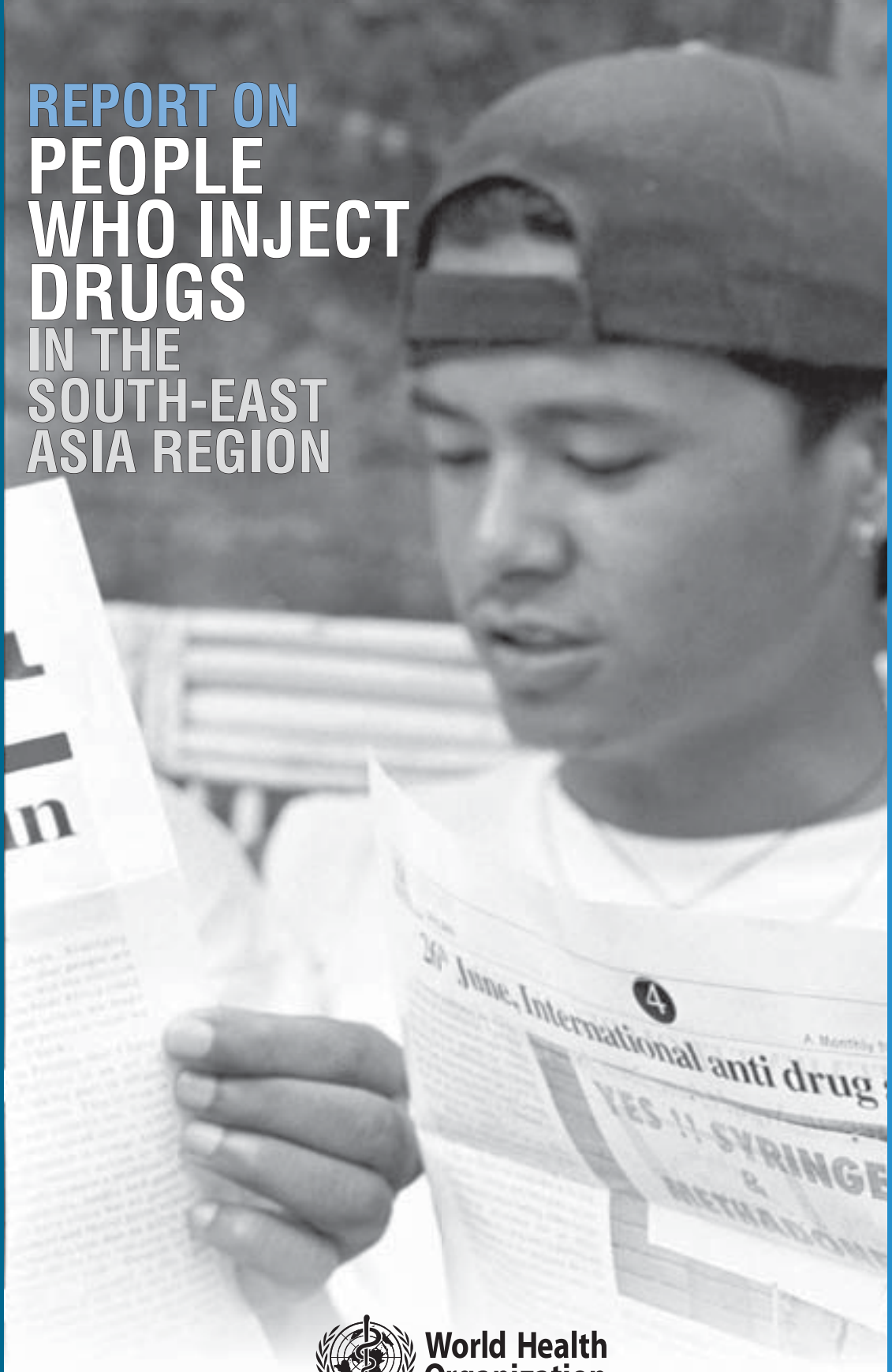
REPORT ON PEOPLE WHO INJECT DRUGS IN THE SOUTH-EAST ASIA REGION



World Health Organization
Regional Office for South-East Asia

Report on people who inject drugs in the South-East Asia Region

World Health Organization

Regional Office for South-East Asia

WHO Library Cataloguing-in-Publication data

World Health Organization, Regional Office for South-East Asia.
Report on People who inject drugs in the South-East Asia Region.

1. HIV Infections – epidemiology - prevention and control. 2. Acquired Immunodeficiency Syndrome - epidemiology - prevention and control. 3. Sexually Transmitted Diseases – epidemiology. 4. Injections. 5. Substance Abuse. 6. Syringes. 7. South-East Asia

ISBN 978-92-9022-370-2 (NLM classification: WC 503.6)

Printed in India

Contents

Acknowledgements

The World Health Organization Regional Office for South-East Asia (WHO SEARO) would like to recognize the following WHO country representatives who assisted in the peer review process, contributing useful comments, providing further information, and collaborating with national counterparts to check on accuracy: Dr Oscar Barreneche (Indonesia); Dr Vimlesh Purohit (Maldives); Dr Atul Dahala (Nepal); Dr Win Minn Than and Ms Phavady Bollen (Myanmar); Dr D.C.S. Reddy, Dr Po-Lin Chan, and Natasha Dawa (India); Dr Sombat Thanpresertsuk (Thailand); and Dr M K Zaman Biswas (Bangladesh).

Additional comments and assistance were provided by Dr Iyanthi Abeyewickreme, Dr Renu Garg and Dr Amaya Maw-naing (WHO-SEARO, HIV/AIDS Unit, New Delhi).

This document was prepared and coordinated by Mr Gary Reid and Dr Mukta Sharma (WHO-SEARO, HIV/AIDS Unit, New Delhi).

Preface

There are more than half a million people who inject drugs (PWID) in the South-East Asia Region (SEAR). The majority of countries in the Region have a significant injecting drug use problem and several countries have reported much higher national HIV prevalence rates among PWID—most notably Indonesia, Myanmar, Nepal, Thailand, and some regions of India. In SEAR, HIV prevalence among PWID is frequently above 20-25% and has remained consistently high. High-risk behaviour by PWID, such as sharing of contaminated needles and syringes, has become a major determining factor in the course of the HIV epidemic.

In South-East Asia there has been increased awareness of harm reduction as a public health approach to reduce the HIV prevalence and address the health needs of PWID. The harm reduction approach, with its close alliance with health promotion and public health, has been endorsed globally by the United Nations. In SEAR, it is increasingly being viewed with understanding and greater acceptance.

Coverage of harm reduction interventions remain insufficient to have impact on the HIV epidemics among PWID in most countries in SEAR. Epidemiological studies have shown an association of needle and syringe programmes (NSP) and opioid substitution therapy (OST) with reduced HIV risk and transmission. Despite increases and expansion of NSP and OST services, the level of coverage in SEAR shows overall less than a third of PWID are reached by NSP even once a year, and less than 5% receive OST.

An assessment of the current situation of HIV and injecting drugs and national responses has been undertaken by the WHO Regional Office for South-East Asia. The countries are Bangladesh, Maldives, Indonesia, Myanmar, Thailand, Nepal and India. Using current available data it is hoped the country profiles will contribute towards an improved comprehensive understanding of the issues, be useful for advocacy, and generate further harm-reduction responses in countries under review.

We hope that Member States and partner agencies will find this report on HIV and injecting drug use relevant, useful and contribute further to meeting the health needs of PWID.

Acronyms and abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
BSS	behavioural surveillance survey
DIC	drop-in centre
DRC	drug rehabilitation centre
FSW	female sex worker
HIV	human immunodeficiency virus
IBBS	integrated biological and behavioural surveillance
MMT	methadone maintenance therapy
MSM	men who have sex with men
NGO	nongovernmental organization
NSP	needle and syringe programme
OST	opioid substitution therapy
PLHIV	people living with HIV
PWID	people who inject drugs
STI	sexually transmitted infections
UNODC	United Nations Office on Drugs and Crime
VCT	voluntary counselling and testing
WHO	World Health Organization

Executive summary

Since the 1990s the majority of countries in the South-East Asia Region have experienced a significant injecting drug use problem, accompanied by explosive rates of HIV at some sites. Over time the national response has increasingly been to implement various harm reduction interventions to reduce the HIV prevalence and address the health needs of people who inject drugs (PWID). This assessment examines the current situation of HIV and injecting drugs and of the national responses. The focus is on countries with a high and medium burden of illicit drug injecting. In most of these countries PWID are either HIV infected or have the potential for being infected. The countries reviewed are Bangladesh, India, Indonesia, Maldives, Myanmar, Nepal and Thailand.

Epidemiology of injecting drug use and HIV

- Most countries under review have a long history with various types of drugs, with injecting drugs most commonly identified from the 1980s and 1990s onwards.
- The estimated population of PWID can be wide ranging: Bangladesh (20 000–40 000); India (106 000–223 000); Indonesia (200 000–253 000); Maldives (300–2000); Myanmar (60 000–90 000); Nepal (17 000–24 000); and Thailand (38 000–57 000).
- PWID are primarily concentrated in urban settings but with increased surveillance and research the geographical locations of PWID identified have expanded.
- High-risk behaviours are consistently found among PWID. Significantly high rates of sharing injecting equipment are mostly widespread, and more so in Bangladesh and India. In Kathmandu valley, Nepal, a sharp decline in sharing injecting equipment is seen, from 56% in 2002 to 7% in 2009.

- Unsafe sex among PWID is common, and inconsistent condom use whether it is with a permanent partner, casual partner or a female sex worker is widespread. Condom use with a regular sexual partner tends to be low compared to other sexual partners. Sexual relations with female sex workers are common.
- Data on prevalence of sexually transmitted infections (STIs) among PWID tended to be limited. Where available, rates of STIs are generally not very high compared to other most–at-risk groups such as female sex workers, men who have sex with men and transgender people.
- Injecting drug use has significantly contributed to the spread of HIV in Indonesia, Myanmar, Nepal, and north-east India.
- HIV prevalence among PWID is mostly high but varies widely among countries: Bangladesh (7% in Dhaka); India (9.19%); Indonesia (52%); Maldives (0%); Myanmar (37.5%); Nepal (21% in Kathmandu); and Thailand (48%).
- Wide variations of HIV prevalence within countries can be found, for example in Myanmar (Myitkina 54% and Taunggyi 12.5%) and in India (Manipur 28.65% and Uttar Pradesh 2.64%)
- HIV prevalence among PWID has remained consistently high in Indonesia, India (some regions), Thailand and Myanmar, is rising in Bangladesh, and declining in Nepal.
- Many PWID are currently incarcerated and at risk of becoming HIV infected in closed settings.

National response

- Each country has drug control legislation to address drug use issues and each has an HIV policy linked to national HIV strategic plans in which prevention, care and treatment of PWID are overall given a priority, to varying degrees.

In recent years the policy environment has changed substantially, so that harm reduction interventions are increasingly viewed with understanding and greater acceptance.

- Harm reduction interventions as a means to address HIV among PWID are increasingly accepted as the appropriate public health model for PWID. This is despite, at times, the criminalization of drug use overshadowing HIV prevention efforts for PWID.
- Needle and syringe programmes (NSP) are found in all countries reviewed except Maldives. Despite an overall expansion of NSP and an overall increase in the number of needles and syringes distributed, coverage of NSP was mostly low: less than a third of PWID are reached by NSP at least once over a 12 month period in South-East Asia.
- Opioid substitution therapy (OST) programmes offering methadone and buprenorphine, or sometimes both, are found in all countries under review except Bangladesh. Yet, the numbers of PWID having access to and availability of OST remains very low (less than 5%). and considerably less than those able to secure clean injecting equipment.
- Overall coverage of harm reduction interventions as part of a comprehensive package of services has increased compared to previous years. But the vast majority of PWID do not receive services to meet their general health needs.
- The overall number of PWID who are also HIV-infected and able to access antiretroviral therapy is small despite the fact that in some countries PWID have the highest rates of HIV prevalence.
- Despite a large number of incarcerated PWID, current HIV prevention interventions to address the needs of PWID are limited inside closed settings.

Recommendations

Various recommendations have been developed for each country profile but broad-based future priority themes for the Region are as follows:

- Urgently increase coverage and strengthen comprehensive harm reduction interventions, including needle and syringe programmes, opioid substitution therapy, voluntary counselling and testing, accessibility and availability of anti-retroviral therapy, and ensuring that standards for quality services meet the needs of PWID.
- Greater effort and focus is needed on the promotion of condom use by PWID to minimize the sexual transmission of HIV, and to address the health needs of spouses, regular partners and paid sexual partners of PWID due to inconsistent condom use.
- HIV prevention and harm reduction interventions inside closed settings are needed including provision of oral substitution therapy, access to a reliable supply of condoms, and access to broad-ranging health services including HIV care, support and treatment.
- Despite increased acceptance of harm reduction interventions, greater advocacy efforts with appropriate government sectors and the wider community are required to ensure increased commitment, funding, and to enhance government ownership of harm reduction programmes.
- Increased training opportunities are needed in various aspects of harm reduction interventions for those directly serving the needs of PWID to ensure improved HIV prevention efforts and provide adequate, quality care, support and treatment for PWID.
- There is a need to improve strategic information by improving mapping and size estimations for PWID and expanding surveillance as required. Better tools and building capacity are needed for measuring the use of preventive and treatment services by PWID.

Introduction

There are over 500 000 people who inject drugs (PWID) in South-East Asia, with many involved in high-risk behaviour such as the sharing of non-sterile injecting equipment, and this has contributed towards the overall HIV epidemic in several countries of the Region. PWID have some of the highest prevalence of HIV of any of the high-risk population groups in the Region. Since the 1990s HIV prevalence has remained consistently high among PWID. Documented evidence of the dual epidemic of HIV and injecting drug use, combined with ongoing advocacy efforts, have led to national responses and the implementation of various harm reduction interventions. Despite the harm reduction interventions in place, current data show such measures have a limited reach and are not sufficiently scaled up to match the size of the problem.

Aim of assessment study

The purpose is to collect and analyse the latest information on people who inject drugs, the associated links with the HIV epidemic, and the national responses. This information will be used to advocate for greater efforts and resources to be channeled into harm reduction interventions.

Objectives

(1) To map the epidemiology of injecting drug use in South-East Asia.

(2) To describe and analyse the nature and extent of surveillance among PWID in South-East Asia.

(3) To describe the nature and extent of HIV infection, STIs, and associated risk behaviours among PWID in South-East Asia.

(4) To identify the scale and coverage of effective interventions for PWID, in both the governmental and nongovernmental sector responses, to the HIV epidemic in South-East Asia.

(5) To identify programmatic and research (information) gaps in our understanding of the HIV epidemic and national responses, and sug gest specific recommendations for a scaled-up response.

Countries selected for review

Countries with a high and medium burden of illicit drug injecting and HIV infection were reviewed in the South-East Asia Region. The countries are Bangladesh, India, Indonesia, Maldives, Myanmar, Nepal and Thailand.

Methodology

Conduct desk-based literature review using some key words: HIV prevention, treatment and care, injecting drug use, Asia, South-East Asia, harm reduction, needle syringe, drug substitution therapy, surveillance, and response. Use search engines such as PubMED, WHO, UNAIDS documents, and various Internet search engines. For further information contact has made with the UN reference group for injecting drug use, national AIDS control programmes and state AIDS control programmes, regional harm reduction networks for programme information, Global Fund website for country programme information (grant performance reports), and WHO country office focal points. An analysis of the literature and identifying gaps was undertaken for additional data. Collaborative work with WHO country focal points and official government counterparts was undertaken during the peer review process for comments.

Bangladesh

1. Context

1.1 Overview of the HIV epidemic

Bangladesh reported its first HIV case in 1989. By 1 December 2008, the Ministry of Health and Family Welfare had confirmed a cumulative total of 1495 cases of HIV. Of these, 476 had developed AIDS and 165 had died[1]. Three-quarters of the newly diagnosed HIV infections are among women. According to UNAIDS, the overall HIV prevalence in Bangladesh is 0.01% and there are an estimated 12 000 [7 700–19 000] people currently living with HIV.[2]

Although the HIV epidemic in Bangladesh is two decades old, it has largely remained confined to populations with high-risk behaviours. HIV prevalence among high-risk population groups in Bangladesh has remained less than 1% over the past seven surveillance rounds. However, among people who inject drugs (PWID), HIV prevalence has increased steadily in Dhaka over the government surveillance rounds from 1.4% in 2000 to 7% in 2007, with the highest prevalence of 11% in one neighbourhood in Dhaka.[3] Despite the overall low HIV prevalence, Bangladesh is considered at high risk for a wider epidemic due to several vulnerability factors. These include (i) high levels of injecting and sexual risk factors; (ii) high prevalence of sexually transmitted infections (STIs); (iii) migration across borders from neighbouring high HIV-burden countries; (iv) poverty; (v) low awareness; (vi) gender inequity; and (vii) HIV-associated stigma.

1.2 Overview of drug use situation

As with other South-East Asian nations, Bangladesh has a long history of drug use, primarily with opium and cannabis. Drug use problems began to emerge in Bangladesh in the 1980s. Injecting of heroin was first reported in the mid-1980s and, by the 1990s, had become more widely practised especially in Dhaka and Rajshahi in the north.[4] The main drugs injected are buprenorphine, pethidine, benzodiazepines, and antihistamines

such as Avil and Phenergan.[5] Epidemiological data available suggest that drug use of all types is increasing throughout the country. One study in 2001 found that there were people who inject drugs in 19 of the 24 districts surveyed.[6] The estimates of total drug users in the country vary, with figures ranging from 500 000 to 4.6 million. The majority of drug users are male but female drug users have also been identified, more so in recent years. Most drug users were between 18 and 30 years of age; many were married and had children.[7]

2. Epidemic situation analysis

2.1 Magnitude and geographical location of injecting drug use

The estimated number of PWID in Bangladesh ranges between 20 000 and 40 000.[4] The methods used to derive these numbers relied on triangulation and multiplication of multiple data sources, including the rapid assessments, behavioural surveillance surveys (BSS), and programme data collected by nongovernmental organizations (NGOs). The majority of PWID are found in the capital city Dhaka (Central), in Rajashahi (Northwest), Chapainawabganj (Northwest) and Chandpur (Southeast).

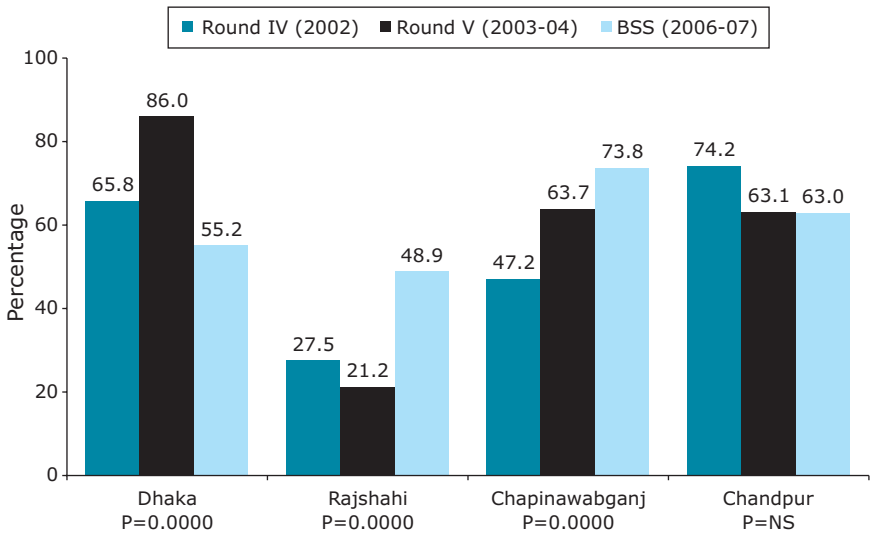
2.2 Magnitude and trends in risk behaviours among PWID

Sharing of injecting equipment

Overall, sharing of injecting equipment appears widespread[8] and only 33% of injectors reported using safe injection practices.[9] The proportion of PWID sharing needles and syringes had declined significantly in the Northwest (Rajshahi), with only 21% of PWID reporting sharing of injecting equipment in the behavioural surveillance survey round V (2003–2004),[10] but it has again increased significantly to around 50% (sharing in last week) in the 2006–2007 round of BSS.[9] In Dhaka, the proportion of PWID borrowing injecting equipment in the last week rose to 86% in

BSS round V, but declined to 55% in the 2006–2007 BSS (See Figure 1)[10,11]. Levels of borrowing needles in other BSS sites (Nawabgunj and Chandpur in the Northwest) are much higher than in Rajshahi. Levels in non-intervention areas have not been measured but are presumably higher.

Figure 1: *Trends in needle syringe sharing in Bangladesh, 2002–2007*



The percentage of IDU borrowed used needle/syringe has significantly increased in Rajshahi and Chapai, decreased in Dhaka and stabled in Chandpur

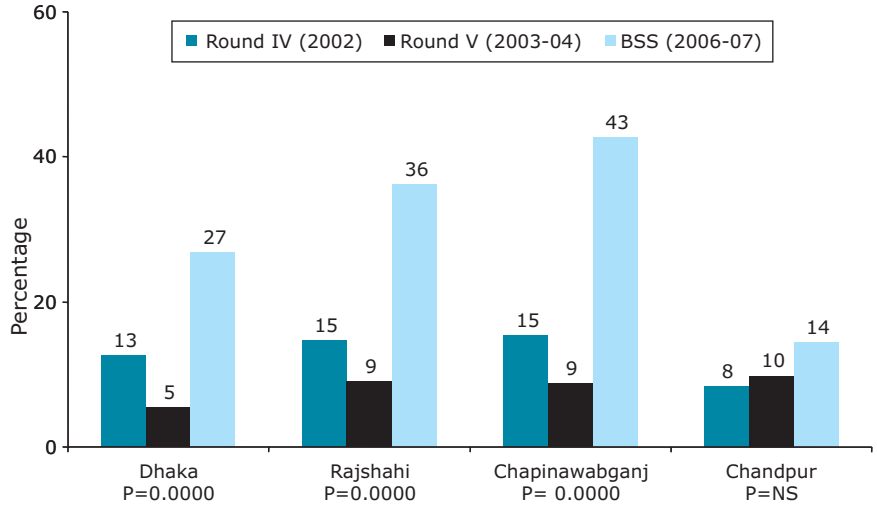
Source: WHO SEARO 2009

Unsafe sex

BSS have consistently shown that high proportions of male drug injectors buy sex from sex workers. The proportion of PWID who had commercial sex in the four BSS sites (Dhaka, Rajshahi, Nawabgunj and Chandpur) in the 2006–2007 round of BSS was 66% in Dhaka, 47% in Rajshahi, 46% in Nawabgunj and 57% in Chandpur[9]. However, along with increases in reported commercial sex, there were also increases in reported consistent condom

use: 26% in Dhaka, 36% in Rajshahi, 43% in Nawabganj and 14% in Chandpur (Figure 2). These numbers are not high, but they are significantly higher than those from previous years, except in Chandpur where it remained similar.[9]

Figure 2: *Trends in consistent condom use among PWID in Bangladesh*



Source: WHO SEARO 2009

Prevalence of STIs among PWID

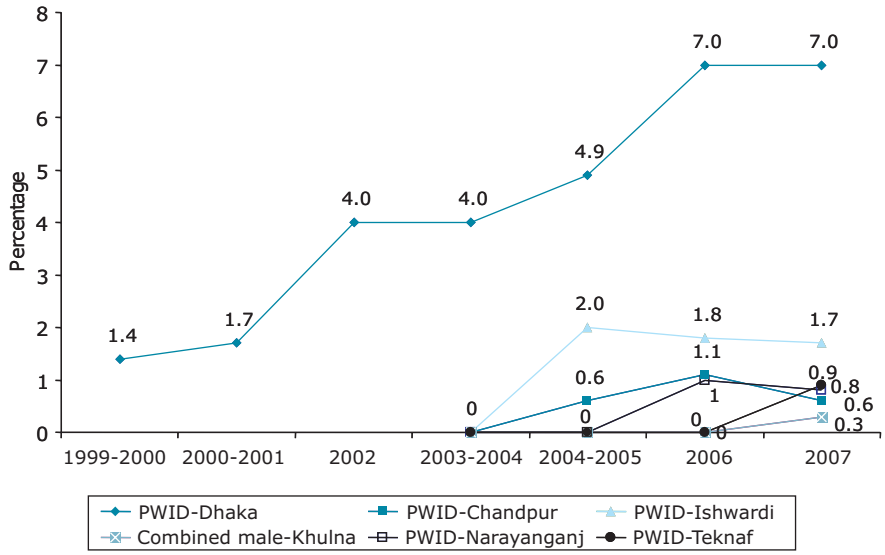
The prevalence of active syphilis varied from 0% to 5.8% among male drug injectors across 20 sentinel sites.[10] One site that measured syphilis rates among female drug injectors recorded a prevalence of 9.9%. Over the past five years, overall syphilis prevalence among PWID has shown little change.

