

**A critical analysis of the falling age of initiation among the injecting drug users and the programmatic response in Manipur India**

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**India**

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**"A critical analysis of the falling age of initiation among the injecting drug users and the programmatic response in manipur india"**

A thesis submitted in partial fulfilment of the requirement for the degree of Master of Public Health

By

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India

Declaration:

Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis "**A critical analysis of the falling age of initiation among the injecting drug users and the programmatic response in Manipur India**" is my own work.



Signature:

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## ABBREVIATIONS

AIDS	Acquired immunodeficiency syndrome
AIHI	Australian International Health Institute
AFHSP	Adolescent Forensic Health Service programmes
ANC	Ante-natal clinic
ART	Antiretroviral therapy
ATS	Amphetamine -type stimulants
BBV	Blood borne virus
BMFG	Bill and Melinda Gate's Foundation
CBO	Community-based organisation
CEE	Central and eastern Europe
EHA	Emmanuel Hospital Association
EHRN	Europeans harm reduction network
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
HMIS	Health management and information system
HR	Harm Reduction
HRI	Harm Reduction International
HCW	Healthcare workers
IBBA	Integrated Biological and Behavioural Assessment
ICMR	Indian Council of Medical Research
ICTC	Integrated Counselling and Testing Centre
IDU	Injecting drug user
ICHD	International Course in Health Development
FIDU	Female injecting drug user
FSW	Female sex worker
IEC	Information, education and communication
INR	Indian rupees
ICHD	International course in health development
Rs	Indian Rupees
KIT	Koninklijk Instituut voor de Tropen
KYKL	Kanglei Yawol Kunna Lup
M&E	Monitoring and evaluation
MSACS	Manipur state AIDs control society
MNP+	Manipur Network of Positive People
MSJE	Ministry of Social Justice and Empowerment
MSM	Man having sex with man
NA	Narcotics Anonymous
NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NDPS	Narcotic Drugs and Psychotropic Substances
NGO	Non-governmental organisation
NSEP	Needle syringe exchange programme
NEIRHN	North east India harm reduction network
NS	Needle syringe

NSCN - IM	National Socialist Council for Nagalim -Isaac Muivah
NFP	Netherland Fellowship Program
NYK	Nehru Yuva kendra
OI	Opportunistic infection
OST	Opioid substitution therapy
ORCHID	Organised response for comprehensive HIV intervention in the district of Manipur and Nagaland
ORW	Outreach worker
PLHA	People living with HIV/AIDS
PMTCT	Prevention of mother to child transmission
PHC	Primary health centre
PE	Peer educator
PLA	People's liberation Army
RIAC	Rapid intervention and care programme
SACS	State AIDS Control Society
SHALOM	Society for HIV/AIDS and Lifeline Operation in Manipur
SLP	State lead partner
SP	Spasmoproxyvon
STI	Sexually transmitted infection
SRHR	Sexual reproductive and health rights
TB	Tuberculosis
TI	Targeted intervention
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNODC	United Nations Office for Drugs and Crime
UG	Underground (Insurgent group)
UNLF	The United National Liberation Front
VCTC	Voluntary counselling and testing centre
VU	Vrije Universiteit
WHO	World Health Organisation

## **GLOSSARY**

### **Injecting drug user (IDU)**

UNAIDS terminology guidelines in October 2011 have defined injecting drug users as:

“The term injecting drug users is preferable to ‘drug addicts’ or ‘drug abusers’ which are derogatory terms that are not conducive to fostering the trust and respect required when engaging with people who use drugs. Note that the term ‘intravenous drug users’ is incorrect because subcutaneous and intramuscular routes may be involved. A preferable term that places the emphasis on people first is ‘person who injects drugs’. A broader term that may apply in some situations is person who uses drugs” (UNAIDS Terminology Guidelines October 2011)

### **Injecting Drug User**

The National Aids Control Organisation (NACO) define injecting drug user as “Those who used any drugs through injecting routes in the last three months” (Operation guidelines for targeted interventions under NACP 111 October 2007)

### **Adolescents injecting drug user**

The working definition for this thesis will be those adolescents IDUs who are below age of 18 years who used any drugs through injecting routes in the last three months.



## **DEDICATION**

To my wife & daughter (Awon & Tazakin)

## **ACKNOWLEDGMENTS**

Firstly, I will be eternally grateful to Almighty God for the privilege to study again and for blessing me with good health throughout my study.

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## **ABSTRACT**

### **Background**

Manipur is one of the six high HIV prevalence states in India. It has a concentrated epidemic, and the main route of HIV transmission is through injecting drug. HIV prevalence among the injecting drug users (IDUs) is 12.89% in 2011 (HIV Sentinel Surveillance 2011).

**Objectives:** To explore factors which make adolescents in Manipur prone to injection drug use and its complication in order to provide recommendation to the policy makers to reduce injecting drugs and its complication to adolescents.

**Method:** Literature review using the modified conceptual framework adapted from Andersen and Newman to interrogate the literature and to organise my findings.

### **Findings**

The age of initiation of injecting drug use is decreasing in Manipur. Adolescent IDUs are more vulnerable than adult IDUs, as consequences of legal obligation and non-availability of Harm reduction (HR) services. It increases in sharing of needle and syringes, paraphernalia and unsafe sex which increase in HIV, HCV, STIs, overdoses, abscess and premature mortality. While HR for adult IDUs has proved to be effective in Manipur, it has in decrease in HIV prevalence among adult IDUs from 76% in 1997 to 12.8% in 2011.

### **Conclusions**

Acknowledging the decrease in age of initiation and vulnerability, the magnitudes of barrier to utilisation of HR services can facilitate early intervention of HIV prevention programs.

### **Recommendations**

The state Government should urgently revise and update the current HR policies to allow the inclusion of adolescents as beneficiaries, conduct size estimation for adolescents IDUs, and establish adolescent friendly centres, strengthened referral and linkages with other adolescents programme.

### **Key words**

Manipur, Harm reduction, adolescents injecting drug users, HIV/AIDS, heroin.

**Word counts:12,492**

## **INTRODUCTION**

Manipur lies adjacent to the 'Golden Triangle' where the borders of Myanmar, Laos and Thailand meet; most of its eastern boundary is formed by Myanmar, the second largest opium producer in the world. Manipur state is one of the major drug-trafficking routes from the Golden Triangle. Illicit drugs like heroin, locally known as 'number four' the purest form of heroin, and amphetamine are commonly available (Sarkar et al., 93).

Manipur has the third highest rate of HIV seroprevalence in India. Out of the 49 highest HIV prevalence districts in India, 4 districts lie in Manipur. There are about 32,000 injecting drug users (IDUs) in Manipur (Quest 2011). The National AIDS Control Organisation (NACO) classified Manipur as high-prevalence state. The IDUs in Manipur contributes to 50% of the total HIV infection (NACO HIV epidemiological surveillance 2005). According to Manipur state Aids report 2008, Manipur has shown the highest estimated of adult HIV prevalence 1.4% in India. The HIV prevalence among the IDUs is 12.89% (HIV Sentinel Surveillance 2010–2011

I worked for seven years in Manipur for implementing HR project with Project ORCHID funded by Bill and Melinda Gate's Foundation (BMFG) Avahan AIDS initiative India. Project ORCHID works in selected districts of 2 states in north eastern state in India, Manipur and Nagaland, with 31 non – governmental organisations (NGOs). With the target of 18,000 injecting drug users (IDUs), 4000 female sex worker (FSW), and 1450 man having sex with man (MSM) (Lalmuanpuii et al.,2013).

The problem of prevalent use of drugs among the adolescent and my experiences among adolescent injecting drug user in Manipur, inspired me to write this thesis. Many adolescents have reached the stage of initiation of injecting drugs, but due to legal age obligation (below 18 years) they are not allowed to access current HR services. This makes them more vulnerable due to financial constrain and social stigma, they are more at risk of getting HIV and blood borne virus (BBV) by sharing needles and syringes (NS) and their paraphernalia's. There are no official data available for adolescents IDUs in Manipur. Injecting drugs is a serious public health problem in Manipur, as 2% of the population are engaged in IDUs (Chandrasekaran et al., 2006). IDUs are considered as the carrier of HIV, STI, and, other blood borne virus (BBV). Thus my thesis will aim at exploring factors which make adolescents in Manipur prone to injection drug use and its complication in order to provide recommendation to the policy makers.

## CHAPTER I: BACKGROUND INFORMATION OF MANIPUR

### 1.1 General information

Manipur is one of the eight north eastern states in India; with Imphal as its capital, it covers a total geographical area of 22,327 Sq. Km. About nine-tenths constitute the hills which surrounds the remaining one-tenth valley. It has 9 administrative districts. As per the 2011 census it has population of 2.7 million with a literacy rate of 80% and sex ratio of 987 male for each 1000 females. Manipur has 30 different ethnic tribes like Meiteis, Pangals, Nagas, Zomis, Kukis, Nepalis etc. (Manipur census, 2011)

### 1.2 Socio-economic situation

Manipur is among the least developed states in India. The Per capita State Income (PSI) in 2011-12 was Indian Rupees (Rs) 32,284 (€ 460) – far below the all-India average of Rs.74,694 (€1070). The economy in the state is primarily agrarian. The state has a poor infrastructure and industrial development. Unemployment among youths (15-29 years) in the urban areas was 19.3%. Manipur state suffers from “brain drain” as the educated seek employment in other regions of India (Manipur census, 2011)

### 1.3 Overview of the health system

Manipur faced shortage of human resources, infrastructure in health system. At present the ratio of doctors – patient is 1:1660. The total sanctioned post for the doctors is 1614, but the present doctors in post is only 933. Accessibility is one of the main challenges in the health system, due to lack of poor functioning of health centres and lack of staffs. **Table A: Available and required staff March 2011**

Particulars	Sanctioned post	In position	shortfall
Doctor	1614	933	681
Homeopathy doctors	30	8	22
Staff nurse	714	594	120
Male Health Worker	391	275	116
Sub - centre	492	420	71
Community Health Centre	19	16	3
Health worker (Male)/ MPW (M)	420	320	100
Health Assistant (Female)/LHV at PHC	80	72	2
Health assistant (Male) at PHC	8-	73	7
Obstetricians & Gynaecologist at CHC	16	1	15

(Source: M/O Health & F.W.GOI (2011))

#### **1.4 HIV epidemic in Manipur**

The first case of HIV in Manipur was identified in 1990 from the IDUs; the epidemic has spread rapidly though it remained concentrated amongst the key populations - IDUs, FSWs and MSMs. The HIV prevalence rate amongst the IDUs is 12.89 % ( Sentinel Surveillance 2010 – 2011). About 13% of the HIV positive cases (Sero-surveillance) are below the age of 20 years (Manipur Health Status and Health Care Services 2003)

