common among female beginners (11%). Half of the drug users had entered into drug use habit by smoking the substance. About one-third male (32%) as against one-fifth female (22%) had started using the substance orally. More than double female (28%) than male (12%) started using the drug by sniffing. Very few respondents had directly entered into injecting habit from the start (5%).

About 95 percent of the respondents had been using drug for more than five years. Either friends inspired or forced to take drug for majority of the respondents (61%). A total of 29 percent started taking drug out of curiosity. Most of the respondents had not used drugs after they were involved in OST (female 83% and male 80%). However, 11.4 percent instances of respondents using drugs even after taking OST were also reported in the study.

A total of 84 percent respondents had used injected drug of which, 44 percent had started to use injecting drugs during adolescence and before turning 20 years of age. IDUs generally preferred to use combination of different drugs. Sometimes, they had injected single drug. Most of the respondents had not injected drug after they were involved in OST (88%). However, a few respondents (11.4%) had injected drugs even after taking OST. Insufficiency of OST, desire and forced by the friends were the reasons for injecting drugs.

Large majority (78%) of injecting drug users adopted low risk behaviors. They seemed to be more cautious about the consequences of using the syringe used by others. The daily average expense of respondents in drug was around 2,300 NRs. Majority of the respondents managed their daily expenses for the drug from their family members (57%) followed by their own income (56%). Some drug users admitted of stealing/selling of utensils of home to meet their drug expenses (9%). A total of 61 percent drug users had attempted to get rid of drug use in the past. Among them, 91 percent had stayed in rehabilitation center to get rid of drug use where as 5 percent had also tried the methadone maintenance treatment. Very few (1.5%) of them had attempted self-control measures. The treatment cost ranged from free of cost to more than NRs 3,00,000. Currently, 93 percent of the respondents avoided the past treatment after taking OST.

Knowledge of HIV and AIDS

As expected, knowledge about HIV and AIDS was universal among the study population. Two-third of them was also aware of someone who was infected with HIV or died of AIDS (68%). About 80 percent of them were aware of the facility in their community, where they could obtain confidential HIV tests. Four-fifth of them had undergone HIV test (80%) but 86 percent of the drug users did not perceive themselves to be at the risk of being infected of HIV.

Participation in OST program and service

A total of 41 percent respondents had started using OST with buprenorphine since last 24 months or more. Drug users starting OST in less than six months comprise 34 percent. Eighty percent of the respondents knew about the OST program offered by the Youth Vision through friends followed by the program of Youth Vision itself (29%).

The key informants perceived the reason for success of the OST program was due to 'commitment' of the Youth Vision, 'community based', 'experienced', 'demand of OST', follow-up and regular monitoring', 'client focused', 'improvement in the quality of life of drug users', and 'team work'.

Comparison of the current and starting dose of buprenorphine (OST) reveals the decreasing trend in the dose intake leading towards completion of the dose or in the process of 'clean'. More than half of the respondents reported that their OST dose was completed and they were clean (53%). More than 90 percent male and all female respondents informed that they did not have to face any problem in getting the OST from Youth Vision. After taking OST, changes in injecting habit of respondents' had been reported. The respondents had reported both the positive and negative aspects of OST. The reported positive aspects of OST included were: effective and no need of further drug (79%) and save money (12%), whereas 63 percent reported the negative aspect as none. The negative aspects reported by some of the respondents were mostly related to the side effects.

The key informants perceived the positive aspects of the OST of Youth Vision as of high reach, client satisfactory, addressing socio-psychology, focusing on family relation, money saving, no need to inject and user-friendly.

Almost all the respondents would like to suggest their friends and/or others to take OST from Youth Vision (98%) in future. All the females and 91 percent males perceived that the OST can change their injecting behavior and lead to live normal life. Drug users after taking OST were more optimistic towards their future. A total of 44 percent respondents felt that after taking OST, the behavior of the family towards them was changed 'very much'. Two-third of them was also aware of the changes occurred in behavior of their friends after taking OST.

The results from the current study indicated that OST had created significant changes in the different aspects of life of the drug users at individual level, family level, at work and in education etc. Almost all the respondents reported 'improvement in personal hygiene'. Money saving, good relationship in family, adoption of safe sex practice, becoming cleaned, not using drugs, regular in work, assist friends to avoid drug, increase in politeness, become healthy were other changes occurred in the life of most of the respondents after the use of OST.

Situation of Police arrest

Nearly half of the respondents were ever arrested by police. Proportion of police arrest of male was higher than female (48.5% vs. 39%). A total of 62 percent was arrested before 2 years or more than that. One out of six was arrested within 5 months ago prior to the present survey (16%). Respondents perceived various behaviors of police at the time of arrest such as 'bad' (71%) to 'good behavior' (16%). The reason for arresting was 'taking drugs' (53%), and 'supply of drug' (37%). Those who were arrested reported of 'being beaten' by the police (51%), 'scolding' (29%), and 'Interrogated' (19%).

Respondents suggested that 'police needed specific awareness program on how to treat drug users' (30%), 'should not beat the drug users (29.5%) and 'should understand that drug users are not criminals' (17%). Significant number of respondents advised Youth Vision to 'talk seriously with concerned stakeholders about the behavior of police towards drug users' and 'conduct some specific awareness programs to the police'.

In conclusion, the OST had brought positive changes in the lives of drug users and improved their health and family life situations in general. They became optimistic towards their lives and wished to become a normal person in future. However, they were found treated wrongly by police, for which they demanded being treated as a disease but not criminals from the police. The coverage and access of the program was recommended to be increased.

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CHAPTER 1 INTRODUCTION

1.1 Background

Buprenorphine is a semisynthetic opioid derivative of the Bain, which is a derivative of opium used to treat opioid addiction. Buprenorphine, like methadone, can be used as a short-or long-term detoxification medication or indefinitely as a maintenance medication. Buprenorphine, when appropriately prescribed and taken, is an effective, safe medication for use in the treatment of opioid addiction. Buprenorphine relieves withdrawal, reduces craving and blocks the effects of heroin in ways similar to methadone. It is administered through sublingual route in Opioid Substitution Therapy (OST). The buprenorphine in OST program has meaningfully contributed to minimize injecting drug use and HIV and the blood borne diseases like Hepatitis B and C.

Youth Vision is the first non-government organization in Nepal who introduce Buprenorphine Opioid Substitution Program. It was implemented from 15th March 2007 with the approval and monitoring of Ministry of Home Affairs (MoHA) in the financial support of Ministry of Foreign Affairs, The Netherlands, Mainline Foundation, Amsterdam. To make the buprenorphine service more organized a monitoring committee comprising MoHA, Department of Drug Administration (DDA) and Ministry of Health and Population (MoHP) was formed. Similarly, considering the implication of buprenorphine, a meeting held among stakeholders (September, 2008) decided to extend the services in Jhapa, Parsa, Chitwan, Nawalparasi and Kaski districts.

1.2 Process and procedure to administer buprenorphine

Injecting drug users (including drug users) are enrolled in OST with buprenorphine through different ways. Some of them join the program voluntarily in self-realization and other through the medium of outreach worker and referral services. The potential clients are screened by doctors and counselor and he/she passes though the intake interview. Similarly, psychological counseling to drug users and their family members is carried out before enrolling them into OST. BCC session, relapse prevention and skill development activities are also provided to the person enrolled in OST. As a core essence of the program the beneficiaries of OST are supported to reintegrate in the family and society. Similarly, some of them are also admitted to rehabilitation services/detox to help them to overcome the drug.

1.3 Rationale of the study

Buprenorphine, when appropriately prescribed and taken, is an effective, safe medication for use in the treatment of opioid addiction. Information on impact of buprenorphine opioid substitution program on the different aspects of life of opioid dependent is lacking in Nepal. This study is aimed at assessing the impact of OST with buprenorphine to enable Youth Vision and those working in harm reduction programs, to plan and design for future intervention and expansion. The findings of the study is also intended to fill-in existing informational gap on the advantages and effects brought by the OST on the different aspects of life of the opioid dependent population and help in making appropriate national policies and programs to address the issues and challenges concerning HIV, hepatitis B and C, treatment, care and support for drug users in the country.

1.4 Objectives of the study

The study was the first of its kind that has been conducted among drug users (both IDUs and DUs) who were currently taking opioid substitution therapy (OST) with buprenorphine from Youth Vision. The main objective of this study was to assess the impact of opioid substitution therapy (OST) with buprenorphine on the various aspects of life of opioid dependent population. However, the specific objectives of the study were to:

a. Analyze the socio-demographic characteristics of drug users who are currently receiving OST (opioid dependent population),

b. Identify the drug/injecting-drug use patterns including risk perceptions,

c. Determine the knowledge about HIV and AIDS among OST users,

d. Evaluate the effectiveness of the buprenorphine in drug use habit, and

e. Assess the change in various aspects of life of opioid dependent population.

CHAPTER 2 METHODOLOGY

2.1 Study design

It was a descriptive survey including both qualitative and quantitative designs to describe the impact of Buprenorphine Opioid Substitution program of Youth Vision. It tried to explain the impact of the program on the lives of drug users who were receiving OST during study period. A technical committee consisting of representatives from NCASC, GIZ, MoHA, and UNODC was formed to provide necessary support to the study.

2.2 Population and sampling

In Nepal, the information on the extent and impact of OST with buprenorphine by the drug using population is virtually non-existent. Owing to a lack of reliable data for sample size estimation for the present study, and considering the number of the OST users, a sample of fifty percent of the OST users was considered adequate for the present study.

A list of drug users receiving OST from four clinics run by Youth Vision in Kathmandu valley was obtained. Out of these four clinics, two clinics were in Lalitpur and two in Kathmandu. Out of four, one was female unit and a rehabilitation center. For the purpose of confidentiality the list contained the names only. There were a total of 450 OST users in these four clinics. Of these, 10 clients were excluded owing to repetition of names. The study did not include the OST users aged 17 years and below. The lists of four centers then were combined to give a serial number. This list was used as the final sampling frame. Then 50 percent of the sample (220 in total; 202 males and 18 females) was drawn from the list by using systematic random sampling technique for the selection of the respondents.

Key Informants (KIs) were selected purposively from the concerned organizations [one KI each from MoHA, National center for AIDS and STD Control (NCASC- Department of Health Services, MoHP), GIZ, and UNODC and two from Youth Vision] for the Key Informant Interviews (KIIs). KIs were identified and selected with the help of Youth Vision.

2.3 Tools of data collection

A structured questionnaire was used for interviewing the OST users. Moreover, semi-structured interview questionnaires were used to conduct KIIs. All the tools were developed and sent to the technical committee for feedback and suggestions.

2.4 Data collection procedure

The trained enumerators were responsible for conducting the interviews. Acknowledging the importance and sensitivity of the study, an intensive training on various aspects of administering the questionnaire and conducting the interviews was provided to 8 female interviewers. The study team members were responsible for the training. In addition, officials from Youth Vision were involved in the training to sensitize the interviewers on the theme.

The interviews were conducted during June 21 to 30, 2014. Two female enumerators were responsible for interviewing OST users in each of the clinic. The quality of the information collected was ensured by the continuous supervision of Youth Vision and the study team. Similarly 6 KIs from the five organizations were also interviewed using semi-structured interview questionnaire.

