

Trends, Patterns and Prevalence of Injecting Drug Users (IDUs) in Sri Lanka

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Contents

1. Introduction.....	13
1.1 Background of the study	13
1.3 Research methodology	17
1.3.1 The Sample	17
1.3.2 Data Collection	18
1.3.3 Data Analysis	18
2. Results.....	20
2.1 Estimated Figure of Injecting Drug Users in Sri Lanka.....	20
2.2 Social Demographic Background	21
2.2.1 Living Areas of IDUs (Residencies).....	21
2.2.2 Prevalence of Injecting Drug use by Provinces	22
2.2.3 Prevalence of Injecting Drug use by Districts.....	24
2.2.4 Prevalence of Injecting Drug use by Divisional Secretariat Divisions	27
2.2.5 Prevalence of Injecting Drug use by GN divisions.....	30
2.2.6 Gender Distribution of Injecting Drug Users.....	32
2.2.7 Age Distribution of IDUs.....	32
2.2.8 Ethnicity& Religion	34
2.2.9 Level of Education	36
2.2.10 Marital Status	37
2.2.11 Type of Occupation.....	38
2.2.12 Monthly Income.....	39
2.3 Drug Use Profile of IDUs	40

2.3.1 The Age of First Drug Use.....	40
2.3.2 Previous Behaviour of Drug Use	41
2.3.3 Age of First Heroin Use	41
2.3.4 Age of First Injecting Drug Use.....	42
2.3.5 Multiple Drug Use Patterns.....	42
2.3.6 Transition to Injecting from Chinese method	43
2.3.7 Expenses for Injecting drug use	45
2.3.8 Patterns of Injection drug use.....	45
2.3.9 Frequency of Injection drug use.....	45
2.3.10 Method of Injecting.....	47
2.3.11 Injecting Setting	48
2.3.12 Effects of Drug Injection.....	49
2.3.13 Sexual Behavior of Injecting Drug Users	51
3. Discussion	52
3.1 Perception Associated with Injection.....	52
3.2 Patterns of Injecting Drug Use.....	54
3.3 Risk Factors of Injecting Drug Use.....	55
4. Conclusion	60
5. Recommendations.....	62

Foreword

The National Dangerous Drug Control Board (NDDCB) is the pioneer and statutorily responsible state body for drug abuse management in Sri Lanka.

A small group of Injecting Drug Users (IDUs) exists among heroin users in Sri Lanka. Even though much less in number, they could be considered as the risk group infected with blood born virus such as Hepatitis C (HCV) and Human Immune Deficiency Virus (HIV). Most of the IDUs have shared non-sterile injecting tools.

Therefore, the Research Division of the NDDCB has conducted a survey on Injecting Drug Users in Sri Lanka to find out the current trends and patterns of injecting drug users in the country.

This book illustrates and gives a clear picture of the Sri Lankan injecting drug users to the stakeholders of the government and the public and it will be a valuable resource for all those who are carrying out research in this area and intervention programs for IDUs. I wish to thank the staff of Research Division of NDDCB who worked tirelessly to prepare this book.

Professor Ravindra Fernando

Chairman

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Trend, Patterns and Prevalence of Injecting Drug Users (IDUs) in Sri Lanka

Executive summary

Drug injecting method is one of the fastest growing drug consumption methods in the world. According to a report of injecting drug users and HIV (1), one in ten new infections worldwide occurs when people inject drugs. Globally, around 16 million people inject drugs and of this 3 million have been diagnosed as having HIV. Reasons for injecting drugs rather than using other methods are greater availability of drugs that can be injected, cheaper cost, and more rapid action, none of the drugs is lost in smoke, migrating drug users share knowledge and techniques and made injecting a more economically viable method of consumption.

The Injecting Drug Users (IDUs) are not widely scattered all over the island and limited only to Colombo and coastal areas. There is a possibility of spreading blood borne infections including HIV/AIDS due to sharing of needles.

When searching for solutions for a social issue like 'drug abuse', first, it is necessary to ascertain the nature and extent of

the problem. With regard to this, a survey of injecting drug use was conducted by the Research Division of the National Dangerous Drugs Control Board. The objectives of the survey were (a) to determine the prevalence, trends and patterns of injecting drug users in the country (b) to do the estimation, mapping and identify hot spots and (c) commence treatment and rehabilitation.

The survey was conducted on a non-probable sample of injecting drug users. The sample was selected by snowballing from known injecting drug users. The seeds of the snowball were selected from the treatment centres, prisons and from the community of drug users. These seeds were asked to further nominate injecting drug users to the sample. The IDUs were selected from areas in Western, Southern, Central, Sabaragamuwa, North Central and North Western provinces that are known as high drug use prevalence provinces. A pre-tested questionnaire was used as the research instrument to collect information on IDUs. The in-depth interviews and observations were used to identify the behaviour of injecting drug users and transition to injecting drug use. Following findings were revealed through the data analysis of the survey.

- a) One of the main objectives of the survey was to study the prevalence of injecting drug use and estimate the number of injecting drug users in Sri Lanka. 721 IDUs were interviewed in the sample. The estimated figure of injecting drug users in Sri Lanka was between 705– 1,209 and lower estimation was 705. The highest rate of IDUs, 657(91%), were reported from the Western Province. 23(3%), 14 (2%) and 12(2%) IDUs were reported from the Southern, Sabaragamuwa and the North-Western Provinces respectively. Lower percentage, 0.7% (5), of IDUs was reported from the Central Province. The sample figures highlighted that Colombo District – Colombo Divisional Secretariat Division (DSD) and Slave Island Grama Niladhari Division (GND) in Western Province, as the highest injecting drugs prevalence areas in Sri Lanka.
- b) According to the estimated gender distribution of IDUs indicated that majority of them were males. Western Province has a greater proportion of female IDUs, than other provinces in Sri Lanka. The average age of the IDUs was 38 years and ranged from 17 to 73 years.

Among the identified IDUs, nearly 326 (45%) were in the aged group of 36 to 50 years. The number of IDUs reported by ethnicity wise showed that, 506 (70%) were Sinhalese, 147 (20%) were Muslims, 50 (7%) were Tamils and 12 (2%) were Burghers. The majority of the IDUs (72%) were educated up to grade 10.

The majority of the IDUs were multiple drug users and they have consumed different types of drugs. Of the total respondents, 657 (91%) used heroin, 684 (95%) cannabis, 191 (27%) opium, 232 (32%) hashish and 542 (75%) tablets such as morphine, tramadol, pregabalin etc. Many youths began sniffing or smoking drugs and then started injecting, because they assumed that it would be more cost effective. 708 persons who inject drugs switched to 'Injecting Method' from the purported 'Chinese Method' (Chasing the Dragon). According to the figures, 508 (70%) had moved to Injecting Method because of the ability of getting quick feelings (fast reactions).

- c) Findings were categorized into two groups as daily users and occasional users. Of the IDUs, 499 (69%)

were daily users and 31% were Occasional users. From the persons who injected drugs, 289 (40%) reported that they have some inconveniences and side-effects when injecting drugs. Most of the IDUs followed unsafe injecting practices, such as re-using and sharing injecting equipment. Majority of them (50%) re-used injecting needles and of them 44% cleaned injecting needles when re-using. The survey data further indicate that 230 (44%) IDUs shared injecting needles when they were injecting as a group wise. Sharing needles and syringes are at a high risk of getting infections such as HIV/AIDS. Therefore, the survey results highlighted that urgent attention is needed for health awareness.

