

Consensus Statement of the
Reference Group to the United Nations
on HIV and Injecting Drug Use
2010

Acknowledgements

This consensus statement was developed by the Reference Group to the UN on HIV and injecting drug use in 2010. A meeting of Reference Group members was held in Vienna, March 2010 to facilitate the development of this document; this meeting was made possible through a grant provided by the Open Society Foundations.

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Abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
ARQ	Annual Reports Questionnaire
BRQ	Biennial Reports Questionnaire
GFATM	the Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
IDU	injecting drug use or injecting drug user
IDUs	injecting drug users
MIPUD	Meaningful involvement of people who use drugs
MMT	methadone maintenance therapy
NSP	needle and syringe programmes
OST	opioid substitution therapy
Reference Group	Reference Group to the United Nations on HIV and Injecting Drug Use
TB	tuberculosis
T&C	testing and counselling for HIV
Technical Guide	WHO, UNODC, UNAIDS Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
VCT	voluntary counselling and testing for HIV
WHO	World Health Organization

Background

The *Reference Group to the United Nations on HIV and Injecting Drug Use* provides independent advice to the United Nations system on matters related to injecting drug use and HIV. The Group consists of experts from around the world and includes researchers, clinicians and representatives from civil society organisations.

A *Steering Committee*, made up of representatives from WHO, UNAIDS and UNODC, commissions the Reference Group and its Secretariat to provide technical information and advice on various issues related to HIV and IDU.

Over the last four years the Reference Group has conducted a number of research activities with the aim of better informing the response to HIV and injecting drug use. Recent products of the reference group include:

- A systematic review of the global epidemiology of injecting drug use and HIV¹
- A systematic review of global, regional, and national coverage of HIV prevention, treatment and care services for people who inject drugs²
- A global review of the evidence on methamphetamine use and injection, and associations with HIV and other harms^{3,4}
- A global review of the availability, extra-medical use and injection of pharmaceutical opioids and the association with HIV⁵
- A systematic review and meta-analysis of mortality among people who inject drugs⁶
- A review of the risks, experiences and needs of women who inject drugs⁷

In 2010, the Steering Committee requested that the Reference Group develop a consensus statement, identifying key issues and recommendations for action for the global response to IDU and HIV among people who inject drugs. It is intended that this consensus statement might be used to inform policy development and priority setting by UN agencies, and others, in this area.

The consensus statement is based on the findings from the Reference Group's research activities. As a first step, the Reference Group determined a set of issues to be the focus of this document. These included:

- Evidence-based interventions for the prevention treatment and care of HIV among people who inject drugs
- Significant co-morbidities experienced by people who inject drugs
- Policy, legislation and law enforcement impacting upon HIV risk and the response to HIV among people who use drugs
- Non-injecting related HIV risk and drug use
- Initiation to injecting drug use
- Strengthening the data
- Regional situation analyses and recommendations for action

Members of the Reference Group and the Secretariat developed draft statements for each of these thematic issues and regional assessments, which were then reviewed and commented on by both all members of the Group.

Twenty members of the Reference Group met in Vienna in March 2010 to discuss and reach consensus on the content of these statements. Following these discussions, a consensus statement document was finalised by the Secretariat, and reviewed and endorsed by all members of the Reference Group.

The key messages from this consensus statement were presented at a side event of the 53rd Session of the Commission on Narcotic Drugs in Vienna in March 2010.

The members of the Reference Group participating in the 2010 Vienna meeting were: Atul Ambekar, Francisco Bastos, Alexey Bobrik, Azizbek Boltaev, Marcus Day, Don Des Jarlais, Lena Grigoryeva, Carl Hart, Matthew Hickman, Adnan Khan, Rick Lines, Jane Maxwell, Jessie Mbwambo, Bronwyn Myers, Badou Roger N'Guessan, Heino Stöver, Mark Tyndall, Daniel Wolfe, Wenyan Yin and Tomas Zabransky.

Other members of the Reference Group in 2010 did not attend the Vienna meeting, but provided contributions both before and after the meeting, they were: Elie Aaraj, Abu Abdul-Quader, Tasnim Azim, Mamadou BA, Holly Bradford, Jimmy Dorabjee, Benham Farhoudi, Le Minh Gian, Jean-Paul Grund, Mauro Guarinieri, Li Jianhua, Adeeba Kamarulzaman, Alisher Latypov, Kasia Malinowska-Sempruch, Pratima Murthy, Tatyana Nikitina, Olanrewaju Onigbogi, Fred Owiti, Samiran Panda, Afarin Rahimi, Diana Rossi, Steffanie Strathdee, Abdalla Toufik, Jallal Toufik, Gino Vumbaca and Lucas Wiessing.

See Appendix A for a list of Reference Group members 2007-2010.

In 2010 the Secretariat of the Reference Group was operated by the National Drug and Alcohol Research Centre, University of New South Wales, Australia, and comprised Dr Bradley Mathers, Professor Louisa Degenhardt, Professor Richard Mattick, Dr Alex Wodak, Dr John Howard and Dr Hammad Ali.

Structure of this document

Part 1 of this statement explores cross cutting issues regarding the response to injecting drug use and HIV and outlines consensus recommendations made by the Reference Group. Part 1 is divided into three sections discussing the following: (part 1, section 1) interventions to address injecting drug use and HIV; (part 1, section 2) legislation and law enforcement approaches to injecting drug use and HIV; and (part 1, section 3) improving the data to inform the response to injecting drug use and HIV. A summary of the consensus recommendations made by the Reference Group is provided at the beginning of Part 1.

Part 2 provides regional summaries regarding: the epidemiology of injecting drug use and HIV among people who inject; the state of the current response across each region; barriers that exist to an effective, or optimal, response to HIV and drug use; and recommendations for action in each region.

Appendix A lists the current Reference Group membership.

Appendix B provides tables of data for each region regarding the epidemiology of injecting drug use and HIV, and the provision of HIV prevention treatment and care services for people who inject drugs.

A note on terminology

In this document we use the terminology '*injecting drug user*', and the abbreviation '*IDU*' to refer to people who use drugs. We wish to acknowledge that the terms '*people who inject drugs*' or '*people who use drugs*', and the respective abbreviations '*PWID*' and '*PWUD*' are now used by some agencies and civil society organisations and, in particular, are favoured by drug user organisations. For the sake of clarity and comprehension, because the term IDU remains the most commonly used at this time, this term is used in this report.

Part 1: Responding effectively to injecting drug use and HIV

Summary of recommendations

An effective and evidence-based response to HIV among people who use drugs is required to control the rapid spread of HIV among drug-using populations and to prevent transmission through unprotected sexual contact with non-drug using partners. This should involve a combination of approaches, should be supported by appropriate policy and legislation, and be protective of human rights.

The following recommendations on improving the response to HIV and injecting drug use were made by the Reference Group to the United Nations on HIV and Injecting Drug Use, 2010.

A comprehensive package of interventions to address injecting drug use and HIV

- The comprehensive package of nine interventions outlined in the WHO, UNODC, UNAIDS Technical Guideⁱ should be considered as the core set of harm reduction interventions to address injecting drug use and HIV:
 1. Needle and syringe programmes (NSPs)
 2. Opioid substitution therapy (OST) and other drug dependence treatment
 3. HIV testing and counselling (T&C)
 4. Antiretroviral therapy (ART)
 5. Prevention and treatment of sexually transmitted infections (STIs)
 6. Condom programmes for IDUs and their sexual partners
 7. Targeted information, education and communication (IEC) for IDUs and their sexual partners
 8. Vaccination, diagnosis and treatment of viral hepatitis
 9. Prevention, diagnosis and treatment of tuberculosis (TB).
- To achieve maximal impact, national HIV strategies should include implementation of these nine interventions, so that they are widely available and accessible to all IDUs. In particular, NSPs, OST, ART and sexual risk reduction strategies targeting IDUs should be implemented as a matter of priority.
- Where levels of coverage of these interventions are low, programs should be increased in scale, multiple delivery models should be utilised (including outreach, low threshold drop in centres, peer education), and barriers to access should be identified and removed to allow for these programs to reach as many injecting drug users as possible.

ⁱ WHO, UNODC and UNAIDS, *Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users*. Geneva: World Health Organization, 2009.

- It is important that countries where IDU is now an emerging concern act swiftly to prevent HIV and other harms associated with drug use, in order to avert the significant public health consequences that have occurred elsewhere.
- Legislation that prevents the introduction, or inhibits the delivery of any of these interventions should be revised to allow for, and support these interventions. Legal prohibitions on the purchasing, carrying, or distributing of injecting equipment should be removed, as should those that prevent accurate information about safer injection or medication-assisted treatment being distributed.
- Law enforcement activities must not impact negatively on access to these interventions.
- Harm reduction and drug treatment services should be accessible to young people who use drugs, and legislation should be reviewed in order to provide an enabling environment for delivering these services.
- Drug treatment and HIV prevention, treatment and care services should be well integrated, and allow for easy access and referral between services.
- Consistent with the principle of meaningful involvement of people who use drugs (MIPUD), there is a need to develop models through which to increase empowerment of people who use drugs, to become agents of change to the broader policy and programming efforts, and to contribute to policy and program development and implementation. Through their active participation, the response to HIV and injecting drug use can be more appropriate, effective and responsive to the needs of those most affected.

Needle and syringe programs (NSPs)

- In countries where injecting drug use is present, legislation must allow for, and support the implementation of NSPs; legal prohibitions on the purchasing, carrying, or distributing of injecting equipment should be removed.
- Multiple service delivery models should be utilised, in order to increase service accessibility and coverage. Programs should aim to maximise the number of needles and syringes distributed.

Interventions addressing drug use and dependence

- It is important that a range of evidence based treatment options, which respect the rights and dignity of people who use drugs, are available for the management of drug dependence.
- Treatment for drug dependence should also be available for young people. The needs of young people who may benefit from treatment may not be met by adult-oriented programs. Developmental-stage specific services may be required.
- All interventions implemented for the purpose of reducing drug use and treating drug dependence, including law enforcement approaches and detention of drug users, should be evaluated as to their effectiveness and safety. Interventions should not be implemented if proven to be ineffective or if they cause harm, including the violation of human rights.

- Medically supervised detoxification should be available to IDUs undergoing drug withdrawal, in the community as well as in prison, pre-trial detention and other closed settings; provision of detoxification alone, however, should not be considered as treatment for drug dependence.
- Legal prohibitions on the provision of opioid substitution therapy should be removed; OST should be available to all opioid dependent persons, both IDUs and non-IDUs, who wish to undergo treatment for their drug use, and preferably provided together with psychosocial support.
- Pharmacotherapies for stimulant dependence should be further investigated and those demonstrated to be safe and effective should be introduced.
- Outpatient and inpatient psychosocial interventions for drug dependence should be available and should follow recognised best practice guidelines; training and support may be required to develop capacity to provide such services.
- HIV prevention services should be readily accessible following drug dependence treatment to prevent the spread of HIV among those who may resume drug use and injection; referral pathways between HIV prevention services and drug treatment programs should be in place.
- Police and military operated detention centres, which impose arbitrary confinement and human rights abuses on drug users as “drug treatment”, and those which offer no evidence-based treatment for HIV or drug dependence, should be closed.

Interventions addressing sex related HIV risk among drug users

- HIV strategies should address HIV transmission associated with non-injecting drug use, particularly sexual risk that is associated with stimulant use. Strategies should include: treatment for stimulant dependence, condom programs, and behavioural interventions to reduce sexual risk. Sexual risk among IDUs must also be addressed.

Behavioural interventions addressing HIV risk among drug users

- Behavioural interventions and education to reduce HIV risk should be integrated into the response to HIV among people who use drugs. Where possible these should be peer-led.

HIV treatment and care

- Current WHO guidance on when to initiate antiretroviral therapy (ART) should be followed.
- ART treatment should be made accessible to all IDUs living with HIV and in need of treatment; programs should be scaled up where coverage is low.
- Active or previous injecting drug use should never be a reason to deny or delay ART for IDUs living with HIV.
- IDUs receiving ART should be provided with support and treatment for co-occurring conditions including drug dependence, psychiatric conditions, TB, HCV and other infections,

in order to improve ART adherence and outcome. Provision of ART for IDUs should, however, never be conditional on the treatment of co-occurring conditions.

- The potential benefits of ART in reducing HIV incidence among IDUs should be further investigated.

Responding to co-occurring conditions

- As part of a comprehensive program for HIV among IDUs, it is necessary to address other common health conditions, including tuberculosis, hepatitis C, sexually transmitted infections and mental health problems, to reduce the broader harms experienced by IDUs, and to augment efforts to prevent and treat HIV.
- Active injecting drug use should not be a criterion for delaying or denying treatment of HIV or other comorbid conditions. Conversely, the presence of these conditions should not be criteria for delaying or denying treatment for drug use or efforts to reduce drug related harm.
- IDUs should be provided with appropriate treatment for co-occurring conditions in order to improve treatment adherence and outcome.
- It is imperative that services or facilities that are most likely to have contact with IDUs, such as harm reduction services, drug treatment providers and criminal justice settings, have the capacity to manage a broad range of conditions, or be integrated with services that do.
- Various strategies may be utilised to better integrate services, including: co-locating services; cooperation between multidisciplinary services to provide co-management of IDU patients; and efficient and supported referral pathways between services. The most appropriate strategy for a particular setting will depend upon how health systems and other relevant sectors are structured, and how capacity is distributed. To ensure universal access to comprehensive treatment for the range of serious health conditions IDUs may face, it is important for collaborative planning and service delivery.

Responding to hepatitis C virus (HCV) among IDUs

- Addressing HCV among IDUs is a public health priority, and national strategies to prevent and treat HCV among IDUs are required.
- Compared to strategies addressing HIV, greater levels of coverage and enhanced effectiveness of NSP must be achieved to prevent of HCV transmission among IDUs.
- Active or previous injecting drug use should not be a reason to deny or delay HCV treatment for IDUs living with HCV.
- IDUs receiving antiviral treatment for HCV should be provided with psychosocial support as well as treatment for co-occurring conditions (including HIV, drug dependence, mental health problems, TB and other infections). Provision of HCV treatment for IDUs should, however, never be conditional on the treatment of co-occurring conditions.
- Identifying and providing support to those at risk post-treatment is important. Harm reduction measures should be available to these individuals as they should for all IDUs.

Responding to mental health problems among IDUs

- Appropriate screening, assessment, and services providing mental health should be provided as key components of care for IDUs.
- Comorbid mental health problems and drug dependence should never be a reason to delay or deny treatment for either condition, or for any other.
- The capacity of both mainstream and specialist services to provide mental health services for IDUs should be assessed, and where lacking, efforts to increase capacity should be undertaken.

Responding to tuberculosis (TB) among IDUs

- Addressing TB among IDUs, and particularly TB/HIV co-infection, is a public health priority. National strategies to prevent and treat TB among IDUs are required.
- Active or previous injecting drug use should not be a reason to deny or delay TB treatment for IDUs living with TB.
- IDUs receiving treatment for TB should be provided with psychosocial support as well as treatment for co-occurring conditions (including drug dependence, mental health problems, HCV, HIV and other infections). Provision of TB treatment should, however, never be conditional on the treatment of co-occurring conditions.
- Integrated models of care should be developed to provide TB treatment for IDUs in an effective and efficient manner, and to achieve universal access to comprehensive treatment.

Responding to sexually transmitted infections (STIs) among IDUs

- Widespread screening and provision of treatment for STIs among IDUs should be undertaken and included in integrated models of service delivery for IDUs.

Prevention of opioid overdose

- Prevention of opioid overdose and mortality must be part of a comprehensive response to drug use.
- On the basis of evidence supporting the potential efficacy and safety of peer naloxone distribution for the prevention of fatal opioid overdose, programs should be expanded and carefully evaluated.

Responding to risks around initiation to injecting drug use

- Evidence-based interventions to reduce initiation to injecting drug use and associated harms should be further investigated and included in a comprehensive response to HIV, along with interventions to encourage and facilitate the transition from injecting non-injecting routes of administration.
- In developing policy and legislation, consideration should be given to potential impact upon rates of initiation to injecting and associated harms.

- It is necessary to monitor changes in drug markets, drug type and availability that may impact upon the incidence and prevalence of injecting, and ensure that services are available, and of sufficient scale, to meet needs as appropriate.
- Further examination is required to better understand the drivers influencing the spread of injecting in countries where injecting is an emerging phenomenon.
- Efforts should be made to identify those who may be particularly likely to initiate injecting and interventions should aim to reach those at risk.
- Peer-focussed interventions to prevent initiation to injecting drug use should be implemented.
- Equipment for non-injecting routes of drug administration should be made available.
- Access to drug treatment should not be contingent upon injecting status; both IDUs and non-IDUs should have access to drug dependence treatment.
- Harm reduction services should be accessible to new IDUs through multiple strategies including outreach and low threshold service provision.

Legislative and law enforcement approaches to injecting drug use and HIV

- Imprisonment for people who have committed no crime other than drug use or possession for personal use should end.
- The sharing of health-related information with police should not occur and strict confidentiality protections should be enforced.
- Legal prohibitions on the purchasing, carrying, or distributing of injecting equipment should be removed, as should those that prevent accurate information about safer injection or medication-assisted treatment being distributed.
- Police and military operated detention centres that impose arbitrary confinement and human rights abuses on drug users for “drug treatment”, and which offer no evidence-based treatment for HIV or drug dependence, should be closed.
- People deprived of liberty, including those held in pre-trial detention, must be ensured access to evidence-based health services including needle and syringe programmes, opioid substitution therapy and antiretroviral therapy for HIV, in order to prevent and treat HIV and other drug related harms.
- The health and law enforcement sectors should work in partnership to ensure that access and utilisation of HIV prevention, treatment and care services is optimised, and so enhance the effectiveness of the response.

Improving data to inform the response to injecting drug use and HIV

- A better understanding of the epidemic is required to improve the response. Concerted efforts must be launched to collect accurate information in each region, including estimates of IDU population size, levels of HIV and drugs typically injected, as well as more complete service provision data. This must be done while respecting informed consent, confidentiality, and other issues affecting the rights and dignity of people who use drugs.
- Dedicated resources should be allocated to improve country-level data collection in those countries where limited capacity currently exists, as well as building on current data collection processes that are already in place regionally (e.g. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Inter-American Drug Abuse Control Commission (CICAD)) and globally (e.g. Monitoring the United Nations General Assembly Special Session Declaration of Commitment on HIV/AIDS; the Annual Reports Questionnaire (ARQ) on the working of the international drug control treaties; and reporting by Member States on progress towards universal access to HIV prevention treatment and care).
- Agreed, uniform indicators and definitions should be used across countries to allow for cross country and consistent comparison. Additional indicators and data collection should be determined at the local level as appropriate, to inform the response in that context.
- Research and surveillance activities should be considered an integral part of the response. They have been shown to be cost effective in terms of their contribution to preventing and treating HIV.
- Donor agencies should encourage epidemiological data collection by providing funding for these activities. Donor agencies can align their reporting requirements with international standardised indicators.
- Capacity building is required to assist many countries in developing surveillance systems and in increasing expertise in indirect estimation methods and sampling methodologies that might produce better and more representative data on the nature of IDU populations. This may require establishing new institutions or increasing the capacity those that already exist. Development of early detection systems is required in countries where injecting is only an emerging phenomenon.
- The evidence on intervention effectiveness needs to be strengthened. Limiting essential services to small pilot programmes, however, is not indicated and can significantly impede the response
- Ongoing research is needed to determine the most effective and cost-effective means by which to deliver programs, particularly combined approaches. Novel, practical research methods can be utilised to achieve this; but it remains a key priority for countries to address their injecting and HIV epidemics immediately and scale-up the comprehensive package of interventions should not be delayed.

1. Interventions to address injecting drug use and HIV

An effective and evidence-based response to HIV among people who use drugs is required to control the rapid spread of HIV among drug-using populations and to prevent transmission through unprotected sexual contact with non-drug using partners. This should involve a combination of approaches⁸, should be supported by appropriate policy and legislation, and will be protective of human rights.

1.1 A comprehensive package of interventions

Many interventions to address HIV and injecting drug use are based on sound treatment principles, with evidence demonstrating their effectiveness. Interventions that violate human rights, or which are not supported by evidence of their effectiveness in reducing HIV and drug related harm, should not be part of a country's strategy to respond to HIV among people who use drugs.

WHO, UNODC and UNAIDS have endorsed a comprehensive set of nine interventions⁹ for responding to HIV among IDUs, including:

1. Needle and syringe programmes (NSPs)
2. Opioid substitution therapy (OST) and other drug dependence treatment
3. HIV testing and counselling (T&C)
4. Antiretroviral therapy (ART)
5. Prevention and treatment of sexually transmitted infections (STIs)
6. Condom programmes for IDUs and their sexual partners
7. Targeted information, education and communication (IEC) for IDUs and their sexual partners
8. Vaccination, diagnosis and treatment of viral hepatitis
9. Prevention, diagnosis and treatment of tuberculosis (TB).

In addition to these nine interventions, interventions addressing other important morbidities (such as overdose and mental health problems) should not be overlooked, and should form part of a comprehensive response to injecting drug use.

1.1.1 Maximising the coverage and impact of interventions

In mounting a response to injecting drug use and HIV, it is important that national strategies are appropriate for the nature and stage of the epidemic in that particular country, as well as accounting for local settings, and the needs of those people most affected¹⁰.

There is strong evidence that prevention strategies need to be established in the early stages of an epidemic, before significant levels HIV are reached¹. Where significant levels of HIV among IDUs already exist, steps to prevent further spread are urgently required. NSPs, OST, ART, and sexual risk reduction strategies targeting IDUs, should be implemented as a matter of priority.

It is likely that the level of coverage required for a particular intervention to bring about a reduction in HIV incidence will differ across settings. It will be likely be dependent upon the availability of other interventions, the prevalence of HIV among IDUs, and various structural factors. Various recommendations on target coverage-levels exist; these are based primarily on observational or ecological data and modelling projections. Nonetheless, the greatest reductions in HIV transmission are likely to be achieved when there is high coverage of these interventions in combination; alone, single interventions achieve only modest impact, compared to multiple interventions together^{8 11 12}. Recently, WHO, UNAIDS, UNODC endorsed recommendations provide guidance for countries on levels of coverage that countries should aim to achieve⁹.

As described in the *Regional Statements* (see Part Two of this document), interventions from the comprehensive package to address injecting drug use and HIV have been introduced in many countries around the world. The levels of coverage achieved, however, vary substantially, and are typically low across the majority of countries for most interventions. Globally, current coverage of NSP, OST and ART services for IDU is sub-optimal, with few countries providing NSP, OST or ART at levels thought sufficient to prevent ongoing HIV transmission among IDUs².

In many countries, investment in these interventions remains inadequate, and limits the scale to which programs can be implemented and, as a consequence, the level of coverage and degree of impact that might be achieved are also limited¹³.

In addition, systematic and structural barriers impede the delivery of accessible and effective services to IDUs in multiple countries where injection-driven epidemics occur^{14 15}.

1.1.2 Quality of interventions

It is important that interventions are implemented in accordance with evidence based practice; poor service *quality* reduces the effectiveness of HIV prevention interventions¹⁶.

Performance based measurement systems can allow for the quality and impact of services to be monitored. Furthermore, programmatic data can facilitate evidence-based decision-making about drug policy and funding directions¹⁷; and about the impact and effectiveness of these interventions.

In some settings it may be necessary to undertake operational research concurrently with the roll-out of services. This can improve understanding of the local context and the needs of the target population, allowing for even better tailoring of service provision.

People providing HIV or drug-related interventions should be suitably trained and have an understanding of both areas and how they interrelate. The involvement of civil society organisations has made an important contribution to the HIV response in many countries, and this should be facilitated at both national and global levels.

To improve accessibility and intervention coverage, different models of service delivery should be utilised¹⁸. These might include providing services at fixed locations as well as through mobile units; through outreach; via peer-led interventions, and by the establishment of low threshold services such as drop in centres¹⁹. Integrated, multidisciplinary service delivery models are also an effective means by which to provide targeted and appropriate care to IDUs, allowing for various health and welfare needs to be met at a single location.

Across many countries there is increasing involvement of civil society organisations in the HIV response; this involvement should be facilitated at national and global levels.

1.1.3 Drug user involvement in the response to injecting drug use and HIV

It is important that people who use drugs actively participate in the planning, delivery and evaluation of programs addressing injecting drug use and HIV. Through meaningful involvement of people who use drugs, the effectiveness of the HIV response is enhanced, and programs can become more appropriate and responsive to the needs of those most affected.

Drug user groups have a long history of mobilising in response to health crises and human rights infringements. Although these user groups have taken different forms around the world and have focused on different priorities, most share a commitment to promoting public health, fostering mutual aid, and defending human rights²⁰.

1.1.4 Working with vulnerable subpopulations of IDUs

Special attention is required to meet the needs of those injectors who are most at risk. In particular, attention needs to be given to those who face significant barriers to accessing services, or who experience additional marginalisation or vulnerability. Such groups may include, women, those who are homeless, ethnic minorities, gay, lesbian and transgender individuals, people who engage in sex work and young IDUs.

In some countries, harm reduction and drug treatment services, such as NSPs and OST programs, are prevented from providing services to young people because of their age, despite high levels of HIV risk among young people who inject drugs. Services for young people should be developed and aim to meet these clients' developmental stage-specific needs; adult-oriented services may be unable to meet such needs.

RECOMMENDATIONS:

- *The comprehensive package of nine interventions outlined in the WHO, UNODC, UNAIDS Technical Guideⁱⁱ should be considered as the core set of harm reduction interventions to address injecting drug use and HIV.*
- *To achieve maximal impact, national HIV strategies should include implementation of these nine interventions, so that they are widely available and accessible to all IDUs. In particular, NSPs, OST, ART and sexual risk reduction strategies targeting IDUs should be implemented as a matter of priority.*
- *Where levels of coverage of these interventions are low, programs should be increased in scale, multiple delivery models should be utilised (including outreach, low threshold drop in centres, peer education), and barriers to access should be identified and removed to allow for these programs to reach as many injecting drug users as possible.*
- *It is important that countries where IDU is now an emerging concern act swiftly to prevent HIV and other harms associated with drug use, in order to avert the significant public health*

ⁱⁱ WHO, UNODC, UNAIDS Technical Guide For Countries To Set Targets For Universal Access To HIV Prevention, Treatment And Care For Injecting Drug Users

consequences that have occurred elsewhere.