2.5 Data processing

Data processing was conducted by using the recommended program of CSpro version 5. Before entering data into the system, the completed questionnaires were manually edited and coded. After the completion of data entry, errors for inconsistency of responses or incompleteness of responses to related questions within a questionnaire were checked and corrected before labeling and analysis.

Due care was taken to maintain respondents' anonymity during the data collection, data entry and analysis. The names of individual respondents had not been cited in the report and a system of coding was used in the questionnaire to maintain confidentiality. The electronic data set was password protected and only authorized officials of Youth Vision and study team had access to the data files. All completed questionnaires were stored in a locker cabinet at the Youth Vision office.

2.6 Data analysis procedure

A descriptive univariate and bivariate analysis formed the main procedure for analysis. Selection of analytical techniques depended on the descriptive analysis of indicators mentioned before. Tables and figures (pie and bar charts) were used to present the findings. The major quantitative analyses were made on thematic basis; however, insights from the KIIs were explained qualitatively.

2.7 Ethical considerations

In order to ensure adherence to ethical aspects the participants' rights to information, volunteerism, privacy and confidentiality and adherence to the compliance of both the ethical and human rights standards were maintained throughout the study, including during the fieldwork and data entry. Verbal consent was taken before conducting interviews with the respondents.

CHAPTER 3 BACKGROUND CHARACTERISTICS OF THE RESPONDENTS

The section analyses the demographic and socio-economic characteristics of the 220 drug users receiving OST with buprenorphine. Out of the total respondents, 202 (88%) were male and the remaining 18 (12%) were female. The characteristics analyzed in the present chapter are age, ethnicity, education, marital status, family relations, occupation and income distribution.

3.1 Socio-demographic characteristics

The age, ethnicity, education, marital status and family relations of the OST users were found as follows:

Age: Young people aged 25 to 29 comprised the largest segment of the drug users receiving OST in the sample (38%). Within this age group, males formed higher proportion (38%), than females (33%) and followed by the age group of 30-34 years (26%). Very few respondents (2%) were under the age of 20 years. Seven per cent of the adult respondents were aged 40 years and above. The mean age of the respondent was 30.2 years.

Ethnicity: Respondents belonged to the Brahmin/Chhetri ethnicity comprised higher proportion (39%), followed by the mongoloid ethnic community (34%) (Rai/ Gurung/ Sherpa/ Tamang/ Magar). Twenty seven percent belonged to the Newar community. The proportion of Brahmin/Chhetri and Newar were higher among male respondents while the proportion of mongoloid ethnic group was higher among female respondents.

Education: Relatively, females had lower levels of education than males. A considerable number of female respondents (11%) had never attended school. Approximately one out of four male (25%) and one out of ten female (11%) had completed their intermediate level of education. Female respondent with SLC and secondary level comprised 22 and 28 percent as against 20 and 19 percent respectively of their male counterparts.

Table 1: Socio-demographic characteristics of the respondents

	Male		Female		Total	
	N	%	N	%	N	%
Age Group						
Less than 20 years	1	0.5	3	16.7	4	1.8
20-24	23	11.4	6	33.3	29	13.2
25-29	77	38.1	6	33.3	83	37.7
30-34	56	27.7	2	11.1	58	26.4
35-39	29	14.4	1	5.6	30	13.6
40 years and above	16	7.9	0	0.0	16	7.3
Mean age	**30.7**		**25.7**		**30.2**	
Age range	0	14-59	0	18-36	0	14-59
Caste/Ethnicity						
Brahmin/Chhetri	79	39.1	6	33.3	85	38.6
Newar	55	27.2	4	22.2	59	26.8
Other Janajatis (Rai, Gurung, Sherpa, Tamang, Magar)	66	32.7	8	44.4	74	33.6
Dalit	1	0.5	0	0.0	1	0.5
Foreign national	1	0.5	0	0.0	1	0.5
Level of Education						
Illiterate	4	2.0	2	11.1	6	2.7
Primary level(1-5)	12	5.9	1	5.6	13	5.9
Lower Secondary Level (6-8)	21	10.4	3	16.7	24	10.9
Secondary Level (9-10)	39	19.3	5	27.8	44	20.0
SLC	39	19.3	4	22.2	43	19.5
Intermediate level	50	24.8	2	11.1	52	23.6
Bachelor and above	37	18.3	1	5.6	38	17.3
Marital status						
Married & lives with spouse	83	41.1	9	50.0	92	41.8
Married but not living together at present.	6	3.0	0	0.0	6	2.7
Married and divorced	5	2.5	0	0.0	5	2.3
Unmarried	108	53.5	9	50.0	117	53.2
Living with						
Parents	112	55.4	8	44.4	120	54.5
Husband/wife	54	26.7	8	44.4	62	28.2
Other family members	29	14.4	1	5.6	30	13.6
Alone	7	3.5	1	5.6	8	3.6
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100**

Marital status: More than half of the users (53%) were unmarried. The proportion of unmarried male respondents was relatively higher (53.5%) than unmarried female (50%). A total of forty one percent male and fifty percent female were married and living together. Three percent of married male as against none of female were not living with their spouse while 2.5 percent male were divorced, none of the female respondent was divorced.

Family relations: More than half of the OST users lived with their parents (54.5%). Considerable number of respondent was living with other family members (14%). A quarter of male (27%) and more than two fifth female (44%) reported that they were living with their spouse. Very few were found living alone (4%).

3.2 Family occupation of the respondents

It was determined the family occupation of the OST users as follows:

Table 2: Percentage distribution of respondents by family occupation

	Male		Female		Total	
	N	%	N	%	N	%
Main sources of income of family						
Service	93	46.0	11	61.1	104	47.3
Business/petty business	66	32.7	5	27.8	71	32.3
Farming/agriculture	15	7.4	0	0.0	15	6.8
Foreign employment	9	4.5	0	0.0	9	4.1
Skilled labor	6	3.0	0	0.0	6	2.7
Rent	5	2.5	1	5.6	6	2.7
Daily wages labor	5	2.5	0	0.0	5	2.3
Pension	1	0.5	1	5.6	2	0.9
Pick pocket	2	1.0	0	0.0	2	0.9
Total	**202**	**100**	**18**	**100.0**	**220**	**100.0**

According to table 2, the main occupation of the family of nearly half of the respondents was found to be service (47%). Moreover, one third of the respondents' family was running a business (32%). Very few of the OST users' family were farmers (7%) while the main occupation for four percent family was foreign employment. About 1 percent of families had pick-pocketing as their main occupation.

This may conclude that mostly the drug users from service as family occupation came to the OST program of Youth Vision.

3.3 Respondents' occupation

It was identified the difference in the type of occupation of the respondents before and after OST use. The OST users were found involved in various occupations. However, table 2 shows that before and after OST use, a large number of drug users were unemployed. Currently, 37 percent OST users were involved in service. About 21 percent reported of running a business. Before using OST, 25 and 13 percent were involved in service and business respectively.

Other occupations OST users involved currently were daily wage laborer and skilled labor (both 3%). There was found significant drop in the number of students after the OST use from 23.2 percent to 2.3 percent.

Table 3: Percentage distribution of respondents by current and previous occupation

Occupation	Current		Previous (before using OST)	
	N	%	N	%
None	60	27.3	58	26.4
Service	82	37.3	55	25.0
Business/petty business	46	20.9	29	13.2
Daily wages labor	6	2.7	5	2.3
Skilled labor	6	2.7	5	2.3
Student	5	2.3	51	23.2
Music teacher	2	0.9	2	0.9
Drug supplier	3	1.4	1	0.5
Social work	1	0.5	1	0.5
Broker	2	0.9	0	0.0
Foreign employment	1	0.5	4	1.8
Run rehab	1	0.5	2	0.9
Artist	0	0.0	1	0.5
Farming	2	0.9	3	1.4
NR	3	1.4	3	1.4
Total	**220**	**100.0**	**220**	**100.0**

As per table 3, comparing previous (before OST use) and current (after OST use) occupations, service and business were found significantly increased and student decreased in number.

CHAPTER 4 HISTORY OF DRUG USING BEHAVIOR

Cannabis (marijuana), locally known as ganja, has been in use for centuries in Nepal, and is still popular due to relatively easy access, cheap and its use socially accepted during certain festivals. Heroin (commonly referred to as 'brown sugar') was only introduced to Nepal in the 1960s, and is mainly smoked or 'chased' (UNAIDS and UNDCP, 2000). Data from the ethnographic study of injecting drug users in Kathmandu shows that heroin is preferred, but it is quite expensive for daily injecting use. However, a significant shift in drug use pattern occurred in 1990 with the introduction of buprenorphine, which quickly replaced heroin as the leading drug. Buprenorphine (commonly known as tidigesic) is much cheaper than heroin, and is easily available in injectable form (UNAIDS and UNDCP, 2000). This section attempts to analyze the extent of drug use in the past (before joining OST) including drug injecting habits among the study population.

4.1 Drug used in the past

The OST users in past used the various types of drugs in different patterns. The age at first drug use, method, duration and source of inspiration to use drugs determined their pattern. The table 4 shows the drug use pattern of the respondents in the past before using OST.

	Male		Female		Total	
	N	%	N	%	N	%
Age at first drug use						
Less than 10 years	2	1.0	0	0.0	2	0.9
10-14	47	23.3	4	22.2	51	23.2
15-19	118	58.4	11	61.1	129	58.6
20-24	22	10.9	2	11.1	24	10.9
25 years and above	13	6.4	1	5.6	14	6.4
Mean age at first drug use	**17.1**		**17.1**		**17.1**	

	Male		Female		Total	
	N	%	N	%	N	%
Which drug did you take in the very first time?						
Ganja	65	32.2	11	61.1	76	34.5
Brown sugar	62	30.7	2	11.1	64	29.1
Valium/Tablets	48	23.8	2	11.1	50	22.7
Phensidyl	6	3.0	0	0.0	6	2.7
White sugar	5	2.5	3	16.7	8	3.6
Chares/Heroin	5	2.5	0	0.0	5	2.3
Tidigesic	5	2.5	0	0.0	5	2.3
Norphine	4	2.0	0	0.0	4	1.8
Opioids	2	1.0	0	0.0	2	0.9
How did you take the drug for the first time?						
Through smoking	102	50.5	8	44.4	110	50.0
Taken orally	64	31.7	4	22.2	68	30.9
By sniffing	25	12.4	5	27.8	30	13.6
Through injection	11	5.4	1	5.6	12	5.5
Duration of any drug use						
Up to 5 years	8	4.0	4	22.2	12	5.5
6-10 years	57	28.2	10	55.6	67	30.5
11-15 years	70	34.7	2	11.1	72	32.7
More than 16 years	67	33.2	2	11.1	69	31.4
Duration in average years	**13.6**		**8.6**		**13.2**	
Who forced/inspired you to take the drug for the first time						
Friends	122	60.4	12	66.7	134	60.9
Curiosity	62	30.7	2	11.1	64	29.1
For pleasure/entertainment	15	7.4	2	11.1	17	7.7
Family reasons	2	1.0	0	0.0	2	0.9
Girl/boy friend	1	0.5	2	11.1	3	1.4
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

Table 4: Percentage distribution of respondents with history of drug use

Age at first drug use: Majority of the respondents (59%) entered into drug habit during 15-19 years of age (female 61% and female 58%). Among these age categories, twenty three percent male and twenty two percent female initiated drug use even at a tender age (10-14 years). There were very few drug users (6%) who said that they had begun drug use when

they were 25 years and more than that. This indicates that drug use generally began during adolescence. The median age at entering into drugs was 17.1 years for both male and female.