1. Introduction

1.1 Background of the study

The injecting drug use has increased in recent past in the country and related literature is as follows. The government and NGO treatment agencies reported, the number of persons who had injected drugs in 2014 was 71, which was 4% of the total drug treatment admissions(2). IDUs in 2015 were 39 and it was 3% of the total treatment admissions (2).

According to the World Drug Report (WDR) 2016 (3), of the population aged 15-64, 12 million people inject drugs worldwide and compared to non-injecting drug users, People Who Inject Drugs (PWID) are approximately three times more likely to acquire HIV, as the sharing of contaminated needles and syringes is a major risk for the transmission of HIV and viral hepatitis. In 2014, joint work of UNODC/WHO (World Health Organization)/ UNAIDS/World Bank (3) discovered that 14% (1.6 million) of PWID are living with HIV, 52% (6 million) of PWID are infected with hepatitis C and 9% (1.1 million) are infected with hepatitis B.

The National Dangerous Drugs Control Board (NDDCB) in collaboration with the WHO conducted a rapid assessment survey on drug injectors (4) (December 2012- December 2013) and found out 98% were males.44% IDUs have shared needles and 82% of them reuse syringes by cleaning. 59% IDUs had sex with many partners and only 18% of them have used condoms and 13% of them were suffered from Sexually transmitted disease (STD).

The majority of IDUs in the world are males. However, Eastern European and Central Asian countries have a greater proportion of female IDUs than countries in East and Southeast Asia. Russia reports the highest female IDUs (30%), followed by Ukraine (26%) (5).

According to the research papers and abstracts on drug abuse in Sri Lanka (4), majority of injecting drug users were males and of the total heroin users, 2% were drug injectors. Most of the heroin addicts used Chinese method. The above report further highlighted that, majority of the injecting drug users in Sri Lanka were in aged 26 - 35 years and 84% were from lower educational background. 93% of the IDUs have initiated drug use by using inhaling method and then they have moved to

injecting method. Data further highlighted that 75% IDUs inject drugs daily and some of them injected only heroin or with mixing with other drugs. Most of them used morphine when heroin is not available in the market. 44% of the IDUs shared injecting equipments and they were at risk of HIV/AIDS transmission. 82% cleaned injecting equipment using peroxide, normal water and hot water.

The considerable proportion of new HIV infectors has increased in many parts of the world. However the correct estimation of the HIV prevalence among the injecting drug users is not possible due to the difficulty in selecting the representative samples. Drug injecting is an illegal and stigmatized behaviour. Therefore, population surveys underestimate its prevalence because of selection bias. Bergenstrom, Andreeva and Reddy (7) studied about the various countries in recent years and its important estimated data are shown in table 1.

Table 1 - Prevalence of injecting drug use among 15-64 years old

Country	Estimated number of people who inject drugs	Prevalence of injecting drug use, 15–64 years (%)	Year of estimate
China	2,260,0001	0.23	2009
India	177,0002	0.02	2009
Indonesia	105,7843	0.06	2009
Myanmar	75,0004	0.22	2007
Pakistan	91,0005	0.08	2007
Philippine	14,4566	0.02	2011
Thailand	40,3007	0.08	2010
Viet Nam	335,9908	0.53	2011
Total	3,099,530		

1.2 Objectives of the study

- To determine the prevalence, trends and patterns of injecting drug users in the country

- To estimate, mapping and identify hot spots of the IDUs population and commence treatment and rehabilitation.

1.3 Research methodology

1.3.1 The Sample

The survey carried out on a non-probable sample of injecting drug users. The sample was selected by snowballing from known injecting drug users. The seeds of the snowball were selected from the treatment centres, prisons and the community of the drug users. These seeds were asked to further nominate injecting drug users to the sample. The IDUs were selected from the areas of known high drug prevalence provinces such as Western, North Western, Southern and Central Provinces.

Injury scars used as a sign to identify IDUs. However prior to select them as a sample a preliminary interview was also held. The nominate technique was used to enumerate the number of IDUs in the research locations.

1.3.2 Data Collection

A pre-tested questionnaire was used as the research instrument to collect information on IDUs. A structured questionnaire was used to collect information on socio-demographics, drug use, knowledge, attitude, risk practices, trends and patterns of drug use and high risk factors. The in-depth interviews and observations were also used to identify the behaviour of injecting drug users and the reasons for transition to injecting method. A group of field investigators were recruited to collect information for the survey and they have been given a special training prior to the data collection. The research officers supervised and monitored the data collection. In addition to the primary data, secondary data were also used for the analysis and relevant sources were mentioned in the reference list and the body of the paper.

1.3.3 Data Analysis

The data analysis of the survey was carried out by using a Statistical Package for the Social Sciences. (SPSS) The quantitative data was analyzed as totals, percentages, and standard deviations when appropriate. The data was analyzed to find out any possible co-relation between different variables.

The qualitative data too were analyzed to determine any correlated of illicit drug use.

The primary data and the Benchmark method were used to estimate the number of injecting drug users in the country. The law enforcement and the treatment database of DAMS (Drug Abuse Monitoring System) and current estimated figures of drug use population in Sri Lanka were used to make the estimation.

Current IDUs in Sri Lanka was estimated with the use of Bench mark method. In Bench mark theory, preexisting data which is known as anonymous count of key behaviour over a fixed time period was considered with the current survey data. For this study, data on Drug Abuse Monitoring System (DAMS) over five years was considered as the preexisting data.

2. Results

2.1 Estimated Figure of Injecting Drug Users in Sri Lanka

One of the main objectives of the survey was to study the prevalence of IDUs and to estimate the number of IDUs in Sri Lanka. The estimation was based on the survey data and drug related arrest and treatment data were obtained from DAMS (Drug Abuse Monitoring System) data base. The estimated figure of injecting drug users in Sri Lanka was in between 705 - 1209 and the lower estimation was 705.

Table 2- Estimated figures of injecting drug users in Sri Lanka

	Low Estimation(95%CI)	Point Estimation	High Estimation(95%CI)
As a percentage	1.6%	2.1%	2.7%
As a Number	705	957	1209

2.2 Social Demographic Background

2.2.1 Living Areas of IDUs (Residencies)

721 of IDUs were interviewed and 657(91%) of them resided in the Western Province. 23(3%) were reported from the Southern Province, 14 (2%) from Sabaragamuwa and 12 (2%) were from the North Western Province. Lower percentage of (0.7%) IDUs were reported from the Central Province. According to the drug related arrests in 2016, the highest number of heroin related arrest was reported from the Western province and this is similar to prevalence of IDUs.

556 (77%) IDUs resided in Colombo district and 88 (12%) from Gampaha, 12 (2%) from Kalutara and 13 (2%) were from Galle district. Among the districts of Western Province, majority of injecting drug users were reported from Colombo district. The Ratnapura 11 (2%), Anuradhapura and Kurunegala 9 (1%) are the other districts where significant amount of IDUs exist. Galle district was reported high prevalence of injecting drug use from Southern province.

Distribution of IDUs from district wise (DSD), province wise and GramaNiladhari (GN) division wise were discussed below in details.

2.2.2 Prevalence of Injecting Drug use by Provinces

A variety of geographical characteristics may be associated with drug injectors. Map 01 illustrates the prevalence of injecting drug users in Western province by divisional secretariat divisional levels and Table 03 and 04 shows IDUs in province wise and district wise respectively. Western province reported the highest prevalence (91%) of IDUs and second and third highest rate of IDUs were reported from the Southern 23 (3%), and Sabaragamuwa (1.9%) province respectively.