- Legislation that prevents the introduction, or inhibits the delivery of any of these interventions should be revised to allow for, and support these interventions. Legal prohibitions on the purchasing, carrying, or distributing of injecting equipment should be removed, as should those that prevent accurate information about safer injection or medication-assisted treatment being distributed.*
- Law enforcement activities must not impact negatively on access to these interventions.*
- Harm reduction and drug treatment services should be accessible to young people who use drugs, and legislation should be reviewed in order to provide an enabling environment for delivering these services.*
- Drug treatment and HIV prevention, treatment and care services should be well-integrated, and allow for easy access and referral between services.*
- Consistent with the principle of meaningful involvement of people who use drugs (MIPUD), there is a need to develop models through which to increase empowerment of people who use drugs to become agents of change to the broader policy and programming efforts, and to contribute to policy and program development and implementation. Through their active participation, the response to HIV and injecting drug use can be more appropriate, effective and responsive to the needs of those most affected.*

1.2 Needle and syringe programs (NSPs)

Injecting with used and potentially contaminated needles and syringes puts IDUs at risk of HIV infection. Needle and syringe programs (NSPs) increase the availability of sterile injecting equipment to injectors, facilitating the use of clean needles and syringes, and reducing the number of unsafe injections with used needles and syringes^{12 21-23}.

The effectiveness of NSPs has been investigated in a range of settings and country contexts. There is strong evidence, from multiple systematic reviews, that NSPs reduce the occurrence of self-reported injection risk behaviours (including sharing, borrowing and frequency of injection) and correlation between increasing availability of NSPs and decreasing HIV prevalence have been observed^{12 23-29}. Economic modelling suggests the implementation of NSPs is cost effective in terms of HIV infections averted^{12 30-34}.

Because of difficulties in conducting randomised and controlled trials of NSP, few studies have directly assessed changes in HIV incidence among IDUs brought about by the implementation of NSPs^{12 24}. This does not diminish the importance of NSPs in the response to HIV, but it does highlight the need for research to understand the *scale* of NSP implementation necessary to control HIV among IDUs in different settings. Current evidence suggests that the impact of NSPs is proportional to the scale of these programs, in particular the volume of needles-syringes distributed to networks of injectors³⁵⁻³⁷, and accordingly, the proportion of IDUs receiving enough sterile needles-syringes to enable them to not reuse syringes^{32 38}.

NSP coverage can be increased by enabling distribution of clean injecting equipment through a range of services and delivery points, including mixed as well as mobile distribution points; pharmacies and medical services; vending machines; and allowing secondary distribution of clean equipment through peers^{12 24 33}. By increasing distribution options, clean injecting equipment can be more easily accessed by a greater number of IDUs, and a greater volume of clean needles and syringes distributed.³⁹

In a number of countries where injecting drug use occurs, legal barriers exist preventing the operation of NSPs.⁴⁰ In some countries, the ability of clients to access programs that do exist is also limited by police activity targeting NSP clients⁴⁰; in others, NSPs are unable to distribute injecting equipment to young people who inject drugs. To successfully prevent HIV among IDUs, legislation that supports NSPs is necessary, and other barriers to access need to be removed, including those related to age.

RECOMMENDATIONS:

- In countries where injecting drug use is present, legislation must allow for, and support the implementation of NSPs; legal prohibitions on the purchasing, carrying, or distributing of injecting equipment should be removed.*
- Multiple service delivery models should be utilised, in order to increase service accessibility and coverage. Programs should aim to maximise the number of needles and syringes distributed.*

1.3 Voluntary treatment for drug use

Treatment for drug dependence has been shown to reduce drug use and therefore injecting and injecting-risk occasions^{12 41-43}. Ensuring people who use drugs have access to effective, evidence-based drug treatment is a critical element of a comprehensive response to HIV.

It is important that a range of accessible, evidence-based drug treatment services are available that are able to meet the differing needs of individual drug users, taking into account the types of drugs used and the severity of drug-related problems. Drug dependence services should be available for young people in need of treatment. Drug treatment outcomes can be optimised if integrated care is available to address other co-occurring problems such as mental disorders and infectious diseases.

Drug dependence is chronic and recurring in nature, and as such it is not uncommon for people to resume drug use at some point following treatment. To prevent the spread of HIV among those who continue to inject drugs, it is important to ensure that HIV prevention services are readily accessible and referral pathways exist between these programs and drug treatment services. Following a period of abstinence or reduced drug use, an individual's tolerance to a drug is also likely to be significantly reduced; there is an elevated risk of overdose if drug use is resumed, and these risks should be addressed through overdose prevention measures.

1.3.1 Detoxification

For many drug users, detoxification is an important prelude to drug treatment. Medically supervised detoxification involves the provision of medications to reduce the discomfort of drug withdrawal experience by a drug dependent person when drug use is stopped. Medications may serve to give relief to symptoms of withdrawal, or minimise the development of symptoms, (particularly for opioid withdrawal) through the administration of tapering doses of substituted opioid medication.

Medicated detoxification increases the likelihood that withdrawal is completed⁴⁴⁻⁴⁶. By itself, however, detoxification is not sufficient to facilitate behaviour change, and needs to be accompanied and followed by more intensive interventions⁴⁷.

1.3.2 Opioid substitution therapy

Strong and consistent evidence has demonstrated opioid substitution therapy (OST) to be an important and effective treatment for opioid dependence^{48 49}. Methadone and buprenorphine are listed by the WHO as essential medicines for the treatment of substance dependence⁵⁰; consensus guidance on the delivery of OST is available⁴⁵.

In addition to its efficacy in treating drug dependence, there is strong evidence that OST reduces overall injection and risky injection practices^{48 51 52}; reduces HIV incidence^{8 12 53}, and improves health and broader social functioning^{45 53}.

OST also reduces other drug use^{51 52}, and is associated with improvements in physical and mental health, social functioning, and reduced criminality and mortality^{45 54}. OST also has some impact on sexual risk, with a recent systematic review finding positive effects for some sexual risk behaviours (such as reductions in trading sex for money or drugs) but not others (consistent condom use)⁴⁸.

Higher doses and longer treatment duration are generally associated with greater reductions in heroin and other drug use and HIV risk^{45 51 55-59}. Improved outcomes can be achieved by combining OST with psychosocial interventions^{45 60 61}.

Achieving reductions in HIV incidence through implementation of OST is significantly cost effective, particularly where treatment is optimised by being continuous and longer in duration.³³

OST coverage may be improved by delivering services in general medical practice (“office-based”) settings and non-specialist clinics, rather than solely in specialised clinics. Mobile OST services, in China and elsewhere, have been shown to enable access for those in poorly serviced areas⁶²; it is important that such mobile services operate in each location to often enough to ensure continuity of treatment, daily if supervised daily dosing is required.

1.3.3 Pharmacotherapies for stimulant dependence

Treatment options for stimulant dependence are currently more limited than those for opioid dependence. Although some behavioural and psychosocial therapies have been demonstrated to reduce illicit stimulant use (see below), a high proportion of individuals relapse. There is a

continued need to develop new pharmacotherapies for those individuals who may be less responsive to behavioural treatments alone.

In contrast to the development of medications for opioid and nicotine dependence, in which the neurobiological mechanisms mediating reinforcement are fairly well understood, the neuronal mechanisms of action for amphetamines and cocaine are more complicated.

Oral amphetamines are widely used for the treatment of several medical conditions, including narcolepsy, obesity, and attention-deficit hyperactivity disorder (ADHD). However, they have received only limited research attention as a pharmacotherapy for stimulant dependence. Given that amphetamines and cocaine have overlapping neurobiological actions, maintenance on oral amphetamines may have potential to decrease cocaine and amphetamines use; initial studies support this⁶³⁻⁶⁷. Multiple studies have reported that amphetamine maintenance has many positive outcomes, including reductions in illicit amphetamine use and injecting, and improvements in general health⁶³⁻⁶⁷. Such programs increase treatment retention and the number of users presenting for healthcare services. Importantly, the reported incidence of adverse effects during amphetamine maintenance has been extremely low. It is important to note, however, that to date most data have been collected under non-blind conditions, which increase the likelihood of positive results.

Recent studies suggest the alerting-agent *modafinil* may also have a role in the treatment of stimulant dependence. Modafinil's neurochemical mechanisms of action have yet to be elucidated, but current evidence suggests that the drug exerts considerable overlapping neurobiological effects with amphetamines and cocaine⁶⁸. Results from human laboratory and clinical investigations of modafinil showed that the medication markedly reduced cocaine use (as measured by urine toxicology and observed cocaine self-administration) and cocaine-related subjective effects (e.g., euphoria and craving) in participants without co-morbid alcohol dependence.⁶⁸⁻⁷² In addition, untoward drug interaction effects were not observed in any of these studies, suggesting that if cocaine use occurred, the modafinil–cocaine combination was well tolerated, and did not produce additive cardiovascular effects. The case for the usefulness of modafinil as a treatment for amphetamines dependence is less compelling. To date there have been no double-blind studies demonstrating a significant reduction of amphetamine use by modafinil.

In summary, modafinil may have clinical utility as a treatment for cocaine dependence, whereas sustained-release amphetamine might be a useful alternative for amphetamine dependence. However, much better data are needed on this topic.

It is important to acknowledge the limitations of pharmacotherapies alone to cure a chronic, relapsing disorder such as drug dependence, the problems of which are expressed behaviourally. An important goal is that pharmacotherapies will provide a window of opportunity by relieving withdrawal symptom, for example, so behavioural and psychosocial interventions can be more effectively implemented.

Despite concerns associated with the proposed pharmacotherapies for the treatment of stimulant dependence, in some cases, where multiple other therapies have been unsuccessful at curtailing illicit stimulant use and accompanying risk behaviours, alternative therapeutic actions might be necessary. Pharmacotherapies including modafinil or sustained-release amphetamine

may have the potential to curtail illicit stimulant use, and may also be critical for reducing public health risk associated with infection, progression, and transmission of HIV.

1.3.4 Psychosocial interventions for the treatment of drug use

Various non-pharmacological, psycho-social interventions may be used in the management of drug dependence. They may be offered in both out-patient and residential settings (for example, therapeutic communities). Psychosocial interventions delivered adjunctively with pharmacotherapies can improve treatment outcome^{45 60}.

Evidence suggests that cognitive behavioural therapy and contingency management are beneficial in the treatment of stimulant dependence⁷³ and are currently the most effective treatment widely available for this form of drug dependence.

Various forms of residential drug treatment programs exist and some have been demonstrated to be more effective than others⁷⁴ and are useful as an available drug treatment option for some drug users^{47 75}. It is important to note that residential programs and other forms of treatment (e.g. OST) are not necessarily mutually exclusive⁴⁹. Additionally, harm reduction principles have also been applied and adopted by residential programs such as therapeutic communities⁷⁶. Aftercare should be provided following discharge from residential treatment programs, and should include access to HIV prevention interventions.

1.4 Non-voluntary drug use interventions

Around the world, a range of strategies are implemented with the intention of incurring abstinence from drug use through the detention of drug users, or their forced participation in various interventions or activities. The impact of detention on health and HIV-related risk, prevention, treatment and care is discussed further in section 2.3 of this statement.

1.4.1 Punishment for the crime of drug use

The UN conventions on narcotic drugs and psychotropic substances⁷⁷⁻⁷⁹ outline countries' obligations in relation to drugs listed as controlled substances. These conventions seek to prevent the use of these substances for anything other than medical and scientific purposes. There is considerable variation in the manner in which different jurisdictions interpret these conventions and respond to drug use and drug users under local laws. Drug use or possession may be considered as a criminal or a civil offence. Penalties might range from incarceration and physical punishment to lesser administrative penalties such as a fine, and may be dependent on the type and quantity of the drug involved.

Despite often rigorous security measures, drug use occurs in prison settings around the world⁸⁰. The availability of drug dependence treatment in prisons varies across countries, and often between custodial settings within a country. Following release, former prisoners commonly resume previous drug using patterns; this is more likely if treatment for drug dependence was not received during incarceration, and in the absence of appropriate post-release support and follow-up interventions. There is a highly elevated risk of opioid overdose following release from prison, particularly among those not receiving treatment while incarcerated or post-release.

(See also Part 1, Section 2 of this statement for a further discussion on issues related to legislative and law enforcement approaches to drug use and HIV.)

1.4.2 Court-ordered drug treatment

In recognition that drug dependence is a condition amenable to treatment, in some countries, the law provides that those found guilty of drug use or a drug related crime can be ordered by the court to participate in a drug treatment program. Various judicial approaches to compel drug users to undergo drug dependence treatment exist; in some countries, special *drug courts* have been established. Commonly, the process involves some assessment of drug use and dependence, and the treatment ordered may be evidence-based. In drug courts in some countries due legal process and the right of appeal is maintained; in others, this is not the case, with the accused being required to plead guilty in order to be processed through a drug court. The court-ordered drug treatment program might be within a prison or locked treatment centre, or in the community, where the individual may avoid a custodial sentence. The types of drug treatment interventions concerned may be based on residential or out-patient treatment modalities that are similar to services that are offered in the community and are otherwise voluntary.

Treatment completion and outcomes vary depending upon the treatment modality, but reductions in drug use and criminal behaviour have been observed when evidence-based interventions are used.⁸¹ Individual level factors such as drug use history, socioeconomic status, criminal history, social supports, and willingness or motivation to change drug using behaviour are also likely to be important in predicting outcome, as for any other form of non-coerced or community based treatment.

1.4.3 Extra-judicial detention of drug users for the purpose of preventing drug use

In some countries, systems exist where individuals suspected of drug use are arrested and confined to detention for often lengthy periods of time, ostensibly for the purpose of drug treatment and rehabilitation^{82 83}. Drug users may be arrested in police sweeps, or as the result of a having a single positive urine test. These procedures are frequently extrajudicial, and without due legal process. Suspected drug users are not tried to determine guilt or the fairness of their sentence; there is frequently no right of appeal, and procedures for release are often unclear and unrelated to clinical treatment outcomes.

These systems are based on the contention that drug use is a behaviour justifying denial of liberty. The intention is to prevent ongoing drug use by removing an individual from the community, confining them to a detention centre, and requiring them to undergo punishment or participate in activities intended to promote abstinence from drug use.

Though often termed ‘drug treatment centres’, these institutions are frequently administered and/or operated by police or military and do not offer evidence-based drug treatment. Typically, there is no assessment of drug use or dependence and medical supervision of drug withdrawal or treatment is not provided. Detainees may be forced participated in unpaid labour, or military-style drills and chants such as “drugs are bad, I am bad”⁸³. Detainees may be subject to physical punishment, torture and sexual abuse; food shortages occur and detainees may be punished for

failing to meet work quotas^{82 84-90}. Young people are often also held with adults in facilities that do not attend to age-specific needs and rights.

On release from these centres rates of relapse to drug use are high; they have been documented at between 80-100%⁸².

RECOMMENDATIONS:

- *It is important that a range of evidence based treatment options, which respect the rights and dignity of people who use drugs, are available for the management of drug dependence.*
- *Treatment for drug dependence should also be available for young people. The needs of young people who may benefit from treatment may not be met by adult-oriented programs. Developmental-stage specific services may be required.*
- *All interventions implemented for the purpose of reducing drug use and treating drug dependence, including law enforcement approaches and detention of drug users, should be evaluated as to their effectiveness and safety. Interventions should not be implemented if proven to be ineffective or if they cause harm, including the violation of human rights.*
- *Medically supervised detoxification should be available to IDUs undergoing drug withdrawal, in the community as well as in prison, pre-trial detention and other closed settings; provision of detoxification alone, however, should not be considered as treatment for drug dependence.*
- *Legal prohibitions on the provision of opioid substitution therapy should be removed; OST should be available to all opioid dependent persons, both IDUs and non-IDUs, who wish to undergo treatment for their drug use, and preferably provided together with psychosocial support.*
- *Pharmacotherapies for stimulant dependence should be further investigated and those demonstrated to be safe and effective should be introduced.*
- *Outpatient and inpatient psychosocial interventions for drug dependence should be available and should follow recognised best practice guidelines; training and support may be required to develop capacity to provide such services.*
- *HIV prevention services should be readily accessible following drug dependence treatment to prevent the spread of HIV among those who may resume drug use and injection; referral pathways between HIV prevention services and drug treatment programs should be in place.*
- *Police and military operated detention centres, which impose arbitrary confinement and human rights abuses on drug users as “drug treatment”, and those which offer no evidence-based treatment for HIV or drug dependence, should be closed.*

1.5 Addressing sex related HIV risk among drug users and their partners

Typically, HIV surveillance processes do not measure drug-related HIV risks beyond those related specifically to injecting. In addition to HIV risk related directly to injecting, drug use is also associated with other HIV transmission risks. These additional risks are primarily associated with sexual transmission, and differ somewhat across different drug types; in particular, the use of stimulants, including various forms of cocaine and amphetamine type stimulants, is significantly associated with elevated sex-related HIV risk. The prevalence of HIV among populations of illicit drug users who do not inject is typically higher than that for the general population; prevalence may be the same as or lower than prevalence among IDUs^{91 92}.

An individual's IDU status can change: people may switch between using drugs by injecting and non-injecting routes of administration. Further, networks of IDUs and non-injecting drug users may overlap, with considerable mixing or 'bridging' between these groups facilitating the spread of HIV through sexual transmission⁹³.

Associations between HIV and drug use are difficult to disentangle due to co-occurring risk factors⁴. In the case of IDUs, it is often difficult to determine whether incident HIV infection is attributable to transmission through use of contaminated injecting equipment or through sexual contact⁹⁴.

Associations between risky sexual behaviours and drug use have been observed for a variety of substances, including alcohol. It is difficult to determine whether associations between sexual-risk transmission and drug use represent causal relationships, or whether such drug use is better understood as a marker for high-risk sexual behaviours⁴. High rates of sexual risk behaviours have been observed among stimulant users in multiple and diverse settings; risks include having multiple sexual partners, high rates of unprotected sex, and engagement in sex work⁹⁵⁻⁹⁷. Other risk factors have also been observed among this group, including a predilection towards risk taking more generally, which itself is a risk factor for drug use; motivation to use the drug itself with the intention of becoming sexually disinhibited. Stimulant drugs, in particular methamphetamine, can also increase sexual arousal and may be used by some people specifically for this effect⁴.

In addition to both sex and injecting related risk, marginalised populations of drug users typically experience poverty, violence, imprisonment and inadequate health care, factors that are also associated with elevated HIV risk⁹⁸.

Sexual risk reduction, through targeted condom programs and behavioural interventions, can lead to reductions in the level of unprotected sex among drug users,⁹⁹ including those who are HIV positive¹⁰⁰. Treatment of drug dependence may also reduce sexual risk: among opioid dependent people OST has been shown to reduce frequency multiple sex partners; the extent of condom use does not seem to be affected however¹⁰¹. These issues are discussed further in section 1.5 of this statement.

RECOMMENDATION:

- *HIV strategies should address HIV transmission associated with non-injecting drug use, particularly sexual risk that is associated with stimulant use. Strategies should include: treatment for stimulant dependence, condom programs, and behavioural interventions to reduce sexual risk. Sexual risk among IDUs must also be addressed.*

1.6 Behavioural interventions to reduce HIV risk

Providing behavioural drug- and sexual-risk reduction interventions to people who use drugs is an important component of an effective response to HIV. Several systematic reviews have found that providing education, information and behavioural interventions to reduce drug and sexual risks among IDUs either in community or treatment settings have an overall positive effect^{25 26 99 100 102 103}. This effect however, may be modest and tends to decay over time, suggesting that repeated exposure is required to maintain an effect^{25 26 100 102 103}.

Drug and sexual-risk outcomes are often improved when these interventions are peer-led¹⁰⁴⁻¹⁰⁷. A recent systematic review of 30 peer-intervention studies reported a 63% reduction in equipment sharing (OR; 0.37; 95%CI: 0.20, 0.67), and an almost two-fold increase in condom use (OR: 1.92; 95%CI: 1.59,2.33)¹⁰⁸. The potential for delivering risk reduction interventions through social networks by training one member of a network to be a peer educator has positive implications for the cost-effectiveness and sustainability of these interventions^{107 109}.

RECOMMENDATION:

- *Behavioural interventions and education to reduce HIV risk should be integrated into the response to HIV among people who use drugs. Where possible these should be peer-led.*

1.7 HIV treatment and care

To reduce AIDS-related mortality and morbidity, antiretroviral therapy (ART) must be available to HIV positive IDUs when clinically indicated^{41 110 111}. With appropriate support, IDUs obtain the same benefits from ART as other persons with HIV¹¹¹, and with no higher levels of resistance¹¹².

There is increasing evidence that antiretroviral treatment (ART) lowers viral load and reduces HIV transmission among sero-discordant sexual partners^{113 114}. Recent observational evidence also suggests that lower viral loads are associated with reduced HIV-incidence among IDUs¹¹⁵.

Recent guidance from WHO recommend early initiation of treatment, when CD4 counts are <350 cells/ μ L¹¹⁶. Models suggesting that universal initiation of treatment could eliminate new infections¹¹⁷, while untested in the field may be effective in IDU populations.

Adherence to and outcome of ART among IDUs can be enhanced, by concomitant drug dependence treatment (particularly OST for those who are opioid dependent), and peer and psychosocial support^{111 118 119}. Directly observed ART treatment for IDUs receiving OST, at NSPs, or in specialised residential facilities, has been demonstrated as an effective method of improving adherence to ART^{120 121}.

Availability and accessibility of ART for IDUs, however, need not be contingent upon their drug-use or drug-treatment status. IDUs have generally poorer levels of access to ART compared with non-IDUs often as a result of restrictions or, in many instances, clinicians being reluctant to initiate treatment for IDUs.

Interactions between ART medications and opioids used for substitution maintenance therapy can occur. A number of antiviral medications (including nevirapine and efavirenz) are known to increase opioid metabolism and may precipitate opioid withdrawal in patients receiving OST, requiring dosage to be adjusted accordingly¹²².

RECOMMENDATIONS:

- *Current WHO guidance on when to initiate antiretroviral therapy (ART) should be followed.*
- *ART treatment should be made accessible to all IDUs living with HIV and in need of treatment; programs should be scaled up where coverage is low.*
- *Active or previous injecting drug use should never be a reason to deny or delay ART for IDUs living with HIV.*
- *IDUs receiving ART should be provided with support and treatment for co-occurring conditions including drug dependence, psychiatric conditions, TB, HCV and other infections, in order to improve ART adherence and outcome. Provision of ART for IDUs should, however, never be conditional on the treatment of co-occurring conditions.*
- *The potential benefits of ART in reducing HIV incidence among IDUs should be further investigated.*

1.8 Responding to co-occurring conditions

In addition to HIV and drug dependence, IDUs have an elevated risk of many other conditions that cause significant morbidity and mortality, which also impact upon HIV infection and treatment. The conditions discussed here are prevalent among IDUs and, as well as being serious conditions themselves, can also make it difficult to prevent and treat HIV among IDUs and in some cases can also facilitate HIV transmission to non-drug users:

- Hepatitis C infection
- Mental health problems
- Tuberculosis
- Sexually transmitted infections
- Injection related abscesses
- Overdose

While management of these comorbid conditions with IDUs can present a number of challenges, the presence of these conditions, or difficulties in treating them, does not justify delaying efforts to prevent or treat HIV among IDUs, nor should injecting drug use itself be considered an absolute contraindication to treatment for other conditions.

As with any complex clinical picture involving multiple pathologies, it is necessary to manage any comorbid condition that may otherwise compromise treatment outcome. The ability to successfully manage or minimise the negative impact a comorbid condition might have, means that the comorbidity itself need no longer be a contraindication to the treatment concerned.

Adherence to intensive and demanding treatment regimes can be enhanced, and therapeutic benefit can be optimised, by providing treatment for drug dependence and other comorbid conditions, as well as addressing structural risk factors, such as housing instability or other welfare issues, which might negatively impact upon the ability of the patient to participate in, and successfully complete, treatment.

It is common for IDUs not to utilise health care services, particularly mainstream primary healthcare services, due to a number of factors. This may be due to IDUs having had negative experiences in the past or perceiving or anticipating that staff to be disrespectful, and finding the experience embarrassing, degrading or unhelpful; IDUs may be unaware of the benefits a service might offer; they may have other competing priorities such as survival needs (food and shelter), drug use and obtaining drugs; services may only be offered at locations and times incompatible with their lives^{123 124}. IDUs may be reluctant to access healthcare services and avoiding doing so until a crisis emerges. As a consequence, medical conditions may go untreated, progress to late a stage of disease, and IDUs may suffer greater morbidity and mortality from conditions which might otherwise be averted by early and effective treatment. The overlapping of multiple conditions within this population, in addition to barriers to accessing services, demands a coordinated approach to planning and delivering integrated programs to ensure that prevention and treatment are optimised and reach those who need it.