Types of drug used: Marijuana (ganja, chares, bhang) and Brown sugar were the common substance used by the male beginners (32% and 31% respectively) as an entry into drug habit while Marijuana (ganja, chares, bhang) was relatively the common substance used by the female beginners (61%). Brown sugar was less common for female beginners (11%).

Mode of drug use: Half of male and 44 percent female entered into drug use habit by smoking the substance. One out of three male (32%) as against one-fifth female (22%) initiated drug use by consuming the drug orally. Moreover, more than double female (28%) than male (12%) started using the drug by sniffing. Very few respondents who were currently injecting drugs directly entered into injecting habit from the start (both male and female 5%).

Duration of drug use: As for the duration of drug used, almost all the respondents had been using drug for more than five years. Of them, over a third male had been using drug for 11-15 years (35%) and similar number of male are using it for 16 year and above (33%). On the other hand, majority of female (56%) had been using the drug for 6-10 years, while half of the male than female were using the drug for the same period (28%). Either friends inspired or forced to take drug for majority of the respondents (61%). More than 29 percent started taking drug out of curiosity. Very few started taking drug for pleasure (8%).

4.2 Drug use while in OST

It was identified whether the respondents took drugs while in OST. The findings revealed that most of the respondents did not use drugs after they were involved in OST.

Table 5: Percentage distribution of respondents with drug use while in OST

	Used drug along with OST					
	Yes		No		Sometimes	
Sex	**N**	**%**	**N**	**%**	**N**	**%**
Male	23	11.4	162	80.2	17	8.4
Female	2	11.1	15	83.3	1	5.6
Total	**25**	**11.4**	**177**	**80.5**	**18**	**8.2**

According to table 5, a total of 83 percent female and 80 percent male did not use drugs during OST. However, 11 percent instances of respondents using drugs even after taking OST were reported in the study. Higher proportion of male (8%) than female (6%) have used drug sometime while in OST.

4.3 Injecting practices in the past

It was determined the number of respondents who injected drugs in the past and their age at first injecting drug use. The table 6 shows the situation as follows:

Table 6: Percentage distribution of respondents with the history of injecting drug use

	Male		Female		Total	
	N	%	N	%	N	%
Ever injected drug						
Yes	172	85.1	13	72.2	185	84.1
No	30	14.9	5	27.8	35	15.9
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**
Age at first injecting drug						
10-14	8	4.7	0	0.0	8	4.3
15-19	66	38.4	8	61.5	74	40.0
20-24	68	39.5	3	23.1	71	38.4
25 years and above	30	17.4	2	15.4	32	17.3
Mean age at first injecting	**20.8**		**19.8**		**20.7**	
Total	**172**	**100.0**	**13**	**100.0**	**185**	**100.0**

As per table 6, 84 percent respondents in total had injected drug in past. Over 44 percent of them started to use injecting drugs during adolescence and before turning 20 years of age. Of them 61.5 percent female and over 43 percent male started injecting drug in 15-20 years of age. Another 39.5 percent male and 23 percent female began injecting drugs a little later (20-24 years). The median age for the first injection was 20.8 years for male and 19.8 years for female. This shows that females started using injecting drugs earlier than males.

4.4 Types of drugs injected

Injecting Drug Users (IDUs) prefer to use combination of different drugs. It was identified the type of drugs injected by the OST users in the past. The findings are shown in the table 7.

Table 7: Percentage distribution of respondents with types of drug injected

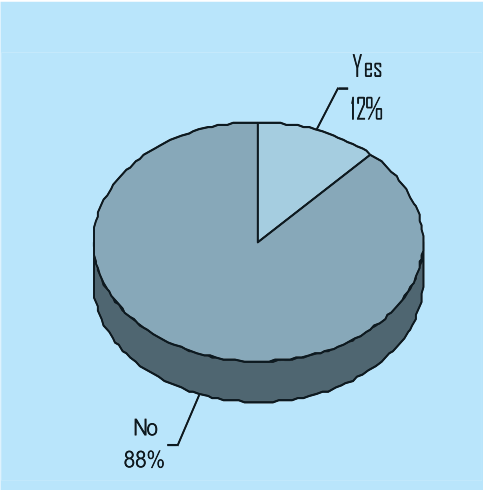
Types of drug injected*	Male		Female		Total	
	N=172	%	N=13	%	N=185	%
Types of combination of drug						
Buprenorphine along with Diazepam, Phenargan or/and Avil	145	84.3	11	84.6	156	84.3
Buprenorphine along with Diazepam/ Phenargan/Avil mixed	111	64.5	8	61.5	119	64.3
Types of single drug						
Buprenorphine	120	69.8	9	69.2	129	69.7
Heroin/Brown sugar	113	65.7	5	38.5	118	63.8
Diazepam only	63	36.6	5	38.5	68	36.8
Avil only	53	30.8	6	46.2	59	31.9
Proxyvon/Spasmoproxyvon (SP)	30	17.4	5	38.5	35	18.9
Pethidine/Fortwin	18	10.5	0	0.0	18	9.7
White sugar	1	0.6	0	0.0	1	0.5
Cocaine	0	0.0	1	7.7	1	0.5

**Multiple responses*

In the present study, most of the respondents reported that they used the drug combination of Buprenorphine along with Diazepam, Phenargan or/and Avil (84%); or Buprenorphine along with Diazepam/ Phenargan/Avil mixed (65%). Sometime, they injected single drug. The types of drugs used as single drug were: Buprenorphine i.e. 70% 'Heroin or Brown Sugar' (64%); 'Diazepam' (37%); 'Avil' (32%); and 'Proxyvon' or 'Spasmoproxyvon' (19%).

4.5 Injected drug while in OST

Figure 1. Injected drug While in OST



It was felt important to know whether the OST users injected again the drugs while in OST. The results from the current study clearly indicate that most of the respondents had not injected drug after they were involved in OST (88%). While, some of them replied that they had injected drug even after taking OST (Figure 1).

Those who have been injecting while they were in OST (n=26) were asked the reasons for injecting drug while in OST. As shown in figure 2, two-fifth of them reported of insufficiency of OST (42%) and slightly less than that reported of craving (39%). About one-fifth reported that they had injected drug while in OST because they were forced by their friend (19%).

Figure 2: Reasons for injecting drug while in OST (N=26)

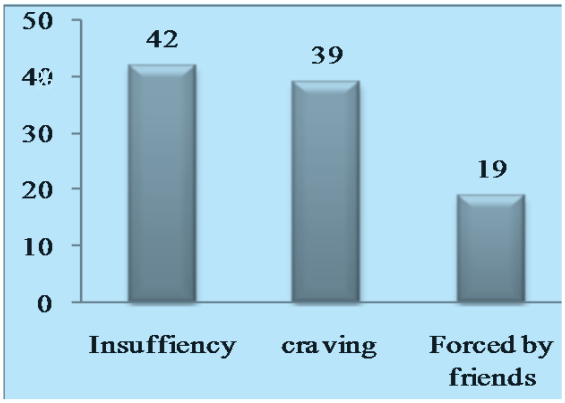
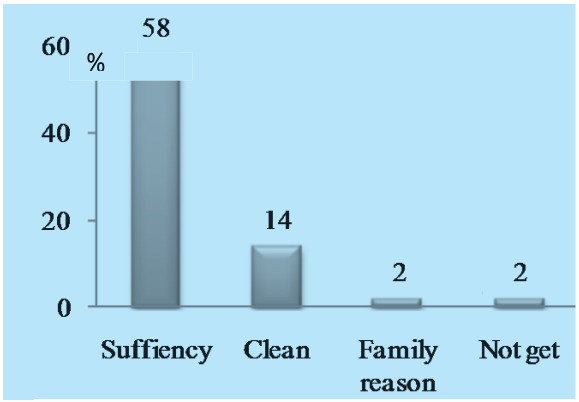


Figure 3: Reasons for not injecting drug while in OST (N=194)



Similarly, those who were not injecting while they were in OST (n=194) were also asked the reasons for not injecting the drug while in OST. As per figure 3, nearly three-fifth of them replied that opioid substitution therapy was sufficient for them (58%) to maintain their regular life, while one in seven reported that they were clean already (14%).

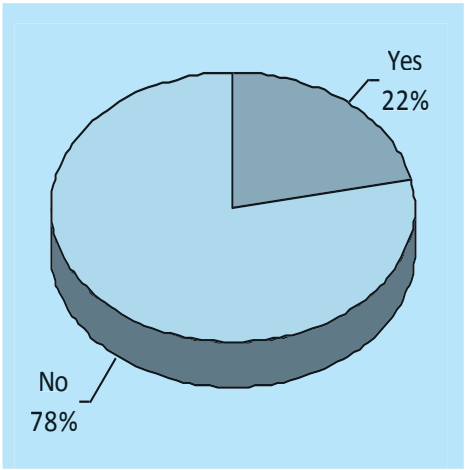
4.6 Past history of needle/syringe sharing behavior

Injecting drug users are considered to be one of the core groups of HIV transmission primarily because of their diffused networks with widespread unsafe needle sharing practices and risky sexual behavior within and outside their groups (CREHPA/FHI, 2002). Therefore, their contribution towards HIV transmission into the general population depends upon their needle sharing behaviors as well as sexual networks. An understanding of such practices works as a blueprint for effective intervention among the IDUs. Ethnographic studies carried out by FHI/CREHPA in 2004 have shown that most of the IDUs have their own injecting groups, with varying number of members and they commonly cited lack of money as a reason for sharing. That is if a group had to pool their money in order to buy drugs and syringe, then that automatically led to sharing (FHI/CREHPA, 2004).

The study solicited information regarding the past history of needle sharing behavior from 185 (172 male and 13 female) respondents who had the history of injecting drug.

The past history of IDUs in terms of their needle/ syringe sharing behavior was remarkable. The large majority of them (78%) had adopted low risk behaviors as they reported that they did not share the needle already used by others (Figure 4). They seemed to be more cautious about the consequences of using the syringe used by others.

Figure 4: Ever injected drug with friend by using same needle (n=185)



On the other hand, over, one-fifth (22%) injecting drug users showed unsafe practices as they reported that they shared the needle with their friends that were already used.

Those who shared the needle/syringe (N=40) were further asked with how many different individuals did they shared needles/syringe.

Table 8: Percentage distribution of respondents with number of friends with needles shared in the past

	Male=38		Female=2		Total=185	
	N	%	N	%	N	%
Number of friends in the group shared with the same needle						
1	2	5.3	1	50.0	3	7.5
2	13	34.2	1	50.0	14	35.0
3	9	23.7	0	0.0	9	22.5
4	8	21.1	0	0.0	8	20.0
5	6	15.7	0	0.0	6	15.0
Total	**38**	**100.0**	**2**	**100.0**	**40**	**100.0**

The data reveals that those drug users who shared the needles/syringe often shared it with minimum one to maximum five people. Table 8 further explains that among those who shared the needle with their friend, one third of them shared it with two friends (35%), and one-sixth shared with 5 friends (15%). Very few shared with single friend (7.5%).