Map 01 - Prevalence of Injecting Drug Users in Western province

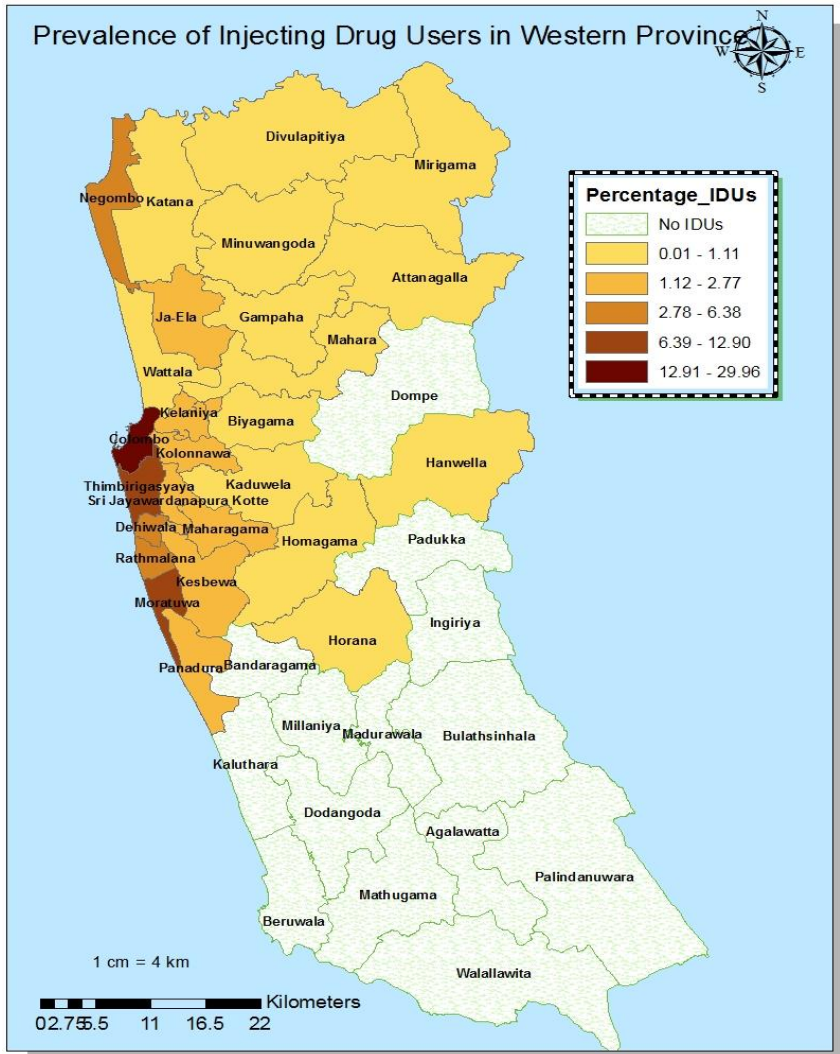


Table 3– prevalence of injecting drug use by province

Name of the province	Percentage
Western	91.1%
Southern	3.2%
Sabaragamuwa	1.9%
North Western	1.7%
North Central	1.4%
Central	0.7%

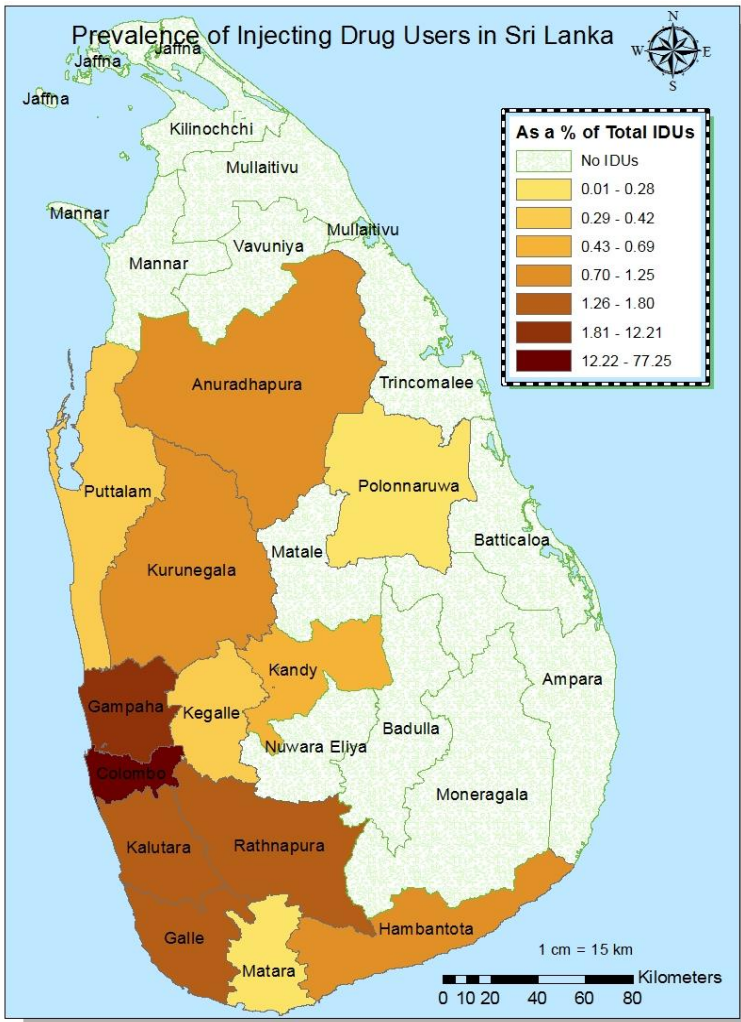
2.2.3 Prevalence of Injecting Drug use by Districts

Colombo district reported the highest prevalence of injecting drug use in Sri Lanka. Of the identified IDUs, 557 (77%) were from the Colombo district, 88 (12%) were from Gampaha district and 12 (2%) were from Kalutara district. The Districts with high prevalence of Injecting drug users were as stated below.

Table 4 – Districts with high prevalence rate of injecting drug use

Name of the Districts	Percentage
Colombo	77.2%
Gampaha	12.2%
Galle	1.8%
Kalutara	1.6%
Ratnapura	1.5%
Kurunegala	1.2%
Anuradhapura	1.2%
Hambanthota	1.1%
Kandy	0.6%
Puttalam	0.4%
Kegalle	0.4%
Matara	0.2%
Polonnaruwa	0.1%