RECOMMENDATIONS:

- *As part of a comprehensive program for HIV among IDUs, it is necessary to address other common health conditions, including tuberculosis, hepatitis C, sexually transmitted infections and mental health problems, to reduce the broader harms experienced by IDUs, and to augment efforts to prevent and treat HIV.*
- *Active injecting drug use should not be a criterion for delaying or denying treatment of HIV or other comorbid conditions. Conversely, the presence of these conditions should not be criteria for delaying or denying treatment for drug use or efforts to reduce drug related harm.*
- *IDUs should be provided with appropriate treatment for co-occurring conditions in order to improve treatment adherence and outcome.*
- *It is imperative that services or facilities that are most likely to have contact with IDUs, such as harm reduction services, drug treatment providers and criminal justice settings, have the capacity to manage a broad range of conditions, or be integrated with services that do.*
- *Various strategies may be utilised to better integrate services, including: co-locating services; cooperation between multidisciplinary services to provide co-management of IDU patients; and efficient and supported referral pathways between services. The most appropriate strategy for a particular setting will depend upon how health systems and other relevant sectors are structured, and how capacity is distributed. To ensure universal access to comprehensive treatment for the range of serious health conditions IDUs may face, it is important for collaborative planning and service delivery.*

1.8.1 Responding to hepatitis C virus (HCV) among IDUs

Like HIV, HCV is also transmitted through multi-person use (sharing) of drug injection equipment. Infection with HCV can lead to liver cirrhosis and hepato-cellular carcinoma, and is the cause of significant morbidity and mortality among IDUs.^{125 126}

Because both HCV and HIV can be transmitted among injectors by sharing injecting equipment, HCV incidence is a marker of HIV risk. Interventions that are effective in preventing HCV transmission will also be effective against HIV. The opposite does not however necessarily hold true, due to HCV being more readily transmitted than HIV and that HIV prevention activities may have more modest impact upon HCV prevention. HCV is more readily transmitted than HIV, and can be transmitted through sharing of drug preparation equipment such as filters, water and containers used for mixing drugs for injection, in addition to sharing of needles and syringes.

Country-level studies suggest that from 60% to 90% of IDU populations have been exposed to HCV¹²⁷. HCV infection rates appear to be modestly higher in low and middle-income countries compared to high income countries. Programs to increase “safer injecting” have been quite successful in reducing HIV transmission among IDUs, but much less effective in reducing HCV transmission^{126 127}.

Co-infection with HIV and HCV is of special concern. HIV infection increases the rate of progression for HCV disease and decompensated liver cirrhosis is a major cause of hospitalisation and death for coinfecting individuals.¹²⁸ Further, HCV infection and resultant liver

disease can complicate HIV treatment because the risk of hepatotoxicity with antiretroviral drugs is increased.¹²⁸

Treatment for HCV infection can permanently eliminate (cure) the infection in about 40% of patients. A number of biological markers, including HCV genotype and plasma viral load are predictive of antiviral treatment response, and commonly used to guide treatment decisions. Current treatment, however, is long (24 to 48 weeks), expensive, and may have serious side effects. Other criteria to determine eligibility for treatment are also used. In many countries active IDUs are ineligible to receive antiviral treatment as guidelines preclude this or physicians are reluctant to initiate therapy; typically because of concerns that active IDUs may have difficulty remaining adherent to treatment, and that because of the potential for re-infection to occur through ongoing injecting risk. As a consequence, few IDUs infected with HCV receive antiviral therapy. However, as has been demonstrated in the case of other infectious diseases (e.g. TB and HIV) requiring intensive and demanding treatment regimes, positive treatment outcomes can be achieved for IDUs. Treatment can be optimised and adherence enhanced when those undergoing treatment are supported and where comorbid conditions, including psychiatric disorders and problematic drug use, are addressed as part of a comprehensive management plan.

Individuals may fail to achieve a sustained viral response as a result of sub-optimal therapy through interrupted or incomplete treatment due to poor adherence. If these patients are retreated there remains the potential for them to achieve acceptable rates of sustained viral load¹²⁸.

Following treatment, IDUs with a sustained viral response who continue to inject are at risk of re-infection.

Early results from research modelling the projected impact of HCV treatment suggests that, by successfully treating HCV among active injectors, and thereby lowering the number of infectious IDUs in the community, there is the potential to prevent incident cases of HCV transmission¹²⁹.

RECOMMENDATIONS:

- *Addressing HCV among IDUs is a public health priority, and national strategies to prevent and treat HCV among IDUs are required.*
- *Compared to strategies addressing HIV, greater levels of coverage and enhanced effectiveness of NSP must be achieved to prevent of HCV transmission among IDUs.*
- *Active or previous injecting drug use should not be a reason to deny or delay HCV treatment for IDUs living with HCV.*
- *IDUs receiving antiviral treatment for HCV should be provided with psychosocial support as well as treatment for co-occurring conditions (including HIV, drug dependence, mental health problems, TB and other infections). Provision of HCV treatment for IDUs should, however, never be conditional on the treatment of co-occurring conditions.*
- *Identifying and providing support to those at risk post-treatment is important. Harm reduction measures should be available to these individuals as they should for all IDUs..*

1.8.2 Responding to mental health problems among IDUs

Injecting drug users have high rates of mental disorders. Depression and anxiety disorders are the most commonly diagnosed, though all mental disorders are elevated among illicit drug users¹³⁰⁻¹³⁵.

There are strong associations between the use of different drugs and a range of psychiatric disorders; determining whether these associations reflect causal relationships, however, is difficult.¹³⁶ Multiple risk factors are common to the development of both substance use disorders and mental illness¹³⁷. IDUs with co-occurring mental health and substance use disorders commonly suffer more severe symptoms than those who do not have such comorbidity.¹³⁶ Further, they are more likely than those without comorbid disorders to experience poor health in general, engage in risky sexual and injecting behaviours, and have elevated risks of attempting suicide and incarceration.^{138 139}

Treating co-occurring mental health and substance use disorders can be challenging. Pronounced severity of symptoms and numerous social and other issues contribute to a complex clinical picture. Both comorbidities can impact negatively upon treatment outcomes of the other, and coordinated management of both is required. Depression, anxiety and other mental health problems among IDUs have also been related to a more complex treatment picture for other conditions where treatments require high levels of patient adherence, include anti-retroviral treatment for HIV infection, treatment for HCV infection and treatment for substance use disorders.

In many countries, the capacity to provide treatment to IDUs for mental health problems may be limited due to limited mental health service development in general. Further, mental health service providers may have little experience or confidence in treating patients with comorbid drug dependence; similarly, drug treatment services may not have the capacity to address their clients' mental health issues. Integration and supporting the development of capacity within these sectors to deal with comorbid mental health and substance use issues would offer substantial benefit.¹³⁸

Treatment episodes for comorbid conditions present a valuable opportunity to screen for, and treat, mental health problems among IDUs. Treating mental illness can improve the outcome of treatment for other comorbid conditions; for example, administration of antidepressants has been shown to increase ART adherence rates for those suffering co-morbid depression¹²².

RECOMMENDATIONS:

- *Appropriate screening, assessment, and services providing mental health should be provided as key components of care for IDUs.*
- *Comorbid mental health problems and drug dependence should never be a reason to delay or deny treatment for either condition, or for any other.*
- *The capacity of both mainstream and specialist services to provide mental health services for IDUs should be assessed, and where lacking, efforts to increase capacity should be undertaken.*

1.8.3 Responding to tuberculosis (TB) among IDUs

Tuberculosis among HIV infected IDUs was significant problem in high income countries in the early 1990s, but aggressive tuberculosis control efforts, including directly observed therapy (DOT) resulted in reductions in TB incidence. This has not been the case, however, in many countries in Eastern Europe, and Asia where TB continues to be a significant cause of morbidity and mortality among IDUs living with HIV¹²².

Compared to non-drug users some studies suggest that drug users are more likely to be infectious with active TB, generally take longer to revert to latent TB infection, and are at increased risk of mortality, even when receiving the same treatment as non-drug users.¹⁴⁰ HIV infection increases susceptibility to tuberculosis (TB), and can also re-activate latent tuberculosis infection, leading to active disease and transmission of TB to others¹⁴¹. Increased transmission is observed in crowded settings such as prisons, and medical or in-patient drug treatment facilities, all locations where large numbers of HIV infected IDUs may be present.

Unfortunately, it is the case that in countries where TB and HIV among IDUs are both common, treatment for drug dependence may not be readily accessible or well developed. Some TB medications (such as rifampicin) can alter the metabolism of methadone, such that higher methadone dosages are required. The emergence of multi-drug resistant TB strains is also of concern, particularly in low or middle income countries where there are high rates of HIV among IDUs.

Because IDUs commonly have poor access to healthcare generally, HIV positive IDUs infected with TB often present late in advanced stages of the disease, delaying the initiation to treatment. WHO guidelines are clear that active drug use or the presence of other comorbid conditions should not be used as reasons to withhold treatment for TB¹⁴². The completion of treatment is important to prevent the development of drug resistant strains of TB. As is the case for other treatment regimens requiring good adherence (such as treatments for HIV and HCV), IDUs undergoing TB treatment should be supported and receive treatment for drug dependence and any other comorbid conditions, to increase the likelihood of treatment completion.

RECOMMENDATIONS:

- *Addressing TB among IDUs, and particularly TB/HIV co-infection, is a public health priority. National strategies to prevent and treat TB among IDUs are required.*
- *Active or previous injecting drug use should not be a reason to deny or delay TB treatment for IDUs living with TB.*
- *IDUs receiving treatment for TB should be provided with psychosocial support as well as treatment for co-occurring conditions (including drug dependence, mental health problems, HCV, HIV and other infections). Provision of TB treatment should, however, never be conditional on the treatment of co-occurring conditions.*
- *Integrated models of care should be developed to provide TB treatment for IDUs in an effective and efficient manner, and to achieve universal access to comprehensive treatment¹⁴²*

1.8.4 Responding to sexually transmitted infections (STIs) among IDUs

Injecting and non-injecting drug users typically have much higher rates of sexually transmitted infections (STIs) than members of the general population in their respective countries. STI rates among IDUs vary by specific disease and by country, but lifetime prevalence rates of 60% are not uncommon for both high and low income countries.

STIs such as syphilis and herpes simplex virus-2 biologically increase sexual transmission of HIV, both among IDUs and from IDUs to non-drug using sexual partners. These comorbid STIs may play a critical part in transitions from IDU-concentrated to heterosexual transmission epidemics.

Further, many of the economic and social conditions associated with the diffusion of injecting drug use within may also, similarly, lead to the spread of sexually transmitted infections. Community development efforts can be effective in addressing the conditions that facilitate both the spread of injecting drug use and sexually transmitted infections.

RECOMMENDATION:

- *Widespread screening and provision of treatment for STIs among IDUs should be undertaken and included in integrated models of service delivery for IDUs.*

1.8.5 Prevention of opioid overdose

Drug overdose is a significant and preventable cause of death, particularly among opioid injectors. Non-fatal opioid overdose is a common, and often recurring, event among opioid injectors and can cause both acute and chronic morbidity including: pulmonary oedema, pneumonia, renal failure, muscular complications as a result of prolonged pressure on limbs during coma, cardiovascular complications and cognitive impairment as a result of prolonged hypoxia¹⁴³.

A recent meta-analysis of IDU cohort studies conducted by the Reference Group found death due to overdose to be one of the most prevalent causes of death among this group; it was more common among male compared to female IDUs, and two-fold greater among HIV positive than HIV negative IDUs⁶. Mortality among IDUs caused directly by stimulant overdose can occur, but is far less common than death due to opioid overdose.

Naloxone is an opioid antagonist used to reverse opioid overdose and prevent mortality. In several European countries, and some US cities, naloxone has been provided to IDUs for them to administer to other injectors in the event of overdose. Evaluations have supported the feasibility of these programs and shown that IDUs respond well to training in overdose management and the use of naloxone^{144 145}. High rates of survival have been reported for overdose events where IDUs have administered naloxone¹⁴⁴. Further research is needed to determine how effective peer naloxone distribution is in reducing overdose mortality among IDUs, but existing evidence supports the potential of this strategy to do so¹⁴⁴, and, to date, research suggests that these interventions do not cause harm when implemented¹⁴⁶⁻¹⁴⁹.

RECOMMENDATIONS:

- *Prevention of opioid overdose and mortality must be part of a comprehensive response to drug use.*
- *On the basis of evidence supporting the potential efficacy and safety of peer naloxone distribution for the prevention of fatal opioid overdose, programs should be expanded and carefully evaluated.*

1.9 Responding to risks around initiation to injecting drug use

Compared to non-injecting routes of administration, injecting can confer increased risk of dependence, HIV transmission and other harms related to the act of injecting itself. Strategies to reduce the incidence of initiation to injecting drug use, and interventions that aim to reduce the risk of harm associated with initiation, may potentially contribute to a comprehensive response to HIV among IDUs.

Many people use drugs; only a minority inject them. For some IDUs, particularly those in low and middle income countries, injecting may be their first drug use experience¹⁵⁰; more commonly, however, IDUs start using illicit drugs by other routes of administration prior to injecting use¹⁵¹⁻¹⁵⁷. Transitions to injecting drug use may occur soon after illicit drug use begins¹⁵⁸⁻¹⁶². Across low, middle and high income countries the following have been observed as potential risk factors for initiation to IDU:

- Drug dependence
- Having friends or sexual partners who inject drugs^{150 152 154 155 159 161-172}
- Being present at places where injection occurs¹⁷²
- Engagement in sex work^{157 173-183}
- Having suffered sexual abuse^{151 155 157 177 181 182 184-207}
- Having experienced trauma or violence, either in childhood or as an adult^{151 152 157 178 180 208-210}
- Homelessness^{152 155 211}
- Unemployment^{152 162 212 213}
- Lower socioeconomic status^{163 212 214 215}
- Having been incarcerated^{177 182 213 216}
- Having at a young age engaged in delinquent behaviour including truancy, running away from home and criminal activity^{151 178 210 217-220}
- Leaving school early^{157 159 162 178 180 213 221-225}
- Younger age^{154 155 162 164 177 182 226}

The risk factors and circumstances for injecting initiation differ between males and females, with women more likely to be introduced to injecting by their sexual partner and more likely to be intoxicated and not to have planned their first injection compared to men^{7 172}.

Some forms of a drug may be more readily injected than others. The availability of these different forms may influence the route of administration by which the drug is used. If a drug becomes scarce, diluted, or expensive drug users may start injecting to gain a greater effect for the same amount of drug than would be experienced if consumed through other routes of administration. The potency of different forms of a drug may also vary. If a drug is available in a more potent form the likelihood of injecting may be less if strong effects may still be experienced through other routes of administration.

At the first injection, and during the first few years following, injectors are at greatest risk of acquiring blood borne diseases, including HIV, Hepatitis C and Hepatitis B, compared to the rest of their injecting careers^{151 183 224 227-237}. Reasons for this elevated risk are multiple: a lack of knowledge around risk; lack of planning for injections; and the influence of their initiators.^{162 223 238-241} New initiates to injecting, and particularly female initiates, are more likely to engage in risky injection practices such as sharing injecting equipment and not using a clean needle at the first injection is common^{172 227 240 242-248}. New IDUs may have limited control over the process of dividing and preparing the drug for injection and of the injection itself which may increase risks for injecting with used equipment^{162 170 238 239 249-253}.

Numerous structural and individual level factors may facilitate initiation to injecting or may be associated with elevated risk of initiation. Interventions that mitigate these risk factors, or that target those who are most at risk, have the potential to reduce the incidence of initiation.

Initiation to injecting is often a peer-driven process and, hence, certain interventions aiming to reduce initiation are peer-driven in approach. Given the social nature of initiation, and the technical challenges that injecting presents (meaning that initiation is typically overseen by a current injector), interventions targeting current IDUs have been trialled in different settings including the UK, Eastern Europe and Central Asia. These interventions aim to reduce the likelihood that existing IDUs will encourage or facilitate others to begin injecting and typically consist of a short, peer-led one-session intervention. Findings suggest that the number of people initiated by IDUs having participated in these sessions declines following this intervention^{254 255}; it is uncertain, however, whether or not this effect is maintained overtime.

Among those already using drugs, initiation to injecting might be averted by not restricting access to equipment that allows non-injecting routes of administration. For example, allowing for the distribution of pipes for the smoking of cocaine and methamphetamine to existing drug users has been suggested as a means by which to encourage non-injecting routes of administration over injecting²⁵⁶.

Treatment for drug dependence has a role in reducing the likelihood of initiation among non-IDUs who are drug dependent. In some settings, OST is available to IDUs but not non-IDUs: access to OST should be made available to this group not only for treatment of drug dependence but as a means to reduce HIV risk through reducing the likelihood of initiation to injecting.

Increasing utilisation of harm reduction services, such as NSPs, to all new injectors is important to reduce the high level of HIV risk associated with early injecting episodes. This might be achieved through direct access to low-threshold harm-reduction services, as well as indirectly via drug using peers, who are knowledgeable in how to prevent HIV transmission, and secondary distribution of injecting equipment.

Young people represent a significant at-risk group, yet drug treatment and harm reduction services may be inaccessible or poorly utilised by young people. By ensuring these services are both accessible to young people and able to meet their needs, initiation to injecting might be prevented, and when it does occur associated harms might be reduced.

RECOMMENDATIONS:

- *Evidence-based interventions to reduce initiation to injecting drug use and associated harms should be further investigated and included in a comprehensive response to HIV, along with interventions to encourage and facilitate the transition from injecting non-injecting routes of administration.*
- *In developing policy and legislation, consideration should be given to potential impact upon rates of initiation to injecting and associated harms.*
- *It is necessary to monitor changes in drug markets, drug type and availability that may impact upon the incidence and prevalence of injecting, and ensure that services are available, and of sufficient scale, to meet needs as appropriate.*
- *Further examination is required to better understand the drivers influencing the spread of injecting in countries where injecting is an emerging phenomenon.*
- *Efforts should be made to identify those who may be particularly likely to initiate injecting and interventions should aim to reach those at risk.*
- *Peer-focussed interventions to prevent initiation to injecting drug use should be implemented.*
- *Equipment for non-injecting routes of drug administration should be made available.*
- *Access to drug treatment should not be contingent upon injecting status; both IDUs and non-IDUs should have access to drug dependence treatment.*
- *Harm reduction services should be accessible to new IDUs through multiple strategies including outreach and low threshold service provision.*

2. Legislation and law enforcement approaches to injecting drug use and HIV

Legislation, policy and law enforcement can shape HIV risk and impact upon efforts to prevent and treat HIV among people who use drugs.²⁵⁷

2.1 Impact of criminalisation of drug use

Multiple studies have shown that police abuse and the fear of arrest drives drug users away from lifesaving HIV prevention and other health services, and foster risky injection practices.²⁵⁸

In some countries, people who inject drugs do not carry sterile syringes or other injecting equipment, even when legal to do so, since possession of injection equipment can expose them to police harassment or punishment on other grounds²⁵⁹⁻²⁶⁴. In many countries around the world people who use drugs apprehended by police have reported suffering numerous abuses including: having their syringes confiscated or broken; removal of antiretroviral treatment (ART) on the suspicion that it is illegal; interruption of ART and substitution treatment if detained; physical and mental harm including beatings, strangulation, and use of painful withdrawal symptoms as a means of coercing confessions or bribes^{14 260 265}.

Police targeting of drug users has been documented to result in higher likelihood of needle sharing, hurried or unsafe injecting, reduction in the availability of syringes and reluctance by drug users to seek medical care following an overdose²⁶⁶. Many drug users report reluctance to seek treatment at public hospitals out of fear that their drug use (past or current) and identity will be shared with police and used against them²⁶⁷.

The Secretary General of the United Nations, and the Executive Directors of both UNAIDS and the Global Fund are among those who have called for decriminalisation of drug users in the interest of minimising associated HIV risk and strengthening HIV programming.

2.2 Impact of policy and legislation on access to HIV prevention or treatment

Multiple laws and policies inhibit access to sterile injection equipment and opiate substitution treatment, or deter people who use drugs from seeking antiretroviral treatment (ART) and other health services. These include: drug paraphernalia laws that criminalise the possession or distribution of sterile injecting equipment or information about safer injection²⁶⁸; prohibitions or restrictions on the provision of opioid substitution therapy; requirements that those receiving government-funded drug dependence services have their names added to registries shared by law or practice with the police, and policies that deny registered drug users employment, driver's licenses and child custody.¹⁵ In multiple countries, drug users remain registered even after enrolment in treatment or after stopping illicit drug use, and are still required to provide regular urine tests or mandatory medical examination.²⁶⁹⁻²⁷³ Removal of children or criminal prosecution of pregnant women for drug use can deter these women from seeking drug treatment and prenatal care.²⁷⁴

By supporting the operation of HIV prevention and care services such as NSP, OST and ART programs, law enforcement agencies can make important contribution to improving access and utilisation of these services.

Furthermore, drug treatment has been demonstrated as being effective in reducing crime. In recognition of this, the law enforcement bodies in some countries invest in and support drug treatment efforts; in others, however, law enforcement deters treatment either through regulatory requirements, arrests and harassment of opiate substitution treatment providers. The severity of drug control efforts has been documented to decrease not only treatment for opiate dependence, but also prescription of opiates for pain relief²⁷⁵.

2.3 Detention and incarceration of drug users and lack of HIV prevention and treatment

Criminal laws for drug use result in the incarceration of large numbers of people who use drugs. Large numbers of drug users in prisons increase the likelihood of HIV infection due to aggregating infected and uninfected individuals in settings where risk behaviours are common, and HIV prevention interventions are absent: consensual and non-consensual sex, drug use, needle sharing, and other risky practices such as tattooing and penile modification occur in prison settings, but condoms or sterile injecting equipment are commonly unavailable^{84 276 277}. UNAIDS has drawn attention at the United Nations Human Rights Council to governments' moral and legal responsibility to prevent the spread of HIV among those in detention.

Security measures designed to reduce the availability of drugs in closed settings may actually have the unintended consequence of encouraging people to inject drugs and to practice risky injecting.²⁷⁶ Research in multiple countries has also found that significant numbers of people may initiate injecting while in detention²⁷⁶. Needle sharing rates have been measured at between 60% and 90% in some penitentiary institutions, with reports of as many as 15 to 20 people using the same injecting equipment, and prisoners sometimes resorting to homemade injecting equipment that can cause serious vein damage and infection²⁷⁶.

Interventions essential to the prevention and treatment of HIV, including NSP, OST and ART, remain unavailable in most prisons and detention centres around the world^{276 278}. This is despite high levels of HIV prevalence and risk behaviours and evidence that these interventions are effective in such setting^{15 39 84-86 276 278-290}. Medical services offering treatment for TB, viral hepatitis and sexually transmitted infections are also often unavailable in closed settings^{84-86 286}.

The absence, denial or interruption of needed medical services, including OST and ART, as a result of incarceration with has serious, negative implications for treatment outcomes and risk^{112 291-293}. Incarceration also increases risk of fatal opiate overdose most often in the post release period, with those not having received OST while incarcerated being most at risk²⁹⁴⁻²⁹⁷.

RECOMMENDATIONS:

- *Imprisonment for people who have committed no crime other than drug use or possession for personal use should end.*

- *The sharing of health-related information with police should not occur and strict confidentiality protections should be enforced.*
- *Legal prohibitions on the purchasing, carrying, or distributing of injecting equipment should be removed, as should those that prevent accurate information about safer injection or medication-assisted treatment being distributed.*
- *Police and military operated detention centres that impose arbitrary confinement and human rights abuses on drug users for “drug treatment”, and which offer no evidence-based treatment for HIV or drug dependence, should be closed.*
- *People deprived of liberty, including those held in pre-trial detention, must be ensured access to evidence-based health services including needle and syringe programmes, opioid substitution therapy and antiretroviral therapy for HIV, in order to prevent and treat HIV and other drug related harms.*
- *The health and law enforcement sectors should work in partnership to ensure that access and utilisation of HIV prevention, treatment, and care services is optimised, and so enhance the effectiveness of the response.*

3. Improving data to inform the response to injecting drug use and HIV

Epidemiological and program data are necessary to inform the response to HIV among people who inject drugs. Understanding the size and characteristics of injecting drug user populations is necessary to ensure that the scale and nature of the response is appropriate to meet demand the needs of the target population. These principals are outlined in the 2000 *Lisbon Consensus Statement on Drug Information Systems: Principles, Structures and Indicators*.²⁹⁸

3.1 The role of global data collection mechanisms

Several global data collection processes, overseen by UN agencies, require countries to report on various indicators on epidemiology of IDU and HIV and related programs. These include:

- UNAIDS: 'UNGASS reporting' - Monitoring the Declaration of Commitment on HIV United Nations General Assembly Special Session on HIV/AIDS
- UNODC: Annual Reporting Questionnaire (ARQ), Biennial Reports Questionnaire (BRQ)
- WHO: Monitoring and reporting on the health sector's response towards universal access to HIV/AIDS treatment, prevention, care and support
- WHO: Global Atlas – Resources for Treatment and Prevention of Substance Use Disorders

Reporting against these indicators is often inconsistent and the data unverified. The indicators used are also not well necessarily well suited for detailed monitoring of IDU population coverage sufficient to inform the development of an effective HIV response.

To ensure that these limited resources are applied in the most effective and efficient manner, the HIV response must be informed by evidence: evidence of the effectiveness of interventions and evidence on nature and extent of injecting drug use and HIV among injectors.²⁹⁹

3.2 The importance of high quality primary data collection

Global reviews of the type undertaken by the Reference Group (i.e. secondary data collection) are useful in informing directions in the global response and the allocation of resources. The quality of such reviews, however, is dependent upon the findings from primary data collection upon which they are based. Robust national and sub-national data collection is necessary to inform the development of an effective local response.

Currently available data have significant limitations and need to be strengthened. Existing data are far from adequate, in both quality and quantity, particularly in view of the increasing importance of injecting drug use as a mode of HIV transmission in many regions. The very wide bounds around recent global and regional population size estimates of IDU and HIV among IDU illustrate the considerable uncertainty that exists currently.

In the face of a changing epidemic, it is important that research is conducted regularly and in a timely fashion. Modelling can be useful to forecast changes in the epidemic and the impact of varying levels of resource mobilisation and implementation.

Injecting drug using populations are diverse; some injecting drug users may also face additional marginalisation or may be particularly vulnerable. Identifying those particularly at risk is important to ensure the response reaches those who most need it and for it to be most effective.