2.3 Magnitude of and trends in HIV infection among PWID

Since the first surveillance in 1998, the highest HIV prevalence rates in Bangladesh have been observed in PWID. The PWID population is integrated into their communities, socially and

sexually, thus increasing the concern about the spread of HIV infection from this most-at-risk group to the rest of the population. In 2007, drug users were sampled in 28 cities, and HIV found in seven cities only (Dhaka, Narayanganj, Tongi, Chandpur, Teknaf, Khulna and Ishwardi) (Fig 3)[3]. Findings indicated that in just 24 months after that, HIV prevalence among male PWID in Dhaka increased from 4.9% to 7% and that over the same period HIV prevalence in male PWID in one neighbourhood of Dhaka increased from 7.1% to 11%.[3,10]

Figure 3: *Prevalence of HIV among PWID by site, Bangladesh (1999–2007)*



Source: National HIV Serological Surveillance

2.4 Incarceration, drug use and HIV

Bangladesh has a prison population of 71 200. There is no data on the prevalence of substance use in prison. As part of the UNODC H 71 project, the knowledge, attitude and practices (KAP) study among 450 prisoners in Bangladesh found that 143 out of 450 were both heroin and multi-drug users. Other findings of the study included sexual activity between male prisoners including

homosexual rape, sharing toothbrushes, shaving blades and other equipment, and insufficient comprehensive drug rehabilitation and HIV prevention for substance users.[11] The 1998 rapid situation assessment (RSA) conducted by CARE in Bangladesh indicated that 84% of PWID had been arrested and 66% ever been jailed.[12] Moreover, the National Assessment of Situation and Responses to opioids/opiates in Bangladesh (NASROB) indicated that 28% of heroin smokers had been arrested or had encounters with local law enforcement agencies. For PWID, the figure was slightly lower (17%–22%).[6] At present, HIV surveillance is not conducted in prisons.

2.5 Potential for rapid transmission

Bangladesh is geographically vulnerable to HIV/AIDS because of its proximity to other countries in Asia that are experiencing large-scale epidemics. Frequent migration of sex workers across borders has been reported, particularly in the northwest.[10] Although HIV is currently confined to populations with high-risk behaviours, there are sufficient linkages to the general population for HIV to spread very rapidly. A proportion of women who inject drugs also sell sex and some sex workers also use drugs: of concern was surveillance data from 2006, which showed that 44% of female drug injectors were also sex workers and they had a high level of syphilis.[13,14] Of the female drug injectors who were also sex workers operating primarily from the streets of Central Bangladesh, about 82% had shared their needles/syringes while injecting in the past six months.

In the sero-survellance conducted in 2007, HIV sero prevalence of 1% was reported among the female drug users (this combined drug injectors and heroin smokers) from Dhaka, Narayanganj and Tongi.[15] Consequently female drug injectors could form a direct bridge between PWID and the general population. As in other parts of Asia, a large proportion of the men who have sex with men (MSM) are married and they form another link with the general population.[16] It has been found that among MSM in Chittagong, 5% reported having injected drugs in the last year.

There are also notable numbers of PWID who sell their blood professionally and the Safe Blood Transfusion Act (2002) is not fully implemented.[17] Additionally, there is still a low level of awareness of HIV/AIDS among vulnerable groups, and a significant mobile/migrant labour population. Added to this are high levels of stigma associated with HIV and limited access to all levels of health care. All these factors create a favourable environment for the rapid spread of HIV in Bangladesh.

2.6 Surveillance systems and current gaps in information

Bangladesh deserves praise for its progress in collecting and making use of data. However, there are still many gaps in the information needed to guide the effort to scale up the response to HIV among PWID. One gap identified is with regard to identifying and enumerating PWID populations. The current evidence about where injecting of drugs exists in Bangladesh tends to be based on data from drug treatment centres and intervention programmes. The programmes, in turn, emerge in places where HIV infections have been identified, and infections are identified through HIV surveillance, which again is done in drug treatment centres or intervention sites. As a result the available information presents a "passive snapshot" of some drug-using locations, which is useful, but far from the more "active" information required for a comprehensive understanding of what is going on outside of those sites.

There are at least two major challenges to the process of size estimation. First, information collected from a few locations in the country is used to extrapolate what is happening in the rest of the country; thus, there is a wide margin of error associated with the estimates. The second challenge is defining exactly who is a PWID, which is not clear because of the frequent practice of switching back and forth between smoking heroin to injecting heroin or other substances, which depends entirely on changing local conditions.

Second-generation surveillance has been established and annual rounds of HIV sero-surveillance (HSS) and BSS have been carried out since 1998. To date, eight rounds of HSS and six rounds of BSS have been completed. HSS and BSS have focused on high-risk populations, such as sex workers, PWID, MSM, *hijras*, and rickshaw pullers. Starting in 1998 with one sentinel site in Dhaka, by 2007 the HIV surveillance system had expanded to 28 cities. The majority of PWID cities are in Rajshahi division (11 cities) followed by Khulna division (7 cities) and Dhaka division (5 cities) Risk behavioural surveillance in Bangladesh is done in only a few limited geographical areas where programmes are ongoing.

Targeted intervention sites of NGOs are often used for sero-surveillance, which can be helpful in tracking behaviours in places where drug users are already known to exist and provide information about the success of the response. However, it does not identify new HIV epidemics among PWID. STI surveillance comprises mainly tracking active syphilis and hepatitis among high-risk population groups. Some data on STI prevalence is available from community studies.

3. National response

3.1 The policy environment

Drug control legislation and HIV policy

Bangladesh has recognized the spread of HIV infection among PWID. The National Strategic Plan (2004–2010) endorses harm reduction as the key strategy to prevent the spread of the HIV epidemic through drug use.[18] While this has been endorsed by the Government, it has not as yet been systematically implemented.

The Narcotics Control Act of 1990 (amended in 1999 and 2002) is the legislative mechanism for narcotic and psychotropic substance control in Bangladesh. Drug use is considered a

treatable condition rather than a criminal offence. However, although the act requires mandatory treatment of drug use, publicly funded facilities for treatment and rehabilitation are few.

The law has not officially sanctioned distribution of needles and syringes, which is ongoing since 1998. This practice is a violation of the Narcotics Control Act, 1990. However, NGOs running such programmes have not been prosecuted. The Department of Narcotics Control has initiated community-level coordination with NGOs to strengthen drug prevention activities and worked to form national networks of government agencies and NGOs working in the area of drug prevention and control. However, there is no integrated work plan between public health, law enforcement and civil society for the treatment of PWID or people living with HIV/AIDS (PLWHA).[19]

3.2 Interventions available

Treatment of drug dependence

The Narcotics Control Act, 1990 includes provisions for the treatment and rehabilitation of drug-dependent people. Nationally funded drug treatment is focused on hospital/clinic-based treatment aimed at detoxification. However, these services are not generously funded and with the exception of small-scale medical/hospital treatment for PWID there is no provision for these activities in the national budget. All prevention, care and rehabilitation interventions depend on external donor support. The Regional Task Force (2006) reported that there were six NGOs as well as private practitioners running over 100 detoxification facilities in the country.[20] The government runs one central drug treatment centre in Dhaka, and three regional centres in Chittagong, Rajshahi and Khulna. In addition, eight medical college hospitals and one mental hospital also treat drug users.

NGOs offer a variety of drug treatment services, which aim at detoxification and rehabilitation. These include residential treatment using the 12-step approach, and facilities include therapeutic communities and faith-based treatment. However, most are expensive and require lengthy inpatient treatment.

Needle and syringe programme

Needle-syringe programmes (NSPs) were set up in Bangladesh in 1998 and have since expanded substantially to over 37 districts. Sterile injecting equipment is in many cases provided as one-for-one exchange and strict controls on the total number of needles and syringes that can be exchanged at any one time are reported. While satellite exchanges are not known to exist, sterile injecting equipment is provided from fixed settings as well by as outreach workers, who also provide condoms, risk reduction education and referrals to additional services.

Harm reduction interventions are currently delivered routinely through an estimated 90 needle-syringe programme sites: one NSP for every 333 PWID (90 divided by mid-range figure of 30 000). In 2008, it was estimated that nationwide around 17 000 PWID had accessed NSP in the past 12 months.[21] In 2008, approximately 4 000 000 needles/syringes were distributed (102/PWID /year). This number is inadequate and must be increased to ensure further reductions in HIV incidence in PWID populations.

Opioid substitution therapy

Opioid substitution therapy (OST) is not presently available, although government approval to start a methadone-based OST pilot was given in 2008. The Department of Narcotics Control has proposed local production of methadone and is awaiting clearance. A pilot study was to commence in February 2009 but had not been organized yet.[22] In late 2009 the government approved methadone import by International Centre for Diarrhoel Disease Research, Bangladesh (ICDDR,B) as opposed to local

methadone production for the pilot study. In April 2010 all the necessary formalities and clearances were completed paving the way for the introduction of methadone maintenance therapy in the country. It is expected it will still take more time for the actual implementation.

Access to antiretroviral treatment

There are no data on the proportion of PWID who need antiretroviral treatment (ART) and actually receive it. The total number of people that receive ART and known to be PWID was considered very small. Given that the HIV epidemic in Bangladesh has been largely confined to PWID, this small proportion receiving treatment indicates that PWID have limited access to ART.

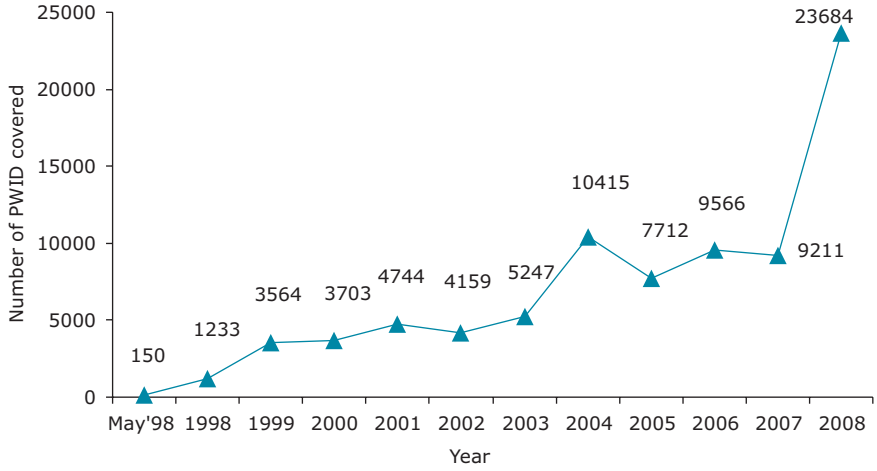
Prison interventions for PWID

As part of the Tripartite Project, USAID initiated HIV prevention interventions in Dhaka Jail in 2006. These interventions focussed on pre-and post-release counselling, referral and access to drug dependence treatment. UNODC project H71 “Prevention of spread of HIV amongst vulnerable groups in South Asia” is conducting interventions in two prisons in Bangladesh. The aim of the prison interventions is to initiate behaviour change and empower prisoners to engage in positive health behaviours with regard to drugs and HIV during incarceration and after release. Achievements include: the government and civil society willing to consider a comprehensive package (including OST) for drug users and some trained and active human resources (including prison officials, health workers, civil society partners and inmates).[11] This intervention is ongoing. However, to date there is no distribution of condoms, needles and syringes or provision of evidence-based drug dependence treatment to prisoners.

3.3 Coverage of harm reduction interventions

There are an estimated 93 drop-in centres serving the needs of PWID in 37 districts of Bangladesh which provide prevention services, including NSPs. The Chittagong Hill Tracts are currently not covered by harm reduction services, even though evidence of risk behaviours for HIV transmission has been found. In 2008 it was estimated that 23 684 PWID are covered with NSP services. The Global Fund has estimated that around 12 600 PWID are not covered. Under the Global Fund, which was launched in June 2008, around 11 000 PWID are covered by services. In 2009 it was reported that the highest estimate of PWID covered by all programmes is around 59%.[23] While overall coverage figures are higher than in most countries of the South-East Asia Region the reported prevalence of sharing remains high and indicates the need to improve the dosage and frequency of interventions.

Figure 4: *Trends in coverage of PWID with NSP, 1998-2008*



Source: Fund South and West Asia Regional Meeting, Hyderabad, India, 2009

3.4 Current gaps in the response

Research findings by Burrows (2006)[24] suggested high initial contact with NSPs (in Dhaka 100% and in Rajshahi 56% had "ever" been contacted but just 50% were still in contact with the service a month later). Similarly, country UNGASS data indicate that in 2007 only 34% of male PWID had used sterile needles the last time they injected.[1] Despite the increasing coverage of HIV/AIDS prevention programmes changes in knowledge and behaviour were still inadequate. The proportion of PWID who were able to correctly identify strategies for preventing the sexual transmission of HIV and reject misconceptions about HIV transmission is still low and consistent condom use during sexual intercourse is also low. Further, the proportion of PWID who received voluntary counselling and testing (VCT) services and knew their results in 2007 remains poor.

Harm reduction is not an integral part of drug treatment or HIV/AIDS prevention services. The government is yet to endorse NSPs, which are still technically against the law and OST is yet to begin (though a methadone pilot has recently been approved).

Gender inequalities, which in Bangladesh exacerbate the vulnerability of female PWID, many of whom are also sex workers, are not adequately addressed. Little is known about female PWID in Bangladesh but evidence suggests that they are a hidden and highly vulnerable population. Female PWID reported more anal sex and serial sex with multiple partners, as well as other hazardous experiences, such as being victims of sexual violence or being jailed.[25] Lastly, prison interventions are scarce and the focus is on information and knowledge provision rather than on services such as drug treatment, condoms and OST.

3.5 Recommendations

- Increase the coverage of NSPs and introduce OST for all PWID who need it.

- Develop and enhance closer collaboration between sectors and develop a joint workplan between public health, law enforcement and civil society agencies including PWID and those living with HIV.
- Encourage government “ownership” of harm reduction programmes through sustainable funding and strategic investments.
- Reduce discrimination against those infected with HIV, or groups engaging in high-risk behaviours through appropriate advocacy, policies and related measures.
- Condom use is slowly increasing among PWID with sexual partners but can still be improved to prevent sexual transmission of HIV. Greater efforts and focus on the promotion of condom use by PWID are of critical importance. Greater focus to address the needs of spouses and regular partners of PWID are required due to inconsistent condom use in sexual relations.
- PWID need to actively participate at all levels – policy dialogue, design and development of interventions, implementation and evaluation of comprehensive interventions to enhance effective HIV prevention programming.
- Extend all harm reduction programmes to cover all PWID throughout the country.
- Expand prevention and education programmes to non-injectors who may become injectors in the future. Many drug users are casual/infrequent injectors and should be targeted with prevention and information messages.
- Female drug injectors have separate needs and special services catering to their needs are missing. Separate service delivery points to encourage female drug users to access services need to be developed.

- Add new sites for integrated bio-behavioural surveillance based on the results of mapping and rapid situation assessments.
- Consider integrating biological and behavioural surveillance using probability-based sampling among populations with high-risk behaviours, including PWID.
- Introduce a system of HIV case reporting that also provides information on the mode of HIV transmission. As HIV case reporting improves over time, this will not only help in monitoring the epidemic but also provide information on the most common mode of infection of newly diagnosed cases.

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India

1. Context

1.1 Overview of the HIV epidemic

India carries the third-highest burden of HIV globally with an estimated 2.31 million (range 1.8–2.9 million) people living with HIV (PLHIV) in 2007.[1] HIV prevalence in the general population is very low (0.36%); however, it is disproportionately high among sex workers and their clients, people who inject drugs (PWID) and men who have sex with men (MSM), among whom it ranges from 1% to 30%.[2] In 2008 the overall HIV prevalence among different population groups showed a concentrated epidemic with high prevalence among specific high risk groups—PWID (9.19%), MSM (7.3%), female sex workers (4.94%) and sexually transmitted infection clinic attendees (3.62%).[3] The predominant mode of transmission is the sexual route, which accounts for 86% of the reported AIDS cases. According to a national population-based survey in 2006, the HIV prevalence was found to be 40% higher in urban than rural areas. Further more HIV prevelance was 60% higher in males than females (male to female ratio was 1.6:1).[4]

Analysis of the overall trends indicates that the epidemic has stabilized at the national level, but there are marked regional variations. The dual HIV epidemic in the north-east, driven by injection drug use and unsafe sex, continues in its severity. In the southern states, the HIV epidemic, which is primarily driven by unsafe sex, has begun to decline as indicated by a consistent fall in HIV prevalence among young women attending antenatal (ANC) clinics.[5] However, even in states with declining trends, there are pockets of high HIV transmission. Several new pockets with high HIV transmission have been detected, particularly among PWID in West Bengal, Mizoram, Orissa, Punjab, Kerala and Chandigarh.[2]

1.2 Overview of drug use situation

India has a long history of drug use commencing with consumption of cannabis followed by opium. It was not until the 1960s and

early 1970s that a variety of drugs were available in the market, including sedatives and stimulants. During the 1980s and early 1990s heroin use was more widespread, and throughout the 1990s injecting of drugs became increasingly prevalent.[6] Studies show that India has experienced widespread drug use and that many people experience problems with drug dependency. The largest nationwide collective series of surveys undertaken (combining a National Household Survey, Drug Abuse Monitoring System and Rapid Assessment of Drug Abuse) released in 2004 indicated that alcohol, cannabis and opiates (such a heroin) were the major drugs misused. Statistically it was reported that an estimated 62.5 million used alcohol, 8.75 million used cannabis, 2 million used opiates, and 0.6 million used pharmaceuticals such as sedatives and hypnotics. Among all drug users an estimated 17%-25% were classified as dependent users and an estimated 500 000 were opioid-dependant.[7,8]

A recent study enrolling 5800 drug users from 24 sites in India showed that half were aged 21-30 years, most were males, 15% were illiterate, 62% were employed, 48% were married, and most were sexually active with only seldom use of condoms. Among PWID syringes were often borrowed and lent. Five percent of drug users were women. Poly-drug use was common: alcohol (80%), cannabis (76%) injectable buprenorphine (76%) dextropropoxyphene (64%) and either injecting heroin (76%) or smoking it (70%).[9] An increasing use of pharmaceutical drugs by PWID has been identified and currently use of licit opiate pharmaceuticals is overall more common than illicit drugs.[10]

2. Epidemic situation analysis

2.1 Magnitude and geographical location of injecting drug use

There are an estimated 96 463 to 189 729 male drug injectors and 10 055 to 33 392 female drug injectors in India.[11] Almost all states in India are believed to have some pockets of PWID, but

the size of the drug-using population in each state may vary from several hundred to several thousand. One-third of the estimated PWID are in three states in the north-east—Manipur, Nagaland and Mizoram. Other states with a substantial number of PWID are West Bengal and Orissa in the east, and Haryana, Punjab, Delhi and Uttar Pradesh in the north. In the southern and western states the vast majority are believed to be concentrated within the capital cities of Chennai and Mumbai. There are also large PWID populations in the urban areas of Kerala.[10] On average, the proportion of PWID per 100 adult males (aged 15–49 years) is 0.05%; however, this proportion varies widely, from 0.01% in Uttaranchal, Jammu & Kashmir, and Andhra Pradesh to as high as 4.0% in Manipur, 3.8% in Mizoram and 2.9% in Nagaland.

2.2 Magnitude of and trends in risk behaviours among PWID

Behavioural data on PWID in India are available primarily from three documented sources—the national behavioural surveillance surveys (BSS) conducted in 2001 and 2006; a series of rapid situation assessments (RSAs) of drug users conducted in 2001 (14 cities), 2005–06 (20 sites), and 2007 (seven areas); and one round of district-level integrated biological and behavioural assessments (IBBA) conducted in five PWID sites as part of the Avahan India AIDS Initiative Programme evaluation.

Sharing of injecting equipment

Behavioural surveys suggest high levels of risk behaviour and diverse patterns across and among different regions. The highest levels of equipment-sharing were reported from the major metropolitan areas (Mumbai, Chennai, Bangalore, Delhi), where 37%–62% of injectors reported having shared injecting equipment in the past month.[12]

In sites where BSS data are available for both 2001 and 2006, sharing of injecting equipment had increased in Mumbai, Delhi

and Chennai, and decreased in Manipur. In Mumbai and Delhi, the proportion of respondents who reported sharing injecting equipment every time or many times in the past month doubled from 14% to 28%, whereas in Manipur, this proportion reduced from 55% to 26%. Despite generally higher levels of sharing in some locations, the proportion of respondents in the 2006 survey who injected frequently was lower than in the 2001 sample. In a RSA study (2005–2006) that recruited 5800 participants, among the PWID, 45.9% (N = 1279) had borrowed a syringe and needle from others at the last injecting episode.[9]

Unsafe sex

An area of consistent risk across sites was in the type of sexual activity among PWID. The proportion of PWID who reported engaging in commercial sex ranged from 7% to 55% across states, which is much higher than the proportion of men in the general population reporting commercial sex (7%).[12] In major metropolitan areas such as Mumbai, Bangalore and Delhi, high proportions of PWID bought sex and reported experiencing symptoms of a sexually transmitted infection (STI) in the past year. In these cities, condom use at last sex with commercial partners was high (ranging from 71% to 94%) but consistent condom use was substantially lower (27% to 59%), suggesting a high risk of sexual transmission.[13]

In the RSA study of 2005–2006 the sexual history of the drug users (71.8% were current injectors) found condom use with commercial sex partner at last sex was low (23%), similar to casual partners (21.3%) and regular sexual partners (20.3%).[9] Sexual transmission of HIV from PWID to regular sexual partners has been identified. In Chennai a study found 16% of regular sexual partners of HIV infected PWID were HIV infected, despite the fact the regular sexual partners were not injecting drugs.[14]

Table 1: **Risk behaviours among PWID at selected sites, 2001–2006**

Sites	Injected >once a day (%)		Shared equipment past month (%)		Last time condom use with a commercial sex partner (%)		Last time condom use with a non-regular partner (%)
	2001	2006	2001	2006	2001	2006	2001
Manipur	75.2	24.5	55.3	26.3	80	100	50
Kolkata	77.2	95.5	22.6	11.7	64	81	36
Delhi	59.3	38.9	30.7	57.8	42	71	15
Mumbai	91.8	41.4	29.6	58.3	57	94	44
Chennai	79.7	51.7	61.5	62.1	56	46	27

Source: NACO, Behavioral Sentinel Surveillance Survey, 2001 and 2006.

Prevalence of STIs among PWID

While routine data on STI is not collected among PWID, recent Integrated Behavioral and Biological Assessment (IBBA) Avahan data from the North-East and Maharashtra (2007) indicated a high prevalence of STIs, particularly syphilis, among this group. Among the surveyed sites, Wokha (Nagaland) had the highest prevalence of STIs with nearly one-fifth of all PWID testing positive for syphilis, and about 11% for *Chlamydia*. The prevalence of syphilis among PWID in Mumbai was 5%, while the prevalence of herpes simplex virus-2 (HSV-2) was 29%.