Map 2 - Prevalence of Injecting Drug use by Districts



2.2.4 Prevalence of Injecting Drug use by Divisional Secretariat Divisions

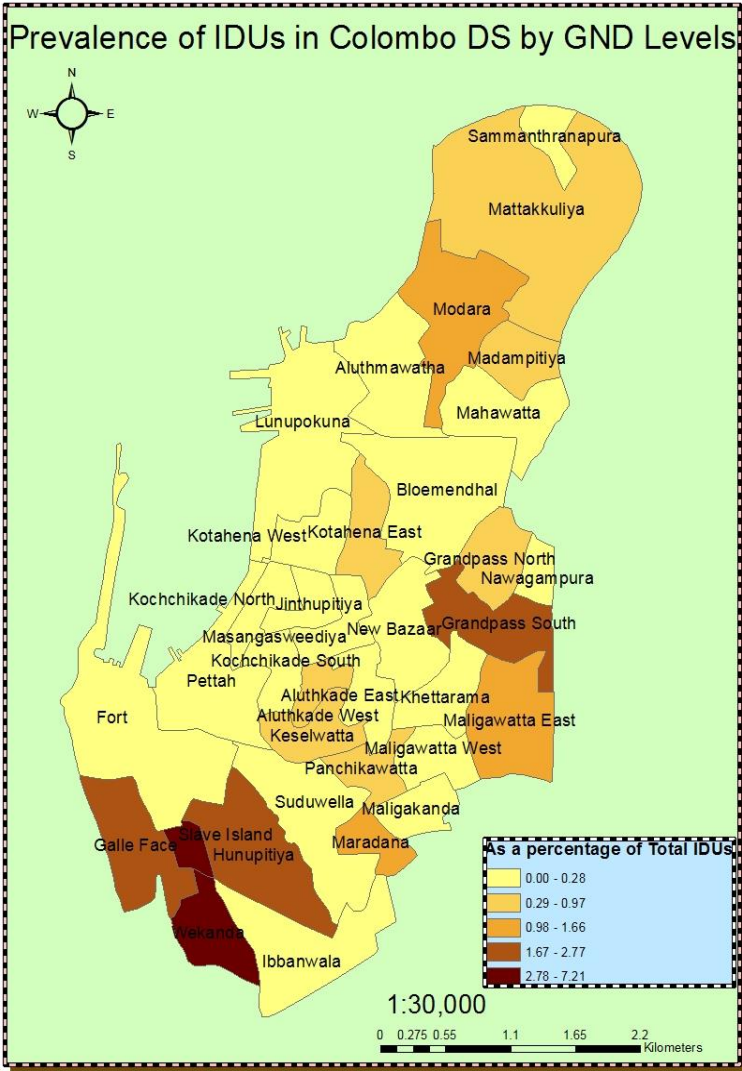
Out of the identified IDUs, 215 (30%) were from Colombo Divisional Secretariat division, 93 (13%) were from Moratuwa Divisional Secretariat division and 88 (12%) were from Thimbirigasyaya Divisional Secretariat division. Amongst the identified IDUs 46 (6%) were from Rathmalana, 40 (6%) were from Dehiwala, 20 (3%) were from Kolonnawa and 17 (2%) were from Maharagama. Negombo DSD reported high prevalence (4%) of injecting drug use from Gampaha district and JaEla and Kelaniya DSDs reported next high prevalence rate. Panadura DSD from Kalutara district and Ratnapura DSD and Balangoda DSD from Ratnapura district reported considerable percentage of injecting drug use.

The divisional secretariat divisions with high prevalence of injecting drug use were as stated below.

Table 5 -Distribution of IDUs by high prevalence divisional secretariat divisions.

Divisional Secretariat Divisions	Percentage (%)
Colombo	30
Moratuwa	13
Thimbirigasyaya	12
Rathmalana	6
Dehiwala	6
Kolonnawa	3
Maharagama	2
Kesbewa	2
Kotte	2
Negombo	4
JaEla	2
Kelaniya	2
Panadura	1.4
Hikkaduwa	1.1

Map No. 3- Prevalence of IDUs in Colombo Divisional Secretariat Division by GN levels



2.2.5 Prevalence of Injecting Drug use by GN divisions

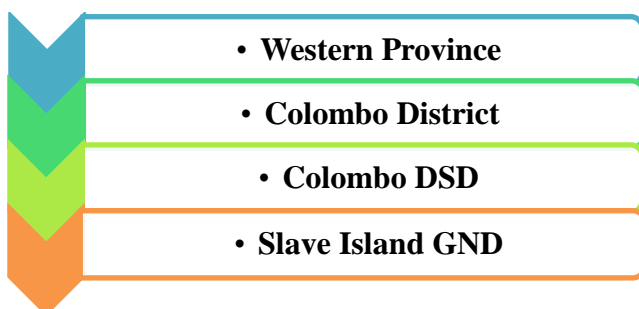
According to the data, some of the Grama Niladhari (GN) divisions were reported as high prevalence areas of Injecting Drug Use. Amongst the reported IDUs from Colombo district, 52 (7%) were from Slave Island, 33 (5%) were from Wekanda and 30 (4%) were from Dematagoda GN divisions. In addition, 28 (4%) were from Mount Lavinia , 20 (3%) were from Galle Face GN division and 17 (2%) were from Dehiwala West and Hunupitiya. In addition Hikkaduwa town GND reported the high prevalence rate of injecting drug use from Galle district.

Table 6 -Prevalence of Injecting Drug Users by GN Divisions in Sri Lanka

Name of the GN divisions	Percentage (%)
Slave Island	7
Wekanda	5
Dematagoda	4
Mount Lavinia	4
Galle Face	3
Dehiwala West	2

Grand pass South	2
Narahenpita	2
Borella North	2
Maradana	1.5
Koralawella	1.5
Maligawatta East	1.4

Table 7 – Area wise Prevalence of Injecting Drug Use



2.2.6 Gender Distribution of Injecting Drug Users

The majority of injecting drug users in Sri Lanka is male. Estimation for gender distribution of injecting drug use is based on reported data from studied areas. Western Province has a greater proportion of female IDUs than other provinces in Sri Lanka. Of the total IDUs 716 (99%) were Males and 5 (1%) were Females.

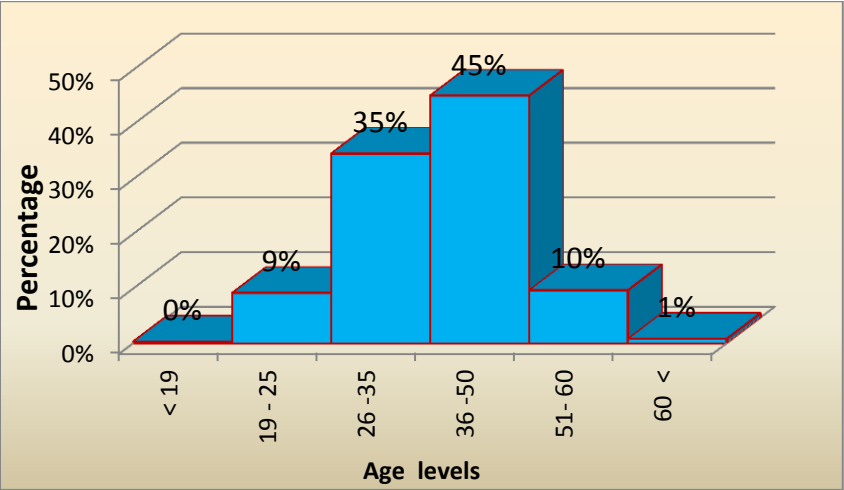
There is a significant difference between the percentages of male and female IDUs. According to the regional records of IDUs, there is a significant similar trend of male injecting drug users in SL with other countries. A research report on HIV prevention among IDUs published by Centre for Strategic and International Studies (CSIS) in 2010 described that 80% of male IDUs are in China and 82% of male IDUs are in Vietnam (5).

2.2.7 Age Distribution of IDUs

The average age of the IDUs was 38 years from the ranged of 17 -73 years. Among the identified IDUs, 326 (45%) were from the age group of 36 and 50 years, 250 (35%) were from

26 and 35 years, 66 (9%) were from 19 and 25 years and 70 (10%) were from age group of 51- 60 years. of the total sample, 2 (0.2%) persons were below 18 years and 6 (1%) were above 60 years. The bar charts in figure 1 shows the age distribution as follows.