3.3 Estimates of the extent of injecting drug use

Estimating the prevalence of injecting drug use is challenging. Direct estimation methods (e.g. population/household surveys) are generally considered reliable in measuring the frequency of more common, less covert behaviours, but tend to underestimate injecting drug use, due to inherent selection bias of these methods, and reluctance for participants to disclose socially undesirable behaviours. Registers of drug users are unlikely to include all injectors in a given population and hence also underestimate prevalence. Indirect prevalence estimation methods (e.g. capture-recapture and multiplier methods) using various data sources provide a better alternative to estimating injecting drug use, but can also be uncertain. The comparability and utility of different estimates is also limited due to the variation in criteria used to define 'injecting drug use' or 'injecting drug users'.

Estimates of lifetime IDU (i.e. those who have injected at any point during their lifetime) can be useful in assessing lifetime exposure to injection related risk and are crucial for informing the development of policies and measures regarding prevalent infection, potential ART need and prevention of transmission from infected IDU to their partners. Lifetime prevalence does not indicate those who may be currently in need of injection related HIV prevention interventions. Both measures, therefore, are needed to inform the development of a comprehensive response.

Various approaches have been taken in defining what constitutes 'current injecting drug use' for the purpose of estimating the prevalence of those currently at risk of HIV exposure through injecting. Primarily, these differ in time period considered as 'current'; some definitions also consider the frequency of injection. Utilisation of common indicators across countries is necessary to understand regional and global trends which are needed to guide both local and international responses. Recent WHO/UNODC/UNAIDS guidelines on how to monitor and evaluate services for IDUs recommend defining current injecting drug use as having injected at any point within the last 12 months⁹. To better understand local situations, it may be necessary to use additional indicators.

Injecting drug use has been reported to occur in 151 countries and territories², but estimates of the prevalence of injecting drug use are available for only 62 of these countries. Injecting drug use is understood to be either well established or emerging in Latin America, the Middle East, and Africa but prevalence estimates have been made for a total of only 8 countries in these regions.

Forty of the 62 national estimates of IDU prevalence were based on indirect prevalence estimates; 13 from unadjusted population survey data or registration of drug users; and eight were official government estimates reported without details of the methods by which they were derived. Recent estimates are unavailable for many countries¹.

The capacity to collect data and monitor the epidemic is limited in many countries, particularly in many low and middle income countries. Furthermore, because few countries have undertaken repeated prevalence estimation exercises, it is not possible to clearly determine how injecting drug user populations have changed over time.

3.4 Estimates of HIV among people who inject drugs

Estimation of the prevalence of HIV among people who inject drugs is challenging because of the difficulties of selecting representative samples of the target population. Many HIV surveillance systems rely upon sampling sentinel populations of injecting drug users, commonly only in capital cities and primarily recruiting those injectors who are in contact with services. As for injecting drug use prevalence estimates, there is considerable variation in how injecting drug use is defined for the purpose of measuring HIV prevalence among IDUs. Respondent driven sampling may achieve samples more representative of the wider injecting drug user population.

Estimates of the prevalence of HIV among IDUs have been identified for 84 countries; no estimates were available for 67 countries where injecting drug use is reported to occur¹.

Where HIV prevalence has been measured in multiple locations within a country, widely heterogenic epidemics are often observed, highlighting the need to assess local situations and the limitations of imputing national estimates from only few sub-national sites.

Estimates of the prevalence of hepatitis C virus and tuberculosis among IDUs are often lacking, despite the available evidence that these infections are prevalent, the cause of significant morbidity and mortality among IDUs, and have implications in particular for IDUs living with HIV.

3.5 Estimates of service coverage

Service coverage can be estimated by collection of programmatic data on service provision or through surveying IDUs and measuring exposure to interventions. For the latter method to be accurate sampling must not bias recruitment of injectors in contact with services over those who are not – obtaining representative samples of this nature is difficult.

Programmatic data are often not collected – or if they are at the individual service level, they may not be consistent between services, and may not be centralised or aggregated to allow for evaluation of how well these services meet need.

Understanding how well current the level of HIV prevention service provision meets need is limited by the paucity of epidemiological data on IDU and HIV as well as the considerable uncertainty around those estimates that are available.

It is not possible to determine how many individual IDUs access needle and syringe programme without some system that allows for identification of individuals when they use a service. Such systems that are designed to maintain the anonymity of clients have been developed and used in different settings. These do require a level of commitment by the service provider and must be palatable to clients so as not to deter utilisation. It is also important that such systems do not violate clients' privacy or make them vulnerable to legal sanction.

3.6 Improving evidence of intervention efficacy and effectiveness

For most HIV prevention interventions with IDUs, existing evidence comprises mainly of analysis of observational data from ecological, cross-sectional, case-control and cohort studies. Controlled trials of OST, NSP or ART, where there is a control group not receiving an intervention, are clearly unethical and cannot be undertaken. In the absence of randomised controlled trials, large-scale cohort studies or serial cross-sectional studies might offer the best evidence available, though few such studies exist.

Much evidence supporting HIV prevention interventions has involved measurement of changes in self-reported behaviours, rather than objective measures of HIV incidence. Dose or levels of exposure to interventions are rarely measured adequately. As data on HIV surveillance and service coverage become more available and are collected over time, it will be increasingly possible to assess impact via ecological observations^{300 301}.

Longitudinal studies can also provide valuable insights into the impact of interventions over time, though they are resource intensive. An under-used method of evaluation is to randomise the introduction or scale-up of interventions at staged intervals in a “stepped wedge” design, which can generate substantial power and good evidence on the impact of interventions.^{302 303} Serial cross-sectional studies which utilise serological methods to identify recent sero-conversions and measure intervention exposure can provide evidence.

RECOMMENDATIONS:

- *A better understanding of the epidemic is required to improve the response. Concerted efforts must be launched to collect accurate information in each region, including estimates of IDU population size, levels of HIV and drugs typically injected, as well as more complete service provision data. This must be done while respecting informed consent, confidentiality, and other issues affecting the rights and dignity of people who use drugs.*
- *Dedicated resources should be allocated to improve country-level data collection in those countries where limited capacity currently exists, as well as building on current data collection processes that are already in place regionally (e.g. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Inter-American Drug Abuse Control Commission (CICAD)) and globally (e.g. Monitoring the United Nations General Assembly Special Session Declaration of Commitment on HIV/AIDS; the Annual Reports Questionnaire (ARQ) on the working of the international drug control treaties; and reporting by Member States on progress towards universal access to HIV prevention treatment and care).*
- *Agreed, uniform indicators and definitions should be used across countries to allow for cross country and consistent comparison. Additional indicators and data collection should be determined at the local level as appropriate, to inform the response in that context.*
- *Research and surveillance activities should be considered an integral part of the response. They have been shown to be cost effective in terms of their contribution to preventing and treating HIV.*
- *Donor agencies should encourage epidemiological data collection by providing funding for these activities. Donor agencies can align their reporting requirements with international*

standardised indicators.

- *Capacity building is required to assist many countries in developing surveillance systems and in increasing expertise in indirect estimation methods and sampling methodologies that might produce better and more representative data on the nature of IDU populations. This may require establishing new institutions or increasing the capacity those that already exist. Development of early detection systems is required in countries where injecting is only an emerging phenomenon.*
- *The evidence on intervention effectiveness needs to be strengthened. Limiting essential services to small pilot programmes, however, is not indicated and can significantly impede the response*
- *Ongoing research is needed to determine the most effective and cost-effective means by which to deliver programs, particularly combined approaches. Novel, practical research methods can be utilised to achieve this; but it remains a key priority for countries to address their injecting and HIV epidemics immediately and scale-up the comprehensive package of interventions should not be delayed.*

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Note on regional groupings

In this document countries are grouped into regions according to the 2008 UNAIDS categorisation. This grouping has been used by the Reference Group in previous systematic reviews of the global epidemiology of injecting drug use and coverage of HIV prevention services for IDUs. These regional groupings are as follows:

Eastern Europe: Armenia; Azerbaijan; Belarus; Bosnia & Herzegovina; Bulgaria; Croatia; Czech Republic; Estonia; Georgia; Hungary; Latvia; Lithuania; Moldova; Poland; Romania; Russian Federation; Slovakia; Ukraine.

Central Asia: Kazakhstan; Kyrgyzstan; Tajikistan; Turkmenistan; Uzbekistan.

Western Europe: Albania; Andorra; Austria; Belgium; Denmark; Finland; Former Yugoslav Republic of Macedonia; France; Germany; Greece; Iceland; Ireland; Italy; Liechtenstein; Luxembourg; Malta; Monaco; Montenegro; Netherlands; Norway; Portugal; San Marino; Serbia; Slovenia; Spain; Sweden; Switzerland; United Kingdom.

North America: Canada; United States.

Latin America: Argentina; Belize; Bolivia; Brazil; Chile; Colombia; Costa Rica; Ecuador; El Salvador; Guatemala; Guyana; Honduras; Mexico; Nicaragua; Panama; Paraguay; Peru; Suriname; Uruguay; Venezuela.

The Caribbean: Antigua & Barbuda; Bahamas; Barbados; Bermuda; Commonwealth of Puerto Rico; Cuba; Dominica; Dominican Republic; Grenada; Haiti; Jamaica; Saint Kitts & Nevis; Saint Lucia; Saint Vincent & Grenadines; Trinidad & Tobago.

East and South East Asia: Brunei Darussalam; Cambodia; China; Democratic People's Republic of Korea; Indonesia; Japan; Lao People's Democratic Republic; Malaysia; Mongolia; Myanmar; Republic of Korea; Philippines; Singapore; Taiwan; Thailand; Timor Leste; Viet Nam.

South Asia: Afghanistan; Bangladesh; Bhutan; India; Islamic Republic of Iran; Maldives; Nepal; Pakistan; Sri Lanka.

Sub Saharan Africa: Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Cote d'Ivoire; Democratic Republic of the Congo; Djibouti; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Republic of the Congo; Rwanda; Sao Tome & Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Swaziland; Togo; Uganda; United Rep of Tanzania; Zambia; Zimbabwe.

Middle East and North Africa: Algeria; Bahrain; Cyprus; Egypt; Iraq; Israel; Jordan; Kuwait; Lebanon; Libyan Arab Jamahiriya; Morocco; Occupied Palestinian Territories; Oman; Qatar; Saudi Arabia; Sudan; Syrian Arab Republic; Tunisia; Turkey; United Arab Emirates; Yemen.

Australasia: Australia; New Zealand.

Pacific Island States and Territories: American Samoa; Federated States of Micronesia; Fiji; French Polynesia; Guam; Kiribati; Marshall Islands; Nauru; New Caledonia; Palau; Papua New Guinea; Samoa; Solomon Islands; Tonga; Tuvalu; Vanuatu.

1 Eastern Europe

Armenia | Azerbaijan | Belarus | Bosnia & Herzegovina | Bulgaria | Croatia | Czech Republic | Estonia | Georgia | Hungary | Latvia | Lithuania | Moldova | Poland | Romania | Russian Federation | Slovakia | Ukraine

1.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Eastern Europe has the highest regional prevalence of injecting drug use (IDU) globally. The region contains approximately 22% of the global IDU population¹ but only 4% of the global general population.³⁰⁴ This high regional prevalence is due, largely, to the high rates of IDU in the region's most populous countries, the Russian Federation and Ukraine, which together account for over 60% of the IDU population in the region¹. Across the region, however, rates of IDU vary considerably ranging from higher than 1% in 5 countries (Azerbaijan, Estonia, Georgia, the Russian Federation and Ukraine) to 0.1% or less in Armenia, Belarus and Hungary.

Recent trends in the patterns of drug use and production in the region have emerged, with acute health impacts upon drug users (e.g. fatal overdoses and neurologic disorders), which also have the potential to aggravate the HIV epidemics among injectors and possibly also among non-injecting drug users. Throughout Eastern Europe there have been major increases in the use and injection of amphetamine type stimulants (ATS), principally methamphetamine and methcathinone. Use of these drugs results in significant health related harms due both to the effects of substances themselves³⁰⁵ and to impurities contained in the injected substance.³⁰⁶ Sharing of these drugs as well as other risky injecting practices substantially increase the potential for further spread of HIV (and viral hepatitis) via stimulants use in the Eastern parts of the region.³⁰⁷ In the early 2000s, methamphetamine use and its relatively simple production process diffused into Slovakia from the Czech Republic; at present, methamphetamine is the drug most injected in both countries.³⁰⁸ In Poland, amphetamine use seems to be increasing, and Hungary reports increase in both methamphetamine and amphetamine injecting.³⁰⁹ In other countries in the region – Ukraine, the Russian Federation, Georgia, Moldova, Armenia, and to a lesser extent in Belarus and the Baltic countries – harmful patterns of use and production (primarily for the purpose of self-supply) of methamphetamine and methcathinone are widespread or spreading among drug users, and especially the young³⁰⁹⁻³¹¹. Probably due to substantial differences in production patterns, development in the eastern part of the region seems unrelated to that in Central European countries³⁰⁹.

There is increasing evidence that the injection of fentanyl is emerging in Russia, Estonia and possibly in other countries in the region. This represents a new overdose threat for IDUs due to the extremely high potency and low lethal dose of this synthetic. Few reliable data on overdose deaths in the region are available, but OD mortality rates may be high; for example, in Russia, reported deaths due to overdose may be three times higher than estimates based on rates of overdose mortality elsewhere³¹².

Young people represent an increasing proportion of all drug injectors, particularly in the eastern parts of the region. Because of their age, however, IDUs younger than 18 years old are commonly prevented from receiving sterile injecting equipment.

Drug injecting is the predominant driver of HIV transmission in most Eastern European countries. More than 60% of people living with HIV in the region are estimated to be IDUs³¹³. HIV prevalence among IDUs varies considerably ranging from less than 0.01% in Slovakia, Hungary and Czech Republic, to between 60-70% in several cities of Estonia, the Russian Federation and Ukraine. Significant variation in prevalence is also observed within countries; for example in the Russian Federation, with its large geographic differences, the reported prevalence of HIV infection among IDUs ranges from 0.3% in Pskov, 12.4% in Moscow, 32% in St Petersburg, to 74% in Biysk^{1 313 314}. Notably, Pskov, the least afflicted of these cities, introduced an integrated harm reduction and HIV prevention approach for IDUs much earlier than other cities in the Russian Federation.

Large HIV outbreaks occurred in Eastern Europe in the late 1990s and early 2000s³¹⁵. Following several years of decline, routine HIV reporting systems are now reporting an increasing trend of HIV infection among IDUs in several countries in the region, suggesting high levels of recent ongoing transmission³¹⁶. A comparison across countries, including the Russian Federation and Ukraine, suggested an association between HIV incidence and lack of IDU-specific intervention coverage³¹⁷. The proportion of incident infections attributed to sexual transmission has been reported to be increasing; in many instances, however, it is uncertain whether these may be related directly or indirectly to injecting drug use.

Overlapping HIV risk behaviours and high-risk environments in the region, specifically the high prevalence of concurrent commercial sex work and IDU, and widespread IDU in prisons in the region, substantially increase the potential for the HIV epidemic to worsen.

1.2 The current response

For most Eastern European countries, the major response to injecting drug use, in political and budgetary terms, is represented by law enforcement interventions, with fewer resources and policies directed to drug demand and harm reduction. Unintended, negative public health and human rights consequences have been observed in many countries as a result³¹⁸. While there are now many countries where OST and NSP have been introduced, the scale to which they have been implemented remains limited; in many countries only small scale pilot programs exist.

NSP coverage varies widely across Eastern Europe. At the regional level overall, coverage is low, largely due to low levels of needle/syringe provision by NSPs in the Russian Federation. While IDUs in Russia and several other countries in the region may purchase needles and syringes at pharmacies, the impact appears to be insufficient to revert the IDU driven HIV epidemics in these countries³¹⁹. Provision of needles and syringes to people less than 18 years of age is prohibited in many countries where young people account for a substantial proportion of the IDU population.

In many countries in the region, treatment for drug dependence relies on pharmacological approaches, with medical institutions providing detoxification only, and to a much lesser extent OST, while psychosocial treatment modalities remain largely unavailable. Currently available interventions result in an extremely high relapse rates.

Most countries in the region have introduced OST, with Russia a notable exception. Coverage remains limited overall regionally. A number of countries, including Lithuania, Czech Republic

and Hungary, have, however, now achieved higher levels of coverage after several years of only limited expansion. Recent and rapid implementation of OST has been achieved in the Ukraine as part of an internationally and nationally supported program to tackle HIV and injecting drug use.

Effective drug treatment and interventions to prevent HIV are largely absent in prison settings throughout Eastern Europe.

ART availability for IDUs has recently improved in Eastern Europe, but substantial difficulties remain. In many countries securing uninterrupted supplies of medication has been problematic for the provision of ART for both IDUs and non-IDUs. IDUs are disproportionately less likely than those infected heterosexually to receive ART even where it is available^{275 320}. Barriers to treatment include commissions that deny ART based on active or past illicit drug use, requirements for extensive clinical testing and documentation prior to treatment initiation, and discriminatory or negative attitudes by health providers^{275 320}. Levels of ART access for IDUs appear higher in countries with lower levels of HIV among IDUs overall.

With limited availability of OST and in the absence of services to provide psychosocial support, it will be difficult to achieve high levels of adherence to ART and improve drug treatment outcomes among IDUs.

1.3 Barriers to an effective response

In many countries across the region, there is much greater political commitment to law enforcement approaches in the response to drug use, whereas a genuine public health approach remains absent.

Law enforcement activities, including harassment of clinic attendees and sharing of names of IDUs seeking treatment with police, commonly interfere with services, including low threshold drug treatment and harm reduction services; consequently, this reduces client access and the effectiveness of these programs^{275 321}. Further, drug users are often subject to violence, extortion or detention without treatment by law enforcement officers, increasing risk behaviours, HIV transmission, and treatment interruptions^{260 322 323}.

Across the region, there are few specialised drug treatment services; the capacity of health systems to provide such services is commonly limited.

Legal barriers prohibit OST in the Russian Federation. Political unwillingness to change legislation to allow for the implementation of OST persists, despite substantial evidence of its effectiveness in preventing the spread of HIV, in reducing illegal drug use, and the now widespread use of OST around the world. The Russian Federation stance on OST also has some influence on other former Soviet Union countries. Elsewhere in the region, barriers to access include commissions, extensive documentation requirements, and limited treatment availability²⁷⁵.

In many countries, legislative barriers prevent harm reduction services from providing treatment of safe injecting equipment to young IDUs deemed underage; this is despite these young people being at elevated risk of blood borne virus infections and HCV in particular³²⁴.

While female IDUs may have increased HIV risk, harm reduction services are underutilised by women across the region, due largely to cultural barriers and lack of gender-specific services¹⁷²

³²⁴ .

In many countries, community based organisations are limited in terms of funding and capacity to engage in the planning and development of the response to HIV among IDUs.

1.4 Recommendations for action

To implement an effective response to injecting drug use, HIV and other blood-borne infections in the region, it is necessary for health considerations to be factored into national drug policies; cooperation and coordination between treatment, HIV prevention and law enforcement sectors must be increased; careful consideration must be given to the unintended consequences of legislation including impact upon human rights.

While law enforcement is important in contributing to decreasing the availability of illicit drugs in the region, it should be considered as *one* of several significant parts of an effective anti-drug policy package, which must also consist of primary prevention, harm reduction and drug treatment, including both pharmacological and non-pharmacological treatment modalities.

OST, an essential intervention for the control of HIV among opioid injectors, is currently denied to the majority of IDUs in the region, due to legislation in the Russian Federation that prohibits OST. If HIV is to be contained, legislation to allow OST and support NSP must be enacted throughout the region, particularly the Russian Federation. Efforts to remove these barriers, both internal and external to the country, should persevere and should be supported by the international community.

To increase OST coverage existing 'pilot' programs should be rapidly evaluated, with subsequent, and equally rapid, scaling up of programs to meet nationwide demand, that would learn from achievements and failures of the pilot programs and the increasing volume of scientific evidence and good practice examples globally. Legal restrictions and other barriers to access should be minimised and clinical guidelines on effective treatment should be followed^{45 325}.

Resource allocation and training is required across the region to increase the capacity of health systems to provide evidence based drug treatment. Novel harm reduction and treatment interventions specifically targeting both injecting and non-injecting stimulant users in the region should be investigated to reduce harm related to the high prevalence of stimulant use in many countries.

Greater NSP coverage is required in order to contain the spread of HIV^{9 326}. For NSP to be effective, law enforcement activities must not deter IDUs from accessing services. More supportive legislation and law enforcement involvement is required for NSPs to be effective in containing the spread of HIV.

ART coverage among IDUs living with HIV must be improved across the region. Resources need to be allocated for ART provision, and restrictions preventing IDUs from receiving ART should be removed. WHO guidelines on eligibility and treatment protocols should be adhered to¹¹⁶. Governments, and where relevant, donor organisations, should work to ensure ART stocks are maintained and sufficient to meet treatment demand.

Across the region, HIV prevention strategies should be developed and implemented to address HIV risk in prisons.

Increased funding for community based organisations is necessary to facilitate greater involvement of civil society in the planning and development of the response as well as the delivery of services responsive to the needs of drug users.

Ongoing advocacy efforts are required to ensure national policymakers are aware of the importance of OST, NSP and ART to public health and society in general.

Greater engagement of young people and women in harm reduction and drug treatment services is required and barriers to access, such as age limits on service provision, should be removed.

2 Central Asia

Kazakhstan | Kyrgyzstan | Tajikistan | Turkmenistan | Uzbekistan

2.1 Epidemiology of injecting drug use and HIV among people who inject drugs

An understanding of the extent of injecting drug use in Central Asia is limited by a paucity of reliable data from the region. Data that are available suggest that injecting drug use is becoming more common, and that the estimated prevalence at the regional level (0.64% among 15-64 year olds) is considerably greater than the global average (0.37%)¹. Reported national level prevalence ranges from 0.96% in Kazakhstan¹ to 0.12% in Turkmenistan³²⁷; it should be noted, however, that the Turkmenistan data are based on the number of registered drug users reported by the Ministry of Health, and most likely underestimate the prevalence of IDU in that country. Opiates are the most commonly injected drug, and originate from nearby Afghanistan³¹⁸.

Throughout the last decade, injecting drug use has served as the major driving force of the HIV epidemic in Central Asia^{318 328}. National health authorities in the region reported that between 56% and 70% of all newly registered cases of HIV infection in 2008 were attributed to using contaminated equipment during injecting drug use^{328 329}.

Sentinel surveillance studies in Uzbekistan, Kazakhstan, Kyrgyzstan and Tajikistan suggest that 11.8% of IDUs in the region may be infected with HIV¹. HIV prevalence among IDUs varies both between and within countries, reaching as high as 30% in the town of Khorog in Tajikistan and 33% in Termez, Uzbekistan³²⁹⁻³³². Findings from sentinel surveillance studies in the region should be interpreted with caution, as the representativeness of samples included in these studies is uncertain, and may be limited.

In Central Asia, the overlap between injecting drug use and commercial sex work has important implications for the HIV epidemic. Sentinel surveillance data suggest that up to 7% of sex workers in the region inject drugs³³³. Data from multiple sources suggest that the majority of female IDUs in the region might engage in sex work: 62% of female IDUs in a Kyrgyz study³³⁴, 58% of women drug users in a Tajik sentinel surveillance study³³⁵ and 77% of female IDUs from another study in Dushanbe, Tajikistan³³⁶, reported having traded sex for drugs or money. Across the region, the prevalence of HIV among sex workers who also inject drugs is, on average, 8-10 times greater than among sex workers who do not inject³³³. Despite this elevated risk of HIV transmission, female IDUs in Central Asia seem to be less likely to access and use HIV and drug treatment services compared to male IDUs³³⁷.

Drug use and HIV among prison inmates is another issue of growing concern throughout the region. UNODC estimates that as many as 30% of all people officially registered as living with HIV in Central Asia are currently serving prison sentences³³⁸. Recent research indicates that around 14% of inmates in Kazakhstan and 19% in Kyrgyzstan reported using injecting drugs while in prison³³⁹. Repeated incarceration has also been shown to be associated with HIV in the region: in Tajikistan HIV prevalence among those who had been in prison three or more times was six times higher compared to those who were facing their first sentence³⁴⁰.

Hepatitis C infection is prevalent among IDUs in the region. Findings from sentinel surveillance studies reveal HCV prevalence among IDUs as reaching 36% in Uzbekistan³³⁰, 64.1% in Kazakhstan³³², 50.9% in Kyrgyzstan³⁴¹ and 31.3% in Tajikistan³³¹. Co-infection of HCV among IDUs living with HIV is also common³³¹.

Self-reported data from sentinel surveillance studies in Tajikistan and Uzbekistan point towards reductions in the shared use of syringes in more recent years, though frequent sharing of other paraphernalia persists^{340 342}. Continued sexual risk and the sharing of injection paraphernalia among IDUs who access NSPs in the region imply that the quality of current HIV prevention interventions in the region could be improved³⁴³.

Drug overdose is common in Central Asia; preliminary data suggest that approximately 20% of opiate users overdose (fatal and non-fatal overdose) every year³⁴⁴. Available data from Kyrgyzstan suggest that up to 5000 cases of overdose occur annually, of which 200 result in death³⁴⁴.

2.2 The current response

National programs to counteract HIV/AIDS and drug use have been adopted across the region. The priorities on HIV-infection and prevention are reflected in the Declaration adopted at the Central Asian Conference on the Prevention of HIV/AIDS held in Almaty, June 2001. The spectrum and coverage of services aiming to address HIV among IDUs is country-specific, and varies among the five states of the region.

NSPs have been introduced in all Central Asian countries. Available program data suggest that, at the regional level, 36% of all IDUs access an NSP per year, and the equivalent of 92 needles-syringes are distributed per injector each year². Although these regional estimates exceed the global average, and are among the highest in comparison to other regions, they remain less than the recommended levels of coverage required to contain the spread of HIV among IDUs⁹. The effectiveness of NSP programmes has been hampered in some countries in the region by difficulties in maintaining regular supplies of equipment, a lack of training for staff of NSPs, and police activity negatively impacting upon IDUs accessing services³⁴⁵.