2.2 Magnitude of and trends in HIV infection among PWID

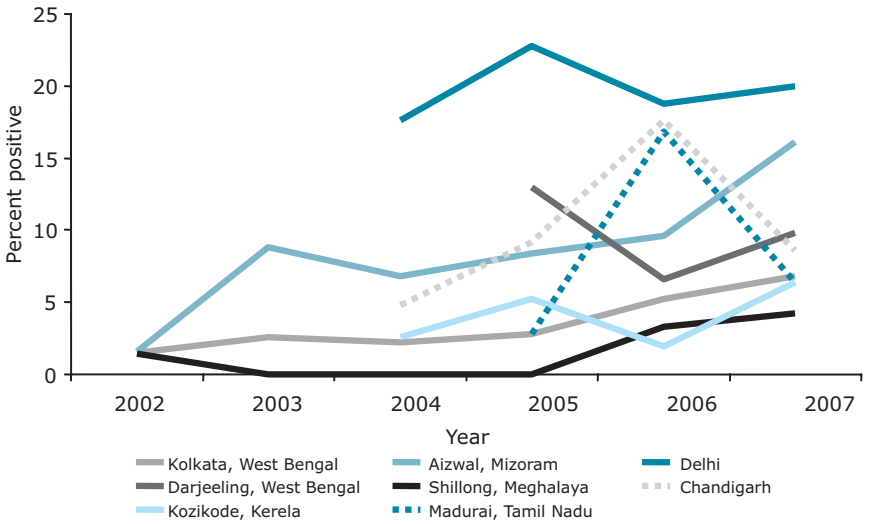
The National AIDS Control Organization (NACO) of India has been expanding its sentinel surveillance system to collect information from more sites with significant PWID populations. In 2007,

sero-prevalence data were available from 52 sentinel surveillance sites across 23 states in India. High HIV prevalence among PWID was found in the following states: Maharashtra (24.4%), Manipur (17.90%), Tamil Nadu (16.80%), Chandigarh (8.64%), Punjab (13.79%), Delhi (10.10%), Orissa (7.3%) and Kerala and West Bengal (7.8%). States with HIV prevalence between 1% and 5% among PWID were: Andhra Pradesh (3.71%), Assam (2.14%), Karnataka (2%), Meghalaya (4.17%), Nagaland (1.90%) and Uttar Pradesh (1.29%). It has been reported that prevalence of HIV among PWID is declining in Manipur, Nagaland and Chennai but rising HIV infections were identified in Meghalaya, Mizoram, West Bengal, Mumbai, Kerala and Delhi.[1] In 2008, HIV prevalence among PWID in India was 9.19%.[3]

Where hepatitis C testing is available an epidemic of hepatitis C has been shown, with the majority of PWID infected. This is not a new phenomenon. As early as 2000 in Imphal, Manipur a study found a prevalence of 92% hepatitis C coinfection with HIV among PWID.[15] There is also a high level of HIV, and coinfection with hepatitis B and C, as found in Chennai, where PWID infected with HIV were also hepatitis B and C infected (9.2% and 86%, respectively).[16] In Chennai, PWID were almost 28 times more likely to be hepatitis C infected than those who were not injecting drugs.[17]

Manipur has the biggest HIV epidemic driven by PWID in India, with the highest population of PWID; HIV prevalence ranges from 12% to 28% in three districts.[2] The HIV sentinel surveillance of 2008 (provisional findings) show HIV prevalence among PWID in Manipur was 28.65%, while in Uttar Pradesh it was 2.64%.[3] In the eastern part of the country, new epidemics due to injecting drug use are emerging in West Bengal and Orissa. Kolkata, the capital of West Bengal, has a large PWID population and HIV prevalence has been steadily increasing from 2% in 2002 to 7% in 2007.[18]

Figure 1: *HIV prevalence among injecting drug users in selected sentinel sites, India, 2002–2007*



Source: Sentinel surveillance data, NACO 2007

2.3 Incarceration, drug use and HIV

Prison populations are an important group that need to be monitored. However, there is a lack of detailed information on duration in prisons and history of risk behaviour inside prisons to determine what proportion of HIV infections were acquired while in prison or what level of HIV infection in prisons is associated with injection drug use. High rates of turnover of incarcerated populations back into the general community, and a drug policy that uses prisons as detoxification centres without systematically providing opioid substitution therapy (OST) or harm reduction programmes, makes this population ripe for a burgeoning HIV epidemic that could penetrate into the general population.

The role of prisons in catalysing the HIV epidemic among PWID in India may be significant, given that in late 2006 there were 372 271 prisoners in 1336 correctional institutions across the country. The prison population has been increasing in

number but official prison capacity is 263 911 prisoners, leading to overcrowding.[19] In some prisons such as Tihar jail in Delhi, in 2005 8% of the population were PWID, of whom 76%–82% reported heroin as the primary drug of use.[20]

Indian prisons are characterized by substantial overcrowding and variable policies with respect to HIV testing, segregation of HIV-infected inmates and availability of HIV prevention and treatment services. Some data on HIV prevalence and risk behaviours are available through studies in selected facilities, primarily located in the southern/western states, and a large facility in Delhi. As expected, HIV prevalence appears to be higher in the prison population than in the general population. However, these prevalence estimates, measured between 1999 and 2005, were generally <5%.[21] Although women comprise only 3.9% of inmates, HIV prevalence among this group was higher than among men, ranging from 9.5% to 14.2%.[22] In seven studies of prisoners in India, HIV prevalence among female prisoners was found to be between 0% and 14% and among male prisoners between 1% and 7%.[23]

2.4 Potential for rapid transmission

The contribution of PWID populations to the course of the HIV epidemic in a given region depends on the size of the vulnerable populations, risk behaviours and the interaction between injecting drug use and sex work. Rapid HIV transmission has already occurred among PWID and to their sexual partners in areas that have large drug-injecting populations such as in the north-east and metropolitan cities. The population-based household National Family Health Survey (NFHS)-3 of 2006 [24] found the highest HIV prevalence among adults in Manipur (1.3%), indicating spread of HIV through sexual networks to the general population. In the north-east, HIV prevalence was >1% in 17 of the 50 districts with ANC sentinel sites, and HIV prevalence among female sex workers (FSWs) in five districts of the north-east ranged from 7% to 20% in 2007.[1] Given that 27% of PWID in the national Behavioural

Surveillance Survey (BSS) in Manipur reported commercial sex in the past year, there is some evidence to suggest that mixing between PWID and FSW populations had a serious impact that went beyond PWID and their regular sex partners.[12]

The metropolitan areas of Mumbai, Chennai and Bangalore have large numbers of PWID as well as FSW and MSM populations. In these cities, PWID were a powerful link in the chain of transmission when there is substantial mixing with FSW or MSM populations. In Mumbai, the HIV prevalence is relatively high among various types of FSWs (13%–50%) and MSM (6%–18%) according to available sentinel surveillance and probability-based surveys[25] in recent years. High levels of HIV prevalence have also been observed among FSWs (6%–22%) and MSM (10%–20%) in Bangalore. This is in contrast to relatively low levels of prevalence among FSWs (2%–6%) and MSM (3%–7%) in Chennai, as estimated from similar sources.[1]

2.5 Surveillance systems and current gaps in information

Since 1998, sero-surveillance among PWID has been systematically conducted nationally. Over the years, the number of sentinel sites has expanded tenfold from 5 in 1998 to 52 in 2008. At each site, 250 PWID are tested, most of whom are men. Several of the sentinel sites are de-addiction centres, large hospitals or NGO intervention sites. Although sentinel surveillance in PWID populations has expanded over time and provided useful prevalence data, geographical and population coverage is still very low, with no data from large pockets of the country. Apart from the 52 sites where sero-surveillance is done, little is known about the magnitude and trends of the HIV epidemic among PWID in areas with large pockets of PWID populations. Six of nine districts in Manipur do not have PWID sentinel sites; these include Tamenglong and Ukhrul, where HIV has spread to the general population.

Many of the large states in central India and the north-west with populations of over 50 million have no sentinel surveillance for PWID; for example, Madhya Pradesh, Rajasthan and Gujarat. Even in the southern and western regions, current surveillance activities for PWID are limited to the large metropolitan areas.

Behavioural data on PWID were collected in four major metropolitan areas (Chennai, Mumbai, Delhi, Kolkata) and the state of Manipur in the national BSS of 2001 and 2006. In 2006, Bangalore, the capital city of Karnataka, three states in northern India (Sikkim, Haryana, Punjab) and Kerala were added as survey sites. While behavioural data can be a powerful tool for understanding how transmission occurs at the local level, at present, the BSS in India is designed as a state-level sample, limiting its utility to local-level planning of the response.

An important function of a surveillance system is to identify emerging PWID epidemics. Detection of emerging epidemics involves identifying a geographical area that currently has zero or very low prevalence, but has the potential to become an area with a concentrated epidemic. Mapping, rapid assessments and triangulating data from multiple sources is a proactive way of detecting areas where PWID are concentrated. Data collected as part of rapid situation assessments should aid in making decisions on adding new sites for future surveillance activities.

3. National response

3.1 The policy and legal environment

Drug control legislation and HIV policy

The Narcotics Drugs and Psychotropic Substances Act, 1985 (NDPS Act, 1985) which has been amended twice–in 1989 and in 2001, and the Prevention of Illicit Traffic in Narcotics Drugs and Psychotropic Substances Act, 1988—are the major laws regulating drugs in India. The NDPS Act aims to reduce the demand for drugs through a multidimensional approach, i.e. the

identification of users, referral to treatment and rehabilitation, education and public awareness. The amendments to the 1985 Act and the 1988 Act provide guidance for the legal management of illicit drug use and Section 71 of the Act 1988 provides for the establishment of "drug de-addiction" centres. Drug possession and use is an offence. The Act does, however, permit diversion of dependent substance users from penal institutions into drug treatment in facilities maintained or recognized by the Government or a local authority for de-addiction.[26,27] Although the existing drug legislation does not focus on the emerging problem of vulnerability of PWID to HIV/AIDS, there is nothing in the law or in the demand reduction policy that explicitly prohibits harm reduction.

The National AIDS Control Organization (NACO) and the Ministry of Health and Family Welfare (MOHFW) both recognize that injecting drug use is one of the major causes for the spread of the HIV/AIDS epidemic in India, and have explicitly supported harm reduction policies since 1999. In recent years the policy environment has changed substantially and harm reduction as a means to address HIV among PWID has been endorsed with support for needle and syringe programmes, and oral drug substitution treatment. Also endorsed and encouraged is peer education and wide use of outreach workers to connect with drug users.[28,10,29] The National AIDS Control Programme Plan 2007–2012 (NACP III) is implemented by NACO. It is planned to further develop partnerships between the government and civil society organizations, and increase the active involvement of targeted populations, including PWID.[30]

3.2 Interventions available

In the late 1990s the government acknowledged a dual epidemic of HIV and injecting drug use in various locations in the country. However, most senior-level drug and health policy-makers across the country at the time appeared to have little understanding of what the concept of harm reduction was, the rationale behind

it and the various types of interventions for PWID.[31] This is no longer the case, with an acknowledgement and approval by NACO of the need to implement large-scale HIV prevention programmes for PWID with the use of evidence-based targeted interventions of needle and syringe programmes and opioid substitution therapy, and peer education to name but a few such approaches.

Treatment of drug dependence

Limited government funding is provided for drug treatment, thus limiting access to treatment and making it expensive. Marginalized street users have few options for treatment. In 2007, the Ministry of Social Justice and Empowerment (MSJE) assisted 381 de-addiction and counselling centres (most were de-addiction centres or stand-alone counselling centres or in some cases both services were included) with an annual budget allocation of US$ 5 million for the whole country[32], though it was reported by MSJE that budget allocation has increased in recent times. The MOHFW also runs 122 de-addiction centres[33] but these centres are resource-constrained. The National Drug Dependence Treatment Centre run through AIIMS provides different treatment modalities, including substitution therapy with morphine and buprenorphine. However, with India's conservative views on drug treatment, an approach that focuses on harm reduction as an intermediary step towards abstinence has been developed. The two approaches operate side by side.

Targeted interventions

Targeted interventions (TIs) are the cornerstone of India's approach to most-at-risk populations and thus to the prevention and treatment of HIV among vulnerable PWID. TI sites provide peer counselling, condoms, needle and syringe programmes, treatment for STIs, and offer referrals.

As of September 2009 there were 220 TI sites for drug users operating in 14 states of India.[10,34] The plan is to establish more TI sites in the next five years, bringing the total to 380 and covering 190 000 PWID by 2012. At present, close to 50% of the TI sites are concentrated in the north-east (eight states out of 30 states).[35] In general, TI sites for PWID are established only where there is a known population of over 150 to 500 PWID.

Needle and syringe programmes

Needle and syringe programmes (NSP) are available as part of every TI site. They are administered by NGOs with financial support from the government. In recent years needles and syringes distributed from TI sites have increased substantially: 639 801 (2007-08) to 15 619 540 (2008-09) to 13 205 891 (2009 – till Sept 2009).[3] Using the NACO estimated number of PWID of 186 000, and the number of needles and syringes distributed in 2008–2009, the needles and syringes per person per year was calculated at 81. Despite the increase in distribution this would still be considered low coverage (<100 needles per drug injector per year) for universal access to HIV prevention, treatment and care for PWID.[36] Most implementing NGOs follow a needs-based approach of needle exchange and some are concerned about the safe disposal of contaminated needles.

NSPs are generally integrated with other prevention and treatment programmes for PWID, and are a part of primary health care. Information about HIV/AIDS, counselling, condoms, care for STI and opportunistic infections (OIs), oral substitution therapy (OST) and HIV testing and counselling are available at some TI sites.

Opioid substitution therapy

Methadone is not currently available for OST in India but a pilot study for the introduction of methadone is expected to

commence in June-July 2010. Sub-lingual buprenorphine on a pilot basis has been available since 1993. OST is now available in 50 TI sites under the authority of NACO. As of December 2009, 4800 drug users were receiving OST. According to the new government guidelines, substitution treatment may be continued for 12 months but is expected to ultimately lead to detoxification and rehabilitation. NACP III proposes to increase the coverage tenfold so that the target of 40 000 PWID would be achieved by year five of NACP III. OST is expected to be delivered through 320 OST sites across India which are either run by NGOs or are government de-addiction centres.[35]

Access to antiretroviral treatment

In a study of antiretroviral treatment (ART) provision to PWID in Manipur, less than 5% of current injectors were accessing ART despite PWID making up the single largest category affected by HIV in the state. Self-reported treatment adherence rates among clients were poor and the major factors identified as influencing poor adherence were current alcohol use, the cost of ART coupled with low income, and negative side-effects from the treatment. Client satisfaction was associated with the length of time spent with a doctor, waiting time and attitudes of staff towards clients. A quarter of PWID receiving ART felt that it had benefited their health and reported feeling well. Side-effects were experienced by 61% of those on ART.[37]

As of December 2008, 4700 (4294 adults) were on ART in six centres in Manipur. In a state where PWID constitute a majority of the PLHA, it is difficult to say how many PWID receive ART. As of April 2006, 1520 adults and children were on ART at two centres in Manipur. Even if we take this figure as of 2006, it is possible that PWID may comprise a mere 25% receiving ART. Nationwide the number of PWID who are HIV infected and receiving ART is not known.

Prison interventions for PWID

UNODC began interventions in four prisons in India in 2005. The strategy employed was developed through a participatory process. Using a peer-based approach to address drug use and HIV prevention in prisons, the intervention reaches out to prison inmates with key messages on drugs, HIV and life-skills using peer networks. These include prison officials and civil society partners. The project is using an incremental approach to implementing the "comprehensive package" of services to address HIV prevention among substance users in prison settings. The intervention also seeks to address post-release social networking of prisoners and enable ex-prisoners to access the basket of services in the community. OST using sub-lingual buprenorphine is being provided on a very small scale in Delhi's Tihar Jail (<60 PWID) as of November 2008.

3.3 Coverage of harm reduction interventions

As reported by NACO in late 2009, of an estimated 186 000 PWID, 138 000 (74%) are covered through 220 TI sites across the country.[34] In 2007 coverage was reported at around 45%. Coverage rates in both reported periods do vary among the states.[10] With the 220 TI sites offering NSP for an estimated 186 000 PWID it was calculated that there was one NSP site per 845 drug injectors. Despite increased distribution of needles and syringes, coverage in this area remains low.

The coverage target for OST through NACP is 20% of the estimated PWID, which is around 40 000 PWID in India: this is expected to be achieved by the end of NACP III (2011-1212). In late 2009, only 4800 PWID were receiving OST. Coverage of ART for HIV-infected PWID remains very low considering that in some locations PWID are a dominant population group with high HIV infection rates. To meet the multiple and complex needs of PWID a wide variety of measures and a comprehensive approach is required. Much effort and good achievements have taken place in recent years to meet the needs of PWID but far

greater effort is needed to scale-up coverage of the various harm reduction interventions.

3.4 Current gaps in response

Overall linkages are poor between NGO-run treatment centres and government-run health care centres.[38] Government hospitals catering to the general population overall hesitate in treating PWID, often as a result of prevailing stigma and discrimination towards PWID, and, as a result, many PWID are reluctant to seek treatment.[39] Moreover, although minimum treatment standards have been established for NGO and community-based organization run services, staff training is inadequate and there are virtually no services catering to female drug injectors. There is a need for more TI sites in parts of India where emerging drug use and HIV problems have been identified. Currently, there is no official policy for drug substitution treatment in India.

In some states delivery of health and HIV prevention services are limited where newly identified PWID communities have been found. Capacity of the organizations to execute good quality programmes for PWID are often lacking which affects quality of service which in turn negatively affects the desired outcome. Drug use prevention programmes have not been modified to address the changing nature of drug use including the growing practice of injecting and associated health concerns such as the co-infection of HIV/AIDS and hepatitis C.

OST is still available but coverage remains on a small scale and is still seen as a pilot programme to be evaluated. Distribution of needles and syringes has increased substantially but overall coverage remains low. Overall, linkages between services providing ART, OST and TB are poor.[39] There are gender inequalities in the services provided as reflected by no special services catering to the needs of female drug injectors. Scaling up of services is urgently required and needs to be accompanied with the strengthening of monitoring and evaluation.

Recommendations

- Harm reduction interventions such as NSP and OST are critically important to reduce HIV infections yet coverage of these interventions is inadequate. Scale-up of NSP and OST is an urgent priority but so is the need to strengthen the staff capacity of those delivering this service, ensuring that adequate facilities are provided and that there are sufficient resources to reach the set targets of PWID as indicated by NACO.
- Comprehensive harm reduction interventions and services need to be accessible, quality assured, and affordable (if costs are involved) for the majority of PWID.
- There is a need to establish more targeted intervention sites for PWID where emerging drug use and HIV problems have been identified. This will strengthen the national programme in terms of achieving better coverage and move towards the national goal of a reversal of the HIV epidemic among PWID.
- There is a need to advocate for the integration of data between different ministries and agencies so that evidence-based information can assist to improve the design of future policy and programmes targeted towards PWID and their regular sexual partners.
- Data from multiple sources (e.g. drug trafficking, HIV testing data at voluntary counselling testing centres) must be collated and analysed to identify areas that should be given priority for mapping of PWID. In conjunction with civil society, local NGOs and local research institutions, there is a need to undertake extensive mapping in these priority areas. New sites for integrated bio-behavioural surveillance based on the results of mapping should be added.

- Condom use is not common among PWID with sexual partners increasing the risk of sexual transmission of HIV. Greater efforts and focus on the promotion of condom use by PWID is of critical importance. Greater focus to address the needs of spouses and regular partners of PWID are required due to inconsistent condom use in sexual relations.
- Female drug injectors have separate needs and special services catering to the needs are missing. Separate service delivery points to encourage female drug users to access services need to be developed and female spouses of male drug users need to have their issues addressed with greater consideration and priority.
- PWID receive various services from different service delivery systems—Ministry of Social Justice and Empowerment, Ministry of Health, NACO, and some NGOs. Working in isolation and a lack of linkages between the delivery systems has had an adverse impact upon the well being of PWID. There is a need to integrate the service delivery models, improve communications and harmonize the responses between the agencies to meet and suit the individual needs of PWID.
- Ongoing advocacy efforts should be promoted with national and local authorities and civil society about the merit of comprehensive harm reduction interventions to strengthen partnerships and minimize barriers towards the implementation services for PWID.
- PWID need to actively participate at all levels—policy dialogue, design and development of interventions, implementation and evaluation of comprehensive interventions to enhance effective HIV prevention programming.

- Many PWID are currently incarcerated and at risk of becoming HIV infected in closed settings. Current HIV prevention interventions are limited inside closed settings. There is a need for major expansion of HIV prevention information and education messages, provision of OST, access to a reliable supply of condoms, and access to broad ranging health services including HIV care, support and treatment. Pre-release linkages to HIV services including harm reduction services should be established.
- A large number of PWID are HIV infected yet accessibility to ART is limited due to various barriers. Greater and more focused efforts are required to ensure easier accessibility of ART and improved management of opportunistic infections, such as tuberculosis. Improved coordination between ART, OST, sexual health and TB services are required for good treatment outcomes for HIV-infected PWID and their sexual partners.
- A large number of PWID are coinfected (HIV and hepatitis C) yet little action has been taken to address this health problem. Greater advocacy efforts and emphasis to raise the awareness of coinfection, associated adverse health consequences, and cost barriers to treatment are required. Greater education efforts on the topic of coinfection for PWID and health workers are needed.
- There is a need to provide and improve the relevant skills of health-care providers with appropriate training opportunities to provide improved treatment, care and support for drug users who frequently present with multiple health problems including drug dependence, HIV, hepatitis C (or more commonly coinfections) and tuberculosis. For HIV-infected PWID there are multiple medical problems, which necessitate a complex treatment regimen, and pose risks for ART-associated

toxicities and drug interactions. Training in this area will mitigate some of these concerns.

- HIV incidence among PWID should be estimated either by undertaking laboratory-based studies or by modeling the available prevalence data.
- The role PWID play in increasing the prevalence of HIV among FSWs and MSM in metropolitan areas should be monitored regularly through rapid situation assessments and behavioural surveys of PWID, FSWs and MSM population groups.

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Indonesia

1. Context

1.1 Overview of the HIV epidemic

The HIV epidemic in Indonesia is among the fastest growing in Asia. As of 2008, Indonesia had an estimated adult HIV prevalence of 0.2% and approximately 270 000 [190 000—400 000] persons living with HIV (PLHIV).[1] By 2013 it has been estimated that the number of people living with HIV will be 482 800: new infections in 2008 were 51 300 and by 2013 are estimated to be 63 000.[2]

By September 2009, a cumulative total of 18 442 cases of AIDS and 28 260 new cases of HIV infection were reported.[3] Among the cumulative AIDS cases reported until September 2009, 37.9% were among people who inject drugs (PWID), which was the second most frequent mode of transmission, after heterosexual transmission (52.5%) and male-to-male sex (3.5%).[4]

HIV prevalence within risk groups in Indonesia varies greatly by geographical region. Over the years, some groups have shown sharp increases in the prevalence of HIV. HIV infection among female sex workers (FSWs) was also increasing, especially in Sorong city, where it was 16.9% among direct sex workers and 8.3% among indirect sex workers in 2007.[5] HIV prevalence among FSWs in Jakarta rose from 7.89% in 2005 to 14.63% in 2006.[6] Transgender people were another high-risk group in Indonesia in which HIV prevalence has increased dramatically. From 1995 to 2007, HIV prevalence among transgender people in Jakarta jumped from 0.3% to 34%.[7]

1.2 Overview of drug use situation

Indonesia has a long history of drug use and cultivation. In the 1960s various drugs were available on the market for use: heroin, morphine, cannabis, barbiturates and amphetamines. By the early 1970s injecting of morphine was reported in a

number of cities.[8] By the late 1980s it was estimated that there were 750 000 people using illicit drugs.[9] Amphetamine-type substances (ATS) appeared in the late 1980s to early 1990s. By the late 1990s heroin and ATS had become the drug of choice.[10] Access to drugs has become increasingly easy, with drug use spreading to all sections of society. The majority of drug users are commonly aged between 15 and 25 years (60-80%). It is believed that drug users are more often younger people, with many from junior and senior high schools.[11] A recent study highlighted some new estimates of drug users in the country. The number of experimental drug users was estimated at 807 000–938 000, predominantly male (85%) and mostly students (90%). The estimated number of regular drug users was 829 000–959 000 and a majority were found among the non-student population (60%). The provinces with highest number of regular drug users were West Java (23%), East Java (18%), and Central Java (14%). The estimated number of non-injecting drug users was between 1.25 million and 1.45 million, mostly among non-students (88%). Non-drug injectors were predominantly found in West Java (19%) and East Java (16%).[12]

2. Epidemic situation analysis

2.1 Magnitude and geographical location of injecting drug use

Estimates of the number of people who inject drugs in the country has fluctuated dramatically over the years, ranging from 30 000 to 40 000 in 1997, to over a million in 2000.[10] In recent years injecting drug use has been increasingly recognized as a major factor responsible for the spread of HIV in the country. Efforts to estimate the number of PWID have become more systematic. In 2009 it was officially estimated there were 200 152 people who inject drugs[13, 2]; others have put the figure at 218 000–253 000 people.[12] Injecting drugs was predominately found among the non-student population (79%).[14] The largest pockets of PWID are in East and West Java (Jakarta and Surabaya), South Sulawesi

and Northern Sumatra, with smaller pockets in East Kalimantan, Central Java and South Sumatra.[15] (See Figure 1)

Figure 1: *Size of PWID population in the provinces of Indonesia in 2006*

Source: UNAIDS Epidemiology Update in Indonesia, 2008

2.2 Magnitude of and trends in risk behaviours among PWID

Sharing of injecting equipment

Among PWID sampled in five regions in 2004–2005, the percentage of those who always engaged in *berbagi basah* (group injecting) ranged from 21% in Denpasar to 78% in Surabaya. In 2007, the percentage who had shared needles in the past week was high in Jakarta and Surabaya (63% and 56%, respectively), while lower in Semerang and Malang (9% and 14%, respectively).[16] It has been reported that nationally among PWID, those who used sterile injecting equipment the last time they injected was 82%.[15]

Unsafe sex

In the survey conducted in 2004–05, the proportion of PWID who had engaged in commercial sex in the past year ranged from

27% in Jakarta-Depok to 51.6% in Surabaya. Condom use at last commercial sex among PWID ranged from 25% in Surabaya to 44.2% in Bandung. Among PWID the use of a condom the last time they had sexual intercourse was reported at 30% among males and 34% among females.[16] A study examining PWID at six national sites found inconsistent condom use whether it was with a permanent partner, casual partner or a female sex worker in the past year. In the cities of Medan, Jakarta, Bandung, Semerang, Malang and Surabaya, inconsistent condom use with a permanent partner over 12 months ranged from 82% to 95%. In the same sites, inconsistent condom use with a casual partner in the same time period ranged from 70% to 100%. Lastly, when with female sex workers (FSW) inconsistent condom use over the last year was reported to range from 45% in Bandung to 95% in Jakarta.