#### **1.5 Problem of insurgency and insecurity**

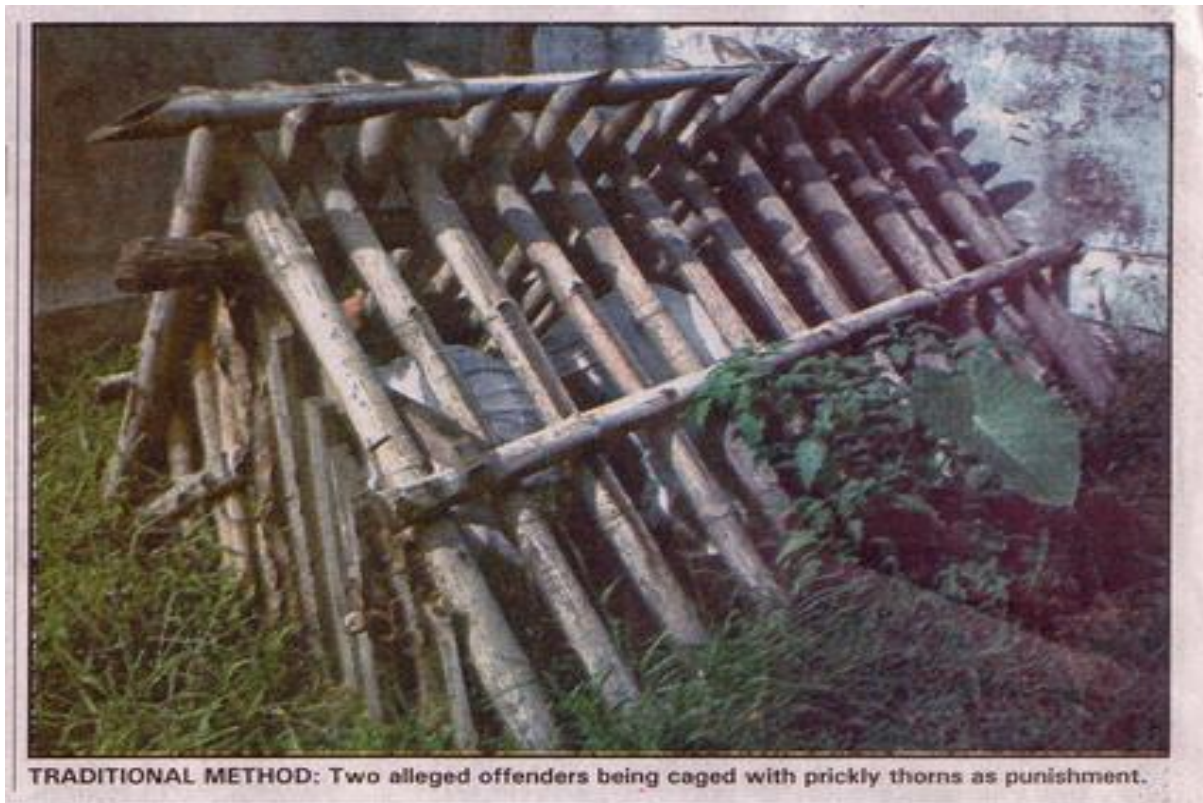
There are 39 arm militant insurgency movements or underground movement (UGs) in Manipur. A cold war among different ethnic groups (such as Meitei, Kuki, Paite and Naga) occasionally erupts in violent clashes among different ethnicity. The ultimate aim of UGs is fighting for independence from government of India and some are fighting to establish their homeland in the state. These have led to displacement of many families and strict law enforcement by strong Para-military presence in the state. There are frequent economic blockades and public curfews, which really hinder access of health services among IDUs and general populations (Sharma et al., 2003; Goldsamt et al., 2010).

A report in the Statesman from Manipur highlights "The fastest growing industry in Manipur is insurgency and insurgent groups come up with the ease with which companies are floated elsewhere in the country. There are established "Liberation" groups carrying on the struggle for more than 30 years now"(Laba 1995:9)

#### **1.6 History of drug use and response in Manipur**

The first HIV positive case was detected from IDUs in 1990. Manipur has practised three types of models to respond to the problem of drugs use. The first model was Police model (1990 -1993). In this model mass arrest and imprisonment of drug users by cracking down the drug dealers, drug peddlers and drug addicts with the support from the local women group (meira paibis) through door to door identification was implemented. So more than 80% of the IDUs were in prison and some were put in traditional method like, private jails where drug addicts were put in wooden cages with iron chain in the legs. Most of the IDUs were in the age group 15-25 years. As a result of this drive most of the IDUs remained hidden and there was a widespread sharing of needle and syringe (NS) and increase in the HIV prevalence among the IDUs.

**Figure A: Method of treatments for IDUs in Manipur (1990 -93)**



**Source: NEIHRN**

**Figure B: Method of treatments for IDUs in Manipur (1990 -93)**



**Source: NEIHRN**

The second model was abstinence model (1994 -1997), substitution therapy buprenorphine was provided by the NGOs in the de-addiction centres, so there was a good response and support from the family members. Any IDUs who failed to comply to take the buprenorphine were shot with guns in the legs by the UGs. This programme failed to address the problem of relapse, and relapse rate was more than 80%.

**Figure C: Method of treatments for IDUs in Manipur (1994 -97)**



(Source: Local newspaper Sangai express Jan 28, 2005)

Finally the third model harm reduction was launched in 7th November 1998 as rapid intervention and care. It was implemented in 10 sites in Imphal and 2 sites in Churachandpur. The programs mostly focus on IDUs who are above the age of 18 years (Khomdon, 2005). But we have seen good decrease of HIV prevalence among adult IDUs after implementation of HR from 76% in 1997 to 12.9% in 2011.

**Table B: Sentinel Surveillance Report (1996 -2011)**

Years	97	98	99	00	01	02	03	04	05	06	07	08	09	11
IDUs Prevalence in %	76	67	72	55	66	56	39	30	21	24	19	17	28	12.9

(Source: MSACS Epidemiological analysis of HIV/AIDS in Manipur -2011)



## **Chapter 2: Problem statement, justification and objectives and Methodology**

### **2.1 Problem statement**

Injecting drugs for non-medical purposes has increased rapidly during the last decade; it is one of the major contributing factors in the outbreak of the HIV epidemic in Manipur. Approximately 2% of the population in Manipur are estimated to engage in injecting drug use (Chandrasekaran et al., 2006). Out of this about 10% are female injecting drug users (FIDU) (Murthy et al., 2002). Injecting drug use is a serious public health problem in the state; and most commonly injected drugs are heroin and Spasmoproxyvon (SP). Injecting drug use is one of the major routes of HIV transmission in the state (Chandrasekaran et al., 2006).

In Manipur most adolescents start initiation of drug use by taking orally, or inhaling, or snorting first with softer drugs, including use of solvents like (dendrite, eraser, petrol, marijuana). In most cases, individuals move on to injecting after a period of inhaling or snorting and swallowing (Project ORCHID, 2011). Studies have showed that, initiation of injecting drugs in Manipur occurs at very young ages, many before 19 years as compared to 24 years for the other part of India (Dorabjee et al., 2000). Similar finding in Manipur showed that, majority of the IDUs were in the age group of 15-20 years (Khomdon, 2005). In another study among 200 female injecting drug users (FIDUs), most of them start injecting at the age of 15 years (Oinam, 2006). Cross-sectional survey among 200 IDUs showed decline in the age of IDUs in Manipur. The mean age of the first injection of illicit drugs was 19 years (range 13–26, median 19) (Kermode et al., 2007). A study among 205 adolescent IDUs of 7 districts in Manipur showed that, 80% of the participants started injecting at the age of 14 - 17 years (Chingsubam et al., 2008). A study among 191 IDUs in Manipur showed that, the average age of first injection was 19.0 years (SD 3.5, median 18, range 13–34 years) (Eicher et al., 2010). Unpublished recent studies among high school students (13 -17 years) in Manipur showed that large numbers of the students in Manipur were found to have used narcotics and psychotropic drugs (Dr. Brogen April 2013, through personal communication).

Studies have showed that, in Manipur peer influences, curiosity availability and easy accessibility of drug make adolescents more prone to initiation of injecting drugs (UNODC, 2007; Chakrapani et al., 2011; Chingsubam et al., 2011). Other studies showed that, social network and interaction among different ethnic tribes or community make adolescents more prone to initiation of injecting drugs, (Amstrong et al., 2011; Prithwish et al., 2007). Cultural practices and gender norms were also found to greatly influence adolescent to initiating injecting drugs (Chingsubam et al., 2008; Oinam, 2006; Murty, 2002).

Vulnerability of adolescent IDUs is a major problem as the age of initiation of injecting drug is important in assessing the severity of the associated risk (Kermode et al., 2007). Adolescents IDUs are more prone to experience complications like HIV, STIs, blood borne virus (BBVs), overdose and abscess as compared to adult IDUs. Adolescents IDUs often have to rely on adult IDUs as transforming the dry powders of heroin or other pharmaceutical drug into a soluble injectable forms and self-administering them require quite extensive skills. Lack of experience in accessing illicit drug from the market and needle syringes from the service providers has often posed a major challenge for young injectors. About 94.5% of first injection was usually administered by adult IDUs (Croft et al., 1966; Frajzyngier et al., 2007; Goldsamt et al., 2010).

A study among 191 IDUs in Manipur showed that, 93% reported shared injecting equipment, 74.7% are infected with HIV and almost all 98% are living with HCV. About 70% respondents are sexually active, 55% had sex with others apart from their regular partners in the last 12 month and only 22% use condoms. Almost half (48%) reported experience of overdose, and nearly half (46.3%) reported abscesses, for both males and females (Eicher et al.,2010).

Study findings in central and Eastern Europe (CEE), Melbourne, New York, Russia and Vancouver also showed that the age of initiation of injecting drug starts in 12–16 years (Croft et al., 1966; Miller et al., 2006; Europeans harm reduction network 2009; Tim et al., 2010). Therefore, falling age of initiation of injecting drugs is evidence in Manipur and other countries, which make adolescents more prone to initiation drug use and its complication.

## **2.2 Justification**

Manipur is the first pioneering state in India to implement HR in last 15 years. But the root cause of the problem has not been addressed as there are many adolescents IDUs adding every day, but they are not covered by the present HR. Providing HR service only after attaining 18 years put the adolescent IDUs more at risk of getting health complications. Present approach to adolescents IDUs in Manipur is confined to criminal justice, total abstinence, incarceration and drug supply reduction systems. What is known in relation to adolescents IDUs is greatly overshadowed by what is unknown, so they often remain neglected or unreachable by the present HR services (Tim et al., 2010).

Studies in Manipur as mentioned in the problem statement shows that adolescents IDUs both male and female are highly vulnerable in terms of HIV infection, Hepatitis C, abscess, sharing of needles and syringes and injecting equipment, being sexually active, lack of awareness, low condom use in terms of low services and higher overdose cases.