OST is currently available in Kazakhstan, Kyrgyzstan and, only very recently, Tajikistan; the Turkmenistan Ministry of Health is understood to be reviewing the feasibility of introducing a pilot OST programme. Kyrgyzstan is the only country in the region to run a prison-based OST programme, and methadone in a pre-trial detention facility (SIZO) is currently being piloted. In Uzbekistan, a pilot OST programme was established in 2006, but was judged by the Uzbek Government as not sufficiently effective, and was discontinued in June 2009; the substantial body of evidence supporting the effectiveness of OST in multiple other contexts around the world and the region was not seen as justification for the continued provision of OST in Uzbekistan³⁴⁶. In those countries where OST is currently available, programmes remain modest in scale, with only a very small number of recipients, relative to the large numbers of opioid dependent IDUs in each country.

Treatment for drug dependence throughout the region is mainly provided by government clinics, with few NGO or private programs. State-funded drug treatment services predominantly focus on total abstinence from drug use as the goal of treatment. Typically, treatment offered is

limited to inpatient detoxification, with only very limited psychosocial assistance and aftercare. Drug treatment centres in the region define treatment success as abstinence from drug use for at least 12 months following completion of treatment, but, currently less than 12% of patients are reported to achieve this³⁴⁷. Data from Tajikistan also suggest that abstinence is rarely achieved, with patients reporting an average of 51 drug free days post drug-treatment before relapsing³⁴⁸.

Throughout the region, less than five percent of all IDUs living with HIV receive ART. Further, despite the fact that more than half of all HIV infections in the region are attributable to injecting drug use, IDUs represent only a small proportion of all ARV recipients³⁴⁹. The limited availability of OST also has implications for ART treatment outcomes, as few IDUs receiving ART have access to OST, which is known to improve ART adherence.

Throughout the region there is lack of targeted services to meet the needs of sub-populations at particular risk, such as female and young IDUs and who face barriers to access existing services.

In Tajikistan, Kyrgyzstan and Kazakhstan, NGOs have played an important role in the development and expansion of low threshold services for drug users, such as peer-led counselling, NSPs and drop-in centres. In contrast, such services remain limited in Turkmenistan and Uzbekistan, where community based organizations are less developed. International partners including UN agencies, the Global Fund and other donor organisations, continue to play a crucial role in the response across the region by providing ongoing technical and financial assistance.

2.3 Barriers to an effective response

Despite some progress achieved in Kyrgyzstan and Tajikistan, legislation related to drug control in Central Asian countries remains an obstacle to providing effective healthcare and HIV related services to drug users.

A recent UNODC review identified significant legal barriers, common to all countries in the region, that limit effective HIV prevention, including the fact that distributing clean injecting equipment and information on methods of safer drug use remain against the law³⁵⁰. Individuals who are diagnosed as suffering a drug use disorder are entered on a government register; registration severely and unjustifiably restricts civic and economic rights of patients, and may entail violation of the confidentiality of health information³⁵¹.

A lack of expertise and capacity in the design and implementation of HIV prevention services for drug users is a significant impediment to the effective control of the epidemic in the region³⁵².

Stigma and discrimination of drug users, and people living with HIV, by health workers, law enforcement officers and society at large, is widespread and contributes to IDUs' reluctance to access prevention and treatment services^{270 353-356}.

Across the region, State responses to drug use concentrate heavily on drug supply reduction strategies, with modest, if any attention to services for drug treatment or the reduction of drug-related harm. Almost all HIV prevention programs for IDUs in Central Asia are dependent on funding from international donor organisations. The limited healthcare budgets of the states in

the region lack provisions for support of OST, ART and NSP. As a result, these services are vulnerable to the withdrawal of donor activity, and lack long term sustainability.

At the same time, there is lack of coordination of donor funding in the region. This has resulted in overfunding in some geographical areas and an underfunding in others where the HIV epidemic is concentrated among IDUs. Strict funding practices of some international agencies, such as the restrictions prohibiting US funding of needle and syringe programs until 2010, further restricted service availability, and appears to have also diminished national governments' motivation and commitment to support evidence-based and comprehensive HIV prevention strategies.

National disease surveillance systems in Central Asian countries remain inadequate to provide timely and accurate information on the epidemic and the response. Further, few rigorous outcome evaluation studies of HIV prevention and drug use interventions have been conducted in the Central Asian region. This lack of local evidence has also limited governments' ability to make decisions in accordance with epidemiologic evidence.

Opposition to harm reduction strategies persists in some countries in the region. OST, NSP and condom distribution are often regarded as encouraging antisocial behaviour by policy makers.

2.4 Recommendations for action

National legislation that directly relates to, or impacts upon, HIV and drug control should be based on international best practices, protect patients' rights and support drug users' access to all needed health and social services. Where necessary, legislation should be amended to allow for and support the implementation of NSP, OST and the provision of health information for the prevention of HIV. The activities of UN agencies and donor organisations should also support such changes.

Governments must move to commit funds from national budgets for the provision of comprehensive HIV prevention programs, and reduce the current reliance on international donor organisations for continuation of these essential public health programmes. Further, improved coordination between funding providers is required, whether they be government or international donor organisations, to ensure the efficient and effective use of resources.

Essential services such as the provision of NSP, OST and ART need to be scaled up to achieve higher levels of coverage among IDUs. Capacity to provide high-quality, evidence-based drug treatment and HIV prevention, treatment and care should be enhanced through the establishment of training systems based on current, internationally recognised standards and practices. International organisations, including UN agencies and funding bodies, have a role to play assisting with the provision of technical guidance and assistance to service providers and policy makers. Similarly the development and capacity of national surveillance systems should be supported.

It may be necessary to undertake operational research to identify ways in which the effectiveness of HIV prevention and drug treatment programmes might be enhanced and to better meet the needs of drug users and vulnerable populations in the region.

Governments in the region need to support the development of community based organizations and NGOs that provide services to drug users. These organisations should be eligible to receive State funding to support their programmes.

Governments in collaboration with NGOs and international partners should develop and implement programs to reduce stigma and discrimination faced by IDUs, people living with HIV and other populations affected by HIV; these efforts should target society in general, as well as healthcare providers and law enforcement officers.

3 Western Europe

Albania | Andorra | Austria | Belgium | Denmark | Finland | Former Yugoslav Republic of Macedonia | France | Germany | Greece | Iceland | Ireland | Italy | Liechtenstein | Luxembourg | Malta | Monaco | Montenegro | Netherlands | Norway | Portugal | San Marino | Serbia | Slovenia | Spain | Sweden | Switzerland | United Kingdom

3.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Injecting drug use has been reported in all countries across Western Europe, with the exception of the small principality of Lichtenstein. Pooled regional prevalence of IDU is estimated to be 0.37% among 15-64 year olds, equivalent to the global overall pooled estimate.

National level estimates of IDU prevalence are available for 17 countries out of the 27 where injecting has been reported, and including the most populous countries in the region. More than half of these 17 prevalence estimates are from the year 2000 or earlier.

Data that are available suggest that the prevalence of injecting drug use differs considerably between countries, ranging from 0.13% in the Netherlands to 0.85% in Italy; it is likely that incidence of injecting drug use also differs similarly. Drug treatment data suggest that the prevalence of injecting drug use is in decline or remains stable across the region³⁵⁷.

The prevalence of HIV among IDUs is low throughout most of the region: for 12 of the 19 countries where estimates are available HIV prevalence among IDU is 5% or less; Spain (38%) and Portugal (15.6%) have the highest estimated prevalence in the region. Few data are available describing the prevalence of HIV among IDUs in custodial settings.

Hepatitis C prevalence also varies significantly among IDU populations in Western Europe, although, in contrast to HIV, it is high in most countries³⁵⁸. These elevated HCV prevalence are likely an indication that risky injecting is occurring, which may be predictive of potential increases in HIV incidence.

Overall, HIV case reporting data for IDUs suggest that incidence has declined, including in countries where the most recent epidemics have occurred, such as Portugal³⁵⁹. This general decline is in stark contrast to the situation in neighbouring Eastern Europe³¹⁶. Countries with large historical HIV epidemics among IDUs continue to have a large burden of disease and associated high health costs due, mainly, to the need for ART. Other health problems, such as overdose and hepatitis C, however, show little sign of decline among IDUs, suggesting that interventions to address these are not sufficiently effective.

3.2 The current response

OST and NSP coverage of IDU populations appears to be high comparative to other regions^{2 301 358 360}, although wide variation between countries exists and, in a number of countries, estimated coverage for one or both of these important interventions remains low. Coverage seems particularly high with respect to measures of ART access for HIV positive IDUs, although again with some exceptions².

It is important to note that these coverage estimates are derived using IDU population size estimates that, as described above, have significant limitations, resulting in coverage estimates with marked uncertainty.

Efforts to strengthen current testing practices have been supported by the development of guidelines specific to IDUs, and importantly embrace a broad approach not limited to HIV but including also HCV, HBV, TB and other sexually transmitted infection³⁶¹.

3.3 Barriers to an effective response

Limitations due to the age, quality, reliability and comparability of data describing the extent of and response to HIV among IDUs in the region persist, and make more difficult efforts to develop evidence-informed policy and deliver an effective response.

While there has been success in some countries in the region to maintain low HIV prevalence, this has not extended to the prevention of HCV. The growing morbidity and mortality resulting from high HCV prevalence and incidence contributes significantly to the burden of disease attributable to IDU and increases demands on healthcare provision across the region.

In the case of many countries in the region, where low or declining HIV prevalence among IDUs has been achieved, political commitment to continue to prioritise the prevention of HIV among drug users has waned. There is a trend towards ending 'HIV exceptionalism', with attention and resource allocation considered in line with other health issues.

Some Western European countries continue to oppose harm reduction concepts and measures and, although the majority of countries in the region are fully supportive, this disrupts joint action and a unified position by the European Union on these issues in international fora.

A gap between drug and HIV-related policies, networks, organisations and experts persists, although, there are currently attempts to address this at the European Union level. Closer interdisciplinary collaboration is needed to tackle HIV and related problems but, again, as HIV among IDUs is currently low in many countries and the prevalence of injecting drug use also low in some countries, it is difficult to maintain the political support necessary to strengthen these efforts.

3.4 Recommendations for action

There is a need to avoid a singular focus on HIV in the response to injecting drug use; such an approach may even be counterproductive in countries where the prevalence of HIV among IDUs is currently low. It is important to address broader consequences of injecting drug use including HCV, HBV, sexually transmitted infections and overdose.

In those countries where coverage of ART for IDUs living with HIV remains low, eligibility criteria for ART should be examined and steps taken to ensure IDUs in need of treatment receive it.

There needs to be continued efforts to improve prevention measures and reduce HIV and other drug related harms in custodial settings.

To further track trends in IDU and associated harms, existing surveillance systems need to be strengthened. Studies measuring the impact of the scale up of interventions present a valuable

opportunity to contribute to the response, both in the region and globally, and should be supported.

Across the region there is a need to align efforts in the drugs and HIV fields and to enhance synergies and closer collaboration between both sectors.

4 North America

Canada | United States

4.1 Epidemiology of injecting drug use and HIV among people who inject drugs

The prevalence of injecting drug use is reportedly similar across both countries: prevalence of past-year injecting drug use is estimated to be between 0.67% - 1.34% for the United States; at the national level for Canada only lifetime prevalence of injecting drug use estimates are available and between 1.0% – 1.7% from population based surveys. Estimated prevalence in both countries is substantially greater than the estimated global prevalence of 0.37%.¹ In total, over two million injecting drug users are estimated to live in these two countries; the United States has the world's second largest national IDU population after China.

Varying levels of stimulant (in particular cocaine and methamphetamine) and opioid injection have been reported. It is important to note, however, that the majority of opiate and stimulant drug use in both countries remains through non-injecting routes. In the US, there has been a trend towards non-injecting heroin use, including transitions from injecting to non-injecting heroin use³⁶².

Increases in the extra-medical use of pharmaceutical opioids have been documented in both Canada and the United States, with some of this increase related to shifts in the availability and purity of heroin. While methamphetamine is more commonly smoked, an increase in injection of the drug has been observed from 2007 onwards.

The prevalence of HIV among people who inject is estimated to be 13.4% (2.9% - 23.8%) in the United States and 8.7% (8.7% - 15.7%) in Canada.¹ In most urban centres in the United States, HIV incidence among IDUs is currently close to zero; data from non-urban settings are scarcer, but injection and HIV seroconversion have been reported. Recent findings suggest that the HIV epidemic among IDUs in the US has declined recently, but not so in Canada, where in some provinces HIV incidence among IDUs appears to be stable or increasing.

HIV among IDUs is primarily concentrated in ethnic minority groups in both the United States and Canada; by association, heterosexual transmission is also concentrated in ethnic groups. In Canada, high HIV incidence has been recently observed in Saskatchewan, primarily among Aboriginal IDUs. Even among IDUs, sexual transmission appears to be more common than injecting-related infections in the United States and parts of Canada; risky injecting behaviours do, however, appear to persist.³⁶³

Non-injecting drug use is also associated with HIV infection in the region, in particular though sexual transmission associated with methamphetamine and crack cocaine use, correlated with sexually transmitted infections. The causal pathways of these associations are not, however, clear.

The prevalence of hepatitis C remains high among those with a history of injecting drug use in both Canada and the United States¹²⁷. Some decrease in HCV prevalence has been observed with the increased availability of sterile syringes³⁶⁴.

Although many prison systems in the United States lack routine screening for blood borne infections, research has demonstrated that IDUs with HIV and HCV are disproportionately represented in penal system. An estimated one in five people with HIV in the United States has passed through the penitentiary system. In Canada, pre-trial detention and incarceration is associated with increased HIV risk, as well as with antiretroviral treatment interruption.

Opiate overdoses, including both injecting and non-injecting routes of administration, account for a significant number of deaths in the United States, outnumbering deaths from traffic accidents in some parts of the country. In many cases deaths from overdose occur in the presence of another depressant, such as alcohol or benzodiazepines, and frequently following a period of incarceration or drug-free residential treatment.

4.2 The current response

Both Canada and the United States have implemented HIV prevention programs targeting drug risk behaviours for injecting drug users. In the United States, sterile syringe programs have been supported by state- and city-level funding. In 2009, a 21-year ban on federal funding for need and syringe programs was lifted; guidance on programming and commitments for funding were issued in 2010. NSP coverage of IDUs appears to be somewhat higher in Canada compared to the United States; recent Reference Group findings estimated that the equivalent of 46 syringes per year IDU are distributed in Canada and 22 per IDU per year in the United States².

Medication-assisted treatment for opioid drug-dependence, including methadone, buprenorphine, and naltrexone are available. Other medications for the treatment of stimulant use are currently being investigated, for example the use of dexamphetamine as substitution therapy to treat stimulant dependence. In 2007 there were estimated to be over 250,000 opioid dependent people receiving either methadone or buprenorphine as substitution therapy in the United States³⁶⁵; similar estimates are not available for Canada.

Other interventions for the treatment of drug dependence are also available and include outpatient treatment, residential rehabilitation and psychosocial support and counselling. Peer-based support networks, including twelve step programmes, are also easily accessible in both countries.

In British Columbia, interventions have also included a safer injection facility. Evidence for this suggests improvements in health, reductions in mortality and better links to other health and welfare services. Despite the evidence available on the benefits of this facility, the federal Canadian government has recently made attempts to close this service.

Although no national level data on antiretroviral treatment for HIV exists for the United States, multiple studies suggest that IDUs remain significantly less likely to receive ART than people living with HIV who are not IDUs. Findings from an IDU cohort study in Vancouver suggested that increases in the proportion of the cohort in ART was associated with reductions in IDU community-level viral load and, consequently, decreases in HIV incidence independent of HIV risk behaviours.

4.3 Barriers to an effective response

The unavailability of collated national data is an important barrier to assessing a national response in Canada and the United States. During the latest reviews, national level data from were not available on most interventions targeting injecting drug use; provincial or state level data on IDUs' access to services were available in some cases². In Canada, some provinces do not collect ethnicity data related to HIV and drug use, which limits the ability to determine whether certain sub-groups are bearing a disproportionate burden of HIV cases among IDUs, and thus in need of a targeted, appropriate response.

In the United States, state funded needle and syringe programmes and opioid substitution therapy are under threat due to financial crises currently experienced by state governments. While the ban on federal funding of needle and syringe programmes has been recently lifted, funding for these activities is to come from existing federal funds without new funds being made available. Concern has been raised that despite the removal of the ban on federal funding, a reduction of state funding to NSPs may occur.

Waiting lists and treatment shortages mean that drug dependence treatment on demand remains unavailable for the many IDUs in the United States. In the United States methadone prescription for drug dependence remains restricted to only specialised clinics and isolated from other medical practice settings, limiting broader availability and coverage. In the US and Canada buprenorphine remains expensive, and coverage by public funding is irregular or often unavailable. Effective medication for stimulant dependence remains unavailable, but research into various approaches is ongoing.

The high cost of hepatitis C treatment, in addition to a frequent lack of clinical expertise or willingness to treat active drug users, remains a substantial barrier to reducing related morbidity and mortality of HCV among IDUs.

In the United States, there remains limited integration of services providing drug dependence treatment and those providing HCV or HIV treatment, with weak referral mechanisms and limited funding to address this.

Although variations exist by locality, harassment by law enforcement and patterns of incarceration impact negatively on HIV prevention and treatment, as well as overdose prevention strategies such as the provision of naloxone. Of particular concern is the large number of drug users in pre-trial detention, some for prolonged periods, without adequate access to drug treatment or HIV interventions.

4.4 Recommendations for action

In both countries, improved national data collection is required. Better epidemiological data and assessments of coverage of HIV and drug dependence treatment are needed at the state/provincial level as well as nationally. Sub-national data should be comparable and mechanisms by which data are collated centrally should be strengthened.

Commitment for the funding of opioid substitution therapy and needle and syringe programs in the United States should be secured to ensure these essential services are maintained.

Prescription of methadone maintenance treatment in office-based (general practice) settings in the United States should be expanded and include adequate prescriber training and supervision as well as appropriate safeguards for diversion and overdose risk.

Increased funding is required to increase the capacity of drug treatment services and to reduce waiting times, which may pose a critical barrier to drug dependent people seeking treatment if delays in initiation of treatment are substantial. Health care benefits need to be expanded to address the treatment needs of IDUs, in particular drug dependence, HIV and HCV treatment.

Co-location of services or strengthened referral mechanisms between drug dependence and HIV/HCV treatment providers is required.

Interventions that have been proven in other countries (including Canada) to be effective in improving the health of injecting drug users, such as drug consumption facilities, should be considered for the United States. Further investigation of pharmaceutical treatment for stimulant dependence should be pursued and implementation considered when supporting evidence is available.

Greater emphasis on a public health rather than a law enforcement approach to drug use would improve the effectiveness of the response to HIV and other harms among drug users. Mechanisms should be put in place to minimise interruption of HIV prevention and treatment provision resulting from law enforcement activities or incarceration. In addition to the HIV and drug treatment issues associated with custodial sentences, the health impacts of pre-trial detention are also significant and should be the subject for further investigation and alternative models of process identified.

5 Latin America

Argentina | Belize | Bolivia | Brazil | Chile | Colombia | Costa Rica | Ecuador | El Salvador | Guatemala | Guyana | Honduras | Mexico | Nicaragua | Panama | Paraguay | Peru | Suriname | Uruguay | Venezuela

5.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Across Latin America, there is marked heterogeneity in drug use patterns and related HIV epidemics. Drug use within the region is significantly influenced by drug production and associated criminal activity and law enforcement responses.

Up until recently, injecting drug use was rare in Mexico, but this has changed due to the availability and low cost of different illicit drugs. Recent social and economic crises have fostered the establishment of a vast network of deeply entangled illicit activities, involving organized crime, prostitution and the trafficking and misuse of amphetamines, cocaine, crack and less frequently heroin. Prolonged conflict has occurred between drug cartels from Colombia and Bolivia, law enforcement agencies, military and paramilitary forces; much of this activity has occurred on the Mexican-US border. The emergent drug scene is associated with extreme violence perpetrated by both the drug cartels and government forces and has resulted in significant fatalities.

Up until the late 1990s, the Andean countries (which include Bolivia, Colombia, Ecuador and Peru) were the primary producers of coca and its derivatives. More recently, coca growing is limited only to remote areas and the region is no longer the epicentre of production or the headquarters of the major drug cartels. Much of this activity has now moved to Central America and Mexico.

Currently drug use in the Andean countries remains relatively stable, and is characterized by a basic dichotomy comprising the traditional, indigenous use of chewing coca leaves and the consumption of cocaine derivatives in major urban centres that more closely resembles cocaine use in North America and Western Europe. Despite many similarities to Western drug using markets, the injection of cocaine and other drugs is rarely observed in this region. There are reports, however, of increasing heroin use in Colombia. While injecting-related HIV risk remains largely absent, of greater importance in these countries is the association between stimulant use and the sexual transmission of HIV.

Drug use within Brazil varies markedly across the country. Recent research has revealed a substantial increase in the use of cocaine in urban areas in the north and northeast of the country where it had been previously absent, but so far IDU remains relatively rare. Cocaine use and injection has been more prevalent for much longer period of time in the central-western and southern areas of the country and has been closely linked to the spread of HIV and other blood-borne and sexually transmitted infections, through the shared use of injecting and non-injecting drug use paraphernalia and the disinhibiting behavioural effects of the drug and inconsistent condom use. In recent years injecting drug use has been declining throughout the country where it had been previously common. As a consequence the nature of the HIV epidemic has changed also and HIV is now more commonly spread through unprotected sex.

For the Southern Cone countries of Argentina, Paraguay, and Uruguay, injecting drug use has been a significant factor in the HIV epidemic. By contrast injecting drug use has been far less prominent in Chile. Injecting drug use was the primary cause of the rapid spread of HIV in the early and mid-1980's in Argentina. This began to decline in the late 1990's, most likely due to saturation of the local drug markets and a transition to non-injecting routes of administration as well as the impact of prevention programs and referral to drug treatment. Currently sexual transmission among non-injecting drug users is responsible for the spread of HIV among drug users in Argentina and Uruguay and remains relatively stable; some fluctuations have been observed associated with periods of major political and economic instability, unemployment, housing problems and food insecurity.

Due to the temperature conditions, tuberculosis is a common co-infection with HIV. This has been especially reported in Brazilian prisons, which are very crowded, and where tuberculosis co-infection rate is very high.

5.2 The current response

Interventions to address drug use, HIV and other related harms have been introduced across the region. In most countries, however, the implementation of such programs has not been systematic, has received insufficient funding or support to enable scale up of programs to achieve good coverage, and there has been little monitoring and evaluation of how services have been delivered and intended outcomes achieved.

Civil society organisations across the region have been active in advocating for the implementation of interventions to reduce the harms associated with drug use and to prevent the spread of HIV³⁶⁶. The implementation of needle and syringe distribution programs has been led by non-government organisations in a number of countries in the region; by contrast, in Brazil the Ministry of Health has delivered these services³⁶⁶. Only limited data on the scale of these programmes are available, but they indicate that coverage remains very low².

ART coverage is low among drug users living with HIV and late initiation of treatment is common, often a result of health care providers being reluctant to offer treatment to active drug users due to the perception that they will not be adherent to treatment; psychosocial support for those on treatment is rarely offered³⁶⁶.

Both drug use and high levels of HIV are present in prisons in Latin America, but HIV prevention measures such as the availability of condoms and injecting equipment and treatment for HIV are largely absent.

5.3 Barriers to an effective response

The absence of strategic information necessary to inform the development and implementation of HIV prevention and drug treatment services continues to limit the benefit that programs can achieve. This information is of particular importance due to the dynamic nature of drug markets in the region and related changes in drug use behaviour.

A lack of funding for HIV prevention treatment and care services targeting drug users continues to limit the coverage able to be achieved.

Drug users infected with HIV typically present late, or may be denied access to ART, resulting in low coverage of ART, and high levels of HIV related morbidity and mortality.

5.4 Recommendations for action

Ongoing data collection to map the extent of drug use and associated risk is urgently required across the region to identify trends in drug using behaviours, and to inform the response to HIV and drug use in the region. Programmatic data need to be systematically collected and collated to evaluate services and to guide program development.

Strategies to address HIV and drug use must be responsive to changes in drug markets and drug use behaviours. Where injecting drug use occurs, provision of injecting equipment must be scaled up. HIV preventions targeting drug users in the region must address sexual risk behaviours, among both injecting drug users as well as those who use stimulants but do not inject. Evidence based drug treatment for stimulant dependence should be prioritised.

National HIV strategies should include drug users as an at-risk population and the provision of HIV prevention treatment and care services to this group should be a priority.

Healthcare professionals should receive training to enhance the capacity of health systems to provide high-quality, evidence-based drug treatment, HIV prevention treatment and care and management of co-morbidities, in line with internationally recognised standards and practices. Guidelines on the provision of ART should be followed and drug users should not be denied treatment on the basis of their drug use¹¹⁶.

Integration of drug treatment services with other health services should be strengthened to enhance the accessibility of services and to better manage the multiple health issues experienced by drug users.

HIV risk among drug users in prisons must be addressed; interventions to prevent sexual transmission, and in some countries injecting related transmission, are required.

6 The Caribbean

Antigua & Barbuda | Bahamas | Barbados | Bermuda | Commonwealth of Puerto Rico | Cuba | Dominica | Dominican Republic | Grenada | Haiti | Jamaica | Saint Kitts & Nevis | Saint Lucia | Saint Vincent & Grenadines | Trinidad & Tobago

6.1 Epidemiology of injecting drug use and HIV among people who inject drugs

With the exception of the Commonwealth of Puerto Rico, injecting drug use is thought to be very uncommon in most Caribbean countries. Non-injecting drug use does occur across the region; most notably in terms of consequences for the HIV epidemic, smokable cocaine (crack cocaine) use is prevalent in many countries. The Caribbean has struggled with the growing prevalence of cocaine use and the concomitant issues of social dislocation and violence.