Interestingly, knowledge among the respondents that sexual transmission of HIV can be avoided by using condom was above 90% at all sites except in Jakarta where it was 45%. Among the survey participants around half of the male drug injectors reported visiting an FSW in the past 12 months, with an average of four FSW. Based on these findings it has been suggested that unprotected sexual encounters between male drug injectors and FSWs may total 380 000.[13,16] Low rates of inconsistent condom use with permanent and casual partners or FSW may indicate that many PWID do not share information about their HIV status. This highlights that insufficient HIV prevention interventions have focused on the sexual partners of PWID.

Prevalence of STIs among PWID

Overall the prevalence of STI among PWID was low when compared to other high-risk groups in Indonesia, such as FSW and men who have sex with men (MSM). In 2007, in the cities of Medan, Jakarta, Bandung and Surabaya, the prevalence of *chlamydia trachomatis* among PWID ranged between 5% and 6%. Other STIs such as *Neisseria gonorrhoeae* and syphilis (all

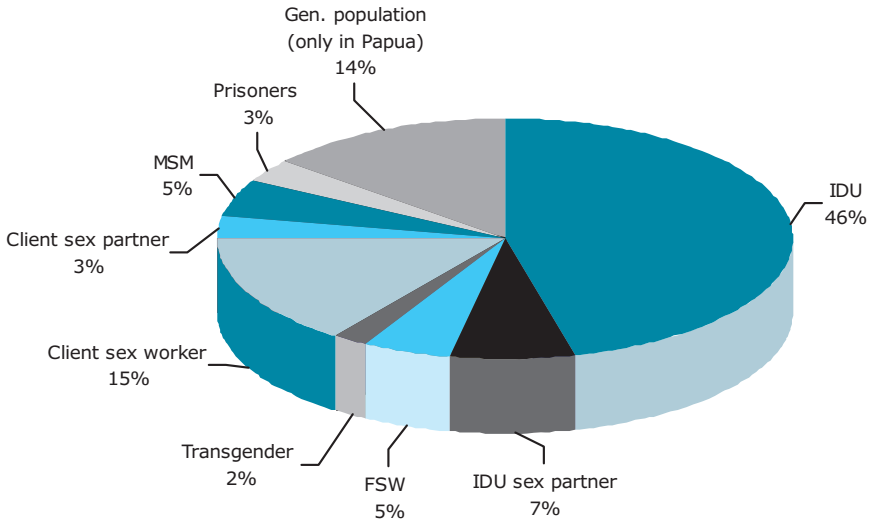
types) were found to be low.[17] This was in contrast with other high-risk groups such as MSM where rates of rectal *Nesseira gonorrhea* ranged from 15% to 22% among study participants from Jakarta, Bandung, and Surabaya.[18] Among FSW from different cities of Indonesia it was found that the prevalence of chlamydia and gonorrhoea were among the highest recorded in Asia.[19]

2.3 Magnitude of and trends in HIV infection among PWID

Reports from 2003 to mid-2008 suggested that injecting drugs is the main mode of HIV transmission in the country. Estimates of the number of people infected with HIV in 2006 suggested that 46% of people living with HIV and AIDS (PLHA) were PWID (Figure 2). In 2007, the prevalence of HIV among PWID was 55-56% in Medan, Jakarta and Surabaya but lower in Bandung (43%).[16] It has been reported that already half of the PWID in Jakarta are HIV infected, and by the end of the decade they will account for over 100 000 HIV infections in Jakarta alone.[15] National aggregate HIV prevalence among injecting drug users was 52% with a range among sampling sites from 43% to 56%, and prevalence has not yet been seen to decline. Hepatitis C prevalence was estimated to be 80% among drug injectors.

The size of the PWID population does not appear to be increasing, as the estimates between 2003 and 2006 do not show much change overall. Unfortunately, this it not because of a decline in drug use in the country, but rather a slow decrease in heroin use as the market for methamphetamines has grown (not only in Indonesia but in Asia as a whole), though methamphetamine is not commonly injected.[20]

Figure 2: *Distribution of people living with HIV and AIDS, 2006 estimates*



Source: Report on the Estimates of Populations at Risk of HIV Infection in 2006, Ministry of Health, NAC, Action Plan 2007 – 2010).

2.4 Incarceration, drug use and HIV

In April 2006 there were up to 89 000 prisoners in Indonesia. In 2009, the total population of prisoners was about 100 000 at any point in time, at least double the normal prison capacity. Many prisoners were charged with narcotics-related crimes; 33% of detainees were incarcerated for offences such as production, selling or possession. While there was no official data collection regarding the total number of drug users in prisons it was expected to be high. Programme implementers have estimated from key informant interviews that about half of all those arrested for drug offences were thought to be PWID. Currently there are 396 prisons in Indonesia.[21] There were 13 prisons across Indonesia specifically designed and focused to incarcerate PWID and other drug-user detainees.[22] The prevalence of HIV among prisoners is high. In the Salemba Penitentiary, Central Jakarta,

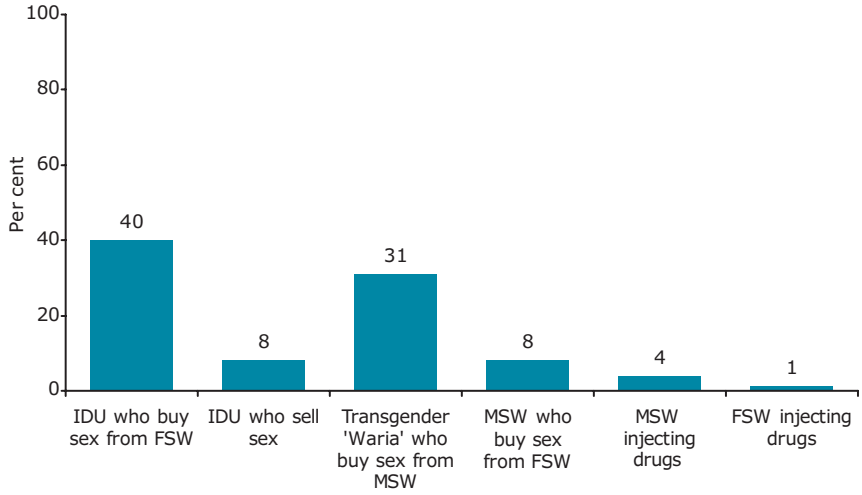
the major remand centre for Jakarta, of 200 prisoners tested, 22% were HIV infected.[23] The HIV prevalence in other prisons of Indonesia was found to be lower: in a South Sumatra prison HIV infection was 5.04%, while in the province of Kelimantan the figure was 0.36%.[24]

Among detainees in facilities for those sentenced for drug offences, between 20% and 30% inject, while in prison and over half of inmates report sexual activity. In March 2009 the Supreme Court issued a circular to all judges to send arrested drug users to rehabilitation centres instead of prisons. This may increase opportunities for drug users to receive drug dependency treatment and relieve the overcrowded situation in many prisons. A remaining challenge is that there were currently only a few community-based drug rehabilitation centres.

2.5 Potential for rapid transmission

High-risk behaviour among Indonesia's vulnerable, marginalized populations—PWID, FSW and MSM—is ongoing. The sharing of contaminated injecting equipment among PWID was widespread and consistent condom use with regular or casual partners or with FSW was seldom. The MSM and FSW populations have high levels of STIs, and HIV spreads more rapidly when other STIs are present. As shown in Figure 3, there was considerable overlap between most at-risk populations, which can result in an increase in and the rapid spread of HIV. As previously reported, a majority of PWID in Indonesia have become HIV infected as a result of sharing contaminated needles with other drug injectors. With consistent condom use low among PWID, there is every chance that PWID will infect sex workers and then in turn clients who have nothing to do with the world of injectors. The overlapping of high-risk groups in Indonesia indicates that the concept of a self-contained HIV epidemic just among PWID does not hold true.

Figure 3: *Sexual networks and behaviour among most at-risk populations*



Source: BSS 2004/2005, Ministry of Health–BPS.

2.6 Surveillance systems and current gaps in information

PWID first became part of the surveillance system in Indonesia in 1996 when RKSO, the nation's only public drug treatment hospital, located in Jakarta, became a surveillance site. HIV prevalence among patients at RKSO rose very sharply during the three-year period between 1996 and 1999, from 0% to 16% to 47%.[25] Awareness of these figures did not necessarily translate into an expanded HIV surveillance system among PWID in other places with known clusters of PWID. Sites that can provide data about PWID in a systematic way are few and far between. The data deficit is exacerbated by the country's decentralized surveillance system, which makes it extremely difficult to obtain information at the central level, where it can be used to advocate for prevention resources in the districts and provinces.

To address the data deficit, Indonesia has designated a handful of "core, centrally funded sentinel sites" to try to ensure a minimum of high-quality trend data in some sites. As of 2005, behavioural data were collected in five sentinel sites. In 2007, Integrated Biological Behavioural Surveillance (IBBS) was conducted in two cities (Semarang and Malang) where behavioural survey data were collected, and in the cities of Medan, Jakarta, Bandung, and Surabaya, biological and behavioral data were gathered.[16]

3. National response

3.1 The policy environment

Drug control legislation and HIV policy

In January 2007, a landmark policy document, the "National HIV and AIDS Policy for Reducing Harm arising from the Injecting of Narcotic, Psychotropic and Other Addictive Substances",[26] was issued by the Coordinating Minister of People's Welfare—the Chairperson of the National AIDS Commission (NAC). The policy represents a de facto understanding and blueprint for future cooperation between the key authorities charged with tackling drug use in Indonesia, the National Narcotics Board (BNN) and the National AIDS Commission.

The objectives of the policy are:

- Preventing the spread of HIV among PWID and their partners and preventing the spread of HIV from PWID and their partners to the general community.
- Integrating injecting drug use–related harm reduction into the public health system, including the provision of HIV and AIDS prevention, care, support and treatment services, and the rehabilitation of PWID.

However, routine changes in the leadership of the BNN meant that though it acknowledged the need for cooperation and

consensus building, it remained opposed to both opioid substitution therapy (OST) and needle and syringe programmes (NSPs) for PWID. The 2003 MoU was all but ignored. The legal framework under which the BNN is mandated and which criminalizes drug use is still in place and discussions and negotiations on how to revise the narcotics laws were still ongoing in 2008.

The Indonesian drug legislation consists of two major documents: the Law on Psychotropics and the Law on Narcotics. These have been in place since 1997. On 14 September 2009, a new Narcotics Law was adopted entitled Republic of Indonesia Law No.35 Year 2009 on Narcotics (in Indonesian Bahasa it was called “Undang-undang Republik Indonesia nomor 35 tahun 2009 tentang Narkotik”). The Psychotropics Law did not change.

In the new Narcotics Law a few problematic issues have been identified:

(1) The new law still identifies drug addicts as criminals, and thus they are subject to imprisonment.

(2) It differentiates drug addicts from drug abusers, and thus theoretically only provides social rehabilitation for the former group. In reality, the conditions or terms used are interchangeable, and both should have the right to receive the same access to social rehabilitation.

(3) It overly emphasizes the role of civil society in preventing and fighting illicit drug trafficking.

(4) The law gives the National Narcotics Agency (BNN) broader authority to conduct investigations, but no clear guidance on how it should control this internal and external mechanism.

(5) It stipulates the death penalty as a punishment for some drug offences.

Ongoing response in Indonesia

Indonesian activists and NGOs have started working on the judicial review of the law at the Constitutional Court and are drafting the necessary documents. Once the request is delivered to the court, the formal procedure (which includes various meetings, hearings, testimonies and decisions) may take some months to complete. There has also been a push for the revision of the Psychotropic Law the new legislative plan of the parliament, which eventually could lead to the renegotiation of the new Narcotics Law.

In the National HIV/AIDS Strategy (2003–2007),[27] developed by the National AIDS Commission, PWID were identified as a vulnerable group to be targeted with interventions. The strategy document acknowledges that:

> *Sharing needles can transmit HIV directly into the bloodstream. Efforts to prevent this through harm reduction should be based on a national-level inter-sectoral agreement between inter alia, the National AIDS Commission, the Ministry of Health, the National Narcotics Board, Police Department, the Ministry of Justice and Human Rights, the Ministry of Social Welfare, the Ministry of Education, the Ministry of Religious Affairs, and NGOs.*

The Presidential Regulation No. 75/2006 strengthened the leadership role of the NAC to lead Indonesia's response to HIV and AIDS and decreed that the NAC should be accountable to the president's office. In effect, the NAC now has full authority to do what is deemed necessary to reduce HIV infections among PWID, and from them to their partners and the general population. The BNN, through the head of the national police, is one of 21 members of the commission.

The subsequent National HIV and AIDS Action Plan 2007–2010 outlines the AIDS programme implementation plan. The

programme is directed mainly at reaching PWID and their partners, and sex workers and their clients. The priority is on:

- prevention of transmission through sharing of infected needles and syringes; and
- prevention of sexual transmission through unsafe sex.

The objectives are to develop comprehensive programmes in 19 priority provinces/130–150 districts, which surveillance has shown to contain 80% of the estimated "most-at-risk population" (MARP). The programmes will cover the promotion of healthy lifestyles, voluntary counselling and testing (VCT), STI prevention, harm reduction, universal precautions and safe blood transfusions. [15]

The National Strategy on the Prevention and Control of HIV/AIDS and Drug Abuse in Indonesian Correction and Detention 2005–2009 embraces the notion of harm reduction in closed settings. The policy proposes a comprehensive package of HIV prevention and care activities including behavioural change communication through peer education, condom provision, bleach provision, treatment for addictions including OST, voluntary counseling and testing (VCT), and care and treatment for prisoners living with HIV.[28]

3.2 Interventions available

In the early part of this decade, the national AIDS strategy did mention injecting drug users as a population group that required targeted interventions, but there was no evidence to indicate an appropriate response. There were no NSPs or peer education programmes provided by the government but there was a plan to introduce a methadone substitution therapy in a Jakarta hospital.[10] The National AIDS Commission as of late 2007 stated that PWID would receive a comprehensive prevention programme including outreach and peer behavioural change communication, condom promotion, NSPs, treatment

of addictions and OST, as well as care interventions such as voluntary counseling and testing, care, support and treatment.[15] Interventions to address the needs of PWID are currently being implemented, but comprehensiveness, scale and strengthening of interventions remain a challenge.

Treatment of drug dependence

Drug treatment is primarily focused on drug-free clinics for detoxification and rehabilitation, and commonly undertaken by mental hospitals, NGOs or therapeutic communities.[28] The Ministry of Health has instructed that all government mental hospitals, teaching and general hospitals need to provide 10% of their bed capacity for drug users. There is only one government hospital in the country that specializes in treatment for those with substance related disorders, the Drug Dependence Hospital, Jakarta (Rumah Sakit Ketergantungan Obat), commonly known as RSKO, which was established in 1972. While many treatment centres in Indonesia claim to be detoxification centres, recovery centres, therapeutic communities and behaviour modification institutions, it is probable that many involved in such operations have little understanding of the complexity of addiction.[11] There is no official compulsory treatment in Indonesia.

Targeted interventions

Needle and syringe programmes

By May 2008 there were 159 NSPs in Indonesia.[29] Of these, 12 were in primary health clinics (known as *puskesmas*), and 69 were delivered by a variety of NGOs and community-based organizations (CBOs). Out of a total of 41 NGOs specializing in the field of harm reduction, 16 are conducting NSPs. All but one of these 16 NGOs are financially supported by the Indonesia HIV AIDS Prevention and Care Project (IHPCP). The other 25 organizations started modest syringe distribution in 2006 with

funding from the Indonesia Partnership Fund and the Global Fund, and are partners of Family Health International (FHI) in Indonesia. Besides NGOs, public health centres are also beginning to conduct harm reduction activities, including NSPs.[28] It is reported that in Indonesia there is around one NSP for every 1378 PWID.[29]

The IBBS study (2007) showed that the proportion of PWID receiving needles and syringes from a NSP ranged from 98% in Medan to 33% in Surabaya. Data does show that the distribution of clean needles through NEP has risen substantially since 2004, and that this overall intervention has resulted in a substantial reduction in sharing of needles among those drug injectors participating in the survey. While distribution of needles has increased, a large number of PWID in various cities still seek out needles from other sources to meet their needs.[13]

Opioid substitution therapy

Buprenorphine is an expensive treatment but is prescribed to those able to pay. There is no detailed information on buprenorphine treatment in Indonesia. Approximately 300 doctors (mostly in the private sector) across the country are certified to prescribe buprenorphine, and certification is easily gained by attending a short training session. Anecdotal reports about buprenorphine use in several provinces, including Bali and West Java, indicate that injecting buprenorphine increases as heroin becomes scarcer or more expensive.[28]

Methadone substitution treatment was established in Indonesia in 2003 by the Ministry of Health with technical and financial assistance from WHO in two pilot projects, one in Jakarta and one in a joint pilot in Bali (in a prison and a hospital). These two pilots in Jakarta and Bali continued until the end of 2005, serving a population of approximately 300 drug users. The expansion of methadone started in 2006.[28] By October 2008, there were 29 methadone substitution treatment centres in 9 provinces (15

were in the public health sector, 10 in hospitals and 4 in prisons) serving approximately 2700 clients (with an average dose of 82.9 mg daily). The National AIDS Commission plans to have methadone maintenance therapy available to 50 000 PWID by 2010. However, this is not likely to be achieved. It is envisaged that there will be 220 clinics, of which 20 will be in prisons, and the majority in primary health centres.

Access to antiretroviral treatment

Overall, antiretroviral treatment (ART) is becoming more readily available but the numbers of HIV-infected persons receiving ART is limited. At the end of 2006 it was reported that ARV treatment was provided to 5100 people, most of them in big cities. Serious barriers to treatment still exist, particularly for PWID. The numbers of PWID receiving ART remains minor. Although PWID represent 46% of the total HIV infections in Indonesia, they account for just 3% of the total receiving ART.[15]

ART can be accessed free of charge since 2004, and drugs are available only in hospitals in big cities (153 hospitals throughout the country). By 2007 the country had just 296 voluntary counseling and testing clinics. The problem of access to treatment is exacerbated by the fact that although the antiretroviral drugs themselves are free, the essential medical tests to determine treatment need and treatment progress are not, because patients have to pay for blood tests and CD4 counts.[28]

Prison interventions for PWID

There has been a notable expansion of harm reduction services in Indonesia's prisons to meet the growing challenge. Altogether, there are 396 prisons and detention centres in Indonesia. In 2007 a total of 95 prisons in 24 provinces had been identified for capacity building for HIV prevention and care programmes for 2007–2010. The focus will be to strengthen the HIV and AIDS team inside the prisons including doctors, nurses and counselors to improve the health needs of prisoners. To date, 36

prisons are providing HIV and AIDS information and education to around 18 000 prisoners.[30] As of 2006, at least nine prisons had bleach and condoms available in medicine boxes, which were placed in blocks of cells and could be accessed anonymously. These items are also distributed by NGOs working inside the prisons. Bleach is provided so PWID have a means of cleaning their injecting materials.

Since July 2006, ART has been available inside five prisons and provided free by the nearest hospital.[21] Drug substitution (methadone) treatment is available in four prisons, including the narcotics prison in Jakarta, a prison for women and young people also in Jakarta, and two general prisons (one in Bali and the other in Bandung, Java).

3.3 Coverage of harm reduction interventions

Reports have shown that Indonesia has a large number of PWID and that a substantial number are infected with HIV. The key challenge is to reach out to as many PWID as possible with various harm reduction interventions to address their needs and have an impact upon the ongoing HIV epidemic. At the end of 2006 it was reported that 44% had access to some form of HIV prevention and treatment programme,[15] but not what would be considered comprehensive programmes. For example, the National AIDS Commission has reported that 22% of PWID are covered with NSP, which amounts to around 49 000 PWID of the estimated figure of 219 000 accessing such services[31] (as noted previously, figures of PWID vary and those accessing NSPs could in fact be fewer).

The number of PWID accessing opioid substitution therapy still remains small. The National AIDS Commission has outlined key targets to be met by 2010. For PWID the aim is for 80% to have access to a comprehensive prevention programme including outreach and peer behavioural change communication, condom promotion, NSPs, treatment of addictions and OST. Care interventions will include VCT and care, support and treatment at the same level of quality as that provided to all Indonesians.[15]

3.4 Current gaps in response

In recent years Indonesia has with considerable effort and focus taken the steps to tackle the ongoing HIV epidemic and attempt to address the needs of PWID. A multisectoral response is evident and the NAC displays strong leadership, to ensure there are clear targets and a costed action plan to implement the various interventions. Of significant importance is that there has been a gradual integration of the harm reduction interventions into the existing primary health care services for PWID. Lastly, harm reduction interventions in closed settings are slowly getting underway, and when financial constraints are addressed the pace of work will hopefully expand.

However, despite the various positive responses and considerable scale up of interventions, the country still has a long way to go before universal access can be achieved. Indonesia currently is undergoing major changes in health infrastructure due to decentralization. At present, there are insufficient health-care providers with the relevant skills and training to provide treatment for drug users, who frequently present with multiple health problems including drug dependence, HIV, hepatitis C and tuberculosis. These multiple medical problems, which necessitate a complex treatment regimen, pose risks for ART-associated toxicities and drug interactions. This is complicated by the perception of health workers that drug users do not adhere to ART due to their lifestyles.

Indonesia is still overdependent on external donors for its HIV/AIDS programmes and implementation of many of the harm reduction elements. There is evidence that substitution treatment is not well understood and informal comments from drug users and their families suggest that many aspects of harm reduction are not fully understood. There is also some resistance to condom promotion from some segments of the population. The Narcotics Law that criminalizes drug use is still in force despite a protracted revision period. This makes it difficult for drug users to have full confidence to approach health services.

3.5 Recommendations

- PWID remain the sub-population with the highest HIV prevalence, largely as a result of widespread sharing of contaminated injecting equipment and insufficient access to NSP nationwide. As a result there is a need to scale up and strengthen evidence-based comprehensive interventions, particularly NSP and OST, and ensure that standards for quality services meet the needs of PWID. There is a sense of urgency to provide harm reduction interventions, particularly sterile needles, to those PWID who have only recently begun injecting to prevent further new HIV infections.
- Consistent condom use is not common among PWID with various and multiple sexual partners, increasing the risk of sexual transmission of HIV. Greater efforts and focus on the promotion of condom use by PWID is of critical importance. Greater focus to address the needs of spouses and regular partners of PWID are required due to inconsistent condom use in sexual relations.
- Large numbers of PWID are currently incarcerated and are at high risk of becoming HIV-infected in closed settings. HIV prevention and harm reduction interventions inside closed settings are underway but there is a need for major expansion of HIV prevention information and education messages, provision of oral substitution therapy, access to a reliable supply of condoms, and access to a broad range of health services including HIV care, support and treatment.
- PWID make up the greatest number of HIV infections yet accessibility to ART is limited due to various barriers. Greater, focused efforts are required to ensure easier accessibility of ART and improved management of opportunistic infections such as tuberculosis.