4.7 Daily expenses for drug use in the past

Drug users were further asked how much had they spent for drug in the past. The findings are shown in table 9 as follows:

Table 9: Percentage distribution of respondents by monetary expenses for drug use in the past

	Male		Female		Total	
	N	%	N	%	N	%
Amount of money spent on drugs						
Up to 1000 rupees	54	26.7	3	16.7	57	25.9
1000-2000 rupees	78	38.6	8	44.4	86	39.1
2000-3000 rupees	35	17.3	3	16.7	38	17.3
More than 3000 rupees	32	15.8	4	22.2	36	16.4
NR/DK	3	1.5	0	0.0	3	1.4
Average expenses	**2319.8**		**2466.7**		**2332.0**	
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

Table 9 reveals that on a typical day drug users spent up to NRs 3000 plus for the drug. Around two-fifth drug users (39%) reported of spending 1000 to 2000 NRs on a typical day for drug while a quarter reported of spending less than 1000 NRs daily (26%). A higher percentage of female drug users spent NRs 1000 to 2000 (44%) every day than their male counterparts (39%). Those spending more than 3000 NRs comprised one-sixth (16%). The daily average expense was around 2300 NRs.

The respondents were further asked how they managed their drug expenses.

Table 10: Percentage distribution of respondents with financial management for drug use

	Male		Female		Total	
	N	%	N	%	N	%
Ways of managing money for drugs use*						
Self-income	117	57.9	6	33.3	123	55.9
Get from family members	118	58.4	8	44.4	126	57.3
Get from friends	40	19.8	7	38.9	47	21.4
Stole/Selling utensils of home	16	7.9	3	16.7	19	8.6
Get from selling drug	3	1.5	0	0	3	1.4
Amount of money spent from earnings on drugs use						
Almost all of it	161	79.7	14	77.8	175	79.5
About half of it	35	17.3	4	22.2	39	17.7
About 25% of it	2	1.0	0	0.0	2	0.9
Lesser than 25%	1	0.5	0	0.0	1	0.5
No response	3	1.5	0	0.0	3	1.4
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

*Multiple responses

Majority of the respondents reported that they managed money from family members (57%), while slightly less than that informed that they spent from their own income (56%) and one-fifth managed their expenses with the help of their friends (21%). Some drug users admitted of stealing/selling of utensils of home to meet their drug expenses (9%). Double of female (17%) than male (8%) reported of steeling/selling utensils of home to meet their drug expenses. Very few male (1.5%) and none of female stated that they used to meet their drug expenses by selling drug (1.5%). About four-fifth of the drug user spent almost all the money they had earned for the drug (79.5%). Nearly one-fifth spend fifty percent of the money they had earned on drug (18%).

4.8 Efforts to get rid of drug use in the past

All the respondents were asked if they had made any effort to get rid of the drug habits before participating in OST with buprenorphine. Three-fifth of them (61%) replied that they had attempted to get rid of drug use in the past. The percentage of male drug users attempting to get rid of drugs was slightly higher (62%) than those of female drug users (57%).

Table 11: Percentage distribution of respondents by type of efforts made to get rid of drug and the duration of the treatment

	Male		Female		Total	
	N	%	N	%	N	%
Type of treatment*						
Rehabilitation	125	100.0	10	100.0	135	100.0
Used methadone	7	5.6	0	0.0	7	5.2
Self-treatment	2	1.6	0	0.0	2	1.5
Total	202	100.0	18	100.0	220	100.0
Duration of stay in treatment center						
Less than 6 month	68	54.4	8	80.0	76	56.3
6-12 months	37	29.6	2	20.0	39	28.9
1-2 years	7	5.6	0	0.0	7	5.2
More than 2 years	13	10.4	0	0.0	13	9.6
Total	**125**	**100.0**	**10**	**100.0**	**135**	**100.0**

*Multiple responses

As per table 11, the types of efforts made to get rid of drug addiction were basically staying at a rehabilitation (recovering) center (100%). Some of them had received OST service (methadone maintenance) treatment (5%). Majority of the drug users (56%) had stayed at a rehab center at least once for 6 months duration and more than a quarter went there for six months to twelve months (29%), while very few male (2%) and none of female had attempted self-control measures.

Those who had attempted to get rid of drug use were further asked how much money they spent for the treatment.

Table 12: Percentage distribution of respondents by the expenses for the treatment

Expenses for the treatment	Male		Female		Total	
	N	%	N	%	N	%
Free of cost	12	9.6	0	0.0	12	8.9
Less than 15000	29	23.2	2	20.0	31	23.0
15000-30000	19	15.2	1	10.0	20	14.8
30000-50000	27	21.6	2	20.0	29	21.5
More than 50000	32	25.6	4	40.0	36	26.7
Don't' know	6	4.8	1	10.0	7	5.2
Average expenses- NRs	**51564.5**		**10444.4**		**55667.2**	
Range- NRs	**300 - 3,00,000**		**500 - 3,00,000**		**300 - 3,00,000**	
Total	**125**	**100.0**	**10**	**100.0**	**135**	**100.0**

As per table 12, the treatment cost ranged from free of cost to more than NRs 3,00,000. Slightly more than a quarter of drug users reported that they had spent more than NRs 50,000 for the treatment (27%) while, one out of ten reported of receiving the free treatment (9%).

The respondents were further asked whether they were still receiving the treatment. Table 13 revealed that 93 percent in total respondents reported that they avoided the treatment after they started taking buprenorphine. However, very few (n=9) reported of continuing the treatment.

Table 13: Percentage distribution of respondents with status of treatment

	Male		Female		Total	
	N	%	N	%	N	%
Still receiving treatment while taking buprenorphine						
Yes	7	5.6	2	20.0	9	6.7
No	118	94.4	8	80.0	126	93.3
Total	**125**	**100.0**	**10**	**100.0**	**135**	**100.0**
Reason for avoiding treatment*						
Due to starting to take buprenorphine	61	51.7	2	25.0	63	50.0
Dislike staying in rehab center	19	16.1	4	50.0	23	18.3
Discharged from the center	21	17.8	0	0.0	21	16.7
No proper work	10	8.5	1	12.5	11	8.7
Relapse problem	6	5.1	0	0.0	6	4.8
Due to closed down of that center	2	1.7	2	25.0	4	3.2
Due to financial problem	2	1.7	0	0.0	2	1.6
Not getting enough time	2	1.7	0	0.0	2	1.6
NR	2	1.7	0	0.0	2	1.6
Total	**118**		**8**		**126**	

*Multiple responses

Those who had left receiving the treatment were asked why they avoided the treatment (n=126). Table 13 further describes that half of them reported that they avoided the treatment because they started the OST with buprenorphine (50%). The other reasons reported were ‘dislike staying in rehab center’ (18%), ‘discharged from the center’ (17%), ‘no proper work’ (9%) and ‘relapse problem’ (5%).

CHAPTER 5 ACKNOWLEDGED AND PERCEPTION ABOUT HIV AND AIDS

Knowledge about HIV and AIDS and mode of HIV transmission is vital in modifying high risk behaviors among drug users. The widespread knowledge about HIV and AIDS and its mode of transmission among most at risk population (IDUs, FSWs, clients of FSWs, migrant males and MSM). This section attempts to assess the extent of knowledge about HIV and AIDS and HIV test facility including perceived risk of contracting HIV among the drug users.

5.1 Knowledge on HIV and AIDS

As expected, knowledge about HIV and AIDS was universal among the study population.

Table 14: Percentage distribution of respondents aware of HIV and AIDS

	Male		Female		Total	
	N	%	N	%	N	%
Ever heard about HIV and AIDS						
Yes	202	100.0	18	100.0	220	100.0
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**
Know anyone who was infected with HIV or who died of AIDS						
Yes	142	70.3	7	38.9	149	67.7
No	52	25.7	9	50.0	61	27.7
Don't know	8	4.0	2	11.1	10	4.5
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

As per table 14, about 68 percent of the respondents were also aware of someone who was infected with HIV or died of AIDS. Higher proportion of male drug users (70%) than female drug users (39%) were aware of this fact.

5.2 Knowledge about HIV test facility

Availability of a HIV test facility in the community and knowledge about such facilities help people to test their HIV status timely. Table 15 shows the level of awareness of the respondents on this issue.

Table 15: Percentage distribution of respondents aware about the confidential HIV test facility in the community

	Male		Female		Total	
	N	%	N	%	N	%
Possibility for someone to get a confidential HIV test in community						
Yes	162	80.2	13	72.2	175	79.5
No	30	14.9	2	11.1	32	14.5
Don't know	10	5.0	3	16.7	13	5.9
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

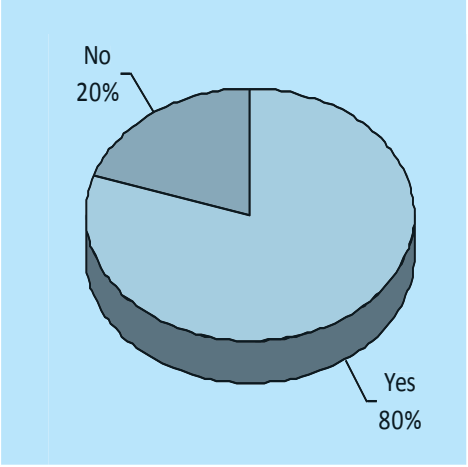
Table 15 vividly shows that a large majority of the respondents (79.5%) were aware of the facility in their community where they could obtain confidential HIV tests. Higher percentage of male drug users (80%) than female drug users (72%) reported that it is possible to get a confidential HIV test in their community. On the other hand one out of seven male drug users (15%) as against one out of ten female drug users (11%) reported that confidential HIV test is not available in their community, while, very few reported that they did not know about confidential HIV test in their community (6%).

5.3 HIV test

HIV test is very crucial in detection of HIV infection among drug users. All the respondents were also asked if they had ever undergone HIV test (without asking them to disclose the results). As shown in figure 5, Four-fifth of the drug users reported that they had undergone HIV test (80%) while one-fifth informed that they had not undergone HIV test (20%).

Out of the total of respondents, four-fifth male drug users (81%) as against two-third female drug users (67%) had undergone HIV test.

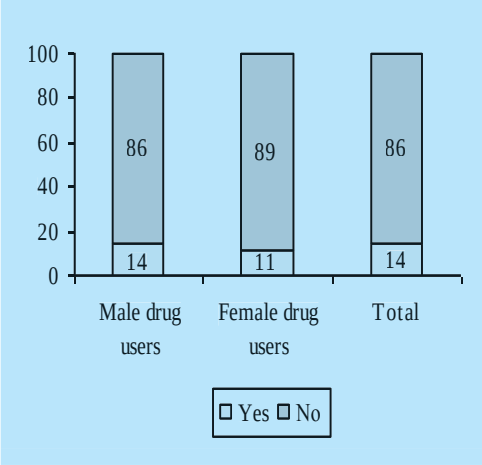
Figure 5: Undergone HIV test



5.4 Perceived risk of being infected with HIV

Perceived risk of any disease or threat encourages people to avoid health compromising behaviors. It was asked to the drug users whether they perceived threat to HIV infection due to their risky behaviors. As per figure 6, most of the respondents did not perceive themselves to be at the risk of contracting HIV (86%). Comparatively the percentage of the respondents believing so was little higher among the female (89%) than the male (86%).