Over the past three decades, the HIV epidemic has rapidly emerged to become one of the most complex problems facing the Caribbean. The HIV epidemic has not only severely impacted upon the public health, but has also had a negative effect on the social and economic development of the region, and has more recently been identified as a growing threat to national and regional security.

As a region, the Caribbean has the second highest prevalence of HIV in the world. Among some groups of non-injecting drug users, very high levels of HIV prevalence have been reported^{91 367-370}, in some cases as much as ten times greater than national general population levels.

There is perhaps no other public health issue that is aggravated by the unequal social, political, and economic environment existing in the Caribbean. In all the Caribbean States, regardless of their degree of development or prosperity, drugs and HIV disproportionately affect the most marginalised sectors of society.

With the absence of IDU in most of the region, the usual argument that non-injectors are infected by their injecting partners does not apply to the Caribbean context. An association between HIV infection and smokable cocaine use observed in the region was first reported in 1991³⁷¹, and has since been documented in multiple Caribbean countries including the Bahamas³⁷², Guyana³⁷³, Jamaica³⁷¹, Trinidad and Tobago^{367 374 375}, the US Virgin Islands³⁷⁶ and Saint Lucia. Concordance between smokable cocaine use and sexually transmitted infections (STIs) has also been observed within the region, and documented as early as 1984 during a period increased cocaine availability^{369 372 375}.

As observed in other regions^{91 377}, elevated HIV risk among smokable cocaine users in the Caribbean appears to be mediated primarily through risky sexual behaviour, precipitated by, or related to, use of the drug^{91 368 373 377}.

High rates of transactional sex (for money or drugs) have been observed among both male and female smokable cocaine users in the region^{369 373 376 378}, including among men who have sex with men³⁷⁸. Women's precarious economic position and lack of access to the legitimate income-generating activities tended to drive them into "survival sex" to support their subsistence and drug needs³⁷⁶. It is not clear from the data available whether sex work or transactional sex confounds the association between smokable cocaine and HIV infection in the region. If,

however, cocaine use leads to exchanging sex for money or drugs to support drug use, then transactional sex work could be thought of as an intermediate variable in the pathway between smokable cocaine and HIV infection.

Other research has revealed high rates of multiple sexual partnerships, unprotected sex associated with HIV infection among smokable cocaine users³⁷⁶.

Further social and other related factors are also associated with smokable cocaine use and HIV infection in many Caribbean countries, including homelessness^{369 379}, psychiatric conditions³⁷⁹ and low educational attainment³⁶⁸.

6.2 The current response

Throughout the Caribbean, the response to drug use is dominated by criminal justice rather than health interventions.

Data from the region on the coverage of drug treatment and HIV prevention treatment and care for drug users are scarce. Drug treatment services exist, but are typically abstinence based, poorly integrated with other health services, difficult to access, and not well suited to meet the needs of many drug users at high risk of HIV, such as those who are homeless. There are currently only limited HIV prevention strategies targeting drug users.

6.3 Barriers to an effective response

The lack of ongoing surveillance and rigorous data analysis in the region has hampered both the understanding of drug use and HIV, and the development of effective strategies in response. A lack of uniformity in surveillance data makes it difficult to synthesise data, and compare between countries and across different time periods.

The geographic, political, cultural, and linguistic diversity of the Caribbean underscores the complexity of understanding broader regional patterns of HIV infection, and developing and implementing targeted and appropriate response. Interventions addressing the cultural context of Caribbean populations are few in number.

There is little acknowledgment by policy makers and service providers of the overlap between smokable cocaine use and HIV infection.

Evidence-based interventions for preventing opioid and injecting-drug related HIV transmission, such as NSPs and OST, are ineffective in responding to HIV transmission associated with smokable cocaine use. Interventions and service delivery models effective in attracting smokable cocaine users to treatment and HIV prevention services are not well developed.

Persisting structural and contextual factors in the region, such as poverty, racism, gender inequality, and the oppression of sexual minorities, further compound the challenges in successfully addressing HIV among drug users in the region.

6.4 Recommendations for action

National HIV strategies need to include a focus on smokable cocaine users as an at risk population and develop approaches as a priority.

Data collection, including comprehensive behavioural surveillance studies, is required to map the extent of drug use and associated HIV risk across the region; consistent methodologies should be used. Research activities should also aim to identify factors that increase HIV risk and other vulnerabilities among drug users.

Services that address the complex needs of smokable cocaine users should be developed. To be accessible and attractive to drug users at risk, and in particular to those who are homeless, low threshold service models should be developed, such as drop in centres where other services are provided, which meet HIV and drug treatment needs, as well as other health and welfare issues. Additionally, intensive strategies to foster engagement with drug users may be necessary, such as supervised daily dosing for ART, and intensive individual case management. Better integration of drug treatment services with other health services welfare providers is required to better meeting the complex needs of drug users at risk of HIV.

It is important that services are provided in such a way as to protect the rights and respect the dignity of drug users they are intended to serve.

Limited experience within the healthcare sector in providing services for drug users, and a lack of understanding or discriminatory attitudes of health care staff should be addressed. Better training of health professionals is required to increase the capacity to provide high quality, evidence based and appropriate services for at risk drug users and to manage common co-morbidities.

7 East and South East Asia

Brunei Darussalam | Cambodia | China | Democratic People's Republic of Korea | Indonesia | Japan | Lao People's Democratic Republic | Malaysia | Mongolia | Myanmar | Republic of Korea | Philippines | Singapore | Taiwan | Thailand | Timor Leste | Viet Nam

7.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Injecting drug use occurs throughout the region, but the prevalence of injecting drug use varies substantially between and also within countries. The extent of IDU remains uncertain in a number of countries, as prevalence estimates are either not available, or those that are, are based on official government drug user registers or expert opinion only. China accounts for over 60% of the estimated IDU population in the region; within the country, the IDU population is thought to be concentrated within seven provinces¹.

Heroin and methamphetamine remain the most commonly injected drugs in the region, but the injection of other substances has been reported; for example, the injection of Midazolam in Thailand and the increasing occurrence of pharmaceutical opioid injection, especially of buprenorphine and suboxone (buprenorphine and naloxone preparation)³⁸⁰.

Large scale illicit methamphetamine manufacture occurs in the region, and as a result the drug is increasingly available in readily-injectable forms³¹⁸. With injection of other substances already well established in the region, the potential for the prevalence methamphetamine injection to increase is a risk³.

The prevalence of HIV among injectors also varies across the region, but in several countries there are large HIV epidemics predominantly driven by IDU, in particular Malaysia, Viet Nam and Indonesia³¹³. Surveillance studies have reported levels of HIV among IDUs of greater than 30% in Indonesia, Myanmar, Thailand, and Vietnam, and are highest in Myanmar (42.6%). Nearly half of China's HIV infections are believed to have been transmitted through IDU, primarily in the south and west of the country³⁸¹. HIV prevalence is also high in prisons and other closed settings such as drug detention centres, where many drug users are held.

HIV and TB co-infection is also reported to be increasing across the region.

7.2 The current response

In many countries in the region, the response to HIV among people who inject drugs has been initiated and sustained by funding and support from the international organisations and donor bodies. Recently, however, some countries, and in particular China, are increasingly providing greater levels of funding for these activities domestically.

Needle syringe programmes (NSPs) have been implemented across the region, but remain absent in Lao PDR, Japan, Brunei, Singapore, Timor-Leste and South Korea. Program data on NSP service provision in many countries are incomplete or inconsistently reported. Data that are available indicate that overall in the region, coverage is low^{2 288}.

In China, Cambodia, Viet Nam, Burma, Malaysia and Thailand a major component of the response to drug use involves the detention of drug users. Many detainees in China, Vietnam and Malaysia are injectors. Drug detention centres are generally operated by, or are the responsibility of, police or the military rather than the ministry of health. Drug users are typically detained without trial or clinical assessment of drug use or dependence. Those detained are rarely provided with evidence-based drug dependence treatment, and medical supervision of interventions is minimal. People are released after a set period of detention, or dependent on criteria that are not related to clinical outcome. Evidence suggests these interventions do not significantly reduce drug use, and relapse is common after release^{8 275 382}. Significant drug related HIV risk within these facilities has also been reported^{83 383}.

Opioid substitution therapy (OST) has been introduced in countries with the largest IDU populations in the region, but in many, the programs remain small in scale or in pilot phases of implementation only, and coverage is low^{2 275}.

In a short period of time, rapid scale up of OST and NSP in Taiwan has been reported to have achieved reductions in HIV incident infection among IDUs. In China, there has been recent and rapid scale up of OST programmes. Those receiving OST account for an increasing, but still minor, proportion of all those engaged in any form of drug focused intervention in the country; fewer than 20% of IDUs receive methadone, for example, whereas nearly three times as many are in drug detention²⁷⁵.

Throughout the region, the capacity of the healthcare workforce to provide behavioural interventions for drug users remains limited. As a result, such interventions have not been extensively implemented.

Very few data are available describing the coverage of antiretroviral treatment for IDUs living with HIV²; there are indications, however, that IDUs have disproportionately low access to ART, even in countries with policies for universal access to treatment²⁷⁵.

7.3 Barriers to an effective response

Across the region, information on the epidemiology of IDU and HIV is inadequate to inform the planning and targeting of interventions, and to hampers the evaluation of whether or not sufficient coverage has been achieved⁹.

In many countries, there are insufficient resources available to allow for the necessary scale up of essential HIV prevention and treatment services. Current financing to implement regional and national AIDS plans is largely inadequate, and funding is often inconsistent or only of short duration³⁸⁴.

Legislation supporting HIV prevention and evidence-based drug treatment is absent in many countries. In addition, IDU is criminalised, and therefore remains a primary barrier to effective to action in these countries²⁹².

Funds are disproportionately allocated to the operation of detention centres in many countries, rather than to evidence based interventions for drug treatment of HIV prevention. This focus on drug law enforcement reduces the availability of essential services, and can also reduce access to the limited services that are available. Government registration of drug users, as occurs in a

number of countries in the region, can result in further marginalisation of drug users and makes accessing services less attractive; further, policing practices targeting drug users reduces access to services and may also increase HIV risk.

Successful implementation of HIV prevention and drug treatment services is limited by a lack of trained personnel. A significant proportion of the current response in many countries is provided by NGOs; these organisations have limited resources and capacity to allow for training and professional development.³⁸⁵

NGOs providing service for IDUs have been the target of government sanction in some countries in the region. The introduction and scale up of community-based drug treatment is more difficult in countries where detention of drug users remains the response preferred by government.

7.4 Recommendations for action

Across the region, national-level data collection must be improved. Collaboration between countries to develop surveillance systems, capable of monitoring trends in IDU and HIV, comparable across countries, has been successful in other regions, and would benefit the response to HIV and drug use here.

In light of obstacles to HIV prevention and treatment posed by detention and imprisonment, legal and regulatory reform is required to remove obstacles to health care provision for IDUs, and to encourage treatment uptake among drug users. Law enforcement activities should support, rather than discourage, access to treatment and prevention services. Registration of drug users increases marginalisation experienced by drug users and reduces access to essential HIV prevention services and should be removed.

Given the high mobility within the region, cross-border cooperation in developing effective strategies to address HIV and IDU is required to reduce the vulnerability of drug users who are at most risk.

Sustainable financing strategies, involving increasing contributions from governments, are essential to enable countries to develop and implement long term responses that are of sufficient scale to address HIV among IDUs.

To have a positive impact upon drug use and HIV, governments need to commit to investing in evidence based interventions. Joint action from multiple sectors is required and should include health, justice and law enforcement bodies, both government and community based organisations.

Community-based, voluntary drug treatment and rehabilitation options, along with a comprehensive HIV/AIDS prevention package for IDUs, should be provided as an alternative to incarceration. Judicial systems need to be strengthened, and drug policy should be informed by the evidence that drug dependence is a chronic relapsing health condition⁸⁹. Removal of punitive responses to drug use in favour of evidence-based treatment options would be beneficial and cost effective in addressing drug use and the serious associated harms. Significant increases in the scale of OST programmes have been achieved in a number of countries, the rapid expansion of OST in China being a notable example. Further progress can still be made, however,

particularly in those countries where OST and other evidence-based treatment programmes currently still only represent only a small part of the response to drug use relative to compulsory detention programmes²⁸.

Resources allocated for training and workforce development are required to increase the capacity to provide a broad range of evidence-based drug treatment interventions (including psychosocial treatment modalities) and HIV treatment and prevention strategies. Training should be integrated into existing training venues and, where none are available, innovative training methods should be used to reach wide sections of service providers.³⁸⁵

The response to HIV among IDUs must focus not only on the prevention of transmission through injection, but also include strategies to prevent sexual transmission among IDUs, and between IDUs and their non-injecting sexual partners.

HIV treatment programs must ensure that IDUs living with HIV have access to high-quality treatment. HIV/HCV co-infection must also be addressed, and a coordinated treatment mechanism established. In addition, as TB is highly endemic in the region, the integration of TB treatment into services addressing HIV and drug treatment are particularly relevant in the region.

8 South Asia

Afghanistan | Bangladesh | Bhutan | India | Islamic Republic of Iran | Maldives | Nepal | Pakistan | Sri Lanka

8.1 Epidemiology of injecting drug use and HIV among people who inject drugs

The existence of injecting drug use has been well documented in most countries within the region, including Afghanistan, Bangladesh, India, Iran, Nepal, Pakistan; reports of IDU are also emerging from other countries, including Bhutan and the Maldives³⁸⁶⁻³⁸⁹.

In India, overall national prevalence of IDU is low, but injecting is well established in a subset of states in the north-east of the country, including Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura, where prevalence of IDU is high; it is also reported to be increasing in other parts of the country, as well as spreading from larger metropolitan areas to smaller towns³⁹⁰⁻³⁹¹. Similarly, in Nepal, Bangladesh and Pakistan, IDU is understood to be largely concentrated in urban centres. At 0.40%, Iran has highest estimated national prevalence of IDU among this regional grouping.

IDU may largely be among males. There are concerns that IDU among women does exist, and it poses certain challenges of its own¹⁷⁴⁻³⁹²⁻³⁹³; this remains, however, relatively under-researched.

Forced migration in the region, in particular in Afghanistan, has been reported to be associated with increases in the prevalence of injecting drug use³⁹⁴. Conflict and continued displacement persists in the region which may impact upon the incidence of injecting drug use.

Opioids remain the primary drugs injected. South Asia is a major opium producing region and many countries have a long history of culturally sanctioned opium use. In many countries, including India, Bangladesh, Pakistan and Nepal, a decrease in the use of opium has been accompanied by an increase in the misuse and injection of heroin and more recently pharmaceutical opioids³⁹⁵.

Pharmaceutical opioids commonly injected include buprenorphine, pentazocine and pethidine available as ampoules for injection, as well as those available as oral preparations which are crushed and injected, such as codeine, and dextro-propoxyphene. These medications are widely available due to poor regulatory controls allowing for diversion; this is despite these medications being, at the same time, inadequately available for the treatment of medically indicated use in pain relief and for opioid substitution therapy.

Benzodiazepines and other pharmaceuticals are also readily available without prescription in many countries and also injected³⁹⁶. There are reports of IDUs using a cocktail of opioids, such as street heroin or buprenorphine, together with other pharmaceuticals like promethazine, chlorpheniramine and Benzodiazepines³⁹⁷⁻³⁹⁸. Methamphetamine use and injection has also been reported, and appears to be increasing in prevalence in Iran³⁹⁹.

Behavioural surveys have indicated a high prevalence of risky behaviours among IDUs in the region, including both injecting risk, such as sharing of injecting equipment, as well as sexual risks such as unprotected sex and concurrent partnerships¹⁷³⁻⁴⁰⁰⁻⁴⁰⁴.

In the region, HIV among IDUs is largely concentrated in certain sub-populations within countries. Although the national prevalence of HIV may be low in most countries in South Asia, pockets of very high prevalence of HIV among IDUs do exist, and there is evidence of sexual transmission from IDUs to the general population. Consequently, HIV among IDUs is an important driving force behind the spread of the epidemic in many South Asian countries.⁴⁰⁵

There are reports of high prevalence of hepatitis C infection among IDUs across the region, however this issue remains poorly studied in many countries⁴⁰⁶⁻⁴¹⁰. In Dhaka, the capital city of Bangladesh, the prevalence and incidence of HCV has been observed to be in decline over recent years. TB and HIV co-infection is also reported to be high across the region.

8.2 The current response

Various arms of the national governments in the region are mandated to address issues surrounding drug use, such as the control drug supply, demand reduction through drug use prevention, treatment, and the prevention of drug-related harms such as HIV. Drug use remains criminalised across South Asia, and although the concept and principals of ‘*harm-reduction*’ are officially endorsed by National *HIV* policies and programmes, most National *drug* policies in the region do not explicitly endorse harm-reduction⁴¹¹.

Almost all countries in South Asia have developed National AIDS strategies; these focus primarily on HIV prevention, given the low prevalence of HIV in the general population in most countries. Many of these national programmes include interventions aimed specifically at preventing HIV among IDUs; coverage of these interventions, however, remains very low in most countries.

NSP coverage is high in some countries by some indices, but requires further scale up across the region. OST programs have now been introduced in 7 countries in the region, but are only pilot programs or remain small in scale, with the exception of Iran, where more than 100,000 opioid dependent people are in treatment². Efforts to introduce or scale-up programs are ongoing in some countries³⁹⁰.

Efforts to scale up the response are being undertaken in many countries. The rate of scale up, however, has been considerably slower than the rate of the expansion of IDU, and the epidemic of HIV among IDUs.

Timely instituted and appropriately implemented harm reduction programmes may have successfully checked the growth of the epidemic, and in some cases have succeeded in bringing the prevalence of HIV down^{288 412}. However for the region as a whole, these instances remain as examples which should be used for implementation and scale-up elsewhere in the region.

8.3 Barriers to an effective response

By the World Bank categorisation, all nations in South Asia are low or middle income countries. The lack of available resources and sustained funding for programmes to address HIV is problematic and has in some instances, for example in Pakistan, forced services to close.

The level of organisation and supervision of general health-care services is commonly inadequate, and ensuring acceptable levels of quality and standards of HIV prevention interventions is a challenge. Implementing organisations, as well as the government agencies

overseeing these programmes, are often limited in terms of their technical capacity; this has been a hindrance to successful scaling up of programs⁴¹³.

Currently, many different sectors and organisations, both government and NGO, undertake the implementation of programmes for HIV prevention and drug treatment. There is often, however, little coordination between these different actors, and parallel activities may occur, resulting in unnecessary duplication of efforts in some circumstances.

There is considerable uncertainty around the epidemiological data describing the extent of IDU and HIV among people who use drugs in the region. This significantly limits the ability to assess need and to assess the adequacy of the response.

The response in some countries is primarily concentrated in largest urban areas only. Consequent impact may be good in these centres, but lacking elsewhere.

Other structural factors also influence the epidemic and the response. IDUs in the region are largely an underprivileged and marginal group, who often endure poverty, poor social support and homelessness. Indeed, poverty and homelessness have been demonstrated to be risk factors for HIV among IDUs in the region.⁴¹⁴ Bringing any kind of welfare services (not just HIV prevention services) closer to IDUs remains a challenge.

There is a lack of unified policy and consensus guidance on drug treatment in most countries, with drug demand reduction sectors working almost exclusively with an 'abstinence-oriented' approach, and HIV prevention sectors adopting 'harm-reduction' measures to some extent.

There are also concerns about the law enforcement sector not being fully committed to supporting harm reduction programmes. Concerns have been expressed that in some countries, law enforcement agencies may hinder the routine harm reduction activities, and even distribution of needles and syringes, may be interpreted as abetting a crime²⁶⁸.

Prison populations are generally not considered in the development of the response. Drug use in prison is not adequately studied though there is some evidence that it does exist and some inmates report switching to injecting drug use after coming to prisons⁴¹⁵.

With an ever expanding HIV epidemic among IDUs there will be substantially more IDUs requiring ART services. Ensuring access to ART for IDUs in the resource poor countries of South Asia remains a challenge.

8.4 Recommendations for action

An evidence-based response needs to be formerly recognised and included consistently across governments' policy frameworks and legislation. For this purpose adequate measures for policy formulation and reforms are necessary in many countries. More specifically, a shift in the drug policies, from a focus on law enforcement for supply reduction and only abstinence-oriented demand reduction strategies, should be balanced by accommodating, evidence-based approaches to reduce drug related harms and HIV.

Better coordination and clear definition of roles among those involved in developing and delivering HIV prevention, drug treatment and law enforcement, is required to ensure the response to HIV and IDU is efficient and effective. Law enforcement agencies in particular, must be participatory and supportive not only of drug supply reduction, but also evidence based demand reduction and harm reduction, for an effective response to be achievable.

The capacity of the health sector to provide high-quality, evidence-based drug treatment and HIV prevention treatment and care should be strengthened through increased investment in the training for health care workers and the implementation of internationally recognised standards and practices.

Improved and ongoing data collection is necessary to better understand the scale of IDU and the HIV epidemic and the impact of the response; attention should also be paid to evaluating HIV risk among women who inject and those whose partners are IDUs. It is necessary to closely monitor changes in the epidemic, even in those areas where the prevalence of IDU and HIV are currently low, to enable an effective and timely response. Ongoing evaluation of prevention and treatment programs is required to determine whether these are effective and reaching those in need.

Significant levels of opioid dependence, along with insufficient access to opioids for medical indications, must be addressed. Stronger systems of regulation of pharmaceutical opioids are required to reduce diversion. It is also critical, however, that these medications should be made more available for the appropriate management of pain and for the treatment of opioid dependence itself through opioid substitution therapy. With the exception of Iran, OST coverage is inadequate across the region; many programs remain at the pilot phase and require rapid scale up to meet national-level demand.

NSPs must also be scaled up to increase access to clean injecting equipment across the region.

Access to antiretroviral treatment for HIV must be increased generally, and must include access for IDUs living with HIV.

Harm reduction interventions are currently available only in major urban centres. Assessing need and determining strategies for delivering HIV prevention strategies to IDUs outside of these centres is required.

Effective HIV prevention and drug treatment programs must be implemented in custodial settings across the region. Development of these programs should be informed by assessment of extent of drug using populations and risk in prisons.

The response to HIV among IDUs must focus not only on the prevention of transmission through injection but must include strategies to prevent sexual transmission among IDUs and between IDUs and their non-injecting sexual partners.

Strategies to monitor, prevent and treat HCV must also be developed and implemented. As HCV is commonly a comorbid condition with HIV and prevalent among IDUs, National HIV programs should be required to take the lead on this issue and develop an integrated response accordingly.

9 Sub Saharan Africa

Angola | Benin | Botswana | Burkina Faso | Burundi | Cameroon | Cape Verde | Central African Republic | Chad | Comoros | Cote d'Ivoire | Democratic Republic of the Congo | Djibouti | Equatorial Guinea | Eritrea | Ethiopia | Gabon | Gambia | Ghana | Guinea | Guinea-Bissau | Kenya | Lesotho | Liberia | Madagascar | Malawi | Mali | Mauritania | Mauritius | Mozambique | Namibia | Niger | Nigeria | Republic of the Congo | Rwanda | Sao Tome & Principe | Senegal | Seychelles | Sierra Leone | Somalia | South Africa | Swaziland | Togo | Uganda | United Rep of Tanzania | Zambia | Zimbabwe

9.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Alcohol, cannabis and other non-injected drug use is known to be widespread across Sub-Saharan Africa. In relation to alcohol and stimulant use in particular, there is some debate about the extent to which these contribute to the HIV epidemic, via the association with risky sexual behaviour. Importantly, recent evidence suggests that IDU is becoming increasingly common within the region. There are now reports of IDU from 16 Sub-Saharan African countries, home to 53% of the total population in the region. Due to a paucity of epidemiological research and monitoring, however, the nature and extent of IDU in the region remains largely uncertain. IDU is understood to be well established, in Kenya, Mauritius, South Africa, Nigeria and Tanzania, National-level prevalence of IDU has been estimated for only three of these countries, and there is therefore considerable uncertainty around these estimates.

The potential for IDU to develop further in these and other countries appears to be supported by a number of factors, including the increase in transit illicit drugs (heroin from Asia and cocaine from South America) into Europe through many African countries, which have porous and often unmonitored borders⁴¹⁶. Further, socioeconomic hardship and political instability are widespread; many within the region are also exposed to conflict situations, all known risk factors for drug use.

Data on IDU behaviours are scarce, but available data from a limited number of behavioural surveillance surveys that have been undertaken, suggesting that sharing of used injecting equipment may be common; lack of access to clean water in some locations makes cleaning syringes difficult, and drugs are often mixed with non-sterile water for injection. It has been noted that many people who inject drugs may not identify themselves as injecting drug users, and many switch between injecting and non-injecting routes of administration multiple times.

There are few studies measuring the prevalence of HIV among IDUs in the region. High prevalence of HIV in the general population, however, is well-documented across the region, and is significantly greater than 2% in 14 of the 16 countries where injecting has been reported; in these countries, however, sexual transmission remains the primary route of HIV transmission. The impact of IDU as an additional route of HIV transmission in these settings, with already high prevalence, is of concern; there is the potential for the prevalence of HIV among emerging populations of injectors to reach very high levels in a short period of time.

9.2 The current response

Few countries have implemented HIV prevention programmes targeting drug risk behaviours for IDUs. There are, however, well developed HIV prevention programmes targeting sexual risk behaviours among the general population in many countries. However, drug users in general are often excluded from these general population initiatives, which often take place in settings such as schools, churches and health clinics, where drug users, as hidden stigmatised populations often do not frequent. IDUs in this region would therefore benefit from targeted sexual risk reduction initiatives.

There is increasing recognition that attention should be given to HIV risk associated with injecting drug use in policy and program development; there has been little movement, however, towards implementation of such activities across the region.

Ready access to clean injecting equipment for most injectors in the region is lacking; NSPs are reported to have been introduced in Mauritius and Sierra Leone and a pilot NSP programme has been introduced attached to a men's sexual health service in Cape Town in South Africa.