- There is a need to provide and improve the relevant skills of health-care providers with appropriate training opportunities to provide improved treatment for drug users, who frequently present with multiple health problems including drug dependence, HIV, hepatitis C (or more commonly coinfections) and tuberculosis. For HIV-infected PWID, there are multiple medical problems, which necessitate a complex treatment regimen, posing risks for ART-associated toxicities and drug interactions. Training in this area will mitigate some of these concerns.
- Many PWID are unaware of their HIV status; thus, there is a need to rapidly expand the coverage of HIV voluntary counseling and testing.
- Stigma and discrimination towards PWID remain endemic, even among those assigned to address the needs of PWID or associated drug use issues. The concept of harm reduction is often misunderstood. Greater advocacy efforts with appropriate government sectors, community and family members are required to address widespread misunderstanding about harm reduction. Increased training opportunities are required for those directly in contact with PWID to ensure improved HIV prevention efforts and adequate care, support and treatment for PWID.
- There is a need to improve the coordination of donors. Attempts have been made to coordinate donor activities through the establishment of the Indonesia Partnership Fund to which DFID has contributed substantially. This attempt is not as yet wholly successful, as most donors have not participated and instead have pursued their own funding agendas.
- Indonesia is still overdependent on donors for HIV and AIDS programmes. There is a need to enhance government “ownership” of harm reduction programmes

through sustainable funding. There should also be further encouragement for the scaling-up of service provision for PWID by the government health-care system, primarily through the *puskasmas*.

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Maldives

1. Context

1.1 Overview of the HIV epidemic

Since HIV was first identified in the Maldives in 1991, 14 Maldivians have been diagnosed with HIV/AIDS[1]; of these, 10 have died. All HIV infections were acquired sexually. In addition, 243 expatriates working in the Maldives were diagnosed with HIV, but most likely they acquired HIV elsewhere. Although the magnitude of the HIV/AIDS epidemic is small, the country's socioeconomic, geopolitical and demographic situation puts it at risk for developing an HIV epidemic in the future. A number of factors have been identified[2] which may have an impact on the situation. These include a rapid increase in drug use, the presence of hidden populations of sex workers who are often linked to drug use, and men who have sex with men (MSM). The population of the country is young. As per the 2006 census, 31.1% are under 15 years.[3] The age at marriage is increasing, premarital sex is common and consistent condom use is limited. Added to these are high rates of internal and external migration, an expanding tourist industry, and overcrowding in some urban and semi-urban centres, particularly in the capital Male'.

Given these factors, there is a credible risk that the Maldives will not escape an HIV/AIDS epidemic unless effective and urgent interventions are undertaken. The possibility exists that injecting drug use will be one of the major entry points for the spread of the virus.

1.2 Overview of the drug use situation

The primary drugs used in the Maldives are heroin and cannabis, with a majority of users smoking or inhaling their drugs. Drug use is initiated at a young age.[1,4] In the outer atolls, reports of the use of inhalants and alcohol are also common. A significant number of users are also involved in selling drugs to support their habit. Drug use and trafficking has also been associated with tourism centres scattered across more than 50 resort

islands, increasing the vulnerability of the approximately 4500 male resort workers to different forms of drug use.[5]

Drug use is said to be increasing and injecting is becoming more common. The National Narcotics Control Bureau (NNCB) estimated in 2002 that there were around 3000 drug users in the Maldives, but unofficial estimates put the number at around 8000.[4] Male' being the capital and also the most populated island in the country, most drug use takes place here. Outside the capital, large pockets of drug users are found in Addu Atoll (in the south) as well as Miladhunmadulu Dhekunuburi and Faadhipolhu, two atolls north of Male', have also been reported. It is important to note that the Centre for Community Health and Disease Control (CCHDC) plans to undertake a proper mapping and size estimations of most at-risk groups for HIV in early 2010.

2. Epidemic situation analysis

2.1 Magnitude and geographical location of injecting drug use

The scale of injecting drug use is reported to be increasing in the country. Among those interviewed as part of the 2003 rapid situation assessment of drug users, only 8% of drug users reported having injected.[4] More recent research reported in the 2006 Situation Assessment of HIV/AIDS suggests that the proportion of injectors has grown to 20%–25% of drug users.[1] Using these size estimates of drug users and information about the percentage of drug users who inject (i.e. between 8% and 25%) the total size of the people who inject drugs (PWID) in 2009 could range from 300 to 2000. In 2008, the Biological and Behavioural Survey (BBS) conducted in two atolls was able to identify over 276 PWID.[6]

2.2 Magnitude of and trends in risk behaviours among PWID

Sharing of injecting equipment

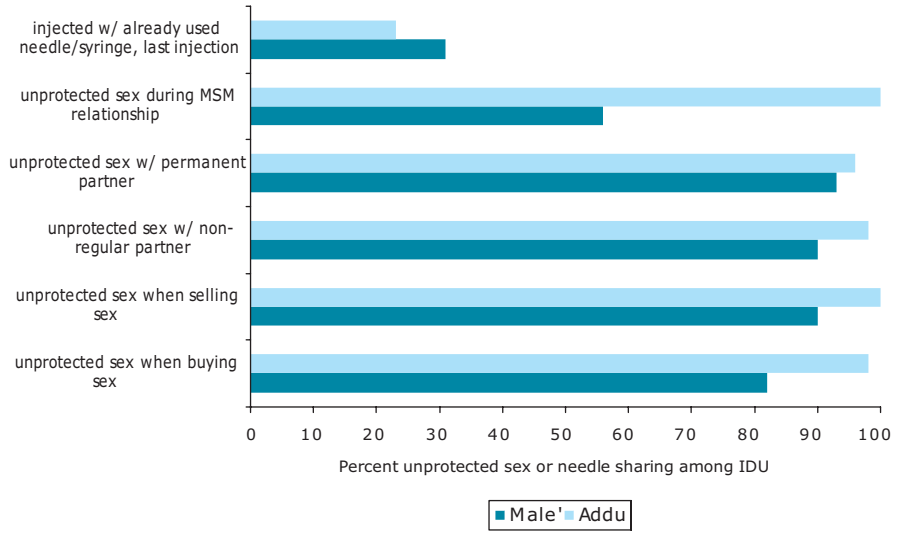
A rapid situation assessment (RSA) conducted by the NGO Journey in 2006 among 200 drug users[7] found that approximately 19% of the 55 respondents who injected drugs "nearly always" shared needles and syringes. The 2008 BBS found the frequency of needle/syringe sharing to be slightly higher.[8] In Male' and Addu, 31% and 23% of PWID, respectively, reported that they used an already used needle or syringe the last time they injected (see Fig. 1). The frequency of injecting drugs was also assessed during the same survey. During the past 30 days, less than half (43%) of the PWID in Male' had injected drugs, and 50% among them reported having injected at least one to three times a day, while 6% injected at least four or more times a day.[8]

In Addu, the 2008 BSS found that during the past 30 days, half of the PWID had injected drugs and a quarter had claimed that they injected a drug at least once a week, 23% injected at least two to three times a week, and another 23% injected at least once a day. Meanwhile, 28% of the PWID in Addu (N=129) claimed to have shared an unsterile injecting needle/ syringe with another drug injector.

Unsafe sex

The BBS (2008) indicates that PWID in the Maldives engage in risky sexual relationships (buying of sex, selling sex to a man and/or a woman, engaging in one-night stands or comfort sex and having male-to-male sex). Most PWID are sexually active. The BBS report of 2008 found 70% of PWID had regular sexual partners, and condom use was uncommon (94% did not use condoms). Just over half (55%) had non-regular partners, with 49% not using condoms. Up to 45% visit sex workers but 90% do not use condoms. Same-sex behaviour was reported by 4% of PWID, and 83% did not use condoms.[9]

Figure 1: *Injecting and sexual risk behaviours among PWID in Male' and Addu Atolls, 2008*



Source: 2008 Biological and behavioural survey, Maldives[8]

Prevalence of STIs among PWID

According to the 2008 BBS, the prevalence of syphilis among PWID was zero in Male' and Addu atolls. The survey shows hepatitis B prevalence of 0.8% among PWID in Addu. Information on hepatitis B prevalence in Male' was not available. Hepatitis C prevalence in Male' and Addu was 0.7% and 0.8%, respectively.[10]

2.3 Magnitude of and trends in HIV infection among PWID

To date, among HIV infections diagnosed in the country since 1991, HIV transmission has not been associated with injecting drug use. Moreover, in the recent BBS, of the 147 PWID surveyed in Male' and 129 surveyed in Addu, HIV prevalence was nil.[8]

2.4 Incarceration, drug use and HIV

Some data are available from the 2003 rapid assessment of drug use on the relationship between drug use and imprisonment.[4] Eighty per cent of inmates are estimated to have been arrested for drug-related crimes, of whom more than 30% have been convicted with life sentences.[4] Among drug users interviewed during the rapid assessment in 2003, almost 40% had a history of being in jail and almost all admitted to using drugs while incarcerated.[4] Similar patterns of drug use in prisons were described in the 2006 ethnographic study of drug users by key informants working in the prisons.[7]

Although the prison population was not included in the 2008 BBS, the questionnaire probed PWID respondents' history of imprisonment and their drug-taking experiences (including injecting drug use) during their imprisonment. The majority (86%) of PWID respondents in Male' had been to prison at least once. Most (64%) of these PWID continued to use drugs while they were in prison and 32% of them injected in prison. Likewise, 56% of PWID respondents in Addu reported having been imprisoned and 66% of these PWID had used drugs while they were in prison. Moreover, 14% of those using drugs were also injecting narcotics while in prison.[8]

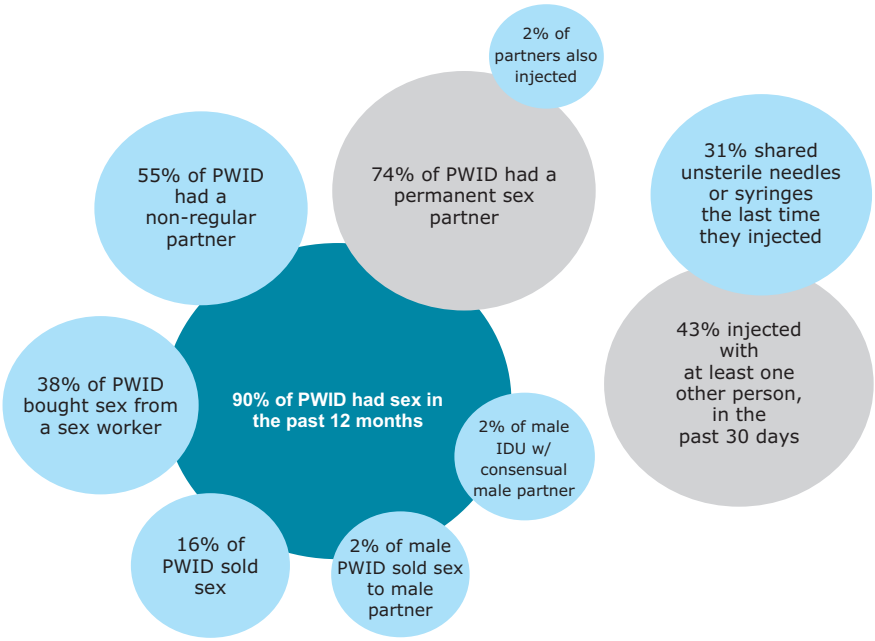
2.5 Potential for rapid transmission

The likelihood that the HIV epidemic will take root and spread in the Maldives will largely rest on the ability of prevention programmes to curb unsafe injecting and sexual practices among drug users. Due to the demographics of current drug users (single, young males), monitoring sexual practices among this group is also important given the overlap between individuals with high numbers of concurrent sexual partners facilitated by the disinhibiting effects of drug use.

As indicated in Figure 2, there is significant overlap between injecting and sexual risk behaviours. The proportion of PWID

who sell and buy sex is high (16% and 38% respectively) and can lead to the rapid emergence of a large-scale epidemic. Further, more than half of PWID reported having had sex with a non-regular partner. Of most concern are the exceedingly low levels of condom use in all kinds of sexual activity, particularly in same-sex and commercial sex encounters (see Figure 1).

Figure 2: *Overlapping injecting and sexual risks among PWID, Male', Maldives*



Source: 2008 Biological and behavioural survey, Maldives

2.6 Surveillance systems and current gaps in information

The primary objective of the surveillance system for the Maldives focuses on detecting where pockets of HIV may emerge in order to direct effective prevention efforts to these areas. The majority of what is known about drug use and injection practices in the Maldives has been summarized in situation assessments of HIV/

AIDS conducted in 2000 and 2006,[1] a situation assessment of drug users conducted in 2003,[4] and an ethnographic study on drug use behaviours in 2006.[11] All four studies employed combined methods of document review, key informant interviews and site visits.

In the Maldives, HIV testing data from antenatal clinics, preoperative and job-related screening, as well as blood donation have been historically used as sources of HIV case reporting. Given the relatively small numbers of HIV-positive people identified through these mechanisms, follow-up and characterization of these cases has been straightforward. As expected, these data may not function as an early warning system of pockets of new infection, but can provide some valuable information about who is vulnerable to HIV and direct efforts towards more active case-finding and early diagnosis.

The recently conducted BBS fills a key surveillance gap. To conduct monitoring of a PWID-driven epidemic, systematic mapping and size estimation of the PWID population in two atolls has been undertaken. Homing in on locations where high numbers of drug users, particularly PWID, are found will be critical for determining where resources should be allocated and for quantifying the need for prevention services. As previously mentioned a mapping and size estimation by the Community Health and Disease Control (CCHDC) will be undertaken in early 2010.

3. National response

3.1 The policy environment

Drug control legislation and HIV policy

The first law on Narcotic Drugs (Law No. 17/77) was passed in 1977.[12] It is still (with four subsequent amendments) the principal legislative act of the Maldives, dealing with narcotics

and psychotropic substances. In 2009, the law underwent a set of revisions which are still under consideration. The law makes a clear distinction between drug users and traffickers and gives an opportunity to those who use drugs to obtain treatment and stop using drugs. The classification of prohibited substances listed in the schedules to the Narcotics Law distinguishes between "illegal drugs" and "medical drugs". It is interesting to note that buprenorphine is on the schedule of "illegal drugs", whereas methadone is in the schedule of medical drugs.

The National Narcotics Control Bureau (NNCB) was till recently functioning under the Ministry of Gender, but in 2009 its functions pertaining to drug dependence treatment have been reallocated to the Ministry of Health and Family (with the merger of the Ministry of Gender and Health) as Drug Rehabilitation Services (DRS), while demand reduction aspects are with Community Health and Disease Control (CCHDC) as Substance Abuse Prevention Programme (SAPP). Again, in mid-2009, NNCB was restructured and named the Department of Drug Prevention and Rehabilitation Services. The Former NNCB collaborated with other organizations such as the ministries of Education, Health and Family, Youth and Sports, Home, the Maldives Customs Service and the Maldives Police Service, and such nongovernmental organizations (NGOs) as Journey and SWAD for awareness generation and prevention. With the reallocation of these functions from the NNCB to the Ministry of Health and Family, it is assumed that the coordination function will now be undertaken by them with all stakeholders.

The main policy-making body for the AIDS control programme is the National AIDS Council (NAC), which is a multisectoral body of government institutions and NGOs established in 1987 with the objective of preventing and controlling the disease.

The National Strategic Plan (2007–2011)[13] was developed by the Ministry of Health and the NAC in July 2007. It aims to limit HIV transmission, provide care for infected people and

mitigate the impact of the epidemic. The target is to reach 80% of all at-risk populations with comprehensive HIV services both in the community and in closed or custodial settings by 2011. Outreach activities for HIV education include peer education and behavioural change communication.

3.2 Interventions available

The government has undertaken a major prevention initiative through drug awareness programmes aimed at various sectors in the community. These programmes include life skills and drug awareness classes for all students in grade 8 and drug awareness training in every inhabited island, targeting island chiefs, health-care workers, teachers and island committees. In December 2007 the NNCB, the NGO Journey and UNICEF together launched a nationwide drug prevention campaign entitled "Wake Up".[14] The campaign emphasizes the importance of community support and acceptance for drug users to help remove the stigma and promote recovery. Parents and teachers are particularly encouraged to speak openly about the drug issue and the consequences of drug use.[14]

Treatment of drug dependence

The government established a drug rehabilitation centre (DRC) in 1996 on Himmafushi Island (North Male' Atoll, around 10 kilometres from Male'). It has been providing medical detoxification services at its rehabilitation centre since February 2004.[15] It also provides residential care through the therapeutic community model. Under this programme, individual counselling, self-help groups, vocational and language classes are provided for clients along with random urine testing and strict supervision by the health ministry staff. Many of clients are referred to the centre by the courts; however, there are also an increasing number of voluntary clients.

Clients graduating from the DRC are transferred to Male' for the community component of their rehabilitation.[16] The programme includes individual counselling, self-help groups, academic programmes, religious guidance, and vocational and language classes. While undergoing these programmes, clients remain under close supervision, and their drug status is monitored through random urine testing. For clients who come through the judicial system, the treatment and rehabilitation programme is similar to a parole system. When the residential and community phases of the programme are successfully completed, the legal sentences, if any, are annulled.[16]

Targeted interventions

Needle and syringe programmes

Needle and syringe programmes (NSP) are not currently operated in the Maldives and do not form part of the official package of interventions provided to PWID. Anecdotal evidence suggests that while sterile injecting equipment can be procured relatively easily and cheaply from pharmacies, access for those who may be injecting drug users is limited.

Opioid substitution therapy

Methadone-based opioid substitution therapy (OST) has been available on a pilot basis in Male' since November 2008. As of December 2009, a cumulative total of 47 PWID have been enrolled of whom 15 are currently believed receiving treatment. While the programme is still in its infancy, there is room for improvement in the pace of scale–up.

Buprenophine is currently illegal in the Maldives and is therefore not used for OST. OST is also not available in correctional settings. Currently, OST is delivered in isolation from other HIV prevention and care services and links to other prevention and care services need to be forged.

Access to antiretroviral treatment

Currently, no PWID are reported to be HIV infected. However, the country does have a policy of providing free ART to any eligible citizen as per the guidelines.

Prison interventions for PWID

HIV prevention and care services are currently not available in prisons. The Director-General of Prisons is exploring the possibility of developing a Maldives model for management of drug-dependent prisoners, based on the therapeutic community model of rehabilitation followed in the country.[15] While OST services are not available in prisons, it has been agreed that PWID on OST who are incarcerated during their treatment will be allowed to continue OST during their sentence. The country is planning a BBS in prison, with a target of 800 inmates. The project has been approved and funding secured under the programme acceleration fund mechanism. It is expected to be completed in the first half of 2010.

3.3 Coverage of harm reduction interventions

Based on the current estimates of the PWID population, it is estimated that the current coverage of specific harm reduction interventions such as OST and access to sterile injecting equipment is very low.

3.4 Current gaps in response

Harm reduction services remain in pilot form and universal access to services among PWID remains largely inadequate. A clear understanding and awareness of harm reduction interventions within the health sector as well as in other sectors remains largely limited. This results in overall poor acceptance of harm reduction to address the needs of PWID. There remains a primary focus upon abstinence-based programmes, which pay insufficient

attention to drug users who continue high-risk behaviours. Most at-risk population groups are not usually accessing the voluntary counselling and testing (VCT) services in the public health facilities. A VCT centre was established by the NGO Journey, (where the OST clinic is also in the same compound) in December 2009. It is hoped that this will become readily accessible to the drug user population, but ongoing monitoring and evaluation will be critical.

3.5 Recommendations

- There is a need to scale up evidence-based interventions, particularly OST. External evaluation of the OST will be required. The need for OST is critical but it will be important to have protocols and guidelines in place, and high priority given to it, before scale-up. NSPs should be established, scaled up, and it should be ensured that standards for quality services are met.
- Increase advocacy and awareness raising efforts, within the health sector as well as other sectors to gain support for the harm reduction programmes for improved acceptance.
- Enhance government "ownership" of harm reduction programmes through sustainable funding, scaling up of services, ensuring high standards of care and providing guidelines for operating procedures.
- Increase attention towards PWID who continue high-risk behaviours.
- Increase condom use among PWID with all sexual partners to decrease the risk of sexual transmission of HIV. Expand substantially the provision of condoms for PWID to complement the message of behaviour change.

- Establish HIV interventions and services in prisons for reducing injecting and sexual risk for those that are incarcerated.
- Improve strategic information relating to PWID populations by continuing annual risk behaviour surveillance among PWID to monitor changes in injecting and sexual risk behaviours.
- Update size of PWID population, by atoll, at regular intervals. Initiate new sites for risk behaviour surveillance if a sufficient concentration of PWID is reached in a location.

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Myanmar

1. The context

1.1 Overview of HIV situation

Myanmar has the third-highest HIV burden of people living with HIV and AIDS in the South-East Asia Region after India (2.3 million) and Thailand (560 000) , with an estimated 240 000 [range 160 000–370 000] people living with HIV/AIDS as of 2007.[1] The HIV epidemic in Myanmar is driven by a combination of injection drug use and sex work. It is believed to be concentrated in large cities and the north and eastern regions, where large-scale production and movement of illicit drugs occurs.[2] Injecting drug use has significantly contributed to the spread of HIV/AIDS; according to reported AIDS cases, most are attributable to sexual transmission (around 67%) but injecting drug use accounted for about 30% of total HIV infections in the country.[3] Sentinel surveillance data indicate that Myanmar's HIV epidemic peaked in 2000–2001 and then started declining.[1] The overall adult HIV prevalence is estimated to be 0.7% but populations with high-risk behaviours are disproportionately affected.[4]

In the most recent HIV sentinel–surveillance survey of 2008, 18.38% [range 15.5%–23.58%] of female sex workers (FSW), 37.5% [range 12.5%–54%] of people who inject drugs (PWID) and 28.8% [range 25%–33%] of men who have sex with men (MSM) were HIV infected.[5] Among lower risk group populations, however, HIV prevalence was 1.26% [range 0%–6%] in pregnant women and 2.5 % [no range difference, 2.5%] in military recruits.[6] While the overall HIV prevalence has begun to decline, Myanmar remains vulnerable to the continuing spread of HIV due to social factors such as poverty, population mobility, HIV-associated stigma and the limited capacity of the health systems to scale-up services.

1.2 Overview of drug use situation

Opium use and production has a long history in Myanmar. Currently, the country continues to be the second-largest

producer of poppy opium in the world, after Afghanistan.[7] However, drug use in Myanmar has shifted markedly from traditional use of opium to heroin over recent decades. Opiates are still the preferred category of drugs consumed but by 2003-2004, amphetamine-type substances (ATS) were ranked as the third-most serious drug of abuse in Myanmar (after heroin and opium) and in 2005 accounted for 27% of all drug-related arrests. Heroin is commonly administered through injection, while opium and methamphetamine are mostly smoked.[8] Due to problems in collecting independent data in Myanmar, estimating the number of drug users is difficult. While there are no official estimates of the number of drug users in the country, it has been reported that the total number of drug users is likely to be between 300 000 and 400 000.[9] While local consumption of illicit drugs has increased over recent years, the majority of drugs produced are destined for other markets, often in neighbouring countries such as China and Thailand.[2]

2. Epidemic situation analysis

2.1 Magnitude and geographical location of injecting drug use

No formal mapping or size estimation of high-risk group populations is available to describe the geographical distribution of PWID in Myanmar. However, based on observational and ethnographic-type data, the geographical distribution of drug users appears to roughly reflect the drug production centres and trafficking routes in the country. The largest concentrations of drug users are believed to be in the northern (Kachin) and eastern (Shan) states that share borders with China, Laos and Thailand.

It has been reported that the PWID population in Yangon is mostly underground, where heroin is limited, and due to the high cost maintaining a regular habit is more difficult. However, use of tranquilizers was common in Yangon and 69% of all PWID in

Yangon injected their tranquilizers. In Mandalay the population of drug injectors is considered to be large and young. Heroin is also expensive and less readily available.

In Lashio, PWID have easy access to inexpensive heroin but the size of the drug injecting population is not clear. A similar situation is found in Myitkyina.[10] The majority of poppy opium is grown in the Shan state while heroin and amphetamines are manufactured and then trafficked across the China and Thailand border areas.[11,12] It has been reported that in recent years precious gem-mining areas within the Shan and Kachin States have employed approximately 500 000 seasonal male migrant labourers who were known to engage in high levels of both drug use and commercial sex,[13] but current information on this situation cannot be confirmed.