Figure 6: Perceived oneself at risk of being infected with HIV



It was further asked why the respondents felt being safe from the infection of HIV. The four frequently cited reasons of positive/safe behavior among the respondents were: "do not share needles", "injects alone", "consistent condom use" and "do not visit sex workers".

Table 16: Percentage distribution of respondents not perceiving the risk of HIV

Reasons for feeling safe from the risk of being infected of HIV*	Male		Female		Total	
	N	%	N	%	N	%
Do not share syringe/needle	98	56.3	8	50.0	106	55.8
Inject alone	51	29.3	7	43.8	58	30.5
Regular condom use	43	24.7	5	31.3	48	25.3
No sex with sex workers	43	24.7	4	25.0	47	24.7
Regular sex partner	35	20.1	3	18.8	38	20.0
Cleaned needle appropriately	29	16.7	1	6.3	30	15.8
No injecting behavior	14	8.0	0	0.0	14	7.4
Never been sex	2	1.1	0	0.0	2	1.1
No response	9	5.2	0	0.0	9	5.2
Total	**174**		**16**		**190**	

*Multiple responses

Those who felt themselves to be safe from being infected of HIV (n=190), 56 percent of them acknowledged that they 'did not share needles and syringe' while higher proportion of female (44%) than male (30.5%) gave the reason that they 'injected alone'. The percentage of those citing 'consistent condom use' was slightly higher among female (31%) than male respondents (25%). Similarly, those citing 'no sex with sex worker' were equal among both female and male (25%). Other reasons mentioned for safe behavior were 'regular sex partner (20%) and 'cleaned needle appropriately' (16%).

Similarly respondents who perceived themselves at risk of contracting HIV (n=30) were asked why they perceived so.

Table 17: Percentage distribution of respondents with perceived risk of being infected of HIV

Reasons for feeling he risk of HIV infection*	Male		Female		Total	
	N	%	N	%	N	%
Injecting drug	15	53.6	0	0.0	15	50.0
Share syringe/needle with cleaning	14	50.0	0	0.0	14	46.7
Unsafe sexual practices	10	35.7	1	50.0	11	36.7
More than one sex partners'	4	14.3	1	50.0	5	16.7
Share syringe/needle without cleaning	4	14.3	0	0.0	4	13.3
Total	**28**		**2**		**30**	

*Multiple responses

As per table 17, a total of 54 percent drug users felt that because they 'injected drug', 'shared the needle and syringe with cleaning' (50%) and due to their 'unsafe sexual practices' (36%) they considered themselves to be at risk of being infected of HIV. None of the female drug users said so. Similarly, one in seven males (14%) felt themselves to be at risk due to 'having multiple sex partner' (14%) and an equal proportion of male also felt that they 'shared syringe and needle without cleaning' (14%). While, the female perceived that they were at risk of HIV due to 'unsafe sexual practice' and having 'more than one sex partner'.

CHAPTER 6 PARTICIPATION IN OST PROGRAM AND SERVICES

OST with buprenorphine was started for the first time in Nepal in 2007 by "Youth Vision". For many drug users, addiction takes over their lives, destroying their ability to function in family, workplace, and community. Buprenorphine, like 'Methadone' can be used as a short or long-term detoxification medication or indefinitely as a maintenance medication. Early treatment of drug use may be able to prevent some drug users from beginning to inject. For those who have already injected, treatment can help them reduce or stop injecting. In either case, substance abuse treatment can reduce the chances of blood-borne HIV and hepatitis B and C transmission. Respondents' participation to the ongoing OST program and the changes brought by the programs in their lives has been discussed in this section.

6.1 Duration of involvement in OST

It was identified the duration of involvement of the drug users in OST of Youth Vision.

Table 18: Percentage distribution of respondents with their involvement in OST program

When did you start OST?	Male		Female		Total	
	N	%	N	%	N	%
Less than 6 months	67	33.2	8	44.4	75	34.1
6-12month	24	11.9	8	44.4	32	14.5
12-24 months	22	10.9	1	5.6	23	10.5
More than 24 months	89	44.1	1	5.6	90	40.9
Average months	**27.1**		**10.3**		**25.6**	
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

It was found that 41 percent respondents had started using OST with buprenorphine since last 24 months or more. Male were 6 times more likely than females to start the OST in the last 24 months or more (44% vs. 6%). Those drug users starting OST in less than six months comprised thirty four percent. Higher percentage of females (44%) than males (33%) started OST in less than six months and female were 4 times more likely than males to start OST in last 6-12 months prior to the present survey (44% vs. 12%).

6.2 Source of information about OST

It was found out the source of information among the drug users about OST of the Youth Vision. Mostly the friend circle was the source of knowledge to join OST.

Table 19: Percentage distribution of respondents by the sources of information about OST

Source of information about the OST with buprenorphine available in Youth Vision*	Male		Female		Total	
	N	%	N	%	N	%
Through friends	163	80.7	13	72.2	176	80.0
Through Youth Vision	57	28.2	6	33.3	63	28.6
Through family members	20	9.9	2	11.1	22	10.0
Others	8	4.0	2	11.1	10	4.5
Total	**202**		**18**		**220**	

*Multiple responses

As per table 19, large majority of the respondents knew about the OST program offered by Youth Vision through friends (80%) followed by the program of youth Vision itself (29%). Another one-tenth of the respondent knew about the program through their family members (10%). There were a few respondents (4.5%) who knew about the OST program through other sources (Radio, Television, newspapers etc.).

6.3 Reasons for coming to Youth Vision for OST

The respondents were asked why they joined the OST program of Youth Vision. The reasons for coming to Youth Vision for OST are shown in table 20.

Table 20: Percentage distribution of respondents with reasons for coming to Youth Vision for OST

Reasons behind to come Youth Vision for OST*	Male		Female		Total	
	N	%	N	%	N	%
To get medicine	149	73.8	12	66.7	161	73.2
Quality service provider	73	36.2	4	22.3	82	35
Recommended by others	15	7.4	5	27.8	20	9.1
Nearby	18	8.9	1	5.6	19	8.6
Do not know about other organization	14	6.9	3	16.7	17	7.7
Referred by other NGOs	15	7.4	1	5.6	16	7.3
Friends getting service from here	14	6.9	1	5.6	15	6.8
Easy to get service	11	5.4	0	0	11	5.0
Confidentiality	10	5.0	1	5.6	11	5.0
Familiar	8	4.0	1	5.6	9	4.1

*Multiple responses

Notably, seven in ten reported the reason for coming to youth Vision as 'to get medicine' (73%). One third also mentioned of 'quality service provider' (35%). The other reasons for coming to Youth Vision for OST were 'recommended by others' (9%) and 'nearby' (9%).

The KIs perceived the reason for success of the OST program was due to 'commitment' of the Youth Vision. 'Community based', 'experienced', 'demand of OST', 'follow-up and regular monitoring', 'client focused', 'improvement in the quality of life of drug users', 'team work', 'low side effect' and 'social and clinical aspects are taken together ' were other reasons of success of OST perceived by KIs.

6.4 Continuity in OST

The success of OST program depends on the continuity of drug users in it. Large majority of the respondents reported that they had been continuing since they had started taking OST (70%), while about a third of the respondents had discontinued OST for some time (30%) and re-joined OST after some time.

Table 21: Percentage distribution of respondents by continuation of OST

	Male		Female		Total	
	N	%	N	%	N	%
Continuation of (OST) since beginning						
Continued from the beginning	141	69.8	13	72.2	154	70.0
Discontinued for some time	61	30.2	5	27.8	66	30.0
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**
Reason for discontinuation of OST						
Dislike the medicine	26	42.6	4	80.0	30	45.5
Due to busy	9	14.8	0	0.0	9	13.6
Behavior of provider was not good	8	13.1	1	20.0	9	13.6
I felt I was cured	9	14.8	0	0.0	9	13.6
Due to illness	2	3.3	0	0.0	2	3.0
Unwilling	2	3.3	0	0.0	2	3.0
Family problem	2	3.3	0	0.0	2	3.0
No response	2	3.3	0	0.0	2	3.0
Had gone to another organization	1	1.6	0	0.0	1	1.5
Total	**61**	**100.0**	**5**	**100.0**	**66**	**100.0**

As per table 21, proportion of male (30%) discontinuing OST for some time was slightly higher than female (28%). Those who had discontinued were asked why they stopped OST. More than two-fifth reported saying that they 'disliked the medicine' (45.5%). Proportion

of female to dislike medicine was double (80%) than their male counterparts (43%). One in seven male (15%) and none of female reported that they had discontinued for some time because they were 'busy' (14%). An equal proportion of respondents discontinued because the 'behavior of the provider was not good' (14%) and similar percentage of male and none of female mentioned that they 'felt cured' (14%).

Further analysis of the discontinuation of OST for some time by respondents (n=66) shows the positive relation with the duration of drug use. Higher the duration of drug use, higher was the discontinuation rate of OST.

Table 22: Discontinuation of OST by duration of drug use, starting dose and duration of OST use.

	Discontinuation of OST	
	N (66)	%
Duration of drug use		
Up to 5 years	3	4.5
6-10 years	19	28.8
11-15 years	21	31.8
More than 16 years	23	34.8
Starting dose of Buprenorphine		
Less than 3 Mg	20	30.3
3 Mg	3	4.5
4 Mg	21	31.8
More than 4 Mg	19	28.8
Don't know	3	4.5
Duration of OST use		
Less than 6 months	17	25.8
6-12month	13	19.7
12-24 months	8	12.1
More than 24 months	28	42.4
Total	**66**	**100.0**

According to table 22, out of the total respondents who reported of discontinuation of OST for some time, higher proportion had the history of more than 16 years of drug use (35%). Respondents who had the history of drug use of less than 5 years the discontinuation rate was 4.5 percent. Those using higher dose of OST in the beginning had the higher proportion of discontinuation rate of OST and higher the duration of OST use higher was the discontinuation rate of OST for some time.

6.5 Current and past dose of buprenorphine

Table 23 shows the starting dose and current dose of OST with buprenorphine. The data reveals the decreasing trend in the dose intake of OST. Proportion of respondents using more than 4 Mg (31%) and 4 Mg (30%) of OST as starting dose had declined currently to about one percent and two percent respectively. On the other hand respondents receiving less than 3 Mg of OST had increased by almost double currently.

Table 23: Percentage distribution of respondents according to starting dose and current dose of buprenorphine

Dose of buprenorphine	Starting dose of buprenorphine						Current dose of buprenorphine					
	Male		Female		Total		Male		Female		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Less than 3 Mg	44	21.8	8	44.4	52	23.6	83	41.1	7	38.9	90	40.9
3 Mg	27	13.4	1	5.6	28	12.7	2	1.0	0	0.0	2	0.9
4 Mg	66	32.7	3	16.7	69	31.4	4	2.0	0	0.0	4	1.8
More than 4 Mg	60	29.7	6	33.3	66	30.0	2	1.0	0	0.0	2	0.9
Don't know	5	2.5	0	0.0	5	2.3	6	3.0	0	0.0	6	2.7
Dose completed/ clean	0	0.0	0	0.0	0	0.0	105	52.0	11	61.1	116	52.7
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

According to Table 23, decrease in higher dose and increase in lower dose indicated that more and more drug users were decreasing their high dose of OST to lower dose and were in the process of completing the dose of OST or in the process of 'clean'. More than half of the respondent reported that their OST dose was completed and they were clean (53%).