Studies have showed that there is sharp decrease in the age of initiation among the IDUs in Manipur and in around the world, which is a concern, as the age of initiation of injecting drugs is important for accessing the severity of the associated risk (Croft et al., 1966; Europeans harm reduction network 2009; Dorabjee et al., 2000; Tim et al., 2001; UNODC 2004; Kermode et al. ,2007; Amstrong et al., 2011).

There is lack of documentations about circumstances leading to early injection as most of the studies focused on the route of hard core users, which often left out the most at risk, adolescent population (Crofts et al., 1996; Frajzyngier et al., 2007; Fuller et al., 2003; Goldsamt et al., 2010; Lankenau et al., 2010; Roy et al., 2002; Vidal-Trecan et al., 2002).

There is also severe lack of data globally on adolescents IDUs. Global review of data on adolescents IDUs has revealed that no country has a reliable estimate but they are dependent on proxy indicators from statistics on adult IDUs (Harm reduction international 2012(HRI)).

Also, globally there are no harm reduction operational guidelines for adolescents IDUs. Just recently on 16<sup>th</sup> July 2013, youth RISE is partnering with UNAIDS to start developing adolescents IDUs guidelines documents (Youth RISE Newsletter July 2013)

Therefore, there are only few studies about adolescents IDUs in Manipur, although some other studies include some information about adolescents IDUs, they do not look at the various aspects. My thesis will attempt to explore factors which make adolescents in Manipur prone to injection drug use and its complication. I hope the findings from this research will inform policy makers on the factors that influenced young people to start injecting psychotropic drug and impact of programmatic response. So that the national and state policy on HR is revised and adolescents IDUs are included. Also, I hope findings and recommendation from this research will be assets to other researchers.

## **2.3 Objectives**

### **2.3.1 General Objective**

To explore factors which make adolescents in Manipur prone to injection drug use and its complication and to provide recommendation to the policy makers to reduce injecting drug use and its complication among adolescents.

### **2.3.2 Specific objectives**

- To explore factors which drive adolescents in Manipur to start injecting drugs
- To explore factors which make adolescents particularly vulnerable to complications of injecting drug use in Manipur
- To critically examine current policies and programmatic response to the problem and identify gaps in these
- To review evidence on how best to respond to the identified policy and programme gaps in order to make recommendation to better address these gaps.

## **2.4 Methodology**

### **2.4.1 Study design**

This study is a literature review. It is guided by the Andersen's Newman Framework for health services utilization model phase four.

#### **Inclusion criteria:**

- Behavioural and theoretical literature focused to factors influencing adolescents to start injecting drug uses in Manipur
- Literature focused on factors which make adolescents particularly vulnerable to complication of injecting drug use, current polices, programmatic response and identify gaps
- Literature published between 2000 -2013 was given more priority in order to have more updated information, but I have included some studies before the mentioned period to enhance the quality of the study

#### **Exclusion criteria:**

- Only English literature was included for the study

### **2.4.2 Search strategy**

Database like Google Scholar, Scopus, Pub Med were accessed to review published literature. WHO, NACO, MSACs UNAIDS, KIT and Vrije university libraries were also utilized for easy access to published works. Other sources of relevant documents like policies, strategies, reports and guidelines were also used for this study.

The keys words used are, adolescents, vulnerability, injecting drug users, HIV/AIDS, peer pressure, availability, culture, gender, legal obligations, harm reduction.

### **2.4.3 Limitation**

- There are only few studies conducted for the adolescents IDUs in Manipur
- The study is only a literature review, that does not includes fresh data collection, so there is no information on prospective of adolescent IDUs perception on HR
- No Harm reduction program for the adolescents IDUs which leads to limited information about adolescents IDUs in Manipur

## **2.5 Study Conceptual Framework**

The study will use modified Andersen's and Newman health services utilization phase four. This framework can help to explain factors which make adolescents in Manipur prone to injection drug use and its complication in order to provide recommendation to the policy makers to reduce IDU and its complication among adolescents in a systematic manner.

### **2.5.1 Introduction of the Andersen and Newman conceptual framework for health service utilisation**

The first Anderson framework for health service utilization was developed in 1960, and has gone through phase four to provide measures of access and utilization of the medical care. The frame work aims to study the interaction between the external environmental, predisposing, and enabling and need factors in the access and utilization of the health services; besides, health outcome (Andersen and Newman 1995).

## **2.5.2 The modified Andersen framework**

The author modified the Anderson's health services utilization model based on the adolescent's need for the thesis, even though Andersen model is basically about utilisation of health services, but I find it useful to study for the objectives of my thesis. The components has been changed or replaced as per the need of the topic, objectives, and based on the literature search and review findings from Croft et al; Frajzyngier et al; Goldsamt et al., Kermode et al., Amstrong et al, Chingsubam et al, Eicher et al., Chakrapani et al, and Oinam.

### **2.5.2.1 Environmental factors includes**

**Old model:** Represents the context within which the utilization occurs and it includes health care system and external environment.

**Modified model:** Includes, policies, legal aspects, human rights, stigma and discrimination in health care settings, and confidentiality.

### **2.5.2.2 Predisposing factors**

**Old model:** The socio-cultural characteristics of individuals exist prior to their illness which includes social structure, and under social structure it includes education, occupation, ethnicity, social networks, social interactions, culture, health belief attitudes, values, knowledge towards the health care and demographic age and gender.

**Modified model:** It is sub classified into three sections. Firstly, social structure, under this it is classified into education, occupation, ethnicity, and culture; secondly, health beliefs which cover attitudes, values, and knowledge that concerns people towards the health care system; thirdly, the demographic factors will remain the same.

### **2.5.2.3 Enabling factors**

**Old model:** It is classified into three: first one includes personal/family, the means and knows how to access health services, income, and health insurance, a regular source of care, travel, extent and quality of social relationships. Second one includes community which means available health personnel facilities, waiting time, and the third one is possible addition which includes genetic factors and psychological characteristics

**Modified model:** This includes availability of drugs, accessibility of psychotropic drugs, social networks, & interactions, economic instability, and current harm reduction program.

#### **2.5.2.4 Need/Behavioural factors**

**Old model:** This includes perceived need help to understand care-seeking and adherence to a medical regimen, while evaluated need related to the kind and amount of treatment that will be provided after a patient has presented to a medical care provider

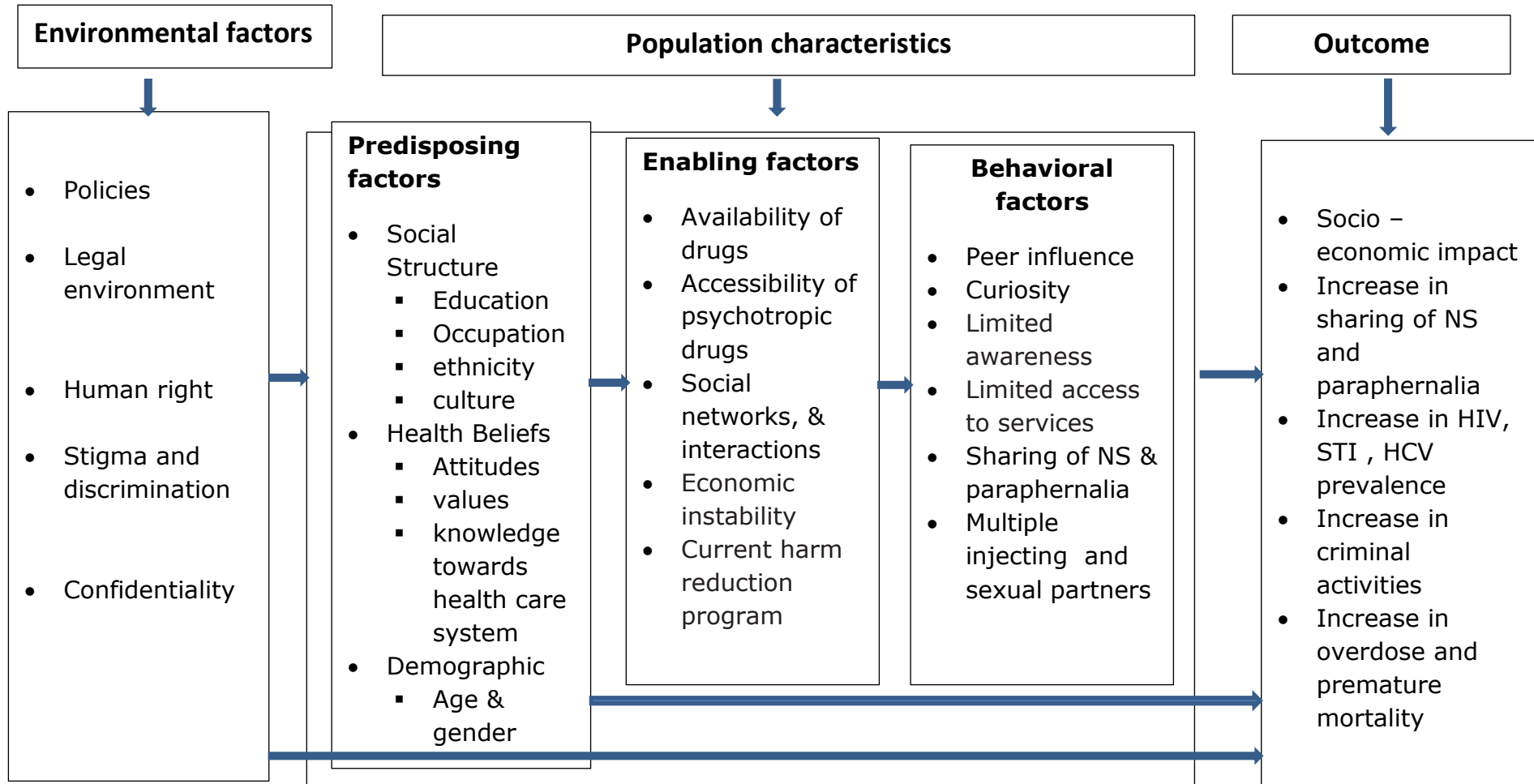
**Modified model:** This includes, peer influence, curiosity, limited awareness of HIV, STIs and BBVs, limited access to services, sharing of NS & paraphernalia, multiple injecting and sexual partners

#### **2.5.2.5 Outcome of the study**

**Old model:** This includes perceived health status, evaluated health status and customer satisfaction

**Modified model:** Includes, socio-economic impact, increase in sharing of NS and paraphernalia, increase in HIV, STI, HCV prevalence, increase in criminal activities and incarceration, increase in overdose and premature mortality among adolescents IDU

**Figure D: The modified framework adapted from: Andersen and Newman (1995)**





## **CHAPTER 3: FINDINGS**

This chapter presents findings from the literature review. I have used the modified conceptual framework adapted from Andersen and Newman to interrogate the literature and to organise my findings.

### **3.1 ENVIRONMENTAL FACTORS**

The environmental factors represent the access and utilisation of harm reduction services which includes:

#### **3.1.1 Policies**

The present national policy on Narcotic Drugs and Psychotropic Substances (NDPS) has four sections but it permits the implementation of only 2 out of four sections they are section (iii) and (iv) but does not permit section (i) and (ii).