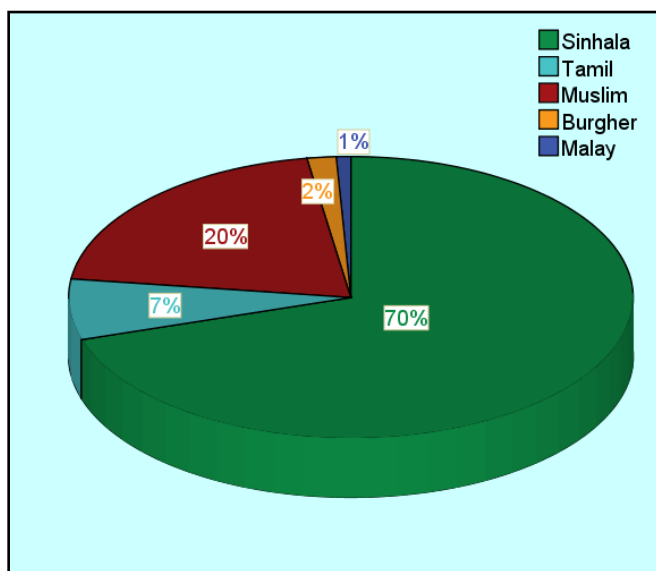
Figure1 – Age Distribution of IDUs



2.2.8 Ethnicity& Religion

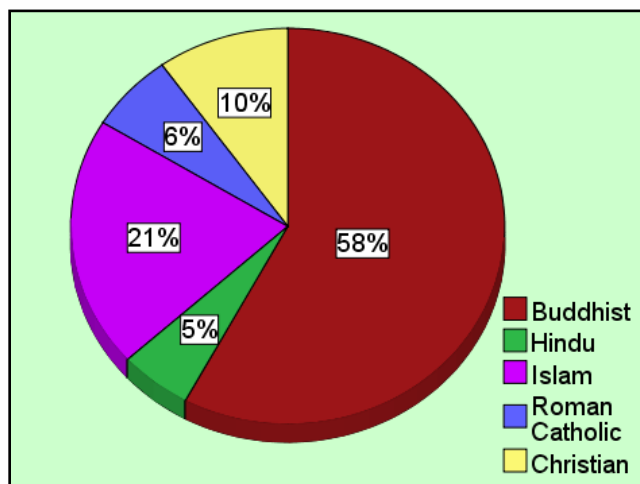
According to the classification of injecting drug users by ethnicity wise shows that, 506 (70%) were Sinhalese, 147 (20%) were Muslims, 50 (7%) were Tamils and 12 (2%) were Burghers. Figure 2 shows the ethnicity and religion distribution of the sample.

Figure 2 – Ethnicity of IDUs



According to the 2011/2012 census data, 33Sinhalese, 78Muslims 16Tamils and13 Burghers were estimated as prevalence rate of injecting drug use per million populations. Among the drug users 417 (58%) were Buddhist, 148 (21%) were Islam, 71(10%) were Christian, 46 (6%) were Roman Catholic and 39 (5%) were Hindu.

Figure 3 – Religion of IDUs

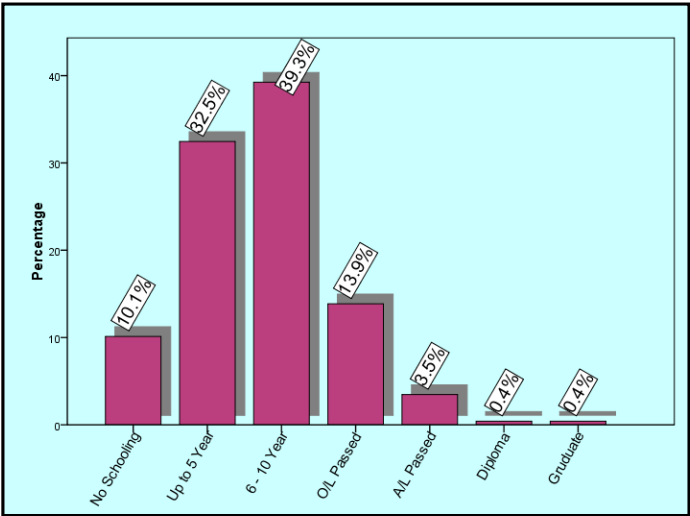


According to the 2011/2012 census data, 29 Buddhists, 75 Islamic and 45Christians were estimated as the prevalence rate of injecting drug users per million populations.

2.2.9 Level of Education

Among the IDUs, 517 (72%) had studied up to grade 10, 100 (14%) had completed G.C.E. O/L and 25 (4%) had completed G.C.E. A/L. 73 (10%) had never attended school, while three had completed a Diploma and another three had received a Degree.

Figure 4– Educational Level of IDUs

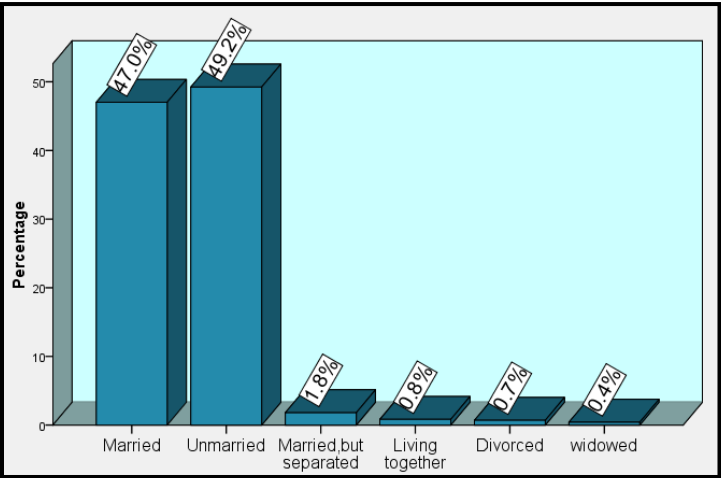


Majority of the IDUs were reported lower educational background and the bar chart in figure four presents distribution of IDUs in terms of the level of education.

2.2.10 Marital Status

Among the IDUs, 339 (47%) were married, 355 (49%) were unmarried, 5 (0.7%) were divorced, 13 (2%) were separated and 6 (0.8%) were living together. Data shows that Majority of the IDUs were unmarried.

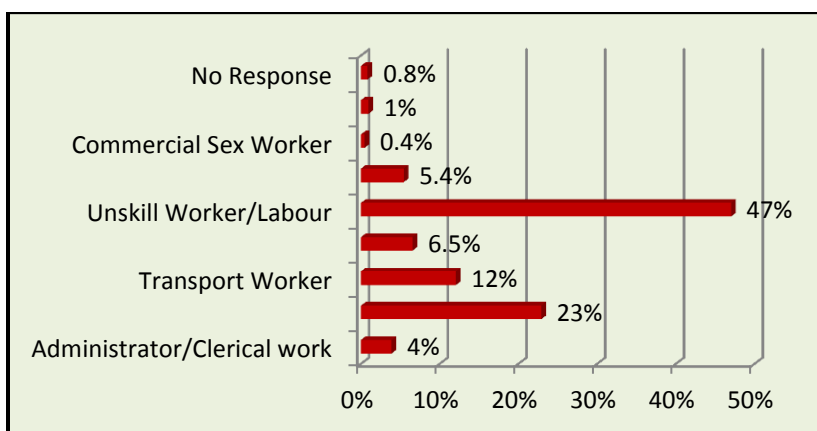
Figure 5 – Marital Status of IDUs



2.2.11 Type of Occupation

Of the sample, 715 IDUs were employed. Among them, 339 (47%) were unskilled workers or labourers, 165 (23%) were engaged in business/self-employed, 87 (12%) were transport workers, 39 (5%) were fishermen and 47 (6.5%) were skilled workers. In addition to above occupation categories 28 (4%) engaged in administrative or clerical works, 7 (1%) were engaged in illegal activities like drug trafficking and 3 (0.4%) were commercial sex workers. According to the figures some IDUs did not have any source of income and they were depending on their family members.