Those respondents who reported of dose completed/cleaned (n=116) were further analyzed on various background characteristics as in table 24.

Table 24: Percentage distribution of respondents completing the dose of OST by background characteristics and duration of drug use and OST use

	Dose completed	
	N (116)	%
Sex		
Male	105	52.0
Female	11	61.1
Age		
Less than 20	1	0.9
20-34	89	76.7
35 and above	26	22.4
Level of education		
Illiterate	2	1.7
Low level of education	5	4.3
Some Secondary (6-10)	35	30.2
SLC and above	74	63.8
Duration of drug use		
Up to 5 years	7	6.0
6-10 years	29	25.0
11-15 years	39	33.6
More than 16 years	41	35.3
Starting dose of OST with buprenorphine		
Less than 3 Mg	25	21.6
3 Mg	16	13.8
4 Mg	31	26.7
More than 4 Mg	42	36.2
Don't know	2	1.7
Duration of OST		
Less than 6 months	28	24.1
6-12month	19	16.4
12-24 months	13	11.2
More than 24 months	56	48.3
Total	**116**	**100.0**

Table 24 shows that the proportion of female respondents completing OST dose or those reported of clean was slightly higher (61%) than male OST user (52%). Higher proportion of respondents completing the dose of OST were in between 20-34 years of age (77%) followed by 34 years of age and above (22%).

Education had positive relationship with the completion of OST dose. Higher the education, higher was the completion of OST dose. Those completing SLC and above education comprised two-third (64%) followed by completing lower secondary and secondary level of education (30%). Similarly higher proportion of respondents starting with higher dose of more than 4 mg and 4 mg of OST had completed the dose (36% and 27% respectively) and those using the OST since last 24 months and more comprised nearly half (48%) followed by respondents using OST since last six months (24%).

6.6 Perceived behavior of the service provider towards OST users

Since behavior of service provide determines the success of OST program, it was inquired with the respondents about the situation in this study too. The findings are shown in the table 25 as follows:

Table 25: Percentage distribution of respondents with their perception on the behavior of service provider

	Male		Female		Total	
	N	%	N	%	N	%
Perceived behavior of the service provider						
Friendly	68	33.7	6	33.3	74	33.6
Moderate	122	60.4	12	66.7	134	60.9
Less friendly	12	5.9	0	0.0	12	5.5
Total	202	100.0	18	100.0	220	100.0
Less friendly behavior felt by the respondents*						
Discriminating	7	58.3	0	0.0	7	58.3
Dominating	4	33.3	0	0.0	4	33.3
Scolding	3	25.0	0	0.0	3	25.0
Not providing service on time	2	16.7	0	0.0	2	16.7

*Multiple responses

As per table 25, one-third of the respondents reported the behavior of the staff of Youth Vision as 'friendly' (34%), while three-fifth perceived the 'moderate behavior' of the staff (61%). Few male (5%) and none of female respondents reported of 'less friendly' behavior of staff. Those respondents reporting less friendly (n=12) were further asked the types of behavior they felt less friendly. Among them, majority of the respondents accused 'discriminating' behavior of the staff (n=7). The other types of less friendly behaviors perceived were: 'dominating' (n=4), 'scolding' (n=3) and 'not providing service on time' (n=2).

6.7 Constraint in getting service

Constraints in getting OST service hinder the success of the program. It was found that almost all the male (91%) and all female (100%) did not have to face any problem in getting the OST services from Youth Vision. However, some male respondents reported of facing problems in getting the services (n=21).

Table 26: Percentage distribution of respondents by the problems faced in getting service

	Male		Female		Total	
	N	%	N	%	N	%
Faced any problem to get service from Youth Vision						
Yes	21	10.4	0	0.0	21	9.5
No	181	89.6	18	100.0	199	90.5
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**
If yes, the type of problems faced*	**Male**		**Female**		**Total**	
	N=21	**%**	**N**	**%**	**N=21**	**%**
Not getting medicine in time	6	28.6	0	0.0	6	28.6
Long procedure to get service	14	66.7	0	0.0	14	66.7
Service provider not available in time	3	14.3	0	0.0	3	14.3
Treated badly by provider/insulted	3	14.3	0	0.0	3	14.3
Far away	2	9.5	0	0.0	2	9.5
Not maintaining confidentiality	1	4.8	0	0.0	1	4.8

* Multiple responses

As per table 26, the type of problems faced by the respondents included , 'not getting medicine in time' (n=6), 'long procedure to get service' (n=14) and 'service provider not available in time' (n=3).

KIs also highlighted the 'accessibility' as the main barrier for utilization of OST by target group. Likewise, 'low level of awareness' about the program and its benefit among the target group was another barrier for utilization.

Respondents also suggested overcoming the problems they had faced while getting OST services. The suggestions to overcome such problems are listed in the table 27 as follows:

Table 27: Percentage distribution of respondents with suggestions to overcome the problems

Suggestions to minimize such problems*	Male		Total	
	N	%	N	%
Service should provide in time	9	42.9	9	42.9
Medicine should get easily	6	28.6	6	28.6
Service provider should be polite	5	23.8	5	23.8
Clinic should be established in central area	3	14.3	3	14.3
Process should not be lengthy	3	14.3	3	14.3
Confidentiality should be maintained	1	4.8	1	4.8
Service provider should be present any time	1	4.8	1	4.8

*Multiple responses

Table 27 shows that two-fifth respondents suggested that the service should be provided in time (43%). The other suggestions mentioned were: medicine should get easily (29%), service provider should be polite (24%), OST clinic should be established in the central area (14%) and process should not be lengthy (14%).

6.8 Change in injecting habit after OST

After taking OST, changes in injecting habit of respondents' had been reported which are shown in table 28 as follows:

Table 28: Percentage distribution of respondents with change in injecting habit after OST

Change in habit of injecting behavior after taking OST	Male		Female		Total	
	N	%	N	%	N	%
Cleaned	88	43.6	6	33.3	94	42.7
Yes, decreased	78	38.6	6	33.3	84	38.2
Not decreased/change	6	2.9	1	5.6	7	3.1
Never injected	30	14.9	5	27.8	35	15.9
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

More than two-fifth of respondents who had the previous experience of injecting habit informed 'being cleaned' (42.7%) after taking OST. A total of 38 percent informed that their injecting habit was decreased after taking OST while very a few (3.1%) reported of no change.

6.9 Perceived positive aspect of OST

The positive aspect of OST perceived by the respondents was noteworthy. About eight out of ten respondents reported that OST was 'effective and no need of further drug' (79%). The other positive aspects of OST mentioned included: save money (12%), time saving (7%), maintain health (4.5%) and sound sleep (4.5%).

Table 29: Percentage distribution of respondents with perceived positive aspects of OST

	Male		Female		Total	
	N=202	%	N=18	%	N=220	%
Positive things perceived of OST*						
Effective and no need of further drug	158	78.2	16	88.9	174	79.1
Save money	26	12.9	1	5.6	27	12.3
Time saving	15	7.4	0	0	15	6.8
Maintain health	9	4.5	1	5.6	10	4.5
Sound sleep	10	5.0	0	0	10	4.5
Less side effects	7	3.5	1	5.6	8	3.6
Easy to use	5	2.5	1	5.6	6	2.7
Less body pain	1	0.5	0	0	1	0.5
Don't know	2	1.0	0	0	2	0.9

*Multiple responses

Similarly, the respondents were also asked about negative aspects of the OST. Two-third of them reported that the negative aspect was none (63%). The negative aspects reported by the remaining respondents were mostly related to side effects such as: headache, vomiting, indigestion, constipation etc.

The KIs perceived the positive aspect of the OST of Youth Vision as of 'high reach'. 'Client satisfaction', 'address socio-psychology', 'focuses on family relation', 'money saving', 'no need to inject', and 'user-friendly' were other positive aspects of OST program of Youth Vision perceived by the KIs.

Moreover, almost all of the OST users would like to recommend the service of Youth vision to other needy ones.

Table 30: Percentage distribution of respondents with suggestion to their friend or others to visit Youth Vision for OST in future

	Male		Female		Total	
	N	%	N	%	N	%
Willing to give any suggestion to take Buprenorphine from Youth vision to friends and others in future						
Yes	199	98.5	17	94.4	216	98.2
No response	3	1.5	1	5.6	4	1.8
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**
Reasons to suggest friends to take OST from Youth Vision						
Good service	148	74.4	14	82.4	162	75.0
Service available only in youth Vision	24	12.1	1	5.9	25	11.6
Good organization	17	8.5	1	5.9	18	8.3
Free of cost service	10	5.0	2	11.8	12	5.6
Good counseling	3	1.5	0	0.0	3	1.4
Good environment	6	3.0	2	11.8	8	3.7
No response	10	5.0	0	0.0	10	4.6

*Multiple responses

As per table 30, the reasons for referring their friends or others to Youth Vision were 'good service' (75%), 'service available only in Youth Vision' (12%) and 'good organization' (8%) as perceived by the present OST users.

6.10 Perception about buprenorphine can change in injecting behavior

The OST with buprenorphine was found effective as majority of the respondents perceived that it can change in injecting behavior of the drug users. The table 31 shows the details.

Table 31: Percentage distribution of respondents with perception on change in injecting behavior

Opinion on the medicine that can change injecting behavior	Male		Female		Total	
	N	%	N	%	N	%
Yes	183	90.6	18	100.0	201	91.4
No	11	5.4	0	0.0	11	5.0
Can't say	8	4.0	0	0.0	8	3.6
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**

All the females and 91 percent males perceived that the OST could change their injecting behavior and lead to live normal life. Very few male were not sure about it (5%) and a few (4%) respondents said that they couldn't say.

6.11 Future plan of the respondents after OST

The drug users after completion of OST prepare some plans in their lives. These plans give them strength and motivation to readjust in the social life. Table 32 shows the varying plan of the OST users.

Table 32: Percentage distribution of respondents with perceived future plan

Future plan*	Male		Female		Total	
	N=202	%	N=18	%	N=220	%
Want to be a normal people	93	46.0	9	50.0	102	46.4
Continuation to work	37	18.3	3	16.7	40	18.2
Good business person	30	14.9	1	5.6	31	14.1
Foreign employment	26	12.9	4	22.2	30	13.6
No planning	15	7.4	1	5.6	16	7.3
Good person	7	3.5	1	5.6	8	3.6
Student	7	3.5	0	0.0	7	3.2
Football player	1	0.5	0	0.0	1	0.5
Air hostage	0	0.0	1	5.6	1	0.5
Re-use of drug	1	0.5	0	0.0	1	0.5
No response	5	2.5	0	0.0	5	2.3

*Multiple responses

It is quite interesting to note that the drug users after taking OST were more optimistic towards their future life. They wanted to live like a 'normal person (46%) in future', 'continue to work' (18%), become a 'good business person' (14%) and go in 'foreign employment' (14%). A considerable number of respondents did not have any plans yet (7%).