- i. Setting up shooting galleries where the addict is provided clean needles and syringes and good quality drug, so that he can sit and inject without fear of effect of either infected needles and syringes or impure drug.
- ii. Encouraging the addict to smoke instead of injecting, say, heroin
- iii. Needle syringe exchange programmes in which the addict is provided clean needles and syringes to inject but not the drugs
- iv. Oral substitution in which the IDU is supplied buprenorphine or methadone and persuaded to abuse them orally instead of injecting heroin or other drugs (The Narcotics Control Bureau government of India section 69 &70)

#### **3.1.2 Legal environment**

The legal age restriction for accessing needle syringes exchange program (NSEP) in India is 18 years and above (Barrett et al., 2008). This also applies to Manipur, where strict age restrictions on access to HR services for adolescents IDUs. Which increase in enforcement of drug control laws which tend to increase their risk of acquiring or transmitting HIV (Manipur state Aids policy 2010). The Manipur State AIDS Policy of 1998, advocated for harm reduction as an appropriate strategy to halting the transmission of HIV amongst drug users who are above 18 years and their sexual partners. It does not have any provision for the adolescent IDUs which makes them more complicated to access the services. Public frisking fear of harassment by police and anti-drug organization is one of the main reasons for not carrying needles/syringes. If they are found with NS they either have to bribe to the police or sometime they are forced to confess in the newspaper and media that they are drug users this makes IDUs more vulnerable to sharing NS and paraphernalia and it leads to many health complication (Chakrapani et al., 2011)

### **3.1.3 Human right**

The Manipur state Aids policy emphasise to give protection on human right among the marginalised group like IDUs, by organising legal awareness programmes, workshops, conferences to sensitize the people about the legal, ethical and human rights aspects of HIV/AIDS (Manipur state Aids policy 1998).

A cross sectional survey findings among 343 IDUs showed that, IDUs faced many human rights abused; 89% were arrested by police due to possession of NS, 95% faced verbal abused,88% faced physical abused,39% were denied admission in the hospital,20% were denied for NS. The findings proved that there is a high prevalence of human rights exploitations among IDUs. There is also high alarming rate of suicidal incidents due to high numbers of human right abuses among the IDUs (Sarin et al.,2011)

### **3.1.4 Stigma and discrimination**

As rightly pointed out by Ban Ki-Moon, 2008:

“Stigma remains the single most important barrier to public action. It is a main reason why too many people are afraid to see a doctor to determine whether they have the disease, or to seek treatment if so. It helps make AIDS the silent killer, because people fear the social disgrace of speaking about it, or taking easily available precautions. Stigma is a chief reason why the AIDS epidemic continues to devastate societies around the world.”

A study finding among 399 FIDUs in Manipur showed that, 32 % are isolated by family members because of drug use, 33 % exclude from the family events, 40% from the neighbours and they are not allowed to mingle freely with them (Chanura et al.,2011). Similar study showed in Manipur that, Stigma and discrimination and attitude of health care providers among IDUs is still a big challenge (Shrama et al.,2003). Stigma and discrimination is still a major hindrance, for utilization of health services and making them more vulnerable to HIV.

### **3.1.5 Confidentiality**

A study showed that lack of confidentiality among the service providers often makes IDUs to be more hidden. Sometimes NGOs are put under more pressure by UGs to share their list of IDUs, so when adolescents IDUs come to know about this they are more reluctant to come to the service centre and remain hidden which results to sharing of NS and paraphernalia's (Sharma et al.,2003).

Due to lack of infrastructure and privacy in health centres, there are no separate rooms for counselling just a small partition in the same room with no proper facilities like sound proof which can be easily over heard by the others. The service delivery point has no place to wait; people have to stand in the main corridors so this makes more visible for the IDUs to the other general population (Sharma et al., 2006). Defiance of confidentiality among service providers, result to low update of health services, so the problem is often remained hidden and unaddressed which lead to multiple health problems.

## **3.2 PREDISPOSING FACTORS**

Predisposing factors includes the following:

### **3.2.1 Social Structure is again divided into following:**

#### **3.2.2 Education**

A cross sectional study in Manipur among 200 IDUs showed that, 49% did not complete their schooling, 5% have no schooling. Kermode el.at and Armstrong has found a connection between level of education and drug use (Kermode et al., 2007; Armstrong et al., 2011).

A similar finding among the adolescent 220 IDUs in Manipur showed that, 38% are school dropout due to financial constrain, drug use related problems, 47% responded isolated themselves from friends because of drug use and hiding their drugs use from friends, results to school dropout which contributes to initiation of injecting drug use, due to frustration and it further multiplies complications in terms of health and employment (Chingsubam et al.,2008).

Another study in Manipur among 766 IDUs and Delhi with 783 IDUs found that, almost half of the male and three – fourth of female IDUs from Delhi reported no education, but in contrast 3 quarters of male and half of female IDUs from Manipur reported at least 6 to 12 years of education (Sarna et al., 2007)

### **3.2.3 Occupation**

High unemployment in the state is one of the major contributing factors for adolescents IDUs to get involved in injecting. Findings from a cross sectional study in Manipur among 200 IDUs showed that, 83.8% get money from the parents for injecting, and 75% of IDUs are not employed (Kermode et al. ,2007).

Study findings among the 220 adolescent IDUs in Manipur showed that, 82% are unemployed, and 10% are engaged in daily wage, most of them depends on their parents for financial support for injecting drugs, as they are unable to get jobs due to low education level, so it makes them more vulnerable to HIV leading to more health complication (Chingsubam et al., 2008).

Early initiation of drug at young age during school days, due to peer influences results in the increase of school dropouts at early age which increases unemployment, so it makes them more prone for initiation of injecting drug among the adolescents and often puts them at greater chances of sharing NS due to lack of money resulting in transmitting or acquiring HIV and other health complication (Fuller et al.,2003).

### **3.2.4 Ethnicity**

There are 30 ethnic tribes in Manipur, and about 39 insurgent or undergrounds groups. There was a major ethnic clash among the different tribes between Kuki and Naga in 1990, Meitei – Meitei Muslim conflict in 1993 and Paite - kuki conflict in 1998, and between armed groups Meitei and Kuki in 2007. All the ethnic clashes and disputes are in relation to land disputes and for independence, which results to burning down of houses and belonging, displacement of their families, some parents were killed in the conflict, interruption in studies, and increase in widows, widower, and orphanage. This led the surviving people to migrate to the town or to the cities in search of jobs. As a consequence some of the adolescents became drugs users and drug peddlers, and most of them were not able to complete their schooling due to interruption by ethnic clashes. They became more prone to initiation of injecting drug as a result of frustration. (Singh M, 2010; Chakrapani et al.,2011)

### **3.2.5 Culture**

Use of alcohol and other intoxicants among the people of Manipur was culturally accepted and practiced since time immemorial. The cultural route of injecting drug in Manipur can be traced back in late 80's, drug like heroin was used by an elite group of the society. It was used as a recreation for the wealthy youths, so people from the lower strata aspire to emulate the rich; it became a culturally accepted aspiration. Festivals like Christmas, New Year, Holi, Durga Puja and marriage are considered good opportunity for the mass adolescents' to gather from different places, it was at this time that many adolescents experienced their first injection, it was also fashionable for them to inject drug before they date their girlfriend (Chingsubam et al., 2008).

Cross sectional study in Manipur show that, cultural practices have a great influence among adolescents to initiate injecting drugs. Culturally male are often regarded as strong, aggressive, heads of the household, having multiple partners, whereas female are often passive, vulnerable, faithful, submissive. This greatly influences the male adolescents and makes them more prone to experiment drugs, sex, which leads to infection of HIV and other health complication (Kermode et al., 2007)

### **3.3. Health Beliefs**

#### **3.3.1 Attitudes, values, knowledge toward health system**

Studies shows that IDU has greater discrimination while seeking and receiving healthcare services due to perceived susceptibility by the health care providers. The knowledge and attitudes of healthcare workers (HCWs) influence the willingness and ability towards IDUs to access care. Service providers are often poorly educated about drug addiction, they regard IDUs as difficult or rebellious patients, 50% of health workers working in substance abuse had no previous training related to drug use or drug dependence (Tang et al., 2005; Kermode et al., 2005; Lisa et al., 2006).

Study finding in Manipur showed that among 220 adolescent IDUs, 48% feel shy to approach health care providers and medical shop for condoms, also 45% feels shy to approach health care provider for drug related problems and 25 % are not aware about drug use and health complications, 37% have sexual experiences out of this 20% never use condom (Chingsubam et al., 2008).

### **3.4 Demographic**

#### **3.4.1 Age**

Studies show that among 220 adolescents IDUs in Manipur, the youngest respondent in the study was 14 years and the oldest 18 years. The adolescent IDUs between 14 - 17 years comprise 80% of the sample; the study identified that injecting drugs initiate at very young ages as compared to other part of India (Chingsubam et al., 2008). This indicates that adolescents in Manipur are prone to initiation of injecting drug at the young age which results to multiple health complications

#### **3.4.2 Gender**

A study among 200 FIDUs in Manipur shows that, average age of initiation was 20 years, 25% are married, 35% are divorced, and majority 83% started using drug orally, while the rest 17% started using drug directly by injecting. 92% of the participants inject at least once a day, those FIDUs who are also sex worker have higher injecting frequency than male IDUs. As they earn more they could afford more drugs. (Oinam, 2006).

Similar studies show that, FIDUs are likely to involve in paid sex work or selling drugs to earn their living. FIDUs share NS, paraphernalia's particularly with their boyfriends or husbands or sexual partners which puts them more at risk in contracting HIV from infected injecting male partners, as FIDUs sex worker have 3 to 4 partners (Sharma et al.,2003;Tran et al.,2004; Azim et al.,2006; Miller et al.,2006;Murty, 2012; Kermode et al.,2013).

Studies shows that, gender difference has great influence in initiation of drug use. Most women depends on men for help in acquiring and injecting and women often inject after men (Doherty et al., 1996; Evans et al.,2003)

### **3.5 ENABLING FACTOR**

The enabling factors consist of the following:

#### **3.5.1 Availability of drugs**

Geographical location naturally allows us to share boundaries with Myanmar with a distance of 358 Km on the east. To be precise, Myanmar is one of the second largest producer of heroin in the world, and the first largest producer of amphetamine (ATS) in the world (UNODC, 2012). Therefore, drugs are widely available in Manipur encouraging adolescent IDUs to start injecting drugs.

Manipur being, one of the major drug trafficking routes from 'Golden Triangle' gives us more access. Some insurgency groups, high government official, were also involved in drug trafficking which leads to susceptibility to the adolescents IDUs to access drugs anytime they want. The finding has also shown that availability of drugs make the adolescents more prone to injects drugs which leads to multiple complications (Chakrapani et al.,2011;Goswami, 2013). Study showed that availability of drugs in low price is also an important factor that makes adolescents more prone to initiation of injecting drugs, on average, wholesale rate of heroin in other state of India was Rs. 200,000 per kg (US\$4,500). But street prices in north east India Manipur for half a gram of heroin number 4 costs was Rs.600-800 (US\$12.5016.66) (UNODC 2004).