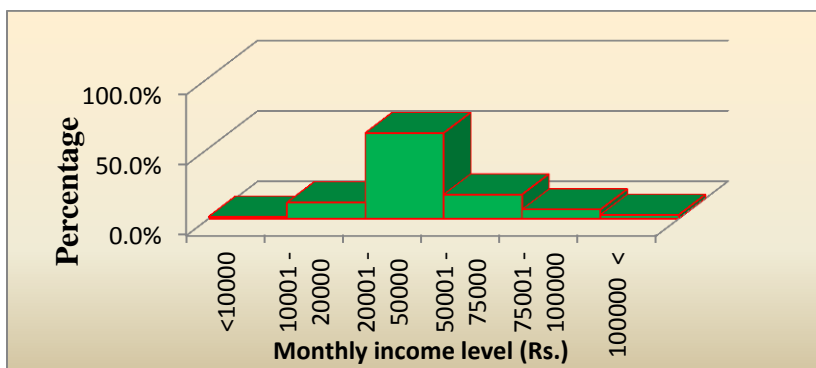
Figure 6 – Type of Occupations



2.2.12 Monthly Income

Of the persons who were employed, 395 (60%) earned Rs. 20,001 – Rs. 50,000 per month, 112 (17%) earned Rs.50, 001 – Rs.75, 000 per month, 74 (11%) earned Rs.10,001 –Rs. 20,000 and 42 (7%) earned Rs.75,001 –Rs.100,000 per month.

Figure 7– Monthly Income of IDUs



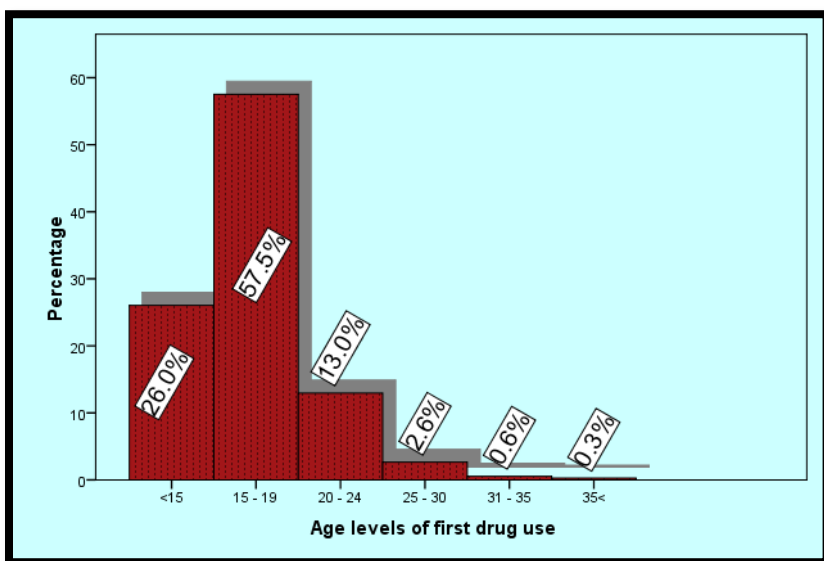
Further can revealed that, 18 (3%) persons earned above Rs.100, 000 per month and 9 (1%) persons earned below Rs. 10,000 per month. 567 (87%) persons earned above Rs 20,000 per month and majority of the respondents were in the range of Rs 20,001-50,000 monthly income.

2.3 Drug Use Profile of IDUs

2.3.1 The Age of First Drug Use

Of the respondents, 187 (26%) initiated to use any kind of drugs when they were below 14 years. 93 (13%) starts to use at 20 -24 years and 19 (3%) initiated in between 25 - 30. More than half of the IDUs, 413 (58%) have started to use drugs between 15 to 19 years.

Figure 8 – Age of First Drug Use



Four persons had started drug use between 31 and 35 years of age and only two had initiated drug use after 36 years of age. The average age of first drug use was 17 years. Majority of the respondents had initiated drug use at the age 16 years. The minimum age of drug initiation was 9 years and the maximum age was 40 years.

2.3.2 Previous Behaviour of Drug Use

Of the total IDUs, 708 (98%) used Chinese method (Chasing the dragon) before initiating the injecting method. Out of the total IDUs, 13 (2%) had initiated injecting method at the first time.

2.3.3 Age of First Heroin Use

When considered about the age of first drug use, in many societies initiation of drug use in teenage and young adults age is a common phenomenon. Of the total study, population more than half (67%) had started heroin use at the age between 19 - 25 years, 151 (21%) had started heroin use at the age between 15 and 18 years and 59 (8%) had started heroin use at the age

between 26 -35 years. According to the figures, 21 persons initiated drug use at age below 14 years. The average age of first heroin use was 20 years. The minimum age of first heroin use was 11 years and the maximum age of heroin use was 46 years.

2.3.4 Age of First Injecting Drug Use

Majority, of the IDUs initiated drug injecting in their age of 19 - 25 years. Of the identified IDUs, 332 (46%) had started to inject drugs at age between 19- 25 years, 267 (37%) started at the age of 26- 35 years and 67 (9%) had started at the age between 36 - 50 years. Only one person started injecting drugs below 14 years. A WHO studied 6,400 IDUs in 12 cities in five continents and found that 72% and 96 % of IDUs initiated injecting drugs before age 25 (8)

2.3.5 Multiple Drug Use Patterns

According to the drug use patterns of IDUs, they are using both legal and illegal drugs. All the data are shown in below and it highlights that all the respondents are multiple drug users and

all of them are using heroin (721) in addition to other type of drugs such as cannabis, opium, hashish and different types of pharmaceutical tablets and syrup.

According to the figures of their current drug use, all respondents (721) are using heroin. Of the total respondents, 372 (52%) are using cannabis, 47 (7%) are using opium, 78 (11%) are using hashish and 252 (35%) are using tablets. From the legal drugs, 172 (24%) IDUs are using arrack and 649 (90%) are using cigarettes. According to the figures, all respondents are using heroin however, while using heroin, they used multiple drugs. One person is using morphine and four persons are using corex D.

2.3.6 Transition to Injecting from Chinese method

Drug users have become more exposed to new methods of taking drugs, including injecting method and they have given various reasons for it. Many youth began sniffing or smoking drugs, then started injecting because they assumed it would be more cost effective. In this survey, 708 persons had moved to injecting method from Chinese method. Of them, 508 (70%)

persons had moved to injecting method because of the ability to getting quick feelings.

241 persons had moved to injecting method because of the maximum long effective period of drug use than the other methods. Some persons gave one or more following reasons for moving to injecting method.