In South Africa, methadone and buprenorphine are available in the private sector, but are expensive and as a result, remain inaccessible to the majority of drug dependent people. A more established program is present in Mauritius, but coverage remains limited. Provision of OST is reportedly available in Kenya and Senegal but is understood to be extremely limited.

Access to ART for HIV varies across the region, but few data describing the provision of HIV treatment for IDUs in the region are available. In South Africa there are barriers to accessing ART for people with known alcohol and drug problems with many services refusing ART to active drug users; it is likely similar barriers exist elsewhere in the region.

9.3 Barriers to an effective response

A limited understanding of the extent and nature of IDU in the region prevents efforts to develop and implement an effective response. The absence of surveillance systems also limits the ability to identify emerging IDU, and increasing HIV risk. Data is rarely collected on key indicators related to drug use in general, and IDU in particular.

Although there is growing recognition by some stakeholders that HIV risk associated with IDU is an emerging and important issue, drug use in general receives very little attention from governments and ministries of health and reducing drug-related risk use remains absent from national HIV strategies. Legislation in most countries either omits mention of drug related interventions or prevents the implementation of OST and NSP that are crucial components to the response. Ideological barriers to implementation of these services exist in many countries, with abstinence orientated approaches being more favoured by policy makers and NSP and OST seen as condoning and encouraging drug use.

Even where countries have included strategies to address drug use and related risks in national programs, resources are not available to enact these. In some cases where funding has been provided by the Global Fund for such programs countries have not used funds intended for operations targeting IDUs; it is understood that in many cases this is due to a lack of technical capacity to implement these programs.

Drug treatment systems in the region are underdeveloped, and low threshold services are, in particular, largely absent. Healthcare workers typically have little experience in dealing with drug users and may have limited understanding of their needs and have limited capacity to provide appropriate treatment and care. OST is provided to only a very limited extent and is often restricted only to those who can afford to pay for treatment.

Drug related legislation and law enforcement around drug use may be underdeveloped or counterproductive to reducing drug related harm in many African countries.

9.4 Recommendations for action

The development of IDU in a region containing mature HIV epidemics differs to the situation in most parts of the world where IDU was well established and HIV emerged later. Despite this, however, Sub-Saharan African countries can benefit from the experience gained in responding to injecting drug use and HIV outside of the region.

Support is needed to strengthen data collection on drug use and to increase capacity to monitor emerging trends, in particular to identify where, and among which groups, injecting is occurring and also where injectable drugs are being smoked and the risk of transition to injection is high. Building national surveillance systems should be started and collaboration between countries in the region to do so should be encouraged. This will require building capacity among agencies tasked with addressing drug abuse in Sub Saharan African countries. Policy makers, for example at the level of the Southern Africa Development Community (SADC) task team, should be encouraged to pay greater attention to the link between non-injecting drug use, IDU and HIV so that these issues can be placed on the policy agenda.

In countries where injecting is already known to occur, national HIV strategies should be broadened to include IDUs as a priority at-risk population. A public health approach to addressing injecting drug use is required and these strategies should be evidence based.

Policy and legislation should be revised where necessary to allow for the implementation of evidence based interventions including NSP, OST and other forms of drug treatment. Further law enforcement approaches to drug use should be developed that contribute positively to the prevention of HIV and other harms associated with drug use. Law enforcement and justice bodies should be active partners in the development of these HIV strategies.

Civil society and community-based organisations should be supported and included in the development of the response to IDU. Drug user groups, in particular, have an important role in this process, and assistance may be required for the establishment of such groups.

Health system development to provide drug treatment and effective HIV prevention services for drug users is critical. Existing services should work in cooperation to strengthen the response and optimise impact, particularly in the context of limited resources. Development and strengthening of a drug treatment workforce to implement evidence based interventions and to monitor the impact of these interventions is urgently required and the response to HIV and other drug use related harms cannot progress without such an investment in human resources.

It is important to ensure that existing HIV prevention and treatment services do not exclude drug users; drug users should not be denied access to ART. Where necessary, services targeting drug users specifically should be developed.

There is a need to facilitate and promote the establishment of facilities tailored to the social and health needs of drug users. To improve access to such services community based interventions and outreach services should be implemented. Healthcare workers require training to increase their capacity of to provide assistance to people who use drugs.

10 Middle East and North Africa

Algeria | Bahrain | Cyprus | Egypt | Iraq | Israel | Jordan | Kuwait | Lebanon | Libyan Arab Jamahiriya | Morocco | Occupied Palestinian Territories | Oman | Qatar | Saudi Arabia | Sudan | Syrian Arab Republic | Tunisia | Turkey | United Arab Emirates | Yemen

10.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Injecting is reported to occur throughout the region; however, very few data describing the extent of IDU are available. Currently, heroin is the most common drug injected throughout the region. The use of crack cocaine is reported to be increasing in some North African countries but appears to smoking at this stage.

The prevalence of HIV in the general population is less than 1% throughout the region. In those countries where the prevalence of HIV among IDUs has been measured it has also been found to be low (less than 3%) with the exception of Libya (22%), Morocco (6.5%), and Oman (11.8%) where prevalence is higher.

There are reports of large scale trafficking of methamphetamine through the region⁴¹⁶. It is understood that these drugs are largely destined for supply to other regions, principally Eastern Europe, but that consumption within the region is also occurring; traffic routes for amphetamine from Eastern Europe into the Arabian Peninsula have also been reported⁴¹⁶. Seizures of amphetamine type stimulant manufacturing facilities have also been reported within the region. With this apparent increase in the presence of methamphetamine there is the potential for increased use and possibly injection.

10.2 The current response

In the Middle East and North Africa, NSP provision is inconsistent and coverage remains low. The sale of syringes from pharmacies is often prohibited, or discouraged by pharmacists, limiting access to sterile injecting equipment even further.

In many North African countries, laws prohibiting opioids for treatment of pain and addiction have prevent OST prescription, although some promising changes have recently occurred with Morocco recently introducing MMT.

Little is known about the coverage of ART for IDUs living with HIV.

10.3 Barriers to an effective response

Lack of epidemiological data on IDU limits the ability to draw attention to and plan for the necessary response.

In many countries legislation exists preventing the implementation of evidence based HIV prevention strategies IDUs, specifically OST and NSP. In addition there appears to be limited political will in many countries in the region to address these issues; policy makers place greater emphasis on law enforcement responses to drug use rather than health sector responses and HIV prevention programs for people who inject drugs.

10.4 Recommendations for action

Research and monitoring systems examining the extent and nature of IDU and HIV in the region need to be strengthened.

Current law enforcement approaches to reducing drug supply should be balanced by developing evidence-based approaches to reduce drug demand and drug-related harm.

Legal barriers to OST and NSP provision must be removed in many countries and political commitment to addressing HIV among drug users is required. Where these programs have been introduced they must be scaled up to achieve the levels of coverage necessary to contain the spread of HIV among IDUs.

Strengthening the capacity of the health sector to provide high quality, evidence-based drug treatment services, including psychosocial interventions and those addressing stimulant dependence, is required.

Stigmatisation and discrimination against people who use drugs, and HIV more broadly, remain an important issue in this region. Advocacy for the human rights of people who use drugs could assist in the initiation of much needed HIV prevention strategies in the region. Civil society groups should be supported to enhance their capacity to advocate for the rights of IDUs and access to HIV prevention treatment and care.

11 Australasia

Australia | New Zealand

11.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Reported prevalence estimates of injecting drug use in both Australia (1.1%) and New Zealand (0.73%) are among the highest in the world; the prevalence of HIV among IDUs remains among the lowest (1.6% and 1.5% respectively).

Heroin, pharmaceutical opioids and methamphetamine are the most commonly reported drugs of injection with cocaine injection occurring more rarely. Poly-drug use is common among people who inject drugs.

While injecting has been established for some time in both countries, it is understood that the injecting drug user population is aging, in Australia in particular.

The success in containing HIV among IDUs has not been replicated for HCV; HCV prevalence and incidence are high and increasing rates of HCV-related mortality are observed.

11.2 The current response

Low levels of HIV in the context of high rates of injecting drug use in both countries has been attributed to some extent to geographical isolation but largely to the rapid introduction and scale up of needle and syringe programmes and increased drug treatment capacity when HIV infection was first noted in the 1980s.

Australia and New Zealand undertake surveillance of HIV, HCV and illicit drug use annually.

Current coverage of NSP is high in both countries and services are provided through a variety of outlets. Highly regulated OST programs are well established and present in both the community and in prisons. Psychosocial interventions for drug use are also available. Government subsidised OST and residential treatment programs are in demand and patients seeking admission may have to wait for a place to become available before starting treatment.

Few IDUs living with HCV receive antiviral treatment, which remains expensive.

11.3 Barriers to an effective response

Significant numbers of injecting drug users are incarcerated in both countries, but HIV prevention is limited by a lack of NSP provision in prisons.

Waiting lists for publicly funded OST places is a significant barrier for many IDUs seeking treatment for opioid dependence.

Many HIV prevention and drug treatment services were established to address opioid use when this was predominated. Services and treatment options for increasing numbers of methamphetamine users are less developed.

11.4 Recommendations for action

Both Australia and New Zealand have been fortunate in avoiding significant HIV epidemics among IDUs. Current high levels of service provision should be maintained, but inadequacies such as long waiting times for treatment and denial of effective HIV prevention strategies to IDUs in prisons should be addressed.

Surveillance should also continue, and observed changes should be responded to. Capacity of services to provide treatment and care for increasing numbers of IDUs living with HCV should be enhanced. Prevention models for HCV should also be further developed and build on existing HIV services.

12 Pacific Island States and Territories

American Samoa | Federated States of Micronesia | Fiji | French Polynesia | Guam | Kiribati | Marshall Islands | Nauru | New Caledonia | Palau | Papua New Guinea | Samoa | Solomon Islands | Tonga | Tuvalu | Vanuatu

12.1 Epidemiology of injecting drug use and HIV among people who inject drugs

Currently, there is very little evidence of IDU in the region; prevalence has not been estimated, but is likely very low in all countries, if injecting occurs at all⁴¹⁷. Self-reported IDU among surveyed high school students has been recorded in French Polynesia, but the reliability of these findings has been questioned⁴¹⁸; methamphetamine injecting has been reported in the United States Territories of Guam and Samoa³. There are early indications that injecting may be emerging among certain at risk groups, such as female sex workers and young people, in some countries, including Vanuatu and Papua New Guinea; in the absence of surveillance activities, however, the extent of this remains uncertain but is cause for concern, given the potential for rapid transmission of HIV⁴¹⁸.

Cases of HIV attributed to IDU have been reported in French Polynesia and New Caledonia, but little is known about the drug use and risk behaviours in these countries⁴¹⁸.

The incidence of HIV transmission is reported to be increasing in Papua New Guinea; in 2007 Papua New Guinea accounted for 99% of all new HIV cases in the region.

12.2 The current response

As IDU is uncommon, no countries in the region have introduced needle and syringe programs; specialised drug treatment services are largely undeveloped across the region and OST is absent.

Over the last 10 years funding for HIV activities in the region increased more than fivefold; in 2008 more than US\$77 million was available for HIV activities, but very little of this funding was allocated for drug use related programs⁴¹⁹.

12.3 Barriers to an effective response

Countries across the Pacific lack policies to address illicit drug use⁴¹⁷. An absence of data on injecting drug use, and drug use in general, is a significant barrier to the development of a response to drug use.

Regarding HIV more generally, in countries understood to have the greatest number of people living with HIV in the region studies among at-risk groups in not been conducted and behavioural data for key high-risk populations remains inadequate. In addition, there is lack of consistency in the reporting of HIV related indicators across countries impeding inter-country comparisons. (Burnet Institute, 2010) There is a lack of knowledge and skills needed to design, manage, monitor and evaluate programs generally, and also specifically for vulnerable populations⁴²⁰. With some exceptions, government engagement with civil society is, poor, especially in decision-

making processes (such as on national AIDS committees) which prevents unified action and valuable participation from effected communities⁴¹⁹.

12.4 Recommendations for action

Monitoring systems to detect changes in drug use and HIV risk among high-risk populations should be developed, especially in light of reports from some countries suggesting that there is the potential injecting may emerge. Without such systems counties lack the ability to mount an effective and timely response.

French Polynesia, New Caledonia and the US-affiliated Pacific Island states, where young people report injecting should prioritise investigations of injecting drug use. Vanuatu and Papua New Guinea should consider further studies on injecting drug use among female sex workers as an initial step if resources allow. Other countries should include questions on injecting drug use in surveying subpopulations of most interest to assess if these behaviours are being introduced. Additionally, all PICTs should ensure that health workers enquire about injecting drug use when collecting data on patients newly diagnosed with HIV or AIDS⁴¹⁸.

International and regional partners should assist Pacific Island States and Territories to developing achievable serological and behavioural surveillance systems, based on what is both currently known and unknown about the local spread of HIV⁴¹⁸.

Regarding the broader response to HIV, greater funding must be provided for prevention activities that address high-risk behaviours and produce maximum impact. Increased funding towards prevention of HIV activities in general would in turn address the spread of HIV in at-risk populations like injecting drug users.

Increased funding from governments and donors would enable civil society organisations to become more involved in national planning around HIV and in the delivery and monitoring of services⁴¹⁹.

Heath systems and community-based organisations require financial and technical assistance to develop capacity to provide drug treatment and support services.

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Appendix A: Reference Group membership, 2007-2010

Membership of the Reference Group in 2010

Core members:

Atul Ambekar
 Francisco Bastos
 Alexey Bobrik
 Azizbek Boltaev
 Marcus Day
 Don Des Jarlais
 Jimmy Dorabjee
 Lena Grigoryeva
 Mauro Guarinieri
 Matthew Hickman
 Adnan Khan
 Rick Lines
 Jessie Mbwapbo
 Bronwyn Myers
 Badou Roger N'Guessan
 Afarin Rahimi
 Heino Stöver
 Steffanie Strathdee
 Mark Tyndall
 Daniel Wolfe
 Lucas Wiessing
 Wenyan Yin
 Tomas Zabransky

Corresponding members:

Elie Aaraj
 Abu Abdul-Quader
 Tasnim Azim
 Mamadou BA
 Holly Bradford
 Benham Farhoudi
 Le Minh Gian
 Jean-Paul Grund
 Carl Hart
 Li Jianhua
 Adeeba Kamarulzaman
 Alisher Latypov
 Kasia Malinowska-Sempruch
 Jane Maxwell
 Pratima Murthy
 Tatyana Nikitina
 Olanrewaju Onigbogi
 Fred Owiti
 Samiran Panda
 Diana Rossi
 Gerry Stimson
 Abdalla Toufik
 Jallal Toufiq
 Gino Vumbaca

Membership of the Reference Group in 2007-2009

2009	2008	2007
Core Members:	Core Members:	
Kasia Malinowska-Sempruch	Kasia Malinowska-Sempruch	Tasnim Azim
Baurzhan Zhusupov	Baurzhan Zhusupov	Mauro Guarinieri
Tasnim Azim	Tasnim Azim	Matthew Hickman
Li Jianhua	Li Jianhua	Adeeba Kamarulzaman
Mauro Guarinieri	Mauro Guarinieri	Kasia Malinowska-Sempruch
Adeeba Kamarulzaman	Adeeba Kamarulzaman	Fabio Mesquita
Francisco Inacio Bastos	Francisco Inacio Bastos	Azarakhsh Mokri
Samiran Panda	Samiran Panda	Olanrewaju Olusola Onigbogi
Steffanie A Strathdee	Azarakhsh Mokri	Fred Owiti
Mark Tyndall	Steffanie A Strathdee	Samiran Panda
Matthew Hickman	Mark Tyndall	Steffanie A Strathdee
Abdalla Toufik	Matthew Hickman	Fayzal Sulliman
Lucas Wiessing	Abdalla Toufik	Abdalla Toufik
Bronwyn Myers	Lucas Wiessing	Jallal Toufiq
Olanrewaju Olusola Onigbogi	Bronwyn Myers	Mark Tyndall
Fred Owiti	Olanrewaju Olusola Onigbogi	Lucas Wiessing
Fayzal Sulliman	Fred Owiti	
Jallal Toufiq	Fayzal Sulliman	
	Jallal Toufiq	
Corresponding Members:	Corresponding Members:	
Tomas Zabransky	Tomas Zabransky	
Pratima Murthy	Pratima Murthy	
Atul Ambekar	Atul Ambekar	
Jane Maxwell	Jane Maxwell	

Appendix B: Regional data

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1 Eastern Europe

1.1 Eastern Europe: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Armenia	2000	.	0.10	.	.	2,000	.	D1	CIDU
Azerbaijan	2006	.	5.21	.	.	300,000	.	A	CIDU
Belarus‡	2007	1.01	1.11	1.21	69,200	76,281	83,400	A	CIDU
Bosnia & Herzegovina	.	.	NK	.	.	NK	.	.	.
Bulgaria§	.	.	NK	.	.	NK	.	.	.
Croatia†	2007	0.28	0.50	2.09	8,775	15,444	64,350	A	CIDU
Czech Republic¶	2007	0.39	0.41	0.42	28,400	29,500	30,500	A	CIDU
Estonia	2004	0.89	1.51	3.79	8,178	13,801	34,732	A	CIDU
Georgia	2004, 2002	0.48	4.19	7.90	14,400	127,833	241,266	C, B	CIDU
Hungary	2005	0.03	0.06	0.08	2,069	3,941	5,813	A	CIDU
Latvia	.	.	NK	.	.	NK	.	.	.
Lithuania	2006	.	0.22	.	.	5,123	.	C	REG
Moldova	2001	.	0.14	.	.	3,810	.	C	REG
Poland	.	.	NK	.	.	NK	.	.	.
Romania	.	.	NK	.	.	NK	.	.	.
Russian Federation	2007	.	1.78	.	.	1,825,000	.	D1	CIDU
Slovakia	2006	0.35	0.49	0.89	13,732	18,841	34,343	A	CIDU
Ukraine††	2009	0.71	0.90	1.12	230,000	290,000	360,000	A	CIDU

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users. **Estimate of heroin users only.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

‡ Monitoring Centre for Drugs and Drug Addiction Grodno State Medical University. Drug abuse and illicit drug trafficking in the republic of Belarus in 2007, 2009

§ and ¶ European Monitoring Centre for Drugs and Drug Addiction. Statistical Bulletin 2009. EMCDDA, Lisbon, 2009

† Kolarić B, D DŠ, D DG, Wiessing L. Seroprevalence of blood-borne infections and population sizes estimates in a population of injecting drug users in Croatia: low HIV and HIV testing rates. Central European Journal of Public Health, 2010.

†† Ukrainian AIDS Center of the Ministry of Health of Ukraine, World Health Organization, UNAIDS, International HIV/AIDS Alliance in Ukraine. National estimate of HIV/AIDS in Ukraine as of beginning of 2009. Kyiv, Ukraine, 2009

1.2 Eastern Europe: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Armenia	2005, 02	6.8	13.4	20	D1, B
Azerbaijan	2004	2	13	24	A
Belarus	2006	.	1.5	.	B
Bosnia & Herzegovina		.	NK	.	
Bulgaria	2006	0.0	0.4	0.8	B, A
Croatia	2006	.	0.6	.	A
Czech Republic	2006	0	0.05	0.1	A
Estonia	2005	54.3	72.1	89.9	B
Georgia	2004, 01-02	1.4	1.63	1.85	B
Hungary	2006	.	0.0	.	A
Latvia	2003	6.6	8.15	9.7	A
Lithuania	2003	.	2.4	.	A
Moldova‡	2007	0.0	21.0	44.8	A
Poland	2006	.	8.9	.	A
Romania	2006	.	1.44	.	B
Russian Federation	2003	0.3	37.15	74.0	B
Slovakia	2006	.	0	.	B
Ukraine†	2008	.	32.4	.	A

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

‡ Ministry of Health Moldova, National Centre for Health Management, National Centre of preventive Medicine AIDS Centre. Study of behavioural and sentinel surveillance of HIV Moldova, 2007, 2007.

† Kobyscha Y as cited in Sultanov M. Response to "Ukraine - UN Reference Group - Final Data Check". In: Reference Group to the UN on HIV and Injecting Drug Use, editor. Kyiv, Ukraine: UNODC, 2009.

1.3 Eastern Europe: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs				Forms of OST available	Opioid substitution therapy		Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)		Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	Number of IDUs on ART	IDUs on ART per 100 IDUs living with HIV (range)
Armenia	1178 ^(C)	59% (47-79)	75345 ^(C)	38 (30-50)	Nil	0 ^(A)	0	49 ^(A)	18 (8-48)
Azerbaijan	NK ^(B)	NK	NK ^(B)	NK	M	100-110 ^{(B), (A)}	NK	.	.
Belarus	5279 ^(C)	7% (6-8)	1655971 ^(B)	22 (20-24)	M	50 – 52 ^{(A), (B)}	<1 (<1-<1)	50 ^(E)	4 (2 - >100)
Bosnia & Herzegovina	1114-1805 ^(B)	NK	59869-98706 ^(B)	NK	M	536 ^(C)	NK	4 ^(E)	NK
Bulgaria	6137 ^(C)	NK	735000 ^(C)	NK	M, O	2069–2910 ^{(A), (C)}	NK	5 ^(D)	NK
Croatia	3201 ^(C)	21% (5-38)	149657 ^(C)	10 (2-18)	B, M	2016 ^{(A), (C)}	13 (3-24)	23 ^(D)	26 (10 - >100)
Czech Republic	27200-34000 ^(C)	>100% (89->100)	4457000 ^(C)	151 (146-156)	B, M	4960 ^(C)	17 (16-17)	12 ^(D)	81 (39->100)
Estonia	4088 ^(B)	30% (12-51)	2033375 ^(B)	151 (59-254)	B, M	1044 ^(C)	7 (3-13)	163 ^(E)	2 (1-4)
Georgia	1456-1500 ^(B)	1% (<1-11)	108660- 428798 ^(B)	2(<1-31)	M	575 – 1000 ^{(B), (A)}	1 (<1-7)	15 ^(A) - 265 ^(B)	7 (<1 - >100)
Hungary	2019 ^(C)	50% (34->100)	273751 ^(B)	68 (46-137)	B, M	816 ^(C)	20 (14-41)	.	.
Latvia	1939 ^(C)	NK	182019-182805 ^(B)	NK	B, M	133– 230 ^{(A), (C)}	NK	181 ^(D)	NK
Lithuania	3399 ^(C)	68% (52-97)	187227 ^(C)	37 (29-54)	B, M	512 ^(B)	10 (8-15)	19 ^(D)	16 (6- >100)
Moldova	NK ^(B)	NK	1976144 ^(B)	565 (395-790)	M	209 ^(B) (SN)	6 (4-8)	176 ^(B)	24 (8 - >100)
Poland	3101 ^(B)	NK	318054 ^(B)	NK	B, M	1450 ^(B)	NK	1372 ^(C)	NK
Romania	7081 ^(B)	NK	1108762 ^(B)	NK	B, M	1322 ^(B) #	NK	.	.
Russian Federation	122997 ^(B)	7% (5-9)	6904460 ^(B)	4 (3-5)	Nil	0 ^(B)	0	1331 ^(B)	<1 (<1-33)
Slovakia	2850 ^(B)	15% (8-20)	453601-589092 ^(C)	27 (13-42)	B, M, O	470 – 510 ^{(A), (B)}	3 (1-4)	4 ^(E)	>100 (>100->100)
Ukraine	94583-132361 ^(B)	39% (26-57)	8356842-10015312 ^(B)	32 (23-43)	B, M	4634 ^(A)	2 (1-2)	1860 ^(D)	2 (1 - 100)
Extrapolated regional estimates*		10% (7-15) †		9 (7-14) §			1 (<1-1) ‡		1 (<1-44) ¶

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

#Data reported for 12month period. (SN) = sub-national data only

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates

† Regional estimate derived using available data from 16 countries; these 16 countries account for 91% of the estimated regional IDU population.

§ Regional estimate derived using available data from 17 countries; these 17 countries account for 91% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 18 countries; these 18 countries account for 100% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 15 countries; these 15 countries account for 95% of the estimated regional IDU population living with HIV.

2 Central Asia

2.1 Central Asia: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Kazakhstan	2006	.	<i>0.96</i>	.	.	100,000	.	A	CIDU
Kyrgyzstan	2006	.	<i>0.74</i>	.	.	25,000	.	A	CIDU
Tajikistan	2006	.	<i>0.45</i>	.	.	17,000	.	A	CIDU
Turkmenistan	.	.	NK	.	.	NK	.	.	.
Uzbekistan	2006	.	<i>0.47</i>	.	.	80,000	.	A	CIDU

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users. **Estimate of heroin users only.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

2.2 Central Asia: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Kazakhstan	2005	8.0	<i>9.2</i>	10.4	B
Kyrgyzstan	2005	2.4	<i>8.0</i>	13.6	B
Tajikistan	2005	11.5	<i>14.7</i>	17.9	B
Turkmenistan	.	.	NK	.	.
Uzbekistan	2005	11.7	<i>15.6</i>	19.5	B

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

2.3 Central Asia: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs			Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	IDUs on ART per 100 IDUs living with HIV (range)
Kazakhstan	37310 ^(C)	37% (28-50)	15302962 ^(B)	149 (114-203)	M	50 ^(A)	<1 (<1-<1)	215 ^(D)
Kyrgyzstan	NK ^(A)	NK	NK ^(A)	NK	M	730 ^(A) -735 ^(B)	3 (2-4)	38 ^(D)
Tajikistan	8419 ^(B)	47% (36-65)	1851050 ^(B)	103 (79-142)	Nil	0 ^(A)	0	127 ^(A)
Turkmenistan	8462000 ^(E)	NK	484271 ^(E)	NK	Nil	0 ^(A)	0	.
Uzbekistan	33684 ^(B)	40% (31-55)	3002283 ^(B)	36 (27-49)	Nil	0 ^(A)	0	46 ^(D)
Extrapolated regional estimates*	.	36% (28-50) †	.	92 (71-125) §	.	.	<1 (<1-<1) ‡	2 (1-3) ¶

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates

† Regional estimate derived using available data from 4 countries; these 4 countries account for 90% of the estimated regional IDU population.