### **3.5.2 Accessibility of psychotropic drugs**

A qualitative and quantitative study among 220 young IDUs in Manipur shows that, drug use among the adolescents depends on accessibilities of drugs as some of their peers are drug peddlers. The main sources of drugs are from their friends (42.2% )from peddlers (38.8%) chemist (10%) and the rest (9%) from other sources, accessibility is not a problem this makes more prone for initiation of injecting drugs (Chingsubam et al.,2008). Accessibility of drug becomes much easier in spite of many law enforcement and with advancement of technology like mobile phone and transport facilities.

### **3.5.3 Social networks & interactions**

Studies in Manipur and other countries have showed that, social networks influence the extent to which IDUs engage in risky injecting behaviours. IDUs are more prone to share NS and paraphernalia when the member of a social network is bigger, long-lasting and sharing injecting equipment is normative and as expression of social relationship. These practices and features of many IDU groupings together are very common among the IDUs (Devine et al., 2007;De et al.,2007; Prithwish et al., 2007; Amstrong et al., 2011).

Chingsubam et al (2008), also found that, social network and interaction among the adolescents IDUs are very strong they have higher chances of influencing each other, when they are in schools, this makes them more prone to initiation of injecting drugs, and due to lack of experiences they have higher risk of sharing and transmission. Study has also shown that those who socialize with IDUs or are exposed to IDUs are more likely to inject drugs themselves (Crofts et al., 1996).

### **3.5.4 Economic instability**

A study findings in 7 districts in Manipur among 200 young IDUs showed that, on the average each adolescents IDUs spend about (IR 70 -140) about (1 to 2 €) on drugs every day. The sources to get money are 51.4% selling their personal belongings, 37.2% stealing things from others and, 3% indulge in sex work and some turned into small drug peddlers in order to support their drugs habits (Chingsubam et al.,2008).

Economic instability is one of the major reasons that prevent adolescents IDUs from seeking health care services as most of them are not in a position to buy the prescribed drugs by the physician. They also have less economic security and access to resources, as most of them are unemployed; this force them to engaged in many risky behaviour like sharing NS, involving in sex work (Oinam, 2006)

### **3.5.5 Current Harm Reduction programme (NACP111)**

The current harm reduction services are entitled for the IDUs who are above the age of 18 years. There are 3 tiers of harm reduction services offered to IDU through targeted interventions. Tier 1 outreach, tier 2 Oral substitution treatments and tier 3 linkage services. Tier 1 and 2 are offered by NGOs, whereas tier 3 is provided through linkage/referral.

The components of tier 1 comprises of needle syringes exchange programme (NSEP), free condoms distribution & social marketing, primary health care, STI and abscess management, behaviour change communication (BCC).

Tier 2 comprises of delivery by NACO accredited agencies of substitution agents buprenorphine, initiated by a trained physician and administration through trained personnel, psychosocial services, follow -up by outreach worker (ORW) or peer educator (PEs) provision/link to Tier 1 Services, strict record maintenance.

The tier 3 components are linkages to integrated counselling and testing centre (ICTC) anti-retro viral therapy (ART),directly observed treatment (DOTS), accompanied referrals by ORW/ PE, established referral networks with medical, legal and welfare schemes linkage with detoxification and rehabilitation centers and enabling environments. In oder to create an enabling environment where IDU are able to access services freely without interference.

## **3.6 BEHAVIORAL FACTORS**



### **3.6.1 Peer influence**

Studies showed that, peer influence among the adolescents are very strong; they are curious and excited about experimenting new things. In circumstances like festivals, parties, they often use drugs and alcohol inside their peer groups and they are often directed by the peer standard. In late 80's injecting drug was regarded as a fashion in Manipur among the youth, those who injects drugs were regarded as elite and from wealthy family among the peers, so due to peer influences most of the adolescents ended up injecting drug and it was also considered as peer norms. (UNODC 2004; Kermode et al., 2007; Chingsubam et al.,2008).

Similar findings among 146 adolescents IDUs showed that, 38.9% started injecting drugs due to peer pressure. (Goldsamt et al.2010). The studies showed that peer influence contribute to initiation of drug use in Manipur and elsewhere.

### **3.6.2 Curiosity**

Qualitative and quantitative study in Manipur among 200 adolescents IDUs showed that, 48% of the participants started to initiate drugs out of curiosity (Chingsubam et al.,2008).

Similar, studies showed that, many adolescents became drug addict when they first take drug out of curiosity. Such reason for the initiation of drug use is not only happening in Manipur but it is prevalent in many countries (Croft et al.,1966; Balakireva et al., 2006;Goldsamt et al.,2010). Curiosity makes adolescent more prone to initiation of injecting drugs, as it is a new sensation and they often are curious to experiment them which leads to drug addiction and multiple complications in studies, health and in family relationship.

### **3.6.3 Limited awareness about risk, addiction, HIV,STIs and social cost**

A study of integrated biological and behavioral assessment (IBBA) among 2075 IDUs in Manipur found that, 25% still have no awareness about the risk of drug use (Mahanta et al.2008).

Similar findings among 220 adolescent IDUs in Manipur showed that,25% are not aware about drugs use and its complications,40% does no know HIV can be consequences of drugs use,50% are not aware about overdose, 78% are not aware about abcess,40% have never heard about STIs (Chingsubam et all.,2006). The studies show that, limited awareness

contributes to engage in higher risk of HIV, STIs and BBVs (Pisani, et al.,1999).

#### **3.6.4 Limited access to services**

A study findings among adolescents IDUs in Manipur showed that, 37% said there are no treatment facilities in their area, 38% of the respondent said they were not treated well when they come to service centres, 47% responded they feel ashamed when they approach the health care providers for condoms (Chingsubam et al.,2008). Currently there are no services for the adolescents IDUs in Manipur. So, due to social isolation and limited service access, there is a decrease in service utilization putting them at higher risk of sharing NS and paraphilia's.

Study shows that, in spite of few available services for adolescents, many service providers are often reluctant to work with adolescents IDUs, as there are lots of legal age obligations which need parents' consent. This results in adolescents IDUs to remain hidden from service providers, which increase their vulnerability in sharing of NS, paraphernalia, unsafe sex (EHRN 2009).

#### **3.6.5 Sharing of NS & paraphernalia**

Studies among 200 FIDUs in Manipur shows that, 82% reported re-used of NS and the paraphernalia, and 97% has ever shared NS (borrowed or lent) the main reason for sharing the NS and paraphernalia among the FIDUs was due to lack of regular supply of NS, and fear of the law enforcing and by the anti -drug organization for frequent frisking (Oinam, 2006; Eicher et al., 2010).

Similar findings from cross sectional studies in Manipur indicate that about 53.3% use used needle belonging to someone else, sharing of NS and paraphernalia is more prevalent among the new injectors and the adolescents IDUs due to lack of enabling environment, legal obligation and political situation (Vidal-Trecan et al.,200;Sharma et al., 2003; Kermode et al., 2007; Suohu et al., 2012). Thus, we can imply from the studies that sharing of NS and paraphernalia are more prevalent among new and adolescents IDUs which increase the risk of HIV, HCVs.

#### **3.6.6 Multiple injecting and sexual partners**

A study among 2075 IDUs in Manipur finds that, 60% of respondents in Churachandpur, 35% in Bishnupur district reported sharing injecting paraphernalia during last injection, and most of them share with 1 to 3 injecting partners in the past one month. About 40% in both district reported at least more than one female sexual partner in the past one year. 35% in both the district have multiple sexual partner, use of condom was very low (Panda et al., 2000; Mahanta et al., 2008).

Similar finding among 191 young IDUs in Manipur showed that, 85% male IDUs and 15% FIDUs, almost all 93% of the participants were reported having shared injecting equipment or paraphernalia due to fear of being caught by the law enforcements and anti- drug organisation. Three-quarters 74.7% were infected with HIV and almost all 98% are infected with HCV. Over two-thirds 70% were sexually active, but only 3% consistently used condoms. Reason for not using condom were due to shyness for buying, decreased sexual pleasure, lack of planning before having sex, lack of awareness knowledge (Kermode et al., 2008; Roy et al., 2009; Eicher et al., 2010; Suohu et al., 2012).

### **3.7 OUTCOME**

These sections have been classified into following:

#### **3.7.1 Socio – economic impact**

Manipur state employment exchange department, recorded unemployed youth till 2012 age 15 -35 years applying for job in the state has cross one million (Manipur census 2011).

Studies among the 200 IDUs in Manipur finds that, only 17% were employed and 36% school dropout, 80% of them are living with their parents. On average everyday adolescents IDUs were spending Rs 149 per day (€ 3) on injecting drugs (range Rs. 10 – Rs. 1000) (Kermode et al., 2007). Similar studies in Manipur showed that most of the adolescents IDUs are unemployed, some school dropout work in a daily wage labourer which can hardly support their expenses for buying drugs. Other adolescents IDUs sell their personal belonging like shoes, clothes, books and other IDUs get involve in stealing and sometimes in criminal activities, so they landed up in the prison (Goswami, 2013).

Study in Australia showed that, having high school dropped out was found to be significantly associated with injection drug use among adolescents IDUs (Crofts et al., 1996). Therefore, Injecting drug effects the socio – economic system, frustration, poverty, school dropout at young age which lead to unemployment, more expenditure on drugs than income.

#### **3.7.2 Increase in sharing of needle syringes and paraphernalia's**

A study among 191 IDUs in Manipur showed that 93% reported sharing on injecting equipment's and 42% have shared their NS and 75% are infected by HIV and almost all the participants 98% are reported with HCV positive (Eicher et al.,2000).

Other study among 201 IDUs in Manipur showed that, 44% frequently borrowed NS in the last 4 weeks, 65% frequently lent their injecting equipment. Nearly two- third of the participants were sharing their paraphernalia with more than 3 people in the last 4 weeks, 80% of them share their container and flushing water and 53% shared their NS in the last 4 weeks (Sharma et al., 2003). A mixed method study among 75 IDUs showed that most IDUs, 93% have shared their NS and paraphernalia (Chakrapani, et al., 2011). This indicates that sharing of NS and paraphernalia among the drug user in Manipur regardless of male and female, young and adult IDUs is still very high which leads to multiple health complications.

### **3.7.3 Increase in HIV ,STI , HCV prevalence**

Mahanta et al (2008) study among 2075 IDUs in Manipur showed that, HIV prevalence in bishnupur districts was 23% and Churachandpur was 32%, and HCV result was 53% in Bishnupur and 78% in Churachandpur ,STI like herpes simplex (HSV-2) was 21% in Churachandpur and 2% in bishnupur. Other study among the 220 adolescents IDUs in Manipur showed that, 40% of the participants have never heard of STI (Chingsubam et al.,2008)..