1. More quick feelings
2. Maximum long effective period
3. Peer pressure
4. Cheaper cost effectiveness
5. More preference to injecting method
6. Drug injecting is a fashionable thing

Of the reported IDUs, 687 (95%) persons had shifted to injecting method because of peer pressure. 30 persons considered drug injection as a fashion. Some of them have influenced by their family members who inject drugs and by the tourists. Those who injected drugs were often unaware of risk factors associated with their behaviour and most of the time curiosity and peer pressure were the reason for the first injection. According to the findings, youth seek out peers or

siblings who already inject and ask for help for their first injection.

2.3.7 Expenses for Injecting drug use

Of the sample, majority of IDUs (267) had spent 1000 rupees for drug injecting and 129 (18%) had spent 500 rupees. The average cost of drug injecting per occasion was Rs.1, 010.

2.3.8 Patterns of Injection drug use

Injecting drug use population is a “hard to reach” group. In this study, 721 IDUs were identified and interviewed. And according to the findings, two or more members in 45 families were engaged in drugs injecting. There were 28 families that two members had engaged in injecting drugs and there were 16 families that three members in the family had engaged in injecting drugs.

2.3.9 Frequency of Injection drug use

The injecting drug users (IDUs) were far lesser than chasers in Sri Lanka. According to the survey findings, IDUs can be

broadly classified in to bellow categories and the categorization was based on their nature of injecting drug use.

- Daily users
- Occasional users

Of the total IDUs, 69% were daily users and 31% were occasional users. There were variations in above two categories and those patterns and variations were explained below.

Daily users

Of the identified IDUs, 499 (69%) were injecting drugs daily. Among them, 191 (38%) used drugs twice a day, 174 (35%) used drugs three times per day and 58 (12%) used drugs four times per day. Of the persons who injected drugs daily, 51 (10%) used at once a day and 18 (4%) used five times a day. Based on the study done on IDUs, more than half (69%) injected drugs daily.

The average frequency of injecting drugs per day was 2 times. Most of the IDUs injected drugs twice a day. Half of the (50%) IDUs had injected three times per day or below and half of the IDUs had injected drugs three times a day or above. The minimum frequency of injecting drugs per day was one and maximum frequency of injecting drugs per day was eight.

Occasional users

Of the total IDUs, 222 (31%) were occasional users. Among them, 87 (39%) injected drugs weekly. In addition, 28 injected once a week, 27 injected twice a week and 24 injected three times per week. Average frequency of injecting drugs per week was two. The minimum frequency of injecting drugs per week was one and maximum frequency was five.

2.3.10 Method of Injecting

The needles and syringes are the most important pieces of equipment needed to inject drugs. Following are the materials used for drug preparation and drug injections.

- Materials used for injection
 - needles
 - syringes
 - tourniquets
- Materials used for drug preparation
 - cookers and spoons
 - filters
 - water
 - swabs

Of the sample, 685 (95%) IDUs procured injecting needles and syringes from the pharmacies and 115 (16%) procured from their friends. Some IDUs procured injecting equipments from pharmacies and peer groups.

2.3.11 Injecting Setting

The study also found that IDUs have different kinds of behavioural patterns with regard to the drug injection. Of the sample, 210 (29%) injected drugs alone, 500 (69%) injected drugs with friends and 3 (0.4%) injected drugs as a group. According to the findings majority of the IDUs were engaged in drugs injecting with the peer groups. There was a correlation between the initiation of drug injection and behavioural patterns of drug injection

Most of the IDUs followed unsafe injecting practices, which are reusing and sharing the injecting equipments. From the persons who injected drugs, 358 (50%) reused injecting needles. Among them 320 (44%) persons cleaned injecting needles before reuse and 38 (6%) of IDUs did not clean needles when reusing. Lemon, normal water, hot water and

peroxide are some of the liquids which used to clean injecting needles. From the persons who reuse injecting needles, 223 (31%) used normal water, 121 (17%) used hot water, 67 (9%) used lemon and 21 (3%) used peroxide for cleaning.

The term “reusing” used to show the incidents of borrowing, lending, passing on, buying, selling, sharing, receiving or taking any equipment that was used by someone else. Of the identified IDUs, 230 (44%) shared injecting needles when they are injecting as a group.

2.3.12 Effects of Drug Injection

Side effects are common in drug injection. Various kinds of effects were reported. 289 (40%) persons reported that they have some inconvenience and side effects with related to drug injection. Side effects that were reported by IDUs were as follows:

- Drowsiness
- Fatigue
- Thrombosis
- Phlebitis
- Headache
- Tremor

- Vertigo
- Nausea
- Urinary retention
- Diplopia
- Difficulty in breathing
- Blurred vision
- Swelling of muscles
- Bleeding from the site of injecting
- Fever
- Benumbing of Hands
- Fainting
- Sweating

The ever-constant effect of drug injecting is overdose. Out of the total IDUs, 211 (29%) were faced overdose symptoms at least once and among them, 82 (11%) were hospitalized or has obtained treatments.

2.3.13 Sexual Behavior of Injecting Drug Users

IDUs may transmit HIV not only by needle-sharing but also by unprotected sexual intercourse. Likewise, they may expose themselves to HIV through high-risk sexual behavior. Of the persons who injected drugs, 673 (93%) engaged in sex and out of them 668 (99%) were hetero-sexual and 5 (1%) were homo-sexual.

Of the sample, 115 (16%) engaged in sex with casual partners, 98 (14%) engaged in sex with commercial sex partners and 187 (26%) engaged in anal sexual intercourse. Among the IDUs only some are using condoms when engaging sex with casual partners.

3. Discussion

3.1 Perception Associated with Injection

Drugs can be administered into body by using several ways. They may be taken by mouth, by injecting into a vein or a muscle, placed under the tongue or between the gums, sprayed into the nose and breathed into the lungs. Administration by injection includes the subcutaneous, intramuscular and intravenous routes. Each route has specific purposes, advantages, and disadvantages.

In Sri Lanka, heroin users basically use two methods for drug administration. The Majority use Chinese method and others are use injecting method. According to the responses on IDUs, injecting drug use is the fastest way to achieve the desired effect from the drug. According to the study, more people in urban areas turn to drug use and cheaper ways of taking the drugs is by sharing needles with others and trying to get the maximum effect from a small quantity. Most of those involved in drug injection think that injecting method has long effective period and it will be more rapidly active. Based on the study, there were 241 persons moved to injecting method because

they believe that the effective period of drug use was long in injecting method than other methods. Treatment for addiction.com (online recovery resource directory) (6) explained most common reasons for injecting drug use.

It shows that drugs injected by intravenous injection take effect within 15 to 30 seconds; it is faster than all other methods and over 10 times faster than by snorting.

Most of the IDUs said that drug injection was cheaper than other methods. They think that injection is more rapidly active, give quick feelings and also as a fashion. Drugs that are commonly injected include heroin, sedatives and morphine (7). Most of the people do not start to use drugs via injecting. According to the report on management of common health problems (8), many users are facing increased tolerance and financial pressures switch to this mode over time, due to the efficiency of injecting by delivering a substance directly into the bloodstream and the lack of drug wastage.

3.2 Patterns of Injecting Drug Use

Not all drugs can be taken by all routes. It is important to note that people can switch from one method of taking drugs to another (e.g. from smoking to injecting heroin). Some people also take a number of different drugs by different routes over a period of time. The injecting drugs use varies from place to place, and in different cultural and social settings. Drug taking frequency also changes from person to person.

Most of the IDUs engaged in drug injection with the influence of peer groups and they may inject drugs with friends. The study also found that IDUs have various kinds of behavioural patterns with regard to the drug injection. When considering the behavioural patterns, the majority (69%) of the IDUs used to inject drugs with peers. There was an inter-relationship between the initiation on drug injection and behavioural patterns of drug injection. That is, most of the IDUs initiated drug injection because of the peer pressure and after that also they used to inject drugs with peer groups.