Mapping data are not systematically available to estimate the size of the PWID population. The most readily available information on size estimates comes from the drug treatment centres, at which drug users must register and seek treatment, but due to the inadequate capacity at these facilities, it is likely that only a small proportion of the total drug users in Myanmar are registered.[2] Few systematic studies are available to know how consistent this percentage of injectors may be across different geographical areas. Injection practices may be more common in areas where availability of drugs becomes scarce or expensive, due to injection providing a higher impact from a smaller quantity of drug.

The current nationally agreed estimate for the size of the PWID population is 75 000 [range 60 000-90 000].[1] This translates into a 0.23% prevalence of drug injecting in the male adult population–one of the highest in Asia after China, Malaysia, Thailand and Viet Nam.

2.2 Magnitude of and trends in risk behaviours among PWID

Sharing of injecting equipment

Most information about sharing practices among PWID is derived from field observations, programmatic experience by NGOs or drug treatment centre staff serving PWID. Sharing behaviour appeared more common among long-time injectors compared with those who had started injecting more recently. The most recent information on injecting risk behaviours is available from the national Behavioural Surveillance Survey (BSS) 2007-2008 of PWID from four cities/ towns. While a majority of PWID in Myitkyeena (65%) and Lashio (77%) injected more than once a day, over the last six months, only 22% of PWID in Mandalay, and 1% in Yangon reported injecting at that frequency.[5]

This pattern of injection frequency is generally consistent with the reported greater access to heroin in Shan and Kachin states. When asked about the frequency of sharing needles and syringes, only 5% of PWID in Mandalay reported having used a needle or syringe from someone else for the last injection. Sharing at last injection was moderately high in Yangon (31%), Myitkyeena (22%), and Lashio (19%).[5]

The same study showed that “always” or “almost always” using injection equipment that had been previously used was uncommon in Mandalay (1.3%), Lashio (1.2%) and Myitkyeena (2.2%), compared to Yangon (12%). Thus, moderately high needle syringe sharing (last injection) among those in Myitkyeena and Lashio combined with a higher daily frequency of injecting may suggest an overall higher level of potential for transmission among PWID networks. It has been reported that from available official data of the four sites, 81% of PWID avoided sharing injecting equipment in the last month.[14]

Unsafe sex

Limited information on the sexual risk behaviour of PWID is included in some baseline assessments from implementers of harm reduction programmes. Studies in Thienni (Shan State) suggest that PWID are sexually active.[15] Sexual activity within the past six months varied among PWID found at four sites: Lashio (39%), Mandalay (71%), Yangon and Myitkyina (60%).[10] Reports of increasing amphetamine use in Myanmar underscores the need to pay more attention to levels of sexual activity and condom use among PWID (due to the sexual risk behaviour associated with use of these types of stimulants). In the cities of Mandalay, Lashio and Myitkyina more than a third of PWID involved in the survey reported having sex while under the influence of amphetamines.[10]

In the recently BSS survey, a high proportion of PWID reported having commercial sex partners: Mandalay (48%), Yangon (41%) and Myitkyeena (31%) but in Lashio it was only 9%.[10] The same survey found that reported condom use the last time with FSW was moderate in the two sites where paying for sex was most common (61% in Yangon, and 46% in Mandalay). “Last time” condom use with FSW was higher in Myitkyeena (73%) and Lashio (87%).

Prevalence of casual sex with non-regular partners in the last six months varied among the sites: Myitkyeena (26%) Yangon (21%), Mandalay (17%), and Lashio (11%). In general, condom use at last sex with casual partners was much lower than condom use reported with paid partners. Condom use with regular partners was lower: Myitkyeena (34%) Yangon (10%), Mandalay (26%), and Lashio (31%). Reasons for not using a condom with a regular partner primarily was the belief that it was not necessary.[10]

Prevalence of STIs among PWID

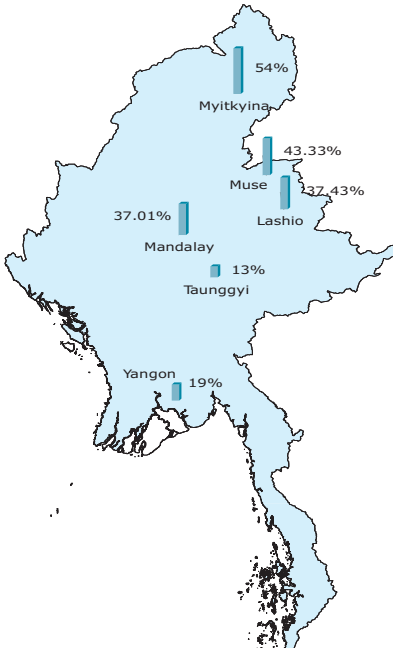
According to the 2008 BSS survey, a substantial proportion of respondents reported having had a urethral discharge or genital ulcer in the last 12 months (range 9%-13% had discharge; 8%-15% had an ulcer).[10] The overall syphilis prevalence in 2007 was 5.2% (32/766). PWID in Taunggyi had the highest syphilis prevalence.[5]

2.3 Magnitude of and trends in HIV infection among PWID

HIV prevalence among PWID peaked in the early 1990s at over 70% before beginning a slow but steady decline during 2005-2006.[12, 2] However, sentinel surveillance data clearly show HIV prevalence was currently still too high among PWID in all the locations and provides sufficient evidence for the need for prevention programmes.

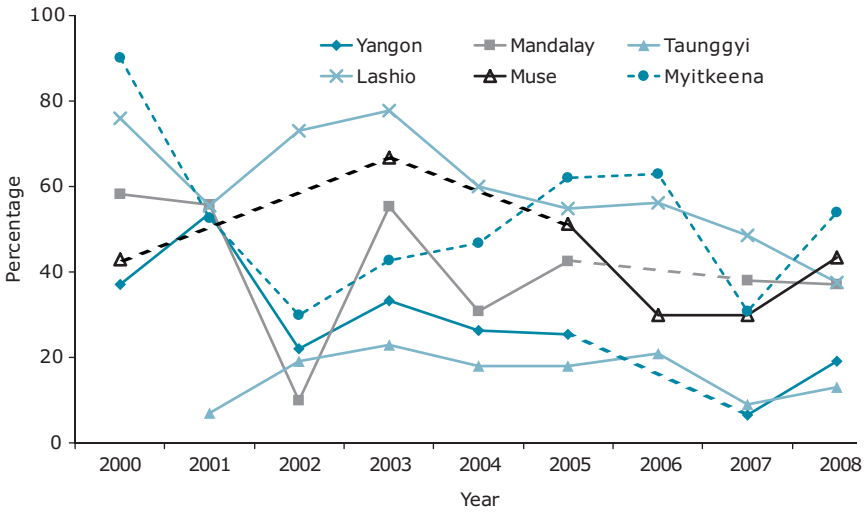
In the 2008 annual sentinel surveillance round, HIV prevalence among PWID was 37.5% but did vary between the sites (see Figure 1). Of concern was an increase in HIV at some sites. HIV prevalence among PWID in 2007 and 2008 at various sites was as follows: Myitkyina (30.8% and 54%, respectively); Muse (30% and 43.3%, respectively); Lashio (48.5% and 37.4%, respectively); Mandalay (38% and 37%, respectively) Yangon (6.5% and 19%, respectively) and Taunggyi (9.1% and 12.5%).[16, 5] Over time, Myitkeena, Lashio, and Mandalay have had constantly high levels of HIV among PWID. In Yangon and Taunggyi, HIV prevalence was relatively lower but increased between 2007 and 2008.

Figure 1: *HIV prevalence among PWID in 2008 based on HIV Sentinel Sero-Surveillance, Myanmar*



Source: WHO SEARO 2009

Figure 2: *Trends in HIV prevalence among PWID, by site, 2000-2008*



Source: Ministry of Health, 2008. HIV Sentinel Sero-Surveillance, Myanmar.

2.4 Incarceration, drug use and HIV

Little is known about the prison situation and its contribution to the HIV and AIDS epidemic in Myanmar. An estimated 62 300 prisoners were housed in 42 facilities in 2001, of whom 70% were estimated to be drug offenders and 14% were women. Prison conditions have been reported as poor by assessments conducted by the International Committee of the Red Cross (ICRC).[17]

According to the BSS 2008, among PWID in the community, reported history of arrest or detainment was relatively high in most survey sites. The PWID respondents in Lashio reported the highest levels of "prison history", with 41% having ever been arrested and 20% who had been arrested specifically for drug use. Among PWID in Yangon, 32% had been arrested and 19% had been arrested for reasons related to drug use. Slightly lower levels of arrest history were reported in Mandalay (20%) and Myitkyeena (19%).[5] However, the level of reported drug use within prison was relatively low for a PWID population. As consistent with the proportion with history of arrest, PWID in Lashio (10%) and Yangon (11%) reported higher levels of drug use in prison, compared to those in Mandalay (2%) and Myitkyeena (2%).[10] No official data on HIV prevalence among prisoners is available.

2.5 Potential for rapid transmission

Some have suggested that situation assessments noted a particularly high level of HIV infection among new drug injectors but specific studies with seroprevalence data to substantiate these observations have not yet been identified. However, the high levels of HIV prevalence among PWID, and the widely reported practice of injecting in settings where sharing of equipment is reported, are consistent with high rates of transmission among PWID overall. The HIV infection rates are high among key high-risk groups in 2008: PWID (37.5%), FSW (18.38%) and MSM (28.8%). Additionally, significant sexually transmitted infections (STIs) suggest that the epidemic has moved much beyond a core PWID group.[5]

In 2008 the HIV prevalence among FSW ranged from 15.5% in Yangon to 23.6% in Lashio; HIV prevalence among direct sex workers (brothel and street-based) was twice as high compared to indirect FSW (karaoke bars, massage parlours; 21.4% and 9.8% respectively). Among FSW workers the results of syphilis screening indicated a prevalence of 5.5%, and there were wide variations between the cities. Despite claims of high condom use levels (95% with most recent client), more than half of FSW in Mandalay and Yangon reported either a genital ulcer or discharge in the last year. [5,10] These figures of HIV and STIs are worrisome due to the potential for infecting large numbers of male clients and their spouses.

The high proportion of PWID who report having paid and casual sex is an important area for programmatic intervention. Condom use is variable among PWID and their paid partners and is an area that may be addressed through additional focus. Migrant workers, particularly miners, are more vulnerable to developing injecting drug use habits and returning to their home villages and sparking local epidemics. This is already a cause for concern and should be monitored carefully.

2.5 Surveillance systems and current gaps in information

A number of situation assessments have been conducted for Myanmar in the past five years; however, there is a restricted dissemination of the results of such assessments. The absence of formal reports also curtails access to technical information on methodology which is critical to interpreting the findings. Official data from the government about the epidemiology of HIV relies on the surveillance system. These comprise both HIV sentinel surveillance (HSS) and BSS.

Facility-based HIV sentinel surveillance among PWID began in 1992. At each location site (N=6) a total sample size of 200 is planned for recruitment. In 2007, HSS was carried out in six high burden townships; a sample size of 932 (78%) was achieved. In

2008 the sample size was 891 (74% was achieved). With the use of a facility-based sentinel surveillance approach, the coverage of sero-prevalence data is limited to the population accessing the service and the location of intervention sites. Moreover, trends from these data are difficult to interpret due to small sample sizes and large fluctuations in prevalence.

In early 2008, the National AIDS Programme conducted probability-based behavioural surveys using respondent-driven sampling among high-risk groups, including four surveys of PWID in Yangon, Mandalay, Lashio and Myitkeena townships. These surveys provide, for the first time, important insights into the profile and risk behaviours of PWID in these areas. Over time, repeated measures of behaviours will enable the tracking of changing risk patterns.[10]

There are at least four important data gaps. First, the lack of availability of reliable population size makes it difficult to measure and monitor progress in interventions. Second, data on HIV prevalence are unavailable on a community-based representative sample; availability of such data would help to more accurately measure trends in the PWID population. Third, data on HIV incidence among PWID and other groups is missing; such data would help in understanding trends as well as the relative contribution to the epidemic by different groups. Lastly, routine programme data on PWID profile and risk behaviours is scanty. These data would be particularly useful in areas with smaller numbers of PWID, where community-based surveys are not indicated due to small sample size.

3. National response

3.1 The policy environment

Drug control legislation and HIV policy

The Narcotic Drugs and Psychotropic Substance Law (1993) replaced the previous law and established the Central Committee

for Drug Abuse Control (CCDAC), which is chaired by the Minister of Home Affairs and consists of representatives from relevant ministries and government departments including the national police, customs, military intelligence and army. The CCDAC coordinates 27 anti-narcotics task forces throughout the country. The main function of the committee is to formulate policies on all aspects of drug control. The law provides for the following guidelines in respect of drug users:

(1) A drug user shall register at the place prescribed by the Ministry of Health or at a medical centre recognized by the government for this purpose, to take medical treatment.

(2) De-registration shall be carried out in accordance with the stipulation Under Section 15 of the act.

A drug user who fails to register at the place prescribed by the Ministry of Health or at a medical centre recognized by the government for this purpose or who fails to abide by the directives issued by the Ministry of Health for medical treatment shall be punished with imprisonment for a term which may extend from a minimum of three years to a maximum of five years.[12, 2]

Drug users in Myanmar are required to register with the government and can be prosecuted if they do not. However, when the law was first drafted, allowances were made for the possibility of later amendments and additional regulations as they become necessary or feasible. Drug control remains the mandate of the CCDAC, which has championed harm reduction in Myanmar over the past decade, assisting in resource mobilization, supporting programmes and advocating for policy changes where these impede harm reduction. It also has a regional and local reach through working groups and 21 Special Anti-Narcotic Squads, spread throughout the country.[18]

An old law that has not yet been repealed is the Burma Excise Act (1917) which regulates the provision of needles and syringes. Possession of syringes and needles without a granted license is liable to punishment of up to six months imprisonment

or a fine of up to 1000 Kyat or both (section 13/33).[19] Needle and syringe programmes (NSPs) are still hampered by legal constraints (1960 Act), which also cause misunderstandings regarding their effectiveness in HIV/AIDS prevention among various stakeholders.[20] Under current legislation, drug use in Myanmar remains a judicial rather than a health problem.[21]

The *Myanmar National Strategic Plan on HIV and AIDS 2006–2010* is the first participatory plan with direct involvement of all stakeholders and places a high priority on prevention among populations at risk of HIV including PWID.[22] The Ministry of Home Affairs has traditionally been the lead agency responsible for influencing drug policy in Myanmar. However, due to the HIV situation, the Ministry of Health is becoming increasingly important in shaping drug policy, particularly in respect of the health consequences of drug use. The CCDAC has thus become key in the promotion of harm reduction in the country but conflicting mandates still mean that access of PWID to services are sometimes restricted by law enforcement activities.

This plan identifies 13 strategic directions. The specific objective of reducing HIV-related risk, vulnerability and impact among drug users is a primary target with special emphasis on PWID and their sexual partners.

The aim is to ensure availability and equitable access to a combination of effective programmes and services that are flexible, tailored and targeted by location, age, and gender and transmission behaviour to the needs of drug users. Specifically, the plan in respect of PWID is as follows:

- Provide behaviour change education and outreach.
- Provide access to NSPs and condoms (from drop-in centres).
- Conduct outreach programmes to provide primary health care and referral.

- Provide counselling, testing, rehabilitation and treatment and include the family in the treatment process.
- Scale up community-based detoxification programmes, and expand drug dependence treatment including drug substitution.
- Provide vocational training especially to those living with HIV/AIDS.

The plan also promotes meaningful involvement and empowerment of vulnerable groups including PWID, so that they will in future participate in programme design, development and evaluation.

3.2 Interventions available

The HIV epidemic among PWID has been well established since the mid-1990s, with HIV prevalence levels reaching some of the highest in the world at the time.[23] The government has recognized the role of injecting drug use in the spread of the epidemic and has expressed explicit policy support for harm reduction in national policy documents. Reducing HIV-related risk, vulnerability and impact among drug users is one of the main priorities within the National Strategic Plan on HIV/AIDS (2006-2010).[22] HIV prevention interventions such as NSPs, opioid substitution therapy, condom promotion, outreach, and peer education efforts have increased but it is not yet comprehensive and the scale of response has yet to match the magnitude of the problem.

Treatment of drug dependence

A range of treatment services is available for drug users, including detoxification, counselling, rehabilitation, methadone maintenance and after-care.

There are six major drug treatment centres under the Ministry of Health and 22 minor treatment centres and eight rehabilitation centres, which together have provided treatment to around 70 000 drug users in the past decade. Prior to 2006, heroin users were detoxified with tincture of opium. On their

first admission clients remain in the drug treatment centres for about 5–6 weeks. At a conservative estimate, 60%–70% relapsed within a month of discharge. When clients are readmitted for the second or third time they stay in the drug treatment centre for longer than the first time (about 2–3 months), although the treatment programme is the same.[12, 2]

In 2000, UNODC established community-based treatment programmes in Northern Shan State to complement government treatment centres. By 2007, UNODC was operating five drop-in centres (four in Shan North and one in Eastern Shan). In 2006–07 more than 5000 people sought treatment and support from these drop-in centres (DIC) and outreach services in the North-Eastern Shan State. Further DIC developments under UNODC were as follows: in 2008, 10 centres (1 in Kachin, 1 in Southern Shan, 7 in Northern Shan, 2 in Eastern Shan); and in 2009, 16 centres (2 in Kachin, 1 in Southern Shan, 7 in Northern Shan, 2 in Eastern Shan, 3 in Mandalay division, 1 in Yangon). In 2008, there were 36 DIC for drug users, but of these 10 were connected to UNODC. In 2009 there were 1059 registered drug users. The main drug of dependence was heroin (N=797), followed by opium (N=227).

Targeted interventions

Needle and syringe programmes

The number of needles and syringes made available to PWID has been increasing steadily since 2003. The number rose from 210 000 clean needles distributed in 2003, to 2.1 million needles distributed in 2007, and by 2008 it was 3 511 232. It is less then the target figure of 4 million set for 2008.[22, 24] However, in 2009, more than 5 million needles and syringes were distributed, according to the information provided at the national harm reduction review in May 2010. In 2008 it was estimated there were 19 NSPs offering clean injecting equipment for PWID.[25] The majority of PWID in the BSS (2008) mentioned pharmacies as the most common place to collect needles and syringes, followed by NGOs, then health workers and lastly drug dealers.[10]

Opioid substitution therapy

Preparation for methadone maintenance therapy (MMT) began in Myanmar in 2004 but the Ministry of Health started the delivery of MMT for the treatment of PWID in February 2006. In 2006, the Ministry of Health began to use methadone for detoxification in four drug treatment centres (Yangon, Mandalay, Lashio and Myitkyina). Initially, four drug treatment centres in Yangon, Mandalay, Lashio (Shan State) and Myitkyeena (Kachin State) piloted MMT. Subsequently, three more centres were opened in Moegaung and Bamaw townships (Kachin State) and one additional site in Yangon at the outpatient department of the Thingangyun hospital.

In 2010 there were ten methadone dispensing sites in the country. As of May 2010 the induction period for those commencing methadone was two weeks, and this induction primarily takes place at drug treatment centres. By December 2007, over 500 patients were enrolled in the programme. The target was to enrol 1000 patients by the end of 2008 but only 570 PWID were receiving MMT.[26,] By late 2009 the figure of 1000 patients on MMT was not achieved. In January 2010 the current number of patients on methadone was 821 from eight sites. As part of the Global Fund Round 9 application, Myanmar has proposed to scale up its OST programme covering 2450 clients at the end of year 1 and 5100 clients by the end of year 5.[27]

The MMT programme was informally evaluated in December 2007 when preliminary results of a survey conducted among MMT clients (N = 490) were presented. The key findings showed the majority were still on MMT: less than 20% injected again and only occasionally; 86% showed improvement in health; and 92% reported better quality of life. The challenges were that some sites had low doses of methadone, and a prolonged duration of in-patient stabilization.[28] Currently the MMT programme is small with less than 1% of the estimated 75 000 persons who inject drugs accessing MMT.

Access to Antiretroviral Treatment

In 2008, 15 191 people were receiving antiretroviral treatment (ART), an increase of 35% from 2007, but still a small proportion of those who are estimated to need it (76 000). By the end of 2008, there were 57 sites providing ART in 12 states/divisions; in 2006 it was 30 sites.[24] It is believed that ART for PWID remains scarce (as is the case in many countries in South-East Asia) and there are anecdotal reports of some NGOs excluding drug users, even if they are stable on methadone.

Prison interventions for PWID

Since around 2007 prisons commenced activities to provide HIV health education for prisoners, prison staff and their families. The number of persons provided health education was small but in 2008 it was reported that around 9000 received education provided mostly by the National AIDS Programme.[29] The type of information provided and how it applies to PWID is unknown. UNODC have reportedly undertaken HIV prevention training for inmates and correctional staff. Information, education and communication materials about HIV prevention were reportedly not available inside the prisons. There are no other forms of HIV prevention interventions for PWID in prisons.

3.3 Coverage of harm reduction programmes

Myanmar has only one NSP per 3900 PWID (19 divided by 75 000) and less than 1% of those requiring OST are currently receiving it. An estimated 3.5 million needles and syringes were distributed in 2008 as opposed to an annual requirement of at least 27 million.[25] No data are available on the number of needles and syringes bought by individuals through pharmacy outlets.

There has been an increase in service coverage in the last two to three years. The number of PWID accessing services through drop-in centres (DIC) has grown, attributed in part to the high utilization of primary health care services offered.

Provision of primary health care has provided inroads to reaching marginalized populations, developing trust and access to other services. The number of non-injecting drug users accessing health care also exceeded targets. In 2002, only one DIC was in operation in Myanmar but by 2008 a total of 36 DIC across 16 townships were run by NGOs or UNODC, and providing service to 8 274 PWID. Even with the expansion in the number of DIC, the number of PWID still represents less than 30% of the targeted number.[24]

There has actually been a decrease in the number of PWID going to DIC between 2007 and 2008. A possible explanation was the improved registration and recording of individuals by service providers. Outreach and peer education teams are established at these centres providing HIV prevention and referral services. In 2008 it was reported that 23 827 outreach contacts were made with PWID.[24] It is important to note this does not mean individuals but the number of service contacts; an example could be one individual receives up to five or more contacts per week.

3.4 Current gaps in response

The HIV epidemic among PWID is far from under control. While HIV prevalence has declined over the years it remains worryingly high, and for some sites a significant increase has been identified. For example in Yangon, HIV prevalence among PWID increased from 6.5% in 2007 to 19% in 2008. It is important to note that the HIV prevalence data collected is derived from surveillance in six sites and the current data does not reflect the situation across the country. The number of clean needles and syringes distributed has increased but does not meet the needs of PWID, taking into consideration the number of needles required to achieve adequate HIV prevention measures. The pattern of sharing used syringes has decreased but in the majority of behavioural surveillance sites sharing continued to be very high.

The MMT programme has been operating since 2005, yet at the end of 2009 only a small number of PWID were receiving such treatment: less than 1% of the reported 75 000 PWID have access to MMT. There has been an increase in ART availability for those HIV-infected; however, the numbers of HIV-positive drug injectors remains disproportionately small compared with the burden of the epidemic in this population. PWID incarcerated in closed settings undoubtedly experience greater risk behaviours compared to those in the wider community yet HIV interventions and health services to address their needs remain poor. The resource gap has widened since 2007 and as a consequence services for drug users continued to be underresourced, with approximately only one third of the planned resources actually available.

3.5 Recommendations

- PWID experience ongoing high HIV prevalence due to risk behaviours such as sharing contaminated injecting equipment and insufficient access to NSP nationwide. There is a need to scale up and strengthen evidence-based comprehensive interventions, including NSP, OST, voluntary counselling and testing, availability of antiretroviral therapy, and ensuring that standards for quality services meet the needs of PWID.
- Scaling-up access to and coverage of OST since 2005 has been slow. There is a need to cease inpatient stabilization for those initiated on methadone and increase the number of dispensing sites in order to improve patient access to treatment services. OST can be dispensed at township hospitals as well as in other primary health care locations. It is important to ensure that the price of OST is within the reach of PWID, and issues of stigma and discrimination towards those seeking treatment are minimized. Additionally, there is a need to review the national methadone guidelines and standard operating procedures to ensure improved access for PWID to diagnosis and treatment.