Studies in Manipur among IDUs showed that 75% are reported HIV positive and 98 % were tested HCV positive, about 70% of the participants were sexually active and out of these 76% were HIV positive. 55% were reported to have sex with other partners and out of this only 23% use condom (Eicher et al.,2000; Sarna et al. ,2013; Miller et al., 2006; Medhi,et al.,2012 Souhu et al., 2012).

Another finding from Melbourne, about 75% male were HCV positive, and 95% female were HCV positive (Ogilvie et al., 2000). Similarly findings in Canada, France and eastern Europe the HCV prevalence rate among the IDUs was above 73% (Roy et al., 2009; Curth et al., 2009; Guichardet al.,2013).According to UNICEF in 2011 globally adolescents IDUs contributes to 2,500 new HIV infections every. The findings presents that sharing NS and paraphernalia is very common among the IDUs, It results to multiple complication in physical mental health and socio economic.

### **3.7.4 Increase in criminal activities**

Mixed method study in Manipur showed that, majority of the IDUs are unemployed. In order to support their drug habit, some IDUs were engaged in criminal activities like stealing family belongings and from others, which they landed up in prison, where they have higher chances of sharing due to lack of services. (Chakrapani et al, 2011).

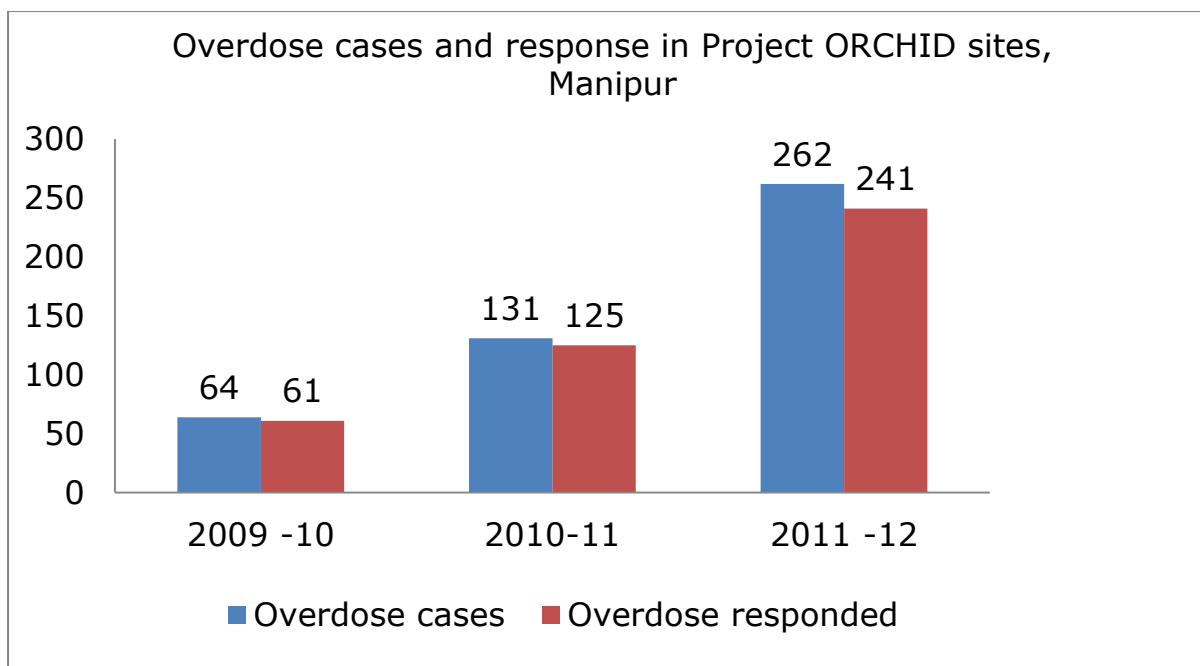
Chingsubam et al (2008) showed, 83%, were not employed, 10% were a daily wage labourer, earning about Rs. 1000 – 1200 (15 -20 €) per month. On average daily they were spending Rs.100 – Rs.200 per day (1-3€) on injecting drugs. 52% of the respondent sold their personal belonging and 50% were involve in stealing things from others ,20% report trouble with law enforcement and 19% had trouble with social organisation due to criminal activities.

Also, many prominent insurgent groups in Manipur such as United National Liberation Front (UNLF), National Socialist Council of Nagalim Isaac–Muivah (NSCN -IM), and People’s liberation Army (PLA) Meira - baipis and religious leaders have been forcefully campaigning against drug use and drug traffickers. PLA imposed prohibition liquor and drugs in January 1990, with the government announcing the prohibition immediately after. Followed by serious anti-drug campaign by UNLF and PLA, anyone violating their warning were not given any consideration, hundreds of IDUs and drug peddlers in the recent years were shot and the next day their name along with their photos were published in the local newspaper (Lama,2001). Studies show that criminal activities were swelling with innocent child being kidnapped and killed to snatch their gold earrings (Seram, 2013).

### **3.7.5 Increase in overdose and premature mortality**

Findings from a study of drug overdose management in Manipur conducted by Project ORCHID in 2012, reported that, overdose cases in Manipur has increased significantly from 64 in (2009 -2010) to 262 (2011 -2012).With the help of overdose management team 61 out of 64 in 2009 -2010 was administered by naloxone, and 243 of the 262 was also administered. In 2009 -10, 3 IDUs died of overdose and in 2011 -12, 20 IDUs died of overdose, so a total of 64 IDUs died in a period of 3 years, there in increase in overdose and premature death in Manipur (Project ORCHID 2012).

#### **Figure E: Overdose cases and response in Project ORCHID sites, Manipur (2009 -2012)**



(Source: Project ORCHID, 2012).

Chingsubam et al (2008) reported that, 89% of the respondent experienced overdose case in the last three months and 50% of the participants are not aware about the overdose and its consequences.

Other studies in Manipur reported that, one-third of IDUs had experienced drug overdose in their lifetime. In 2011, overdoses were on the rise, due to mixing of intoxicants like heroin, pharmaceuticals and alcohol. Overdose occurs almost throughout the years, there are some seasons where overdose occur more during festivals like Christmas, New Year, during marriage party, and political election (Eicher et al., 2000; Sunil et al.,2011).

Similar studies in 3 cities, among 650 IDU in Indonesia showed that, 38% reported history of overdose and 77% they had their peers who died of overdose (Pisani et al, 1999). Studies indicate that awareness about drug overdose among the adolescent IDUs is still very low, adolescent IDUs have higher chance of mixing drugs due to financial constrain and other legal obligations and social stigma, this lead to many health complication and premature death

#### **CHAPTER 4: REVIEW OF BEST PRACTICE OF HARM REDUCTION**

I will refer to two countries Australia and Indonesia for the best practice of HR. Australia for the country support for HR, free treatment for HCV regardless of age and adolescent forensic health service programmes (AFHSP). Indonesia for community base approach peer led harm

reduction services for young people who inject drugs in Bandung Indonesia.

#### **4.1 Australia**

The first HIV in Australia among IDUs was detected in 1985. Soon after that Australia's National Drug Strategy was developed in 1985. The strategy was widely recognised as one of the most advanced and respected drug strategies in the world. The strategy is classified into three, supply reduction, demand reduction and harm reduction. The first Australian needle and syringe program (NSP) began in Darlinghurst, Sydney in 1986 as a trial project. Now over 3,000 NSP outlets, different types of service deliveries for NSP like primary outlets, secondary outlets, mobile and outreach services visit hard to reach people such as aboriginals, remote areas other outlets.

However, after the ministerial approval of HR policy in early 1999 enables the approval and implementation of two adolescent forensic health service programme (AFHSP) at Parkville Youth Residential Centre (PYRC) and Melbourne Juvenile Justice Centre. These two centres provide juvenile clients in custody with the range of services like methadone maintenance programme and harm minimum packs for young people in the community (e.g. needle syringe programmes). Condoms are provided to young women on entry to PYRC by the Juvenile Justice staff. Australia has been very successful in preventing the second wave of HIV and HCV transmission via injecting drug users While NSP enjoys strong public support in Australia (Veit, 2000). Australia's HIV/AIDS strategy has received international recognition from Joint United Nations Programme on HIV/AIDS best Practice Collection. There was a dramatic decrease in needle and syringe sharing among IDUs from almost 100% in 1986 to 28% in 1996 and 13% 2001. The present HIV prevalence among people attending NSP remained around 1% and less than 0.5% among men and women (Dolan et al., 2005).

Some best practices that we can learn from Australians in regards to adolescents IDUs are minimum harm reduction package with protective care or in custody with the range of services includes methadone or buprenorphine, free HCV treatment regardless of age and strategy for hard to reach people, which includes those far flung villages, ethnic conflict prone areas, using mobile health service or through secondary distributors.

#### **4.2 Indonesia –Youth programme (Ruhmah Cemara Bundung)**

In spite of challenging environment Harm Reduction not fully endorsed by the government. Interestingly Youth Initiative, a community base organisation established by 5 young HIV affected drug users in 2003 provides peer led harm reduction services for IDUs in Bandung Indonesia.

The project provides information and support to young drugs users in non-judgemental environments with active participation in the programme. Recently they have started to develop programs for young IDUs and for orally drug users. In partnership with youth rise, they are organising capacity building on knowledge about drug use, its effects, addiction and harm associated with drug use including HIV, HCV, conduct focus group discussion, developing youth friendly IEC materials to educate and support among the youths.

The project Ruhmah Cemara is an organisations truly dedicated to the need of the young drug users, all programme are based on the community decision from programme designing to evaluation. Some major activities include football programme. The Ruhman camera football team is formed by young IDUs and young PLHIV. Ruhman camera use football as one of their major activities to keep the adolescents IDUs, and PLHIVs to increase their quality of life and to reduced stigma and discrimination among the adolescent IDUs in Indonesia. They have experienced football as one of the most powerful tools for PLHIV and IDUs to create positive change among themselves and in the community (Ruhmah, 2013).

In April 2013, the Nike Indonesia supported the Ruhman Camera football team for homeless world cup Poznan 2013. The latest news of July 2013 Ruhman Camera football team is one of the nominees beyond sport for health award 2013 with 400 entries from 125 countries.

People of Manipur are known in India for many things but especially for three important things; one is problem of injecting drug use, sports, especially boxing and football, and music. Manipur has produced some best female boxer like Mary Kom in the world, many football players in India's famous football club and many young talented musicians in India. Music occupies central stage in the lives of many youth population. In the 5 hills district dominated by Christian populations, majority of youths are choir members in the church, they sing hymn and gospel songs in a modern tunes beautifully. Therefore, similar kind of activities can be implemented among the adolescent IDUs in Manipur.

## **CHAPTER 5: DISCUSSION OF THE FINDINGS**

In this chapter I will discuss the study findings of environmental, predisposing, enabling and behavioural factors and outcome of the study. I also discuss the findings in light of other similar evidence, and my personal experience of working in the field for 9 years.