Most of the IDUs followed unsafe injecting practices, which are re-using and sharing the injecting equipments. Because of

the above unsafe context, side effects are common. In this study various kinds of side effects were reported, with regard to the drug injection. Of the persons who injected drugs, 289 (40%) said that they have some inconveniences and side-effects with regard to drug injection. The ever-constant effect of drug injecting is overdose.

3.3 Risk Factors of Injecting Drug Use

The risk of infections by blood borne viruses such as hepatitis and HIV is high when using shared and non-sterilized injection equipment (7). According to the response of the IDUs, some of them are aware of the risk factors. Within the study period, the knowledge about the risk environment associated with drug injection was expanded.

According to the respondents, they described the places where they took drugs such as near railways, at their own home or at a friend's house. The places where they took the drugs are also vulnerable to create some of health issues. Drug injection is the context of dealing with the inside of the body and it should be done under safe conditions. When someone injects drugs under

unsafe or unclean environmental conditions, viruses may enter to the body and it will be cause severe infections.

The group injecting behavior is another major risk. It frequently occurs with drug using peers who share common behavioural traits, mutual economic ties and social bonds and often develops into drug related partnerships. According to this study, majority of the persons injected drugs with small groups of their friends where two or three persons who were very closely engaged in group injecting.

The price of a heroin pack or other types of tablets fluctuates and when the price is high, IDUs cannot afford them. As an alternative, they buy drugs jointly and then share the drug. There are strong bonds among drug using friends and they like to take drugs, help each other and enjoy different events together. Also, a group norm develops within the group and them buildup friendship as they experience the same drug taking events together.

Within the above relationship or bond, drug users get involved in sharing practice. First, they buy the drug with shared money. They share money equally and share the drug similarly. It is

very difficult to share the pack equally. Therefore, they dissolve the drug by mixing purified water in a syringe and prepare the liquid drug solution. Then they share equally by transferring in another syringe.

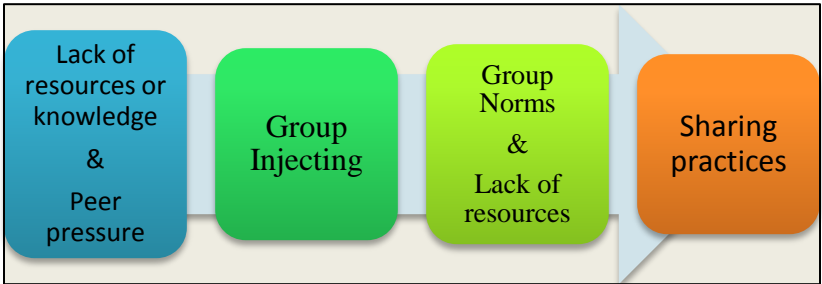
As a group, they were engaged in needles sharing practices among the group. According to the studies that have been done in some other social and cultural settings, the higher and lower risk in the sharing practices can be identified. According to the study on “drug injecting and HIV risk among injecting drug users” (7) when needles and syringes are shared directly, for example, by giving their own personal needles and syringes to a group member after using, or receiving the same after another group member used, it is a ‘higher risk’. There are also risks from indirect sharing, for example, by sharing common water containers, drug solutions, cotton or even not using a new needle/syringe during the preparation stage of the liquid drug solution, thus contributing to ‘lower risk’. Some IDUs re-used their personal needles and syringes without proper cleaning.

When considering the reasons for sharing the injecting equipment, most of the IDUs shared needles and syringes due to the lack of resources and they tried to get higher effect from

even a small quantity of drugs. Some of the studies found that most common reasons for the sharing practices of IDUs. Literature (7) shows two reasons for engaging in sharing behaviours, such as difficulty in finding new needles/syringes at the time of need' and 'a crisis period either in heroin supply or a personal crisis'. The IDUs also mentioned other reasons which significantly influenced sharing practices including 'lack of resources' and 'quick withdrawal management'

The group injecting and sharing practices are interrelated with other sub factors. Most of the IDUs involved in group injections because of the lack of resource and peer pressure. IDUs were guided to sharing practices by the group norms and lack of resources within the group. Above co-relation was summarized as follows.

Table 8 - Co-relation between the group injecting and sharing practices



The other risk factor of injecting drug use is that not cleaning the skin adequately before injecting. If someone injects drug without cleaning the skin, it can cause some of the bacterial infections. The other risk factors are drugs leak out of the veins during the injection and injection of drugs into the fatty layer under the skin. Some of the participants mentioned that if the drugs leak out of the vein when they are injecting drugs, the muscles swelled. Repeated injection at the same sites of the body can cause damage to skin and veins. When examining the IDUs, some persons had injuries and patches on the skin due to the drug injection to the same site.

4. Conclusion

- According to the study, 721 injecting drug users were identified in the sample. Lower percentage of injecting drug users were reported from Central Province. Highest rate of IDUs were reported from Western Province. Colombo District, Colombo DSD and Slave Island GND reported a high prevalence of injecting drug use.
- The estimated figure of injecting drug users in Sri Lanka is between 705 - 1209 and lower estimation is 705.
- The majority of injecting drug users in Sri Lanka are male. The findings highlighted that injecting drug use among women were very low. Majority of the IDUs were between 36 and 50 years and majority of them had studied up to grade 5 and 10.
- All the IDUs used heroin and they were multiple drug users.

- IDUs of all ages reported that they initiated injecting drugs in their teen age or before 25 years of age. According to the study, prioritized reasons for moving to injecting method are more rapid feelings of injecting method, maximum effective period of injecting method and peer pressure.
- IDUs were far lesser than chasers in Sri Lanka and they broadly could put in to two categories which are daily users and occasional users and majority of the IDUs were daily users.
- Most of the IDUs followed unsafe injecting practices which are re-using and sharing of injecting equipments. Majority of them re-used injecting needles and some of the IDUs shared injecting needles only when they are injecting as a group. Sharing needles and syringes results in high risk of getting infections including HIV/AIDS.

5. Recommendations

Survey findings highlighted issues that are risk factors of IDUs in Sri Lanka and made a number of recommendations.

- The primary recommendations emphasized the need to extend the outreach coverage of current harm reduction programmes by Outreach officers in all identified hot spots such as Slave Island, Moratuwa and Dehiwala etc.
- Increase the number of peer educators and volunteers for conducting awareness programmes for the IDUs. The peer educators and volunteers should visit all the gathering places and share knowledge related to the risk factors of injecting drug use.
- Develop a special awareness programme on risk factors of injecting drug use for the IDUs, those who are engaged in group injecting or engaged in occasional sharing of injecting equipment.
- An effective programme is needed for prevention, treatment and rehabilitation of IDUs. Present drug policy and programmes do not focus IDUs in the

country. Therefore, urgent attention should be given to rehabilitate injecting drug users.

- Encourage IDUs to take medical care, including general primary care, HIV care and tuberculosis (TB) clinics.
- Interventions should be based on a regular assessment of the nature and situations of drug users, as well as trends and patterns of injecting drug use. Outreach officers of the NDDCB will be doing interventions in the relevant locations and they should get the proper training on risk factors of injecting drug use.
- Awareness on injecting drug use and its relationship to communicable diseases such as HIV/AIDS and other infections should be provided by law enforcement officers, health officers and community leaders.

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