- Improve coordination between ART, reproductive health services, OST and tuberculosis services to ensure good treatment outcomes for HIV-positive PWID and their sexual partners. Research is needed to examine the utilization of health services of those PWID that have been identified as HIV infected.
- Condom use is variable and sometimes poor between PWID and various sexual partners, thus increasing the risk of sexual transmission of HIV. Greater effort and focus on the promotion of condom use by PWID is of critical importance, particularly when a high degree of overlap occurs between PWID and FSW. Greater focus to address the needs of spouses and regular partners of PWID are required for programmatic intervention.
- Provide and improve the relevant skills of health-care providers with appropriate training opportunities to address needs of PWID, who frequently present with multiple health problems. For HIV-infected PWID there are multiple medical problems, which necessitate a complex treatment regimen, pose risks for ART-associated toxicities and drug interactions. Training in this area will mitigate some of these concerns.
- Greater attention should be paid to health services and HIV prevention interventions for PWID who are incarcerated. Introduce ART and OST in pilot prison sites, and provide referral to prisoners who are being released to help treatment continuity.
- Produce size estimates of numbers of PWID with information from a more nationwide coverage of situation assessments/mapping. Ensure that all implementing partners including NGOs are involved in the mapping and size estimations.
- Consider replacing BSS with integrated biological and behavioural surveillance using probability-based

sampling among populations with high-risk behaviours, including PWID. This will help in obtaining a more accurate measure of the trends.

- Estimate HIV incidence among PWID either by undertaking laboratory-based studies or by modelling the available prevalence data. Replace AIDS case reporting by HIV infection case reporting. As HIV case reporting improves over time, this will not only help in monitoring the epidemic but also provide information on the relative contribution of HIV by different population groups.
- Institute a standard monitoring system at all harm reduction intervention programme sites; this should include standard indicators on IDU profile and risk behaviours and uniform data collection forms. Analyse and use the routine programme data at frequent intervals in addition to the less frequent surveillance data.

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Nepal

1. The context

1.1 Overview of the HIV epidemic

Since the first HIV case was reported in Nepal in 1988, the epidemic had infected an estimated 69 790 adults and children by 2007.[1] The overall adult HIV prevalence is 0.49%.[1] Latest data show there are 14 787 reported HIV positives (9701 males and 5086 females). The HIV epidemic in Nepal is driven by injecting drug use, sex work and migration. In 2007, an estimated 6557 people who inject drugs (PWID) were living with HIV or AIDS; PWID accounted for 10% of the total AIDS cases.[2] High population mobility and migration within the country and to neighbouring India is an important factor for the spread of HIV in Nepal.[3] Trafficking of women also contributes significantly to the transmission of HIV.[4] Almost 50% of all HIV infections are in the Terai highway districts and 16% are in the far western hills.[1]

1.2 Overview of the drug use situation

While the use of cannabis has been known to exist for centuries, problem substance use emerged in Nepal in the late 1960s with the emergence of "brown sugar", which was usually smoked or "chased". Injecting drug use remained relatively rare till the 1990s when the introduction of injectable pharmaceutical drugs such as buprenophine, benzodiazepines, chlorpromazine and dextropropoxyphene led to a widespread transition away from smoking/chasing brown sugar to injecting drug cocktails, chiefly of buprenorphine mixed with benzodiazepines and chlorpromazine and other antihistamines. Polydrug use appears to be the norm (ranging from the use of alcohol to heroin), and transition from non-injecting to injecting appears to be linked to the need for choosing the most cost-effective way of taking drugs.[2,5,6]

2. Epidemic situation analysis

2.1 Magnitude and geographical location of injecting drug use

Since the late 1990s, efforts to track the size and location of injecting drug use have become increasingly more systematic. An assessment in 1999, conducted in 19 urban areas (nine in the east, five in the central region, three in the west, and one each in the mid-western and far eastern regions)[1] found that "injecting drug use was present in most parts of Nepal". The National Centre for AIDS and STD Control (NCASC) estimated the numbers of PWID for 2007 to be between 17 000 and 24 000, the majority of them from 26 highway districts(10 400–14 560) followed by Kathmandu valley (5200–6760), far western hills (720–1140) and the remaining districts (830–1660).[1] In 2006, the Central Bureau of Statistics (CBS) conducted a survey using a multiplier method covering 17 municipalities from 15 districts across all regions of the country. This survey estimated[2] that there were 46 309 current drug users in the country of whom 3356 were women and an estimated 28 439 (61%) were injectors.

2.2 Magnitude of and trends in risk behaviours among PWID

Sharing of injecting equipment

A risk behaviour that is common among drug injectors is the use of non-sterile needles and syringes. Borrowing and lending of injecting equipment, as well as non-sterile practices in the preparation, distribution and injecting of drugs has been documented frequently in Nepal. For example, during 2005 in the eastern *terai*, 30% of drug injectors used needles and syringes that had been used by others and 50% had drawn drug solution from a common container used by others.[9]

However, a declining trend in unsafe injecting practices has been noted among drug injectors in Nepal since 2002.[9] In

Kathmandu, about 12% of PWID in 2007 reported sharing needles and syringes with others in the past week compared with 20% in 2005.[9] The practice of using needles and syringes that have been left in public places has also declined (from 32% in 2002 to about 7% in 2007).[9]

Data from the latest integrated biological and behavioural surveillance (IBBS) 2009 Round IV shows a substantial decline in the use of previously used needles and syringes in various parts of the country. In Kathmandu valley it had declined from 56% in 2002 to 7% in 2009. In Pokhara valley the use of previously used needles and syringes declined from 21% in 2003 to 5% in 2009. In the eastern *terai* the decline was from 34% in 2003 to 15% in 2009, and lastly in western *terai* it was from 19% in 2005 to 12% in 2009.[10,11,12,13] While injecting behaviour has been declining, this is countered by data suggesting that a growing proportion of PWID start injecting at a young age (below 20 years), and they inject for a longer time (longer average duration of injection).[9] This translates into more years of risky behaviour and potential exposure to HIV. Hence, despite a decline in risk behaviour, injecting patterns continue to cause concern in Nepal.

Unsafe sex

A high percentage of PWID also engaged in risky sexual behaviours such as commercial sex (21%–42%), multiple partners (37%–64%) and low condom use during the last commercial sex (26%–41%) across various sites in 2005.[14] The IBBS in 2007 showed that 58% of PWID used a condom at last sex. Disaggregated data reveal that condom use is much higher with a commercial partner (81%) than with a regular partner (36%) or with a casual partner (57%).[9]

***Table 1:* Reported condom use among PWID, by type of partner, IBBS Kathmandu,, 2005–2009**

Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse			
	2005	2007	2009
With regular female partner	40.3%	53.3%	38.8%
With non-regular female partner	64.7%	41.3%	53.9%
With female sex workers	75.0%	60.7%	66.8%
Average	60.5%	58.03%	

Source: National Centre for AIDS and STD Control:2005-2009

The 2009 IBBS report shows that in Kathmandu condom use by PWID with a commercial partner was 49% compared to 6% with a regular partner during the past 12 months every time.[15] A major study in different parts of Nepal in 2009 found that inconsistent condom use among PWID was common with different sex partners, particularly among regular partners such as wives. The 2009 IBBS found that consistent use of condom with female sex workers declined in all sites except in the western to far western site.[16]

Prevalence of STIs among PWID

Data on STIs among PWID is limited. In behavioural surveys, up to 10% of PWID have reported STI symptoms.[20] The IBBS in 2007 shows a very low prevalence of syphilis among PWIDs ranging from 0.33%–1.3% in various sites.[9,10,14] In Kathmandu, the IBBS of 2009 showed active syphilis and syphilis history (1.5% and 4.1%, respectively) was slightly higher than in 2007 (0.3% and 1.7%, respectively) among drug injectors.[17]

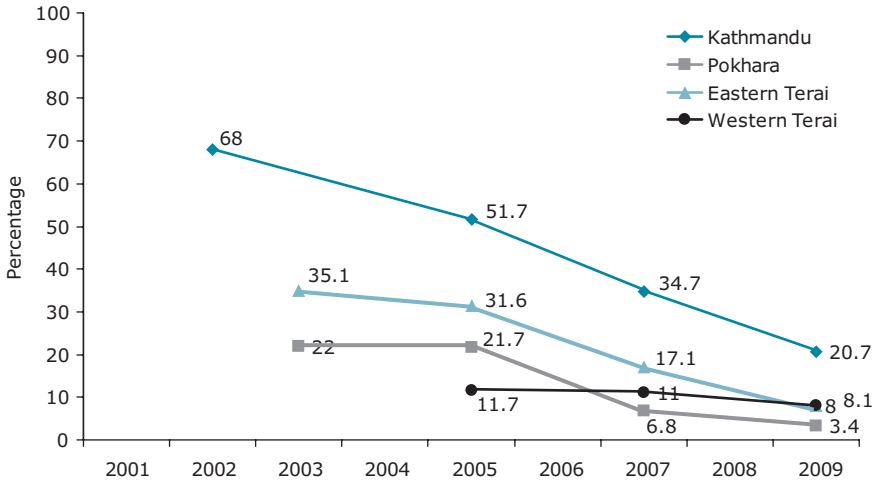
2.3 Magnitude of and trends in HIV infection among PWID

There was an initial steep rise in HIV prevalence among PWID. In Kathmandu, HIV prevalence among PWID increased from 2% in 1991[18] to 50% in 1999[19] and later to 68% in 2002.[20]

In 2005, a high proportion (51%) of PWID were infected with HIV in Kathmandu.[14] However, by 2009 the HIV prevalence among drug injectors in Kathamandu had decreased to 21%.[21] HIV prevalence among PWID in other regions is lower than in the capital city: among PWID in Pokhara and eastern *terai*, the prevalence in 2009 was 3% and 8%, respectively.[22,23]

There is no direct measurement of HIV incidence among PWID in Nepal. However, declining HIV prevalence trends point to a possible slowing of new HIV infections in this population. Figure 1 shows the declining prevalence of HIV among PWID in three important regions (Kathmandu valley, Pokhara valley and the *terai* belt). This decline continued in 2009. This decline is to some extent supported by improving behavioural indicators measured by four successive rounds of integrated biological and behavioural surveys (IBBS) in areas where PWID programmes are in place. While these data should be interpreted with caution, they do suggest a marked slow-down in HIV transmission among PWID.

Figure 1: *Declining HIV prevalence among IDUs in Nepal*



Source: National Centre for AIDS and STD Control (2009). Factsheet No. 6.

2.4 Incarceration, drug use and HIV

There are an estimated 8500 prisoners in Nepal's 75 prisons and detention facilities. No data are available on the prevalence of HIV among prisoners. However, a rapid assessment of drug use and HIV carried out in 1999 found that drug injectors with a history of imprisonment were 4.6 times more likely to be HIV-positive than those without such a history.[24] A study in 2001 among 95 inmates in five prisons in eastern Nepal found that 28% were drug users. Of these, 75% "always" shared needles while injecting.[25]

2.5 Potential for rapid transmission

The initial explosive increase of HIV among PWID has already created a wider epidemic in Nepal. Although HIV among PWID has begun to decline in many of the surveyed sites, the prevalence is still high, particularly in Kathmandu. Risky injecting behaviours are also prevalent. PWID have multiple sexual partners and commonly engage in unprotected sex. Thus, the potential of HIV transmission from PWID to other populations remains both via unclean needles and unsafe sex. On the other hand, the HIV prevalence among female sex workers (FSWs) and men who have sex with men (MSM) is below 5%[2] and the prevalence of injecting drug use among these groups is also very low (1% and 3%, respectively).

2.6 Surveillance systems and current gaps in information

Nepal has data that will allow for effective responses to halting the spread of HIV among PWID. In places where data exist, they are of good quality. However, data are lacking at the regional level. Surveillance systems in Nepal collect data primarily from areas with intervention programmes, but the ability to detect what is going on outside those regions is limited. It would be helpful to institutionalize an early alert and response system in Nepal for ongoing monitoring of routine data, combined with

timely rapid assessments that can alert authorities to emerging areas of risk, thereby triggering investigation and action before HIV epidemics take hold.

3. National responses

3.1 The policy environment

Drug control legislation and HIV policy

The Narcotic Drugs (Control) Act 2033 (1976)[26] updated in 1981 and 1993 is the major legislative tool for drug control in Nepal. At the central level, the National Coordinating Committee for Drug Abuse Control chaired by the Home Minister is responsible for the overall formulation of national policy on drug control and law enforcement.

The Narcotics Act of 1976[26] states that non-physician prescribed consumption of narcotic drugs is a criminal offence. However, the act also makes provision for the prevention of drug use and treatment of drug users. The courts have the authority to divert drug users to treatment and they can be offered immunity from proceedings when they agree to undergo treatment in a rehabilitation centre established or recognized by the government.

The National AIDS Prevention and Control Programme (NAPCP) was started in 1988.

(1) The First National HIV/AIDS strategy of Nepal (2002–2006)[27] recognized PWID as the population subgroup in which HIV threatened to spread most rapidly. From 2003 to 2006, the operational plan, which was based on that strategy, was implemented by the National Centre for AIDS and STD control (NCASC). The strategy emphasized the creation of an enabling environment, harm reduction (including drug substitution), care and support of seropositive PWID and their partners, as well as an expansion of demand reduction activities.

(2) The second National HIV/AIDS Strategy (2006–2011)[28] is designed to contribute to the achievement of the Millennium Development Goals (MDGs) (i.e. to halt and begin to reverse the increasing trend of HIV by 2015) and be in line with targets for universal access of 80% coverage with prevention, treatment, care and support services to most-at-risk populations (MARP) and people living with HIV (PLHIV). The expected strategic results include an overall reduction in the number of PWID, increase in safe injection practices and safe sex, an improvement in the availability of commodities to facilitate the above, improvement in access to quality services for PWID including substitution treatment, and a supportive environment to protect the rights of PWID.

Overall, prevention targets are to reach 15 880 PWID by 2011 (see Table 2). This constitutes 56% of the most recent total estimated PWID population in 2007-2008 of 28 439.

Table 2: **Coverage targets for PWID populations, 2009-2011**

PWID	2009	2010	2011
PWID number reached	10 917	12 903	15 880
Coverage (%)	55	65	80

Source: National Centre for AIDS and STD Control (2007)[28]

3.2 Interventions available

Despite the lack of clarity in the narcotics legislation about the legality of harm reduction interventions, Nepal was one of the first developing countries to establish harm reduction programmes for PWID. A needle and syringe programme (NSP) was established in Kathmandu in 1991 (the first in Asia) by the NGO the Life Saving and Life Giving Society (LALS) which, in addition to injecting equipment, also provided drug injectors with education, counselling, and referral to drug treatment.[29]

Twenty-three organizations are implementing a comprehensive package of prevention and care for PWID in 14 districts. These include drug detoxification and rehabilitation; harm reduction services such as sterile needle–syringe exchange provision; STI treatment; condom provision and promotion; limited opioid substitution therapy (OST); voluntary counselling and testing (VCT); knowledge and awareness raising; and referral to specialist health care, support and treatment.[30]

Treatment of drug dependence

Treatment and rehabilitation of drug problems is mostly carried out by NGOs. Most offer drug dependence treatment, which aims at total abstinence. Free detoxification is provided in at least 33 rehabilitation centres in different districts. Twenty rehabilitation centres are supported through the United Nations Development Programme (UNDP) and Department for International Development (DFID) funding. The therapeutic community model is used. Medication and behavioural therapy are part of the therapeutic process. It begins with detoxification followed by treatment and relapse prevention. Neither buprenorphine nor methadone is available for detoxification. Withdrawal management is suboptimal and currently relies overly on the use of antipsychotic medication.[29]

Medical services, follow-up systems, counselling, home visits, family meetings, information on HIV/AIDS, day care and aftercare services are part of the regular programmes carried out by the rehabilitation centres.

Targeted interventions

Needle and syringe programmes

Needle and syringe programmes (NSPs) were initiated by LALS in Kathmandu in 1991.[31] By 2008, NSPs were available in 23 sites in 14 districts. However, the actual number of needles and

syringes provided is far short of the estimated national need (21 000 000).[32] Previous reviews of individual harm reduction projects indicate that less than 50% of PWID are in touch with the drop-in centres or outreach workers on a regular basis, indicating that actual effective coverage of harm reduction interventions may still be inadequate[30]. Interestingly, two thirds of PWID surveyed as part of the IBBS in various sites purchased new needles themselves compared with only 27.6% who obtained them from NGOs.[32]

Opioid substitution therapy

Nepal was the first country in the Region to start a government-approved OST programme in the form of a methadone maintenance centre in 1994 in the Mental Hospital in Lalipur. The treatment was evaluated and the results were satisfactory. Patients showed improvement in health, a reduction in criminality and a decline in family problems. However, for a number of complex reasons, including the lack of societal and technical support, the programme was suddenly suspended in 1998 by the authorities. In September 2007, methadone substitution was re-started as an emergency response at the Tribhuvan Teaching Hospital in Kathmandu. Methadone substitution treatment has also been initiated in Pokhara as of 2009. Service statistics as of September 2009 indicate that a cumulative total of 251 PWID had enrolled into the programme, of which 192 were currently receiving methadone (153 in Kathmandu and 39 in Pokhara).[33]

Clinical services are supported by social services and counselling, and initial reports indicate that the outcomes of the methadone programme are positive. However, currently the average dose provided to patients is 49 mg, which is probably too low (by international standards) for optimal outcomes.[34] The programme also needs to be better linked to STI and antiretroviral treatment (ART) service delivery and requires drastic scaling up, particularly in areas where a high proportion

of PWID are already living with HIV (Kathmandu valley, Pokhara and highway districts).

Sublingual buprenorphine is also available in Nepal. As of August 2008, 31 PWID were being provided with a low-dose regimen (<4 mg) which was tapered off over a three-month period.[29]

Access to antiretroviral treatment

In 2007 there were an estimated 6557 PWID living with HIV/AIDS in Nepal and at least 20% of them require ART, indicating that 1311 PWID need ART. There are no reliable data about what proportion of PWID are currently accessing ART. The overall number of PLHIV who have access to ART in Nepal is still very low. In 2009 the total reported HIV positive cases reported was 14 787, and that the total number ever enrolled in HIV care was 13 005. Of those, the number receiving ART was 3423.[29,35] Of those who ever started ART, approximately 1700 are still continuing and PWID are not highly represented among those receiving ART. Anecdotal reports suggest that the strong involvement of user groups and PLHIV has meant that an increasing proportion of PWID living with AIDS in Kathmandu are accessing care. In other parts of Nepal, care and treatment of PWID living with AIDS is still inadequate.

Incarcerated PWID

The UNODC Regional Office for South Asia has reported that no drug dependency treatments are provided in prisons in Nepal.[36] There are no NSPs in Nepal's prisons. Information regarding the availability of condoms is conflicting. A report in 1998 stated that condoms were made available in two male prisons in Kathmandu.[37] However, recent policy documents state that no condom distribution mechanisms exist in prisons, but in the National HIV/AIDS Strategy and National HIV/AIDS Action Plan, condom distribution as a programme is planned for

implementation.[38] No prisoners are receiving ART and no policy documents specify provision of ART to prisoners as an activity for implementation.

The provision of OST in prisons is currently being discussed by the Ministry of Home Affairs and UNODC.

3.2 Coverage of harm reduction services

Some progress has been made in controlling the HIV epidemic among PWID. An external assessment of the national HIV/AIDS response in 2008[30] suggested that just 25% of PWID have "ever" been reached by HIV/AIDS prevention interventions (although the coverage is higher in Kathmandu).

HIV prevalence among PWID has considerably declined. In 2007 21% of PWID had had a HIV test in the past 12 months (and knew their results).[32] Much of this downward trend is attributable to the harm reduction strategies, though the programmes are still overly concentrated in major population centres, many of them in Kathmandu. Behavioural change communication (BCC), condom promotion and outreach services (including NSPs) are provided from 23 drop-in centres in 14 districts of Nepal. These drop-in centres provide services to 9097 PWID. A total of 988 000 needles and syringes were distributed to PWID in 2006 and 245 649 in 2007 (equivalent to less than 5% of the total requirement in 2006).[32]

3.3 Current gaps in response

Universal access to harm reduction interventions (which include prevention care and treatment) for PWID is limited despite some improvements in recent years. However, the recent political situation has presented challenges to scaling up and a strong reliance on external donors continues. Links between drug prevention and treatment and HIV/AIDS prevention and treatment are weak. There has been an excessive focus

on abstinence in drug treatment and rehabilitation services, while paying insufficient attention to drug users who continue high-risk behaviours. While there has been an increase in the accessibility to NSPs and OST (geographically as well as in the level of utilization) it still remains limited for the majority of PWID. There are gender inequalities in the services provided as reflected by the fact that there are no special services catering to the needs of female drug injectors. There remains a lack of actual harm reduction services and commodities and drug dependence treatment services in prisons.

3.4 Recommendations

- Scale up evidence-based interventions, particularly OST and NSP and ensure that standards for quality services are met.
- Enhance government "ownership" of harm reduction programmes through sustainable funding, and scaling up of service provision by the government health-care system.
- Ensure minimum standards of care and the provision of demand and harm reduction services, and in particular establish standard operating procedures and coordination mechanisms across mental health, HIV and TB services.
- Advocate for closer cooperation between the Ministry of Home Affairs, which is responsible for drug control and the Ministry of Health in matters relating to drug-related HIV/AIDS.
- Expand HIV surveillance among PWID to additional sites where PWID are present in sufficient numbers.
- Female drug injectors have separate needs and special services catering to their needs are missing. Separate service delivery points to encourage female drug users

to access services need to be developed and female spouses of male drug users need to have their issues addressed with greater consideration and priority.

- In addition to periodic IBBS, institute a standard monitoring system at all programme intervention sites providing harm reduction interventions; this should include standard indicators on PWID profile and risk behaviours, and uniform data collection forms. Analyse and use the routine programme data at frequent intervals in addition to the less frequently generated surveillance data.
- Estimate trends in HIV incidence among PWID either by undertaking laboratory-based studies or by modelling the available prevalence data.
- Replace AIDS case reporting by HIV infection case reporting. As HIV case reporting improves over time, this will not only help in monitoring the epidemic but also provide information on the relative contribution to HIV incidence by PWID and other population groups.

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Thailand

1. The context

1.1 Overview of the HIV epidemic

The first AIDS case in Thailand was identified in September 1984. Subsequently, a large number of HIV infections and AIDS cases resulted from various transmission routes: drug injecting, heterosexual and homosexual sex and mother-to-child transmission. Rapid HIV epidemics in the late 1980s were identified among men who have sex with men (MSM) and people who inject drugs (PWID). For example, among PWID in Bangkok HIV infections within one year (1987–88) increased from 0% to 49%.[1,2] By 2008, despite one of the most effective national responses to the HIV epidemic for widespread impact, the HIV epidemic continued to be a significant public health issue.

It is reported that over a million people have been infected with HIV since the epidemic started; 585 800 people have died of AIDS since the mid-1980s, 532 500 people live with HIV and 12 800 new HIV infections were found likely to occur in 2008.[3] UNAIDS has estimated that currently the number of people living with HIV is 610 000 [410 000-880 000] and that of adults aged 15 to 49 years the prevalence rate was 1.4% [0.9%-2.1%].[4]

The HIV epidemic has affected diverse groups of populations. Nearly a third of new HIV infections are found in women infected by husbands or sexual partners, followed by homosexual transmissions (26%) and among PWID (7%). HIV prevalence among population groups does vary among the location sites.[1] For example, in 2007 HIV prevalence among MSM was 30.7% in Bangkok, while it was 20% in Phuket.[5] A noteworthy success story has been among female sex workers (FSW) where the HIV prevalence has been declining since 1994. In 1994 HIV prevalence was 33.2% and by 2008 it was reported to be 4%; this success has been linked to the active promotion of the 100% Condom Use Programme. In 2007 condom use by FSW was reported to be 96%. [1,6]

1.2 Overview of the drug use situation

Thailand has a long history of drug use. In the mid-nineteenth century opium use was legalized and by the early 1920s there were an estimated 200 000 people dependant on opium. In the late 1950s opium was banned. Soon after heroin appeared and Thailand's first heroin epidemic commenced; administration of heroin was first by smoking and later by injection.[7]

The most commonly injected drugs in Bangkok and in urban areas in northern Thailand are heroin, methadone and benzodiazepines. In rural northern areas, opium remains the most commonly injected drug. Although smoking tablets of amphetamine-type substances (ATS) has been a common practice among more than 90% of methamphetamine users,[8] the injecting of ATS has been reported across the country.[9] The pattern of substance use has changed over time from use of heroin to the widespread use of ATS during the mid-1990s and early 2000s. The common name for amphetamine in Thailand is *yaba.*

Intravenous administration of substances, mostly among heroin users, declined during the 1990s when heroin was not easily available.[10] It has been suggested that a contributing factor for the increased use of ATS was that the users shifted from ingesting the drug to smoking it, which resulted in a rapid onset of its effects and feeling of euphoria.[11] A recent study of 252 participants in Bangkok found that despite the increase in police presence heroin was still the most commonly injected drug (61.5%), followed by injecting of midazolam (52.4%) (a type of benzodiazepine). A third of the participants injected yaba.[12] In 2003–2004 it was estimated that the number of drug users in Thailand ranged from 2–3 million.[13,14] In a recent study, injecting of ATS has clearly emerged as a new issue of concern.[15] There was, however, not enough research findings to describe the estimated size of the ATS injector population and details of injecting practices.