## **5.1 Falling age of injection and factors prone to initiation of injecting drugs**

The literature review showed that, falling age of initiation of injecting drugs among IDUs in Manipur has been evidenced, as majority of the IDUs start initiating of injecting drugs at the early age of 13-17 years (Dorabjee et al., 2000; Khomdon, 2005; Oinam, 2006; Kermode et al., 2007; Chingsubam et al., 2008; Armstrong et al., 2011).

Most adolescents start initiation of drug use by taking orally or inhaling or snorting first with softer drugs, including use of solvents like (dendrite, eraser, petrol, marijuana). In most cases, individual move on to injecting after a period of inhaling or snorting, swallowing. Various factors contributing to the transition to injecting includes, financial consideration, injecting is more efficient, it is cheaper, more pleasure with smaller dose, a better trip, a stronger effect, and a quicker onset of the drug effect on body. This is especially relevant when tolerance to the drug begins to develop and the effects are no longer as strong when administered orally (Project ORCHID, 2011). Oinam (2006) also found among FIDUs that 83% started using drug orally In Manipur.

Proximity to the 'Golden Triangle' makes availability of all kinds of drugs, easy in Manipur. Therefore availability of drug is one of the main drivers which make adolescents IDUs more prone to initiation of injecting drugs (UNODC, 2007; Chakrapani et al, 2011; Chingsubam et al., 2011). Furthermore, availability of drugs likes' heroin and other pharmaceutical drugs, which are widely injected among IDUs in Manipur at a low price, is an important factor that enhances adolescents in initiation of injecting drug use at young age. On average, wholesale rate of heroin in India are reported to be in other state was Rs. 200,000 per kg (US\$4,500). But street prices in north east India Manipur for half a gram of heroin number 4 costs was Rs.600-800 (US\$12.5016.66) (UNODC 2004).

Chingsubam et al (2011), also found that accessibility of drugs makes adolescents prone to initiation of injecting drug. With advancement of technology like mobile phone and transport facilities drugs can be easily access from other part of the district or states if it is not available in their own place. Some of the adolescents IDUs became drug peddlers in order to support their drug habits; and they can circulate easily within their peer networks and avoid the law enforcement agents more easily. Thus, easier access, through peers within their own social network makes adolescents vulnerable to initiation of drug use.

Social network and interaction among different ethnic tribes or community makes adolescents more prone to initiation of injecting drugs. When the member of a social network is bigger, sharing NS and paraphernalia's is normative and it became an expression of social bonding (Amstrong et al., 2011; Devine et al., 2007; Prithwish et al., 2007). Adolescents' IDUs have higher chance to inject within large network, due to social self-sufficiency and consequent isolation of such social networks. Members of such large and established social networks will usually not come forward or out of their network to look for information or to access available services, unless that happens to be the network social norm. Moreover, the covert nature and low visibility of adolescent social networks, particularly those where there is drug use, further hinders program from establishing contacts within these networks. The nature of the social network thus aggravates the risk of both initiation of drug use and consequences of drug use.

Most of the adolescents are from the same school, from the same work place, same locality, and in some case they even share the same hostel or rented house. Studying in district sub-division and district headquarter without proper guardian is very common for the adolescents, who are from far flung areas due to lack of proper school in the interior villages. Therefore, there are high chances they befriended with IDUs from their class or from localities without having proper knowledge about the person's background. Social network and interaction among the IDUs is very strong, every drug users could think of only drugs and money and were to get drugs for the next dose as they are very scared about the withdrawal symptoms. In order to avoid this, every drug user will have a very strong social network to support each other. So, pooling of money and sharing of drugs and injecting equipment's with their friends when they don't have enough money to buy drugs is very common among the IDUs as most of them are students (Personal observation).

Studies in Manipur showed that, peer influences and curiosity among adolescents makes more prone to initiation of injecting drugs (Balakireva et al., 2006; UNODC, 2007; Chingsubam et al., 2011; Kermode et al., 2007). However, way back in early 90's injecting drugs was regarded as a fashion in Manipur among the adolescents. IDUs were regarded as elite and from wealthy family among the peers, as only the rich can afford to buy and use drugs. Due to peer influences and curiosity most of the adolescents have tested drugs in their life time. So peer influence and curiosity are important cause to initiate injection

Having said that, as Ruhmah et al (2013) show, these very networks, these very peer processes can also be leveraged to protect adolescents and help young drug users. In my work experience in Manipur, a well

thought through and sensitively executed peer based strategy has been the key characteristic of all successful drug related interventions, irrespective of the target population (older youth or adolescents).

Culturally, use of alcohol and other intoxicants were accepted and practiced since time immemorial in Manipur. During festivals like Christmas, News Year, Holi, Durga puja, Picnic, Concerts, and Marriages; it became an opportunity for critical mass adolescents' men and women to experience their first injection. It was also fashionable for them to inject drug before going out on a date. This makes adolescents more prone to taste and become addicted to drugs (Kermode et al., 2007; Chingsubam et al.,2008).

The literature reviewed in Manipur showed that, injecting drugs during social events was 98% (Kermode et al., 2007). This means social events have great influence for adolescents to start injecting drugs along with peers, at young age. It was an opportunity for the mass adolescents' to gather from different places; it was at this time that many adolescents experienced their first injection.

Studies show that gender norms in Manipur are in favour of men. Males are often considered more important for their families, and get preference regarding education, politics and religion. For instance, society can tolerate and accept if a male takes drugs or other intoxicants, whereas it is just the opposite for female. On the other hand, though not sufficiently reported, in my experience, these gender norms also make men more vulnerable: young men tend to take more risks, as they know that the social tolerance for misbehaviour is higher. The social norm which condones men being aggressive and having multiple partners also provides a favourable environment for young men to be reckless. At the other end of the gender and social norm spectrum are female norms; girls are expected to be passive, be modest, to provide pleasure to men – such social and gender norms mean that girls are shown much less tolerance, compared to boys, if they happen to deviate from this norm and are more prone to being labelled, if discovered as being wayward. This leads young girls to have less negotiation power; these norms come in the way of girls seeking help, and makes them more vulnerable to both initiation of drug use and to its consequences (Oinam, 2006;Sharma et al.,2003;Tran et al.,2004; Azim et al., 2006; Miller et al.,2006;Murty, 2012).

This freedom and social position influence male adolescents to experiment drugs at a very young age. Women are also vulnerable to gender-based violence as they are often considered weak and more susceptible to self-harm. So, gender norms greatly influence the use of drug along with its dire consequence.

Therefore, these problems can be addressed by greater involvement of community participation at all levels and design a comprehensive package of HIV prevention programme for the adolescents, which includes awareness programme on HIV/AIDS STI, abscess overdose, sexual reproductive health right (SRHR) in the schools, Sunday school, provide better recreational facilities like, free music class, formation of adolescent football club in the districts levels, strengthen referral and linkages with other adolescent programme, and provides HR services regardless of age and also provide better service option to enrol them into drug rehabilitation centres, oral substitution therapy, and provide life skill vocational trainings.

## **5.2 Visibility of adolescents IDUs**

At present there is no size estimation for adolescent IDUs in Manipur. We are completely depending on proxy indicators from the statistic on adult IDUs, which of course is not a good estimation due to lack of information about adolescents IDUs, there is lack of priority about the problem which always remain the main challenge. But we have seen in the problem statement and findings that IDUs in Manipur start injecting at very young age 13 -17 years (Dorabjee et al., 2000; Khomdon, 2005; Oinam, 2006; Kermode et al., 2007; Chingsubam et al., 2008; Amstrong et al., 2011). We have also seen the success of HR programme for adult IDUs in Manipur from sentinel surveillance data a very steep reduction of HIV prevalence from onset 76% in 1997 reduced to 12.9% in 2011, but it has not really reached the plateau level.

To further diminish we can refer to Australia model and Ruhmah et al (2013), it is possible to bring down further by executing peer base strategy and support from the state Government. By addressing the influx of new IDUs or adolescents IDUs and include them in the current HR programme and provide oral substitution therapy this will reduce their high risk practices. Without targeting the most at risk population it might now be possible to reach the plateau level. Therefore urgent size estimation of adolescent IDUs need to be done along with community

involvement and participation and provision of HR will surely address the problem of adolescents IDUs.

### **5.3 Current harm reduction programme and its limitations**

The current HR provides services to only IDUs 18 years and above (NACP 111). All the studies, research or survey conducted in the state and health management and information system (HMIS) reports represent only for adult IDUs. Therefore, very little is known about the adolescents IDUs. Major gaps identified in the national and state policy is the legal age obligation which does not allow adolescents under the age of 18 to access HR services (Barrett et al., 2008). The current national HR policy needs to be updated and revised in line with, current HIV epidemiological information in the state and country. The current problem of adolescent IDUs can be further address by implementing a micro planning process along with the adolescent IDUs by identifying their needs through social mapping, we can know where IDUs live their hotspot, meeting point, injecting sites and followed by risk and vulnerability assessment, so base on this findings, outreach activities can be plan, as per the convenience of the adolescents IDUs, it can be through the schools, religious institutions, mobile clinic, secondary distributors as already mentioned in the findings and the country best practices,

Furthermore, the study findings suggest that criminalized laws and unsupportive legislation probably limit the access and utilization of the HR services by adolescents IDUs which is more likely to associate with lack of decision making power. This could be dealt with, by advocacy among the legal Personal, political leaders and at communities also by using evidences from the studies.

Legal obligation and lack of availability of data for adolescents IDUs have resulted to ignorance about their problem, which result do lack of prioritisation by the policy makers. As if we are waiting for the adolescents IDUs to become a hard core drug addict and HIV positive to attained 18 years for provision of services. HIV transmission has no age limit, it does not start transmitting after 18 years for IDUs, it will be a good idea in the coming NACP IV to design an intervention by involving the adolescent community at all levels, this will be one of the best strategies for early intervention and prevention for HIV, and other BBVs.

There is a severe lack of data globally on adolescents IDUs and lack of global HR operational guidelines for adolescents IDUs (HRI, 2012; Youth RISE Newsletter July 2013). Further, due to lack of information about adolescent IDUs, it results to lack of prioritisation among the high risk group category. This can be address by size estimation among the

adolescents IDUs. For development of operational guidelines they can organise consultation workshop with experts, others stake holders, adolescents IDUs, review the current operational guidelines and incorporate the country best practices for HR it can bring changes in the policy which in turn will save thousands of adolescent lives in Manipur.

The literature review showed that, for age restrictions for access to needle syringes exchange programme (NSEP) findings from 11 eastern Europe countries showed that, only 3 countries (Kazakhstan, Lithuania and the Republic of Moldova) have age restriction for HR (Curth et al.,2009; Merkinaite,et al.,2010). Studies from other countries have found that providing needles and syringes to IDUs can decrease HIV-risk injecting behaviour up to 74% and provision of NS and condom does not increase injecting or sexual practice (UNODC, 2004).