6.12 Change in family behavior after OST

The family response to the drug users after OST must be positive which avoids relapse of earlier harmful behaviors. It was asked about the change in family behavior after taking OST to the respondents, which is shown in table 33.

Table 33: Percentage distribution of respondents with perceived change in family behavior

	Male		Female		Total	
	N	%	N	%	N	%
Felt any change from family after taking OST with buprenorphine						
Yes very much	87	43.1	10	55.6	97	44.1
Yes, moderately	68	33.7	3	16.7	71	32.3
To some extent	7	3.5	1	5.6	8	3.6
Not at all	40	19.8	4	22.2	44	20.0
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**
	Male		**Female**		**Total**	
	N=162	**%**	**N=14**	**%**	**N=176**	**%**
Nature of change*						
Behave like a normal person	58	35.8	7	50.0	65	36.9
Trust	55	34.0	3	21.4	58	33.0
Able to get love and care	36	22.2	6	42.9	42	23.9
Support	24	14.8	1	7.1	25	14.2
Involve in household activities	10	6.2	2	14.3	12	6.8
No quarrel among the family members	6	3.7	0	0.0	6	3.4
No response	10	6.2	1	7.1	11	6.3

*Multiple responses

As per table 33, in total, 80 percent respondents perceived some level of positive change in behavior of their family. Forty four percent respondents felt that after taking OST the behavior of their family towards them changed 'very much'; 32 percent felt 'moderate change' in family behavior; and very few (4%) felt that the behavior of their family changed 'to some extent'; while one-fifth felt 'no change at all'.

Nature of behavior felt by the respondents from their family included 'behave like a normal person' (37%), 'trust' (33%), 'able to get love and care' (24%), 'support' (14%) and 'involve in household activities' (7%).

6.13 Knowledge of behavior change among friends

Not only the respondents themselves, but they realized the benefits and change in behavior and situation of their friends too. Two-third of the respondents were aware of the changes occurred in behavior of their friends after taking OST.

Table 34: Percentage distribution of respondents who knew the behavior change of their friends after OST

Known any of friends who has better life after taking Buprenorphine	Male		Female		Total	
	N	%	N	%	N	%
Yes	123	60.9	10	55.6	133	60.5
No	79	39.1	8	44.4	87	39.5
Total	**202**	**100.0**	**18**	**100.0**	**220**	**100.0**
Type of changes known*	**Male**		**Female**		**Total**	
	N=123	**%**	**N=10**	**%**	**N=133**	**%**
United in family	50	40.7	3	30.0	53	39.8
Involved in household activities	43	35.0	4	40.0	47	35.3
Engaged in job	38	30.9	4	40.0	42	31.6
Change in health and physical condition	9	7.3	0	0.0	9	6.8
Had started own rehabilitation center	1	0.8	1	10.0	2	1.5
Re-enrollment in study	1	0.8	0	0.0	1	0.8

*Multiple responses

As per table 34, the nature of changes in behavior of respondents' friends identified were 'united in family (40%), 'involved in household activities' (35%) and 'involved in job' (32%).

6.14 Change in life after OST

The positive changes perceived in life after OST by the service receivers convey the affirmative message about the program in the community. The OST program of Youth Vision was perceived mostly positive by the respondents. Data on perceived change in the various aspects of life after taking OST according to the background characteristics of the respondents is shown in Table 35.

The results from the current study clearly indicated that OST had created significant changes in the different aspects of life of the drug users at individual level, family level, in work, in education etc. Almost all (94%) the respondents reported of improvement in personal hygiene. More male (95%) than female (83%) reported of improvement in personal hygiene. Money saving (87% male and 83% female), good in family (82% male and 78% female), adopted safe sex practice (76% male and 72% female), cleaned (71% male and 61% female), no drug use (82% male and 83% female), regular in work (64% male and 61% female), assist friends to avoid drug (82% male and 94% female), increase in politeness (89% male and 78% female), become healthy (61% male and 72% female) were other changes occurred in the life of most of the respondents after the use of OST.

Table 35: Percentage distribution of respondents with perceived change in different aspects of life after OST

	Money Saving	Good in family	Safe sex practice	Clean/no injection	No drug use	Regular in work	Regular in study	Maintain personal hygiene	Assisted friends to avoid drugs	Politeness	Healthy	Self esteem	Less temper	Able to earn	N
Sex															
Male	87.1	82.2	75.7	70.8	81.7	63.9	8.9	95.0	81.7	89.1	60.9	5.0	1.5	1.0	202
Female	83.3	77.8	72.2	61.1	83.3	61.1	5.6	83.3	94.4	77.8	72.2	11.1	5.6	0.0	18
Age															
Less than 20	100.0	75.0	75.0	75.0	75.0	75.0	25.0	75.0	100.	100.	75.0	0.0	0.0	0.0	4
20-34	85.3	79.4	73.5	70.0	83.5	60.6	10.6	95.9	84.7	87.6	61.8	5.3	1.8	0.6	170
35 and above	91.3	91.3	82.6	69.6	76.1	73.9	0.0	89.1	73.9	89.1	60.9	6.5	2.2	2.2	46
Level of education															
Illiterate	50.0	33.3	66.7	50.0	50.0	50.0	0.0	83.3	100.0	100.0	50.0	0.0	0.0	0.0	6
Primary level (1-5)	84.6	84.6	69.2	61.5	69.2	76.9	7.7	84.6	84.6	92.3	53.8	15.4	0.0	7.7	13
Secondary (6-10)	91.2	85.3	79.4	75.0	79.4	58.8	5.9	95.6	83.8	82.4	55.9	4.4	2.9	0.0	68
SLC and above	86.5	82.0	74.4	69.2	85.7	65.4	10.5	94.7	81.2	90.2	66.2	5.3	1.5	0.8	133
Duration of any drug use in year															
Up to 5	100.	75.0	75.0	58.3	83.3	58.3	33.3	91.7	91.7	100.	75.0	0.0	0.0	0.0	12
6-10	85.1	82.1	61.2	71.6	85.1	59.7	9.0	92.5	83.6	83.6	70.1	7.5	3.0	0.0	67
11-15	91.7	84.7	81.9	70.8	84.7	62.5	9.7	94.4	84.7	91.7	62.5	5.6	1.4	0.0	72
More than 16	81.2	79.7	82.6	69.6	75.4	69.6	2.9	95.7	78.3	87.0	50.7	4.3	1.4	2.9	69
Current status of medicine															
Dose completed	87.1	87.9	82.8	71.6	88.8	68.1	11.2	94.8	82.8	86.2	51.7	4.3	0.0	1.7	116
Dose going on	86.5	75.0	67.3	68.3	74.0	58.7	5.8	93.3	82.7	90.4	73.1	6.7	3.8	0.0	104
Total	**86.8**	**81.8**	**75.5**	**70.0**	**81.8**	**63.6**	**8.6**	**94.1**	**82.7**	**88.2**	**61.8**	**5.5**	**1.8**	**0.9**	**220**

Moreover, higher proportion of changes reported by respondents aged less than 20 years included ‘save money’, ‘assisted friend to avoid drug use’ and ‘increase in politeness’. Higher education was found linked with higher proportion of change in different aspects than illiterate respondents. No considerable difference was seen in the change in different aspects of life of the respondents by the duration of drug use. In addition, the results did not indicate

significant differences between the percentages of dose completed and dose not completed who reported of change in different aspects of life.

6.15 Suggestions for better service in future

A number of suggestions had been put forward by the respondents to make the program of Youth Vision more effective in future, which included: 'service center must be opened in other places' (26%), 'need more awareness program' (11%), should be accessible' (10%), "regular counseling should be given' (6%), 'medicine should not be stopped' (4%) etc.

Table 36: Percentage distribution of respondents with suggestions for better service in the future

Suggestions to make quality service in the future*	Male		Female		Total	
	N=202	%	N=18	%	N=220	%
Service center must be opened in other places	52	25.7	6	33.3	58	26.4
Need more awareness program	22	10.9	3	16.7	25	11.4
Should be easy to access	20	9.9	2	11.1	22	10.0
Regular counseling should be given	13	6.4	1	5.6	14	6.4
Need more training about it	10	5.0	3	16.7	13	5.9
Tiffin should be provided	7	3.5	2	11.1	9	4.1
Medicine should not be stopped	9	4.5	0	0.0	9	4.1
Client should be taken 10 to 5 in the center	8	4.0	0	0.0	8	3.6
Need healthy environment	8	4.0	0	0.0	8	3.6
Need more staff	5	2.5	0	0.0	5	2.3
Need more follow up	5	2.5	0	0.0	5	2.3
Need outdoor games	3	1.5	1	5.6	4	1.8
Provision of follow up should be discarded	3	1.5	0	0.0	3	1.4
Staff should be cooperative	2	1.0	1	5.6	3	1.4
Staff should understand about client's emotion	3	1.5	0	0.0	3	1.4
Need more family orientation program	2	1.0	0	0.0	2	0.9
Need more monitoring and supervision	2	1.0	0	0.0	2	0.9
Physical fitness and Yoga class should be started	2	1.0	0	0.0	2	0.9
Transportation facility should be provided	0	0	1	5.6	1	0.5
None	51	25.2	2	11.1	53	24.1

*Multiple responses

Similarly, KIs also provided number of suggestions for the improvement of the program in future. Their suggestions to the Youth Vision are summarized in the table 37 as follows:

Table 37: Suggestions for the improvement in future as reported by key informants

- Need to increase the coverage and expansion of OST services in order to reduce HIV prevalence
- Address socio psychological aspect strongly
- Focus on family relation
- Strengthen advocacy about the drug users as not a criminal but as a disease
- Increase support system to drug users
- Increase awareness about the OST program and its benefits
- Provide skill training to OST users and involve them in different income generating activities

CHAPTER 7 POLICE ARREST

7.1 Ever arrested by police

Usually, drug users are taken as problem to the society by police and they are arrested. As seen in Table 38, nearly half (48%) of the respondents were ever arrested by police. Proportion of police arrest of male (48.5%) was higher than female (39%).

Table 38: Percentage distribution of respondents with ever arrested by police

	Male		Female		Total	
	N	%	N	%	N	%
Ever been arrested by police due to drug related offences						
Yes	98	48.5	7	38.9	105	47.7
No	104	51.5	11	61.1	115	52.3
Total	202	100.0	18	100.0	220	100.0
Time of arrest						
Less than 5 months	16	16.3	1	14.3	17	16.2
6-12 months	12	12.2	1	14.3	13	12.4
12-24 months	10	10.2	0	0.0	10	9.5
More than 24 months	60	61.2	5	71.4	65	61.9
Total	**98**	**100.0**	**7**	**100.0**	**105**	**100.0**
Perception towards Police's behavior at the time of arrest						
Good	15	15.3	2	28.6	17	16.2
Bad	70	71.4	5	71.4	75	71.4
Very Bad	13	13.3	0	0.0	13	12.4
Total	**98**	**100.0**	**7**	**100.0**	**105**	**100.0**
Reasons of arrest by police						
Caught while taking drug	51	52.0	5	71.4	56	53.3
Caught for being drug supplier	37	37.8	2	28.6	39	37.1
Had fight with a person	5	5.1	0	0.0	5	4.8
Was with drug user friend	3	3.1	0	0.0	3	2.9
To get some information	2	2.0	0	0.0	2	1.9
Total	**98**	**100.0**	**7**	**100.0**	**105**	**100.0**

	Male		Female		Total	
	N	%	N	%	N	%
Reaction of police after arrest*						
Beating	52	53.1	2	28.6	54	51.4
Scolding	28	28.6	2	28.6	30	28.6
Just interrogated	18	18.4	2	28.6	20	19.0
Asked money	11	11.2	0	0.0	11	10.5
Suggested not to use drug	8	8.2	1	14.3	9	8.6
Dragged into court	1	1.0	0	0.0	1	1.0
No response	5	5.1	0	0.0	5	4.8

*Multiple responses

According to table 38, 32 percent drug users were arrested before 2 years or more than that. One out of six respondents (16%) reported that they were arrested 5 months ago or less than that.