§ Regional estimate derived using available data from 4 countries; these 4 countries account for 90% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 5 countries; these 5 countries account for 100% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 4 countries; these 4 countries account for 92% of the estimated regional IDU population living with HIV.

3 Western Europe

3.1 Western Europe: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Albania	.	.	NK	.	.	NK	.	.	.
Andorra	.	.	NK	.	.	NK	.	.	.
Austria	2000	0.22	0.32	0.42	12,000	17,500	23,000	A	CIDU
Belgium	1997	0.35	0.39	0.43	23,200	25,800	28,400	A	CIDU
Denmark	1996	0.35	0.44	0.52	12,372	15,416	18,460	A	CIDU
Finland	2002	0.35	0.45	0.57	12,200	15,650	19,700	A	CIDU
FYR of Macedonia	.	.	NK	.	.	NK	.	.	.
France	1999	.	0.32	.	.	122,000	.	A	CIDU
Germany	2005	0.14	0.17	0.20	78,000	94,250	110,500	A	CIDU
Greece†	2007	0.11	0.13	0.16	8,380	9,916	11,818	A	CIDU
Iceland	.	.	NK	.	.	NK	.	.	.
Ireland	1996	0.20	0.27	0.33	4,694	6,289	7,884	A	CIDU
Italy	1996	.	0.83	.	.	326,000	.	A	CIDU
Liechtenstein	.	.	.	.	.	.	.	.	.
Luxembourg	2000	.	0.59	.	.	1,715	.	A	CIDU
Malta	.	.	NK	.	.	NK	.	.	.
Monaco	.	.	NK	.	.	NK	.	.	.
Montenegro	.	.	NK	.	.	NK	.	.	.
Netherlands	2001	0.02	0.03	0.04	2,211	3,115	4,321	A	CIDU
Norway‡	2005	0.28	0.45	0.62	8,524	13,854	19,183	A	CIDU
Portugal§	2005	0.15	0.23	0.31	10,950	16,425	21,900	A	CIDU
San Marino	.	.	NK	.	.	NK	.	.	.
Serbia	.	.	NK	.	.	NK	.	.	.
Slovenia	2001	.	0.52	.	.	7,310	.	A	CIDU
Spain	1998	.	0.31	.	.	83,972	.	A	CIDU
Sweden	.	.	NK	.	.	NK	.	.	.
Switzerland	1997	0.51	0.65	0.78	24,907	31,653	38,399	A	**
United Kingdom¶	2007	0.35	0.35	0.36	139,365	142,650	149,154	A	CIDU

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users. **Estimate of heroin users only.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

†, ‡, § and ¶ European Monitoring Centre for Drugs and Drug Addiction. Statistical Bulletin 2009. EMCDDA, Lisbon, 2009.

3.2 Western Europe: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Albania	.	.	NK	.	.
Andorra	.	.	NK	.	.
Austria	2006	.	7.1	.	A
Belgium	2006	2.9	4.3	5.7	A
Denmark	2006	.	2.1	.	A
Finland	2006	.	0.2	.	A
FYR of Macedonia	.	.	NK	.	.
France	2003	.	12.2	.	A
Germany	2006	.	2.9	.	A
Greece	2006	0.3	0.5	0.7	A
Iceland	.	.	NK	.	.
Ireland	1999	.	5.8	.	A
Italy	2006	.	12.1	.	A
Liechtenstein	.	.	.	.	.
Luxembourg	2006	.	2.8	.	A
Malta	2006	.	0	.	B
Monaco	.	.	NK	.	.
Montenegro	.	.	NK	.	.
Netherlands	2002	.	9.5	.	B
Norway	2006	.	3.2	.	A
Portugal	2006	10.9	15.6	20.2	A
San Marino	.	.	NK	.	.
Serbia	.	.	NK	.	.
Slovenia	2004	.	0.4	.	A
Spain	2006	.	39.7	.	A
Sweden	2007	.	5.4	.	A
Switzerland	2004	.	1.4	.	A
United Kingdom	2006	0.6	2.3	4.0	A

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

3.3 Western Europe: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs				Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	Number of IDUs on ART	IDUs on ART per 100 IDUs living with HIV (range)
Albania	NK ^(B)	NK	NK ^(B)	NK	M	100 -110 ^{(A), (C)}	NK	.	.
Andorra	.	.	.	.	.	.	-	1 ^(F)	NK
Austria	NK ^(C)	NK	3159918-3191836 ^(C)	176 (134-255)	B, M, O	10452 ^(C)	58 (44-84)	511 ^(D)	41 (24 - >100)
Belgium	NK ^(C)	NK	918438-1024096 ^(C)	36 (31- 43)	B, H, M	16275 ^(C)	60 (55-68)	.	.
Denmark	NK ^(E)	NK	910000 ^(E)	59 (49-73)	B, H, M	6300 ^(C)	41 (34-50)	.	.
Finland	13000 ^(C)	81% (65 - >100)	2648000 ^(C)	166 (132-212)	B, M	1160–1200 ^{(A),(C)}	7 (6-10)	100 ^(D)	>100 (>100 - >100)
FYR of Macedonia	1615-2180 ^(C)	NK	97400 – 174081 ^(C)	NK	M	1108 ^(B)	NK	.	.
France	4000-5714 ^(C)	4% (2- 6)	4800000- 6994286 ^(C)	46 (29-74)	B, M, O	101781 – 129000 ^{(C),(A)}	90 (61-137)	.	.
Germany	NK ^(C)	NK	128000 – 160000 ^(D)	2 (1-2)	B, H, M	68800 ^(C)	74 (63-89)	3000 ^(H)	>100 (64->100)
Greece	497-1988 ^(C)	12% (4 - 23)	34809 ^(D)	3 (3-4)	B, M	3650 – 3950 ^{(A), (D)}	38 (30-46)	110 ^(D)	>100 (>100->100)
Iceland	0 ^(A)	0%	0 ^(A)	0	B, M	15 ^(A)	NK	.	.
Ireland	7069-9301 ^(C)	>100% (71 - >100)	1097204-1523894 ^(C)	164 (110-254)	B, M	8029 – 9326 ^{(A),(C)}	108 (76-155)	.	.
Italy	NK ^(C)	NK	NK ^(C)	NK	B, M	112896 ^(C)	35 (27-47)	.	.
Luxembourg	NK ^(C)	NK	287347 ^(C)	144 (115-192)	B, M, O	1092 ^(C)	55 (44-73)	39 ^(H)	70 (43->100)
Malta	NK ^(D)	NK	225716 ^(D)	NK	B, M	762 – 1061 ^{(E), (A)}	NK	.	.
Monaco	.	.	.	.	.	.	-	.	.
Montenegro	70-90 ^(C)	NK	7510 ^(C)	NK	M	48 ^(B)	NK	.	.
Netherlands	NK ^(C)	NK	> 380000 ^(D)	127 (84-152)	B, H, M	12715 ^(D)	424 (283-509)	296 ^(D)	>100 (56->100)
Norway	NK ^(C)	NK	3274500-8867857 ^(C)	434 (168-1043)	B, M	5058 ^(C)	36 (26-60)	140 ^(H)	32 (19-86)
Portugal	NK ^(C)	NK	3282356 ^(C)	199 (149-298)	B, M	17780 ^(C)	108 (81-162)	262 ^(F)	10 (6-22)
San Marino	0 ^(A)	0%	0 ^(A)	0	NK	NK ^(A)	NK	.	.
Serbia	NK ^(B)	NK	280000 ^(B)	NK	M	1000 ^(A)	NK	200 ^(D)	NK
Slovenia	3000 ^(C)	40% (32-55)	882116 ^(C)	118 (93-160)	B, M, O	2988 ^(A)	40 (31-54)	8 ^(D)	27 (16-68)
Spain	NK ^(C)	NK	2802230 – 3370000 ^(C)	33 (23-49)	B, H, M	78527 ^(D)	85 (65-115)	39524 ^(D)	>100 (63->100)
Sweden	1230 ^(C)	NK	116648 ^(C)	NK	B, M	3115 ^(C)	NK	.	.
Switzerland	NK ^(E)	NK	NK ^(E)	NK	B, H, M, O	NK ^(A)	NK	.	.
United Kingdom	NK ^(C)	NK	26763146 ^(C)	188 (183-192)	B, H, M	126666 ^(E)	90 (88-92)	623 ^(G)	19 (11-77)
Extrapolated regional estimates*	.	17% (12-25) †	.	59 (39-89) §	.	.	61 (48-79) ‡	.	89 (52->100) ¶

Country in region for which no reports of IDU identified: Liechtenstein

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates

† Regional estimate derived using available data from 10 countries; these 10 countries account for 20% of the estimated regional IDU population.

§ Regional estimate derived using available data from 21 countries; these 21 countries account for 50% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 23 countries; these 23 countries account for 97% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 13 countries; these 13 countries account for 46% of the estimated regional IDU population living with HIV.

4 North America

4.1 North America: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Canada	2004	1.0	1.3	1.7	220,690	286,987	375,173	B	LTIDU
United States	2002	0.67	0.96	1.34	1,294,929	1,857,354	2,589,858	A	CIDU

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

4.2 North America: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Canada	2005	2.9	13.4	23.8	A
United States	2003	8.7	8.7	15.57	A

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

4.3 North America: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs			Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	IDUs on ART per 100 IDUs living with HIV (range)
Canada	NK ^(E)	NK	7,264,256 (SN) ^(B)	46(35-60)	B, M	NK ^(F)	NK	.
United States	NK ^(C)	NK	42,200,000 ^(C)	22(15-31)	B, M	253475 ^(C)	13(9-18)	.
Extrapolated regional estimates*	.	.	.	23 (17-33) †	.	.	13 (9-19) §	.

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

(SN) = sub-national data only

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates

† Regional estimate derived using available data from 2 countries; these 2 countries account for 100% of the estimated regional IDU population.

§ Regional estimate derived using available data from 1 country; this country accounts for 87% of the estimated regional IDU population.

5 Latin America

5.1 Latin America: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Argentina	1999	0.29	0.29	0.30	64,500	65,829	67,158	D1	CIDU
Belize
Bolivia	.	.	NK	.	.	NK	.	.	.
Brazil†	2008	.	0.42	.	.	<i>540,704</i>	.	B	CIDU
Chile	2006	.	0.38	.	.	<i>42,176</i>	.	D1	LTIDU
Colombia	.	.	NK	.	.	NK	.	.	.
Costa Rica	.	.	NK	.	.	NK	.	.	.
Ecuador	.	.	NK	.	.	NK	.	.	.
El Salvador	.	.	NK	.	.	NK	.	.	.
Guatemala	.	.	NK	.	.	NK	.	.	.
Guyana
Honduras	.	.	NK	.	.	NK	.	.	.
Mexico	.	.	NK	.	.	NK	.	.	.
Nicaragua	.	.	NK	.	.	NK	.	.	.
Panama	.	.	NK	.	.	NK	.	.	.
Paraguay	.	.	NK	.	.	NK	.	.	.
Peru	.	.	NK	.	.	NK	.	.	.
Suriname	.	.	NK	.	.	NK	.	.	.
Uruguay	.	.	NK	.	.	NK	.	.	.
Venezuela	.	.	NK	.	.	NK	.	.	.

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

† Brazilian Ministry of Health. Pesquisa de Conhecimentos, Atitudes e Práticas na População Brasileira de 15 a 54 anos, 2008 [Survey on Knowledge, Attitudes and Practices of the Brazilian Population, aged 15-54, 2008]. Brasília, 2008.

5.2 Latin America: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Argentina	1987-99	35.4	49.7	64.0	A
Belize	.	.	.	.	.
Bolivia	.	.	.	.	.
Brazil	2000	18	48	78	A
Chile	.	.	NK	.	.
Colombia	1999	0.0	1	2.0	B
Costa Rica	.	.	NK	.	.
Ecuador	.	.	NK	.	.
El Salvador	.	.	NK	.	.
Guatemala	.	.	NK	.	.
Guyana	.	.	.	.	.
Honduras	.	.	NK	.	.
Mexico	2005	1.9	3.0	4.1	B
Nicaragua	2000	.	6.0	.	D1
Panama	.	.	NK	.	.
Paraguay	2006	3.7	9.35	15.00	B
Peru	1994-1995	.	13.0	.	D1
Suriname	.	.	.	.	.
Uruguay	.	.	NK	.	.
Venezuela	.	.	NK	.	.

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

5.3 Latin America: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs				Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	Number of IDUs on ART	IDUs on ART per 100 IDUs living with HIV (range)
Argentina	NK ^(B)	NK	NK ^(B)	NK	Nil	0 ^(B)	0	.	.
Bolivia	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Brazil	NK ^(D)	NK	126452 - 376546 ^(F)	0.5 (0.2 – 1.0)	Nil	0 ^(A,B)	0	2974 ^{(A) +}	1 (1-4)
Chile	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	0 ^(A)	0
Colombia	0 ^(A)	0%	0 ^(A)	0	.	NK	.	.	.
Costa Rica	.	.	.	.	.	.	.	.	.
Ecuador	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
El Salvador	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Guatemala	0 ^(A)	0%	0 ^(A)	0	.	.	.	.	.
Honduras	.	.	.	.	.	.	.	.	.
Mexico	12819 ^(B)	NK	134963 - 152387 ^(B)	NK	M	3644 ^(C)	3(3-5)	.	.
Nicaragua	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Panama	.	.	.	.	.	.	.	.	.
Paraguay	NK ^(B)	NK ^(A)	NK ^(A)	NK	Nil	0 ^(B)	0	.	.
Peru	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Suriname	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Uruguay	NK ^(A)	NK ^(A)	NK ^(A)	NK	Nil	0 ^(B)	0	.	.
Venezuela	.	.	.	.	.	.	.	.	.
Extrapolated regional estimates*	.	2% (2-3) †	.	1 (<1- 1) §	.	.	1 (<1-1) ‡	.	1 (1-4) ¶

Countries in region for which no reports of IDU identified: Belize, Guyana

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

+ Data from Brazil refer to cumulative entrants into ART from 2005-2009; data on the number in ART at a single point in time could not be obtained. This figure should therefore be taken as tentative

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 10 countries; these 10 countries account for 46% of the estimated regional IDU population.

§ Regional estimate derived using available data from 11 countries; these 11 countries account for 85% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 12 countries; these 12 countries account for 81% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 2 countries; these 2 countries account for 69% of the estimated regional IDU population living with HIV.

6 Caribbean

6.1 Caribbean: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Antigua & Barbuda
Bahamas	.	.	NK	.	.	NK	.	.	.
Barbados
Bermuda	.	.	NK	.	.	NK	.	.	.
Commonwealth of Puerto Rico	2002	.	1.15	.	.	29,130	.	A	CIDU
Cuba
Dominica
Dominican Republic	.	.	NK	.	.	NK	.	.	.
Grenada
Haiti	.	.	NK	.	.	NK	.	.	.
Jamaica	.	.	NK	.	.	NK	.	.	.
Saint Kitts & Nevis
Saint Lucia
Saint Vincent & Grenadines
Trinidad & Tobago

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

6.2 Caribbean: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Antigua & Barbuda
Bahamas	.	.	NK	.	.
Barbados
Bermuda
Commonwealth of Puerto Rico	1998-2001	.	12.90	.	A
Cuba
Dominica
Dominican Republic	.	.	NK	.	.
Grenada
Haiti
Jamaica	.	.	NK	.	.
Saint Kitts & Nevis
Saint Lucia
Saint Vincent & Grenadines
Trinidad & Tobago

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

6.3 Caribbean: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs			Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	IDUs on ART per 100 IDUs living with HIV (range)
Bahamas	.	.	.	.	.	.	.	.
Bermuda	.	.	.	.	.	.	.	.
Comm. of Puerto Rico	NK ^(A)	NK ^(A)	NK ^(A)	NK ^(A)	NK	5570 ^(C)	19 (14-25)	.
Dominican Republic	0 ^(A)	0% ^(A)	0 ^(A)	0 ^(A)	Nil	0 ^(A)	0	.
Haiti	.	.	.	.	.	.	.	.
Jamaica	.	.	.	.	.	.	.	.
Extrapolated regional estimates*	.	.	.	.	.	.	5 (4-7) †	.

Countries in region for which no reports of IDU identified: Antigua & Barbuda, Barbados, Cuba, Dominica, Grenada, Saint Kitts & Nevis, Saint Lucia, Saint Vincent & Grenadines, Trinidad & Tobago

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 2 countries; these 16 countries account for 53% of the estimated regional IDU population.

7 East and South East Asia

7.1 East and South East Asia: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Brunei Darussalam	.	.	NK	.	.	NK	.	.	.
Cambodia	2004	<i>0.01</i>	<i>0.02</i>	<i>0.09</i>	1,000	1,750	7,000	C	CIDU
China	2005	<i>0.19</i>	<i>0.25</i>	<i>0.31</i>	1,800,000	<i>2,350,000</i>	2,900,000	A	CIDU
DPR Korea	.	.	.	.	.	.	.	.	.
Indonesia	2006	<i>0.13</i>	<i>0.14</i>	<i>0.16</i>	190,460	<i>219,130</i>	247,800	A	CIDU
Japan	2004	.	<i>0.47</i>	.	.	400,000	.	D1	CIDU
Lao PDR	.	.	NK	.	.	NK	.	.	.
Malaysia	2002	<i>1.11</i>	<i>1.33</i>	<i>1.56</i>	170,000	<i>205,000</i>	240,000	C	CIDU
Mongolia	.	.	NK	.	.	NK	.	.	.
Myanmar	2007	<i>0.18</i>	<i>0.23</i>	<i>0.27</i>	60,000	<i>75,000</i>	90,000	C	CIDU
Republic of Korea	.	.	NK	.	.	NK	.	.	.
Philippines‡	2007	0.02	0.03	0.04	9,984	15,150	20,316	D1	CIDU
Singapore	.	.	NK	.	.	NK	.	.	.
Taiwan	.	.	NK	.	.	NK	.	.	.
Thailand	2001	.	<i>0.38</i>	.	.	160,528	.	D1	CIDU
Timor Leste	.	.	NK	.	.	NK	.	.	.
Viet Nam	2005	.	<i>0.25</i>	.	.	135,305	.	D1	CIDU

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

‡ National Epidemiology Center Department of Health Philippines. Estimate of adults living with HIV in the Philippines, 2007.

7.2 East and South East Asia: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Brunei Darussalam	.	.	NK	.	.
Cambodia	2006, 04	14.3	22.8	31.3	B
China	2005	7.96	12.3	19.2	A
DPR Korea	.	.	.	.	.
Indonesia	2006	31.7	42.5	53.3	A
Japan	.	.	NK	.	.
Lao PDR	.	.	NK	.	.
Malaysia	2002	.	10.3	.	A
Mongolia	.	.	.	.	.
Myanmar	2006	.	42.6	.	C
Republic of Korea	.	.	NK	.	.
Philippines‡	2007	0.01	0.43	0.85	D1
Singapore	.	.	NK	.	.
Taiwan	2004, 06	2	13.8	25.6	D1, B
Thailand	2004	.	42.5	.	B
Timor Leste	.	.	.	.	.
Viet Nam	2006	1.9	33.85	65.8	B

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

‡ National Epidemiology Center Department of Health Philippines. Estimate of adults living with HIV in the Philippines, 2007.

7.3 East and South East Asia: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs			Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	IDUs on ART per 100 IDUs living with HIV (range)
Brunei Darussalam	0 ^(D)	0%	0 ^(D)	0	Nil	0 ^(D)	0	.
Burma	29411 ^(C)	39%(33 - 49)	3511232 ^(B)	47(39 - 58)	M	500	1(1-1)	.
Cambodia	NK ^(B)	NK	110982 ^(B) - 117631 ^(B)	57(14 - 118)	Nil	0 ^(A)	0	.
China	> 38000 ^(B)	2% (1 - 2)	1,173,764 ^(B) - 152,715,768	32(<1 - 84)	B, M	103595-104068 ^(B)	3(4-6)	9300 ^(A)
Indonesia	49000 ^(C)	23% (20 - 26)	511670-797455 ^(B)	3(2 - 4)	B, M	2200 ^(A)	1(1-1)	5406 ^(C)
Japan	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Lao PDR	0 ^(D)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Malaysia	5571 ^(B)	2% (2-3)	1903174 ^(B) - 2560400 ^(B)	9(7 - 13)	B, M	4135 ^(C) - 6538 ^(B)	2(1-3)	.
Mongolia	54 ^(B)	NK	2000 ^(B) - 7500 ^(B)	NK	Nil	0 ^(D)	0	.
Philippines	800 ^(B)	5% (4 - 8)	50000 ^(B)	3(2-5)	Nil	0 ^(A)	0	.
Republic of Korea	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Singapore	0	0%	0 ^(B)	0	Nil	0 ^(B)	0	.
Taiwan	9000 ^(B)	NK	4066114 ^(B)	NK	B, M	12598 ^(B)	NK	826 ^(B)
Thailand	413 ^(B)	<1% (<1 - 1)	47513 ^(B)	<1 (<1 - <1)	B, M	4150 - 4696 ^(B)	3(2-4)	1435 ^(C)
Timor Leste	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Viet Nam	140254 ^(A)	95% (73 - >100)	20,588,830 ^(A) - 34,845,528 ^(B)	189 (107 - 323)	M	1484 ^(A)	1(1-1)	1760 ^(A)
Extrapolated regional estimates*	.	7% (6 - 9) †	.	30 (7 - 68) §	.	.	4 (3-5) ‡	4 (2 - 8) ¶

Countries in region for which no reports of IDU identified: DPR Korea

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 15 countries; these 15 countries account for 100% of the estimated regional IDU population.

§ Regional estimate derived using available data from 16 countries; these 16 countries account for 100% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 16 countries; these 16 countries account for 100% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 5 countries; these 5 countries account for 78% of the estimated regional IDU population living with HIV.

8 South Asia

8.1 South Asia: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Afghanistan	2005	<i>0.05</i>	<i>0.05</i>	<i>0.05</i>	6,870	<i>6,900</i>	6,930	A	CIDU
Bangladesh	2005	<i>0.02</i>	<i>0.03</i>	<i>0.04</i>	20,000	<i>30,000</i>	40,000	C	CIDU
Bhutan	.	.	NK	.	.	NK	.	.	.
India	2006	<i>0.01</i>	<i>0.02</i>	<i>0.03</i>	106,518	<i>164,820</i>	223,121	A	CIDU
Iran, Islamic Republic	2004	.	<i>0.40</i>	.	.	180,000	.	A	CIDU
Maldives	.	.	NK	.	.	NK	.	.	.
Nepal‡	2007	.	<i>0.17</i>	.	.	28,439	.	A	CIDU
Pakistan	2006	<i>0.13</i>	0.14	<i>0.16</i>	125,000	<i>130,460</i>	150,000	A	CIDU
Sri Lanka	.	.	NK	.	.	NK	.	.	.

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

‡ Central Bureau of Statistics Government of Nepal. Summary report of the survey on hard drug users in Nepal - 2063, 2007.

8.2 South Asia: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Afghanistan	2005-06	1.7	3.4	5.1	B
Bangladesh	2006	0.8	1.35	1.9	A
Bhutan	.	.	.	.	.
India	2004	.	11.15	.	A
Iran, Islamic Republic	2005	5	15	25	B
Maldives	.	.	.	.	.
Nepal	2003	30.22	41.39	52.56	B
Pakistan†	2008	19.4	21.0	22.3	A
Sri Lanka	.	.	NK	.	.

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

† National AIDS Control Program Ministry of Health Pakistan. HIV second generation surveillance in Pakistan, 2008.

8.3 South Asia: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28. (*Unless otherwise specified*)

Countries where IDU reported to occur	Needle and syringe programs			Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	IDUs on ART per 100 IDUs living with HIV (range)
Afghanistan	NK ^(A)	NK	117454 – 250832 ^(B)	25 (16 – 33)	M**	NK ^(A)	NK	NK ^(B)
Bangladesh	23684 ^(B) –32766 ^(B)	93% (54 – >100)	3696224 – 4072729 ^(B)	118 (85 – 185)	M††	130†† ^(A)	<1 (<1-1)	5 ^(B)
Bhutan	0 ^(A)	0	0 ^(A)	0	Nil	0 ^(C)	0	NK ^(B)
India	137000 ^(A)	78% (59 – >100)	5342069 – 6565447 ^(A)	34 (22 – 58)	B, O	6050	3 (3-5)	NK ^(B)
Iran, Islamic Republic	55000 ^(D)	28% (21 – 38)	8504651 ^(B)	41 (31 – 56)	B, M	108000 ^(B) #	52 (40–71)	580 ^(C)
Maldives	0 ^(C)	0	0 ^(C)	0	M	14 ^(B) #	NK	NK ^(B)
Nepal	13708 ^(A, B)	46% (35 – 62)	692466 ^(B) –7507766 ^(A)	24 (18 – 34)	B, M	125 ^(A) –389 ^(A)	1 (0-2)	NK ^(B)
Pakistan	15000 ^(B)	11% (9 – 11)	2776287 ^(B)	20 (17 – 21)	Nil	0 ^(A)	0	113 ^(A)
Sri Lanka	0 ^(C)	0 ^(C)	0 ^(C)	0	NK	NK ^(C)	NK	NK ^(A)
Extrapolated regional estimates*	.	43% (32 – 57) †	.	37 (27 – 50) §	.	.	19 (15 – 25) ‡	1 (1 – 2) ¶

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

#Data reported for 12month period.

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 8 countries; these 8 countries account for 99% of the estimated regional IDU population.

§ Regional estimate derived using available data from 9 countries; these 9 countries account for 100% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 8 countries; these 8 countries account for 99% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 35 countries; these 3 countries account for 65% of the estimated regional IDU population living with HIV.

**Maguet O, Médecins du Monde, Kabul, Afghanistan, personal communication, 24 Februray 2010.

††Azim T, International