#### **5.4 Problem and complication faced by adolescent IDUs**

The literature review showed that, with 20 years old HIV epidemic in Manipur, they still have 4 highest HIV prevalence district in India (Manipur State AIDS policy 2010). The main roots of transmission are through IDUs, but still there is no specific program for the adolescents IDUs. Adolescents accounts for 50% of all new infection for STIs. Moreover, half of the new infections are associated with IDUs due to lack of knowledge on HIV/AIDS (UNAIDS, 2002). Adolescents are often unable to identify long-term consequences and they only wish to change their behaviour on the strength of instant consequences. So for effective HR, strategies must include session that deals with peer Influence, education of transmission of HIV, STI, HCV, SRHR and overdose management.

Harassment, incarceration and juvenile detention among IDUs reduces trust in authorities, which complicate efforts to reach this ostracised population and also hesitant to carry injecting equipment (Case et al., 1998; Pisani, et al,1999 ;Rhodes et al., 2004; Ti et al., 2013; Fuller et al., 2003).This can be address by legalisation of age and by formation of crisis response team, the team can be comprise of NGOs staff, community representative, from select hotspots where harassments occurs the most frequently, a mobile number is provided to the community, whenever there is a crisis they can call anyone of the crisis response team, depending on the nature of the crisis the team can response. Increase in overdose and premature mortality among adolescents IDUs has been discussed in the problem statement and findings, this can be addressed by formation of overdose management committees, the team can be from the NGOs staff and community representatives, they can establish helpline to provide information on HIV and other safer practices for those new IDU who do not want to disclose their drug use identity they will be trained on the sign and symptoms and

recovery position of overdose and will be provided with ampoules of naloxone, so anyone among their peer who face overdose can inform the team so that they can provide necessary treatment.

Adolescents IDUs are more vulnerable as compared to adult IDUs. As they often rely on adult IDUs, for injecting and accessing illicit drug from the market and NS from the service providers (Croft et al., 1966; Frajzyngier et al., 2007; Kermode et al., 2007; Goldsamt et al., 2010; Eicher et al., 2010).The reliability of adolescents to adult IDUs lead to more vulnerability for adolescents IDUs, as it is associated with lack of education about safer practices and legal obligations, these compelled them to remain hidden and depend on the older IDUs, but as we have seen from the problem statements and findings that more than half of the adult IDUs are either HIV or HCV positive, so there are high chances of transmitting HIV and HCV to the adolescent IDUs.

Due to unemployment and economic instability, adolescent IDUs have higher chances of involving in petty crimes such as selling their personal belonging, family household and other utensils and criminal activities. Many adolescents IDUs suffer more from the economic instability as they are mostly unemployed and often unqualified for work due to education and age. It also implies that adolescents IDUs have higher risk of HIV and HCV (Kermode et al., 2007; Chingsubam et al., 2011;Goswami, 2013).This can be tackled by introducing effective prevention program among the adolescents before they start injecting. So far, there is no specific HIV prevention program in Manipur for the adolescents. Therefore, prevention program is very much essential for this high risk group, some of the measures can include activities like awareness and sensitization on drugs, HIV, HCV; in the school, Sunday school, vocational training music class, and formation of football clubs in the district levels. For those who have been already addicted to injecting drugs among the adolescent IDUs, they could be counseled to join rehabilitation centers or enroll them in oral substitution program. Also, due to political unrest, regular anti -drug drive by the UGs, civil societies, law enforcement group, and social stigma and discrimination among adolescents IDUs makes them more difficult to practice safer practices. These prevailing problems can be improved by on-going advocacy activities with key stake holders, BCC, awareness and sensitisation among the adolescent IDUs and general population.

## **CHAPTER 6: CONCLUSION AND RECOMMENDATIONS**

### **6.1 CONCLUSION**

With advancement of modern technologies, urbanisation, economic development, transport and communication; accessibility of psychotropic drugs became much easier. With the improvement of socio-economic status, increasing drug related problem has been observed among the adolescent in Manipur in recent years. But the national and state AIDS policy failed to address this problem, as the current national and state harm reduction in India does not allow adolescent below 18 years to access services.

Whereas, trends seem to indicate that adolescents are beginning to inject drugs at younger ages. If an adolescent starts using drug at young age, problems arises because the individual is less likely to understand the magnitudes of his or her drug use and may not have sufficient control over all aspects of their injection.

We have also seen from the studies that it is possible to exclude adolescent's IDUs from any HR programme but it not effective, because if segregation arise then the dual impact and consequences of the HIV, HCV epidemic will be considered too harmful for this population.

Therefore, the issue of equity, equality, and human right for adolescents IDUs are compromised. Literature has proved that, provision of clean needles syringes reduce the risk of morbidity and mortality among IDUs. It is also well accepted that the desire to use illicit drugs does not vanish when people are imprisoned or imposed fine. So project comprising of community owned, locally suitable innovation, understanding, and addressing the root cause of these issues will save thousands of adolescent's life in Manipur.

## **6.2. Recommendations**

I recommend the following:

### **6.2.1 Policy level**

6.2.1.1 The State Government should urgently revise and update the current policies to allow the inclusion of adolescents as beneficiaries of drug use prevention and harm reduction programs.

6.2.1.2 In the medium term, the Ministry of Health should collaborate with the Ministry of Youth Affairs, Ministry of Sports, and the Ministry of Education to facilitate development of bottom-up,



peer centred, youth initiatives which can serve as safe and constructive fora for young people

6.2.1.3 Ensure effective prevention program for adolescents and current IDUs which includes comprehensive services like rehabilitative, curative, SRHR, care and support and life skills training

6.2.1.4 Developed a special strategy for hard to reach adolescent IDUs by greater involvement of community by referring to best practices from other countries or from project ORHCID.

## **6.2.2 Community level**

6.2.2.1 Greater involvement of the adolescents IDUs in all levels of programming, awareness, sensitization, life skill training, community mobilisation and addressing the important issues like safer practices, safer sex, abscess, overdose

6.2.2.2 Establish adolescent friendly centre with, free music class, counselling, HR services, formation of adolescent IDUs football club in 9 district and have annual state level competitions

6.2.2.3 Develop IEC materials on drug use, their effects, safer injecting, safer sex, abscess, overdose, STI, routes of transmission on HIV,HCV,STIs with the language and terminologies familiar to adolescent by 2014.

6.2.2.4 Establish referral and linkages with other adolescents programme agencies such as youth wing of churches, youth clubs, and schools, colleges NGOs, Nehru Yuva Kendra etc (NYK).

## **6.2.3 Research level**

6.2.3.1 Size estimation for adolescents IDUs should be the first steps for any research to be carried for adolescents IDUs in Manipur.

6.2.3.2 Conduct qualitative and quantitative research among the adolescents IDUs, to understand the legal age obligations, social networks, service needs, programmatic gaps by involving legal personnel, communities and other related stakeholders.

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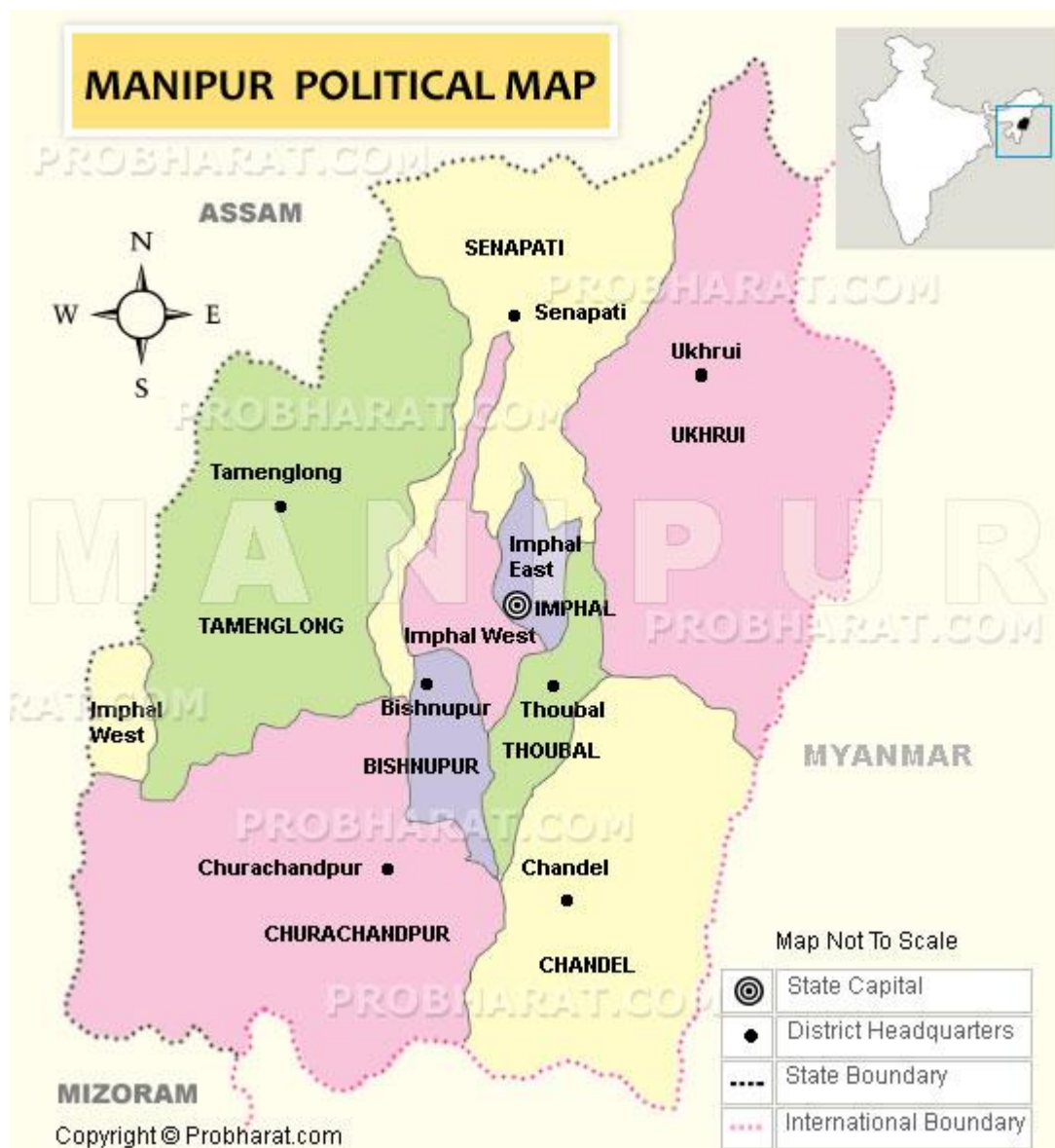
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## Annexures

### Annexure F: Political map of Manipur



#### Source:

<http://www.google.nl/imgres?imgurl=http://Manipur.nic.in/images/Manipur-Map-copy.gif&imgrefurl=http://Manipur.nic.in/ManipurMap.htm&h=>