2. Epidemic situation analysis

2.1 Magnitude and geographical location of injecting drug use

In 1994, a capture–recapture survey estimated that there were around 36 000 PWID in Bangkok alone.[16] Bangkok probably has higher levels of drug injecting than other parts of the country[9] but there is no direct information on the number of PWID outside Bangkok. Size estimates are largely dependent on information from drug treatment centres, collected via the Office of the Narcotics Control Board (ONCB). These reports indicate that there are "clusters" of injectors in Bangkok, Chiang Rai and Chiang Mai. Estimates of the number of PWID have fluctuated over the years. From the early 1980s to the mid-1990s it has been reported there were 160 000 PWID, but it was assumed to have decreased by 13% annually.[3] However, in 2001 it was reported that there were 160 000 PWID.[17] As a result of the punitive impact from the "war on drugs", it was suggested that from 2003 the number of PWID would drop. In 2004 the PWID population was reported to be 38 380, nationwide.[3] Other sources as used by the Global Fund Round 8, Thailand report 57 000 PWID.[18]

2.2 Magnitude of and trends in risk behaviours among PWID

Sharing of injecting equipment

Behavioural data about people who inject drugs, such as data on safe injecting practices, is scarce or unavailable. It has been reported that in Northern Thailand more than 50% of PWID shared injecting equipment with others.[6] Other studies have shown that as many as 68% of PWID in Thailand share contaminated needles.[19] In 2006, a survey found that 55.6% of PWID reported avoiding sharing injecting equipment during "last month".[6]

Unsafe sex

During the early 1990s it was reported that in Bangkok, only 12% of PWID always used condoms during penetrative sexual intercourse.[20] In another study among PWID in southern Thailand, over half (56%) of the survey participants were sexually active with mostly non-injecting partners, with a reported 34% using condoms.[21] In 2007 UNAIDS reported that among PWID less than 40% used a condom the last time they had sexual intercourse.[22]

Prevalence of STIs among PWID

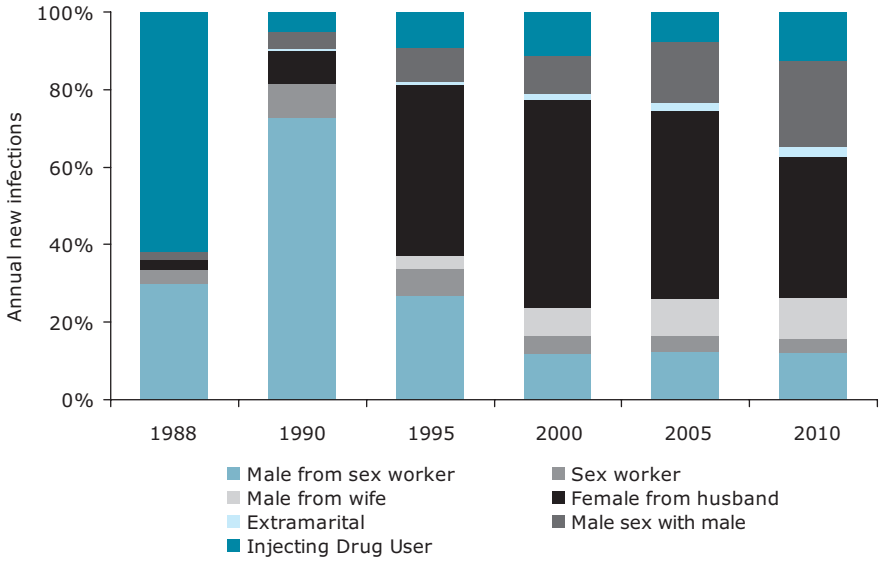
A recent study among ATS users involving 815 participants found high sexual activity; condom use was seldom. In the study 9.7% screened positive for Chlamydia (7.3% males; 22.5% females) and 2% screened positive for gonorrhoea (1.6% males: 3.9% females). Although almost all of them smoked ATS, about 11%-37% had been exposed to observing the injecting of drugs[23]

2.3 Magnitude of and trends in HIV infection among PWID

PWID were the first population group in Thailand to experience the spread of HIV. Thailand is one of several countries in Asia where the HIV epidemic due to injecting drug use grew rapidly and infected more than 50% of the injecting population within the first few years of the epidemic.[7] HIV prevalence since 1989 was reported at 30%–50% among PWID.[24] In 2007 prevalence of HIV among PWID declined to 27% but variations exist nationwide. In Bangkok, HIV prevalence among PWID had increased from around 30% in 2007 to 50% in 2008.[25] The south experienced some decline in HIV prevalence among PWID but it stabilized at a high level of over 30% in 2007.[6] In 2008 the HIV prevalence among PWID in Thailand was 48%.[26]

HIV prevalence among PWID has remained consistently high ever since the HIV and AIDS epidemic started in Thailand. PWID have accounted overall for 5%-10% of all new adult HIV infections from the early 1990s largely as a result of a lack of HIV prevention interventions. It is reported that in 2010 PWID will account for 9% of all new HIV infections.[3] Hepatitis C prevalence of over 90% has been reported among PWID.[27] Modelled projections done in Thailand in 2008 show that as time goes by, PWID in Thailand will continue to be a source of new infection. Such projections, of course, depend on the reliability of the data.

Figure 1: *Projected new HIV infections in Thailand by risk group in 2008*



Source: Family Health International, Department of Disease Control, Ministry of Public Health, Thailand, 2008)

2.4 Incarceration, drug use and HIV

Drug law enforcement has always been a prominent feature of Thailand's drug policy. It is in this context that the government's campaign to make Thailand "drug free" can be understood. In

2005 there were 138 prisons with an official capacity of 114 177, but as found in most prisons in Asia, overcrowding is a serious problem. In 2006, there were 161 844 prisoners in Thailand; an imprisonment rate of 249 per 100 000 people. In 2005, almost 64% of prisoners in Thailand were drug offenders.[28] During the widely publicized "war on drugs" in 2003, around 2000–2500 people were killed during its implementation. Many drug users were rounded up and incarcerated mainly as a result of ATS-related offences.[29, 10]

Studies on HIV prevalence among incarcerated PWID are limited. However, research has reported HIV prevalence among PWID inside Thai prisons as generally above 10%.[28] Risk behaviours among PWID inside prisons were reported. In Northern Thailand one study found that among PWID 15.8% who had ever been jailed had injected in prison.[30] In an earlier study it was reported that of 705 PWID in Klong Prem Prison, 38% had injected while in prison, with sharing of used equipment while in prison a routine practice (97%).[31]

2.5 Potential for rapid transmission

Persistent high levels of HIV among PWID are a result of a combination of several factors: continued low coverage of harm reduction interventions; possible increase in injecting drug use among female partners of men who inject drugs; potential for sexual transmission of HIV from men who inject drugs and their sexual partners; the interface between MSM and drug use; and a possible decrease in condom use among sex workers. These factors may all potentially undermine the national prevention success achieved in Thailand so far. It is important to note that despite sex workers often reporting universal condom use at last sex STI prevalence continues among FSW, and new infections are reported among the young sex workers.[3]

Contact between PWID and female sex workers (FSWs) was one of the main initial drivers of the much more widespread HIV epidemic among FSW and their clients in the early 1990s. Today

the commercial sex epidemic in Thailand is largely under control because of massive decreases in the volume of unprotected sex between sex workers and clients.

2.6 Surveillance systems and current gaps in information

The country's HIV sentinel surveillance system (HSS) has been in existence for more than 20 years and has collected data on PWID since 1987, as has the behavioural sero-surveillance (BSS). HIV prevalence data among PWID was available in 19 out of 76 (25%) provinces in the 2006 HSS.[32] The data come from facility-based samples of "at least 100 persons", although many individual sites have fewer than 100 samples. The surveillance sites are primarily drug treatment centres whose clients represent an unknown subset of the drug-using population. Therefore, it is difficult to say how the trend information reflects the reality.

The trends show "high and stable" prevalence, which is typically interpreted as continued high incidence among PWID. However, it is not clear that this is actually the case. Since the data come from treatment centres, those sampled may represent a "saturated" group of infected individuals, being tested repeatedly, and reflecting little of what is happening in the injecting community at large.

The UN Regional Task Force on Injecting Drug Use and HIV/AIDS in Asia cites countrywide PWID surveillance data as a gap in Thailand, with insufficient information or data to determine the needs of the PWID community. Data on the location of drug users and types of drugs consumed is reported to the Office of Narcotics Control Board (ONCB), which is the focal point for anti-drug campaigns, and has the role of monitoring the epidemic of narcotic drugs and tracking information on drug seizures, among other things. Detailed information is maintained over time on how many people are in treatment, their age, gender, and occupation, how they entered into treatment (voluntary, compulsory or through the correctional system), whether they

are first-time users or have relapsed, and what type of drugs they use.

While the information is very important and useful for some purposes, the extent to which it is "generalizable" to populations of drug users who are not part of the treatment system, or whether it could serve as a reliable "trigger" for detecting pockets of PWID, is not known. Although the information may not be publicly available, it would seem that the combination of data from three sources—drug treatment centres, drug seizure and drug-related imprisonment—would be a major source of information for locating pockets of PWID.

3. National response

3.1 Drug control legislation and HIV policy

The Central Narcotics Board was established by the Thai Government in 1961. It became the Office of Narcotics Control Board (ONCB) in 1976 under the provision of the Narcotics Control Act B.E. 2519 (1976). ONCB remains the lead drug control agency in the country.

The Narcotics Act B.E. 2522 (1979) (sect. 94) expanded the narcotic regulations to encourage drug users to seek treatment. The act stipulates that those who are addicted to heroin or amphetamines are subject to a fine of between 5000 and 100 000 Thai *baht* and may receive a sentence of between six months and 10 years. However, those apprehended for the first time are most likely to be referred to treatment and then put on a two-year probation and furthermore, anyone who applies for treatment in a medical establishment before his offence is discovered shall be relieved of the offence. It also makes provision for compulsory treatment following a third offence (sect. 98).

The Rehabilitation Act B.E. 2545 (2002) provides the legal framework for treatment and rehabilitation. It makes provision for compulsory treatment for drug offenders. The Minister of

Justice shall have charge and control of the execution of this act. It is reported that many PWID are arrested and held inside a prison before being shifted to a compulsory treatment centre; the average time spent in prison prior to diversion to a compulsory treatment centre was 45 days.[33]

Demand reduction policy 2006–2008 (Part II of the Annual Report of ONCB)

The strategy (also referred to as the "roadmap" was issued in the context of the ongoing war on drugs by the ONCB. It stresses the objective of reducing the number of drug users by providing appropriate aftercare services to help them reintegrate into their own communities. By implementing the strategy it was hoped to:

- solve the remaining problems, build up public confidence, set up a drug epidemic monitoring system;
- monitor the drugs situation and ensure a timely response to establish a sustainable victory over drugs; and
- continue monitoring the drugs situation and maintain a sustainable victory.

The policy does not make any reference to vulnerability to HIV/AIDS or to harm reduction strategies. It focuses rather on decreasing by 5% annually the number of drug users. It is proposed to campaign, coerce and compel all remaining drugs users to apply for treatment and rehabilitation programmes.

Thailand's main strategy for HIV prevention, treatment, care and support is the fourth National Plan for Strategic and Integrated HIV and AIDS Prevention and Alleviation 2007–2011,[34] developed through multi-sectoral collaboration between government and civil sectors, including affected populations, and approved by the National AIDS Committee. The National Plan builds on previous efforts to tackle HIV/AIDS. The national programme has been successful in controlling HIV among sex workers through the

100% condom use programme, and in expanding antiretroviral therapy (ART) nationally. The 2007–2011 plan identifies drug users as a major target group and notes that interventions so far have been inadequate. The 2008 UNGASS report highlights that *"the trend of HIV prevalence has declined with the notable exception of IDUs and MSM", and "the prevention work among IDUs is extremely inadequate with limited coverage."*

3.2 Interventions available

Treatment of drug dependence

Thailand has been providing treatment for drug problems for more than a quarter of a century. Thanyarak Hospital in Bangkok began treating drug and alcohol problems nearly 35 years ago and the capital's methadone clinics were opened in 1989. Thailand has three different systems of treatment for drug users:

(1) Voluntary treatment system.

(2) Compulsory treatment system (drug detoxification in prisons for convicted offenders).

(3) Probation/correctional system—drug users sent to treatment with no trial, at the discretion of the court and the recommendation of the police (mostly amphetamine users).

Data from the ONCB "Year 2008 in review" provides information on the number of drug users in treatment. There were 68 000 drug clients in treatment centres throughout the country in 2008 compared with 41 564 clients in 2005. Most of them were in treatment for the first time (70%) and were between 20 and 24 years. Methamphetamine users were the largest group in all treatment centres (81%) and the second-largest group was cannabis users (7.1%). A very small minority were heroin users (just 1.4% of the total) in 2008.[35] Evidence has been found of a decline in the number of drug users coming for voluntary treatment for fear of being identified by the police.

Targeted interventions

Needle and syringe programmes

Although there are no government needle and syringe programmes (NSPs), community organizations have begun implementing harm reduction services from 2006–2007. It is reported that there are fewer than half a dozen NSPs nationwide and these are implemented through peer-driven initiatives.[36] The Raks Thai Foundation received funding from the Global Fund Round 3 (US$1.3 million) and used these funds specifically for HIV prevention and care for PWID. The Thai Drug Users Network (TDN) ran three drop-in centres (DIC) in northern, southern and central Thailand that included the provision of clean injecting equipment. In the absence of NSPs, most PWID purchase needles and syringes from commercial pharmacies, but stigmatization when accessing injecting equipment has sometimes been found to be a barrier. One study found that 9% of participants were refused injecting equipment by pharmacies.[37]

Global Fund Round 8 has a major focus on harm reduction interventions, especially NSPs, with the aim that 60% of PWID will receive a service in targeted provinces by Year 5; activities were to commence from mid-2009. With Global Funds support the plan is to distribute 12.1 million needles and syringes to PWID at DIC and through street outreach in 17 provinces.[18] To expand the delivery of harm reduction services it is planned to create a network of 50–100 pharmacies in Bangkok and up to 50 pharmacies in larger cities so that PWID will be able to access sterile needles and syringes and condoms free of charge.[18]

Opioid substitution therapy

Methadone maintenance treatment (MMT) is available in Thailand, and has been provided free of charge in Bangkok by the Bangkok Metropolitan Authority. There are around 20 methadone clinics outside Bangkok, operating in 65 health centres. The majority operate under the Department of Health. Methadone is mostly provided on a short-term basis to assist detoxification. Clients

must undergo detoxification three times before being considered for longer-term maintenance, which has a time limit of 1–2 years. However, the high threshold for entry into MMT and the inadequate number of health workers undermine the capacity of these centres to treat drug users.

In 2008 according to government policy MMT ward be available under Thailand's universal health care schemes,[18] and placed on the Thai Essential Drug List. MMT is to be expanded to 147 hospitals and clinics across the country.[18] On average, a MMT patient receives a dose of about 70 mg and the maximum dose is about 120 mg daily. Methadone treatment is virtually free for those who cannot afford to pay.

Access to antiretroviral treatment

Thailand has achieved 80% access to antiretroviral treatment (ART) for those who need it. In 2008, 95% of the hospitals in the country were providing ART and the number of those with HIV infection receiving ART treatment had reached 116 747.[1] In 2004 the Thai Government rescinded a national policy that explicitly permitted the exclusion of PWID from ART programmes. Nevertheless, the number of PWID on ART remains small and it has been reported that a systematic extension of ART for PWID has not been successful.[29]

Prison interventions for PWID

It is reported that some prisons provide drug treatment programmes but these are scarce.[36] Methadone will be expanded into prison settings, under the direction of the Department of Corrections under the Global Fund Round 8, but details of the progress are not available. There has been no mention of NSPs being introduced into prisons. It has been reported that condoms have been available in two Bangkok prisons, but it has been suggested that that the attitude of prison staff towards sex between prisoners could influence condom distribution.[38]

3.3 Coverage of harm reduction interventions

By 1997, the national policy on HIV/AIDS recognized the role of harm reduction in reducing HIV vulnerability among PWID. Yet this recognition did not result in any concrete political commitment for harm reduction. Absence of a national policy on harm reduction, despite efforts by the Ministry of Public Health complemented by advocacy and support by the UN Country System and civil society organizations, has resulted in limited HIV prevention efforts and intervention coverage of below 5% for PWID. Support by the government for essential components of a comprehensive harm reduction response, such as NSPs, were at the time not forthcoming.

Although a need for changes in legislation is sometimes quoted as a reason for inaction, there are in fact no clauses in the existing drug control legislation that explicitly prohibit harm reduction. Also, there is no law that prohibits the possession of needles and syringes (though in practice these are sometimes used in court as evidence of drug-taking).

By 2007 the policy and legal environment became more supportive to essential aspects of harm reduction, in particular, the establishment and scaling up of methadone treatment, under the National Security Health Office. In its report to UNGASS in 2008, the government acknowledged that HIV among PWID needed to be addressed. In 2008 the Thai Government application to the Global Fund Round 8 outlined an emphasis on increasing harm reduction services for PWID by expanding opioid substitution therapy (OST) and establishing “to scale” NSPs and ensuring that drug users have access to HIV/AIDS prevention and care services such as voluntary counselling and testing (VCT), HIV testing, ART and other treatment and care. In 2009, the application to the Global Fund was approved and the scale-up of harm reduction HIV prevention activities targeting most at risk of HIV and AIDS, including PWID, could commence.

In another positive sign a memorandum of understanding on cooperation in harm reduction has been approved between the Ministry of Public Health, Department of Medical Services, Department of Disease Control, ONCB, National Health Security Office and UNAIDS, WHO and UNODC to bolster the implementation of harm reduction for PWID. This was signed in June 2009. Three working groups (technical, policy development and monitoring and evaluation) have been established to further develop harm reduction policy, programme and intervention. A drafted policy document that will address comprehensive intervention and support the implementation of the harm reduction programme executed by the government offices and civil society groups will be proposed to the National AIDS Committee. Recently, a guideline on harm reduction and HIV prevention for health personal was developed. The guideline includes seven books of which NSP and OST books are part of the series.

3.4 Current gaps in response

Concerns over increased HIV risk and vulnerability among PWID due to reduced access to and utilization of HIV prevention services, including MMT and NSPs, remain. Reduced utilization of health and harm reduction services by PWID explain why HIV prevalence has remained consistently high over time as regular government crack-downs on drug users have impacted uptake of services and participation in HIV sentinel surveillance rounds.

Addressing the critical health needs of PWID have been compromised by widespread stigmatization and discrimination that has largely prevailed among various government authorities and the wider community towards PWID. The development and implementation of NSPs has been an ongoing challenge in Thailand, and the NSPs that exist fall far short of meeting the needs of PWID; one consequence has been the ongoing unsafe injecting practices. While it is encouraging to see a slow expansion of the MMT programmes too few PWID are accessing such drug treatment.

Behaviour surveillance studies on drug users and their use of condoms with regular and non-regular partners or sex workers are small in number. This has compromised an improved understanding of HIV risk behaviours by PWID and developing appropriate responses. Many PWID are already HIV-infected but ART services and improved accessibility to meet their health needs remain inadequate.

The punitive laws in Thailand against drug use have resulted in many PWID being incarcerated at some point in their life. The adverse health risk factors of being incarcerated are well documented but responding to the multiple health needs of drug users in such settings requires substantial improvement. It is anticipated and hoped that with the implementation and scaling-up of HIV prevention activities for PWID as a result of Global Fund Round 8, some of these response gaps will be addressed.

4. Recommendations

- The Thai Government has shown capacity to reduce HIV and AIDS prevalence as demonstrated by successful HIV prevention interventions with sex workers. However, inadequate attention has been given to the needs of PWID where HIV prevalence among drug injectors has remained consistently high. Following the approval of Global Fund Round 8, which includes a specific focus on harm reduction and PWID, the government should provide maximum support and encouragement for the expansion and scale-up of NSPs and MMT programmes for PWID where the needs are greatest.
- The Thai Government should assist the wider community to better understand NSP and MMT programmes and of the public health benefits to PWID to ensure barriers towards service utilisation are minimized.

- Oral substitution therapy programmes are to be scaled up but it is important that issues such as dosing levels and length of treatment are determined by the clinical practitioner's judgement based on the assessment of the individual drug user.
- With the scale-up of harm reduction interventions, peer education and outreach programmes will need to be developed to assist in the delivery of various harm reduction and HIV prevention interventions. It is important for appropriate Thai authorities at the local level to be aware of these initiatives to ensure that outreach workers can effectively do their work.
- Consistent advocacy efforts are required with all Thai Government authorities that address drug use issues to improve their understanding of harm reduction and of associated comprehensive HIV prevention interventions for PWID.
- Over the years Thailand's "war on drugs" has resulted in mass incarcerations of drug users, which have led to various adverse health consequences to PWID. The Thai Government should be encouraged to include the concept of harm reduction in the national drug policy, which highlights that harm reduction interventions are evidence-based and that services and programmes protect and promote the health of those that use drugs.
- Condom use is not common among PWID with sexual partners, increasing the risk of sexual transmission of HIV. Greater efforts and focus on the promotion of condom use by PWID is of critical importance. Greater focus to address the needs of spouses and regular partners of PWID are required due to inconsistent condom use in sexual relations.

- Large numbers of PWID are currently incarcerated and at risk of becoming HIV-infected in closed settings. Current HIV prevention interventions are limited inside closed settings. There is a need for major expansion of HIV prevention information and education messages, provision of MMT, access to a reliable supply of condoms, and access to broad-ranging health services including HIV care, support and treatment. Pre-release linkages to HIV services including harm reduction services should be established.
- A large number of PWID are HIV-infected yet accessibility to ART is limited due to various barriers. Greater, focused efforts are required to ensure easier accessibility of ART and improved management of opportunistic infections, such as tuberculosis. Improved coordination between ART, OST, sexual health and TB services are required for good treatment outcomes for HIV-infected PWID and their sexual partners.
- Pharmacy schemes should be introduced for the distribution of sterile needles, syringes and condoms. Training programmes for pharmacy staff are required to sensitize them towards being user-friendly and meeting the needs of PWID who are highly stigmatized and discriminated against.
- There is a need to provide and improve the relevant skills of health-care providers with appropriate training opportunities to provide improved treatment, care and support for drug users who frequently present with multiple health problems including drug dependence, HIV, hepatitis C (or more commonly coinfections) and tuberculosis. For HIV-infected PWID there are multiple medical problems, which necessitate a complex treatment regimen, pose risks for ART-associated toxicities and drug interactions. Training in this area will mitigate some of these concerns.

- It is likely that many PWID are unaware of their HIV status. Thus, there is a need to rapidly expand the coverage of HIV voluntary counselling and testing.

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Over 500 000 people inject drugs in South-East Asia. Many are involved in high-risk injecting behaviour, and this has contributed towards the overall HIV epidemic in several countries of the Region. People who inject drugs have some of the highest rates of HIV prevalence among any of the high-risk population groups in the Region. The focus of this document is on countries with a high and medium burden of illicit drug injecting. In most of these countries, people who inject drugs are either HIV infected or have the potential for being infected. The countries reviewed are Bangladesh, India, Indonesia, Maldives, Myanmar, Nepal and Thailand.

National responses to reduce the HIV prevalence among people who inject drugs vary. Some countries offer both needle and syringe programmes and opioid substitution therapy, which are critically important harm reduction interventions. Despite the fact that most countries have harm reduction interventions in place, current data show that such measures have a limited reach and are not sufficiently scaled up to match the size of the problem.

This report provides the latest information on people who inject drugs, the associated links with the HIV epidemic and the national responses. It highlights the need to advocate for greater efforts and resources to be channelled into harm reduction interventions in the South-East Asia Region.

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ISBN 978 92 9022 370 2
9 789290 223702