Large majority of the respondents reported that the behavior of police at the time of arrest was 'bad' (71%). 'Very bad' behavior of police was reported by 12 percent, while 16 percent reported 'good behavior' of police at the time of arrest. Proportion of female reporting good behavior was nearly double than their male counterparts.

The reasons for arresting were 'taking drugs' (53%), 'supply of drug' (37%), 'had fight with a person' (5%) and 'was with friend who used drugs' (3%).

Those who were arrested, half of them reported of 'being beaten up' by the police (51%), another 29 percent reported of 'scolding' by police. 'Interrogated' (19%), asked money' (10.5%) and 'suggested not to use drug (9%) were some other behaviors shown by the police when they were arrested.

7.2 Suggestions to police by the respondents

As the respondents perceived mostly the 'bad' behavior from the police after arrest, they suggested police the followings in case of treating the drug users:

Table 39: Percentage distribution of respondents with suggestions provided to police

Expected role of police when arrested*	Male		Female		Total	
	N=202	%	N=18	%	N=220	%
Need more awareness program about how to treat drug users	59	29.2	7	38.9	66	30.0
Police should not beat drug users	62	30.7	3	16.7	65	29.5
Police should understand that drug users are not criminals	35	17.3	3	16.7	38	17.3
Police should get punishment if they violet the human right	11	5.4	0	0.0	11	5.0
Don't know	46	22.8	6	33.3	52	23.6

*Multiple responses

About 30 percent respondents suggested that 'police needed more awareness program on how to treat drug users'. An equal number of respondents suggested that 'police should not beat the drug users. The other suggestions provided were: 'police should understand that drug users are not criminal and they should respect the drug users' (17%) and 'police should get punished if they violet the human rights' (5%). However, 23.6 percent drug user did not know exactly about the expected role of police after they are arrested.

7.3 Expected role of Youth Vision

The cases of police arrest were higher, so the respondents expected interventional role of Youth Vision. The expected roles of Youth Vision are shown in table 40 as follows:

Table 40: Percentage distribution of respondents with perceived role of Youth Vision after police arrest

Expected role of Youth Vision while drug users are suffered by police	Male		Female		Total	
	N=202	%	N=18	%	N=230	%
Should talk seriously with concern stakeholders	98	48.5	9	50.0	107	48.6
Conduct more awareness program to police	45	22.3	5	27.8	50	22.7
Youth vision should provide legal service to drug users	10	5.0	0	0.0	10	4.5
Need more behavior change activities for drug users	8	4.0	1	5.6	9	4.1
Identity card should be provided to OST users	2	1.0	0	0.0	2	0.9
Nothing to do	5	2.5	0	0.0	5	2.3
No response	44	21.8	4	22.2	48	21.8

As shown in table 40, nearly half (48.6%) of the respondents advised Youth Vision to 'talk seriously with concerned stakeholders' about the bad behavior of police towards drug users. Similarly, 22.7 percent of them advised to 'conduct further awareness programs to police'. Other advices provided were 'Youth Vision should provide legal service to drug users' (4.5%), 'needed more behavior change programs for drug users' (4%) and negligible percentage (0.9%) proposed to distribute 'identity card to OST users'.

CHAPTER 8 CONCLUSION AND RECOMMENDATIONS

This impact study of Buprenorphine Opioid Substitution Program was the first study of its kind that has been conducted among drug users (both IDUs and DUs) aged 18 years and above who were currently using OST with buprenorphine from Youth Vision. This study was conducted in four OST centers in Kathmandu Valley with the main objective to assess the impact of OST on the various aspects of life of opioid dependent population. Altogether 220 respondents (202 male and 18 female) were sampled in the study using systematic random sampling method. The study was carried out between June-July, 2014.

8.1 Major Findings

The largest segment of the respondents was between 25-29 years of age, literate, unmarried and living with their parents. The main occupation of respondents' family was service and business. Majority of them entered into drug habit during adolescence and a considerable number of them initiated drug use even at tender age. Brown sugar and marijuana - ganja, chares, bhang were almost common substances for male beginners while brown sugar was relatively the common substance for female beginners. As usual smoking was the first entry point for drug use followed by oral use of substance. Almost all had been using drug for more than five years. Either friend inspired or forced to take drug for majority. A significant number also initiated drug out of curiosity. Most of them had injected drug and started injecting during adolescence and before turning 20 years of age. IDUs generally preferred to use combination of different drugs and some used single dose as well. Past history of IDUs in terms of needle/syringe sharing behavior shows that they seemed to be more cautious about the consequences of using the needle/syringe used by others as most of the respondents had reported of adopting low risk behaviors.

Most of the respondents had not used drugs/injecting drugs after they were involved in OST. However, instances of respondents using drugs/injecting drugs even after taking OST were reported in the study. Drug users spent up to NRs 3000 and more for the drug in a typical day. They used to gather money for the drug from family members, from their own income and with friends help. Majority of them had made an effort to get rid of drug habits before participating in OST program and most of them had stayed in rehabilitation (recovering) center for minimum of six months and spend up to NRs 3,00,000 to get rid of drug habit.

As expected, knowledge about HIV and AIDS was universal among the study population. Majority of them were also aware of someone who was infected with HIV or died of AIDS. Large majority were also aware of the VCT facility in their community. Most of them had undergone HIV test. Most of them did not perceive themselves to be at risk of being infected of HIV as they did not share needle/syringe, injected alone or used condom consistently and did not have sex with sex workers.

Majority of the respondents started using OST with buprenorphine for more than 24 months. The source of knowledge about OST was friends followed by the program of Youth Vision itself. There was decreasing trend in dose intake of OST from 4 mg and more than 4 mg to 3 and less than 3 mg per day.

More than half of the respondents reported that their OST dose was completed and they were clean. Eight out of ten respondents reported that OST was 'effective and not needed further drugs'. Two-third reported no negative aspect of OST. Those who reported of negative aspects of OST were mostly related to side effects such as: headache, vomiting, indigestion, constipation etc.

Almost all the respondents would like to suggest their friends and/or others to take OST from Youth Vision in future. All the females and almost all males perceived that the OST could change their injecting behavior and lead to live normal life.

It is interesting to note that the drug users after taking OST were more optimistic towards their future life. They wanted to live like a normal person in future, continue to work, become a good business person and go in foreign employment. Positive change in family behavior after taking OST was also reported. Respondents were also aware of the changes occurred in behavior of their drug user friends after taking OST. Moreover, the drug users reported that the OST had brought lots of changes in the various aspects of their life including money saving, goodness in family, adopted safe sex practice, no need of drug (cleaned), regularity in work, maintained personal hygiene, assisted friends to avoid drug use, looking healthy and increase in politeness.

Nearly half of the respondents were ever arrested by police. Proportion of police arrest of male was higher than female. Majority of them were arrested before two years. Large majority reported that the behavior of police at the time of arrest was 'bad' while some respondents reported of 'good behavior' of police too. Proportion of female reporting good behavior was nearly double than their male counterparts. Main reasons for arrest were taking drugs and supply of drug. Half of them reported of 'being beaten' by the police, and some were 'scolded', 'interrogated', and some police 'suggested not to use drug' at the time of arrest.

8.2 Conclusion

The drug use patterns in the past of the drug users were risky as majority were injecting drug users and used combined drugs of Tidigesic/Lupigesic/Norphine along with Phenargan/Avil or Diazepam. Although most of them did not share needles and had HIV test and universal knowledge on the HIV and AIDS, they were suffering of poor health, low social status and arrested by police. They came to medication in Youth Vision with the help of their friends.

The drug users after taking OST were more optimistic towards their future life. They wanted to live like a normal person in future. The result of the study revealed significant changes in various aspects of life of opioid dependent population at personal level, family level, in work and in education. The use of OST could decrease drug use, change injecting behavior, clean, improve personal behaviors, save money, improve family relations and engage in work. Most of the respondents did not injected drug even after discontinuation of OST for some time. Despite these changes, a considerable percentage of the respondents experienced no change in injecting behavior and instances of drug/injecting drug use were also reported even after taking OST. However, changes brought by the OST in the life of IDUs and DUs can be attributed to the buprenorphine opioid substitution and intervention program of Youth Vision. A detail study will help to examine further impact of specific changes in the quality of life of opioid dependent population and effectiveness of interventions in reducing HIV, Hep. B and C and other blood born disease.

8.3 Recommendations

Based on the findings and conclusion of this study, some specific recommendations are provided as follows:

a. OST with buprenorphine had made positive impact on many facets of drug users' lives. These included improving their health, their ability to get and hold a job, their family stability, as well as reducing their risk behaviors. OST clinics must be easily accessed from points where drug users are congregated. Youth Vision must increase access of OST to opioid dependent population by making them aware about the importance of OST with buprenorphine and its benefits.

b. OST had brought changes in the different aspects of life of IDUs and DUs including changes in injecting practices and risk behaviors. Sensitization of concerned stakeholders including concerned government agencies about the importance of OST will help government in making appropriate national policies and programs to address the issues and challenges concerning HIV, hepatitis B and C, treatment, care and support for drug users in the country.

c. The current data indicates changes in different aspects of life of drug users after taking OST. However, the coverage of the program was very limited. Therefore, the Youth Vision must extend the coverage of OST and expand it into other areas. Youth Vision must play pro-active role and increase involvement in national level meetings, present the success stories in national forum for the wider support for and implementation of OST with buprenorphine at national level.

d. Drug users were arrested by police, behaved them like a criminal, and were beaten and scolded by police at the time of arrest. Therefore there is a strong need of regular advocacy with law enforcement as well as police personnel to reduce arrests of drug users. Police should be made aware not to treat them as a criminal but treat as a disease.

e. Though the government had provided approval for the procurement and supply of buprenorphine for OST, Youth Vision need to be cautious on supply as well as control of the medicine.

f. Drug users were much more aware about the worry and distress of the drug using community. They should be involved in program planning, implementation and monitoring which may help address those issues and help improve their quality of life.

g. Coordination and cooperation of concerned agencies are essential for the success of the program. Youth Vision must increase linkages with concerned line agency at national level through the active involvement.

h. Youth Vision must increase support system to client, involve beneficiaries in extracurricular activities, provide skill training and involve in income generating activities to make the life of drug users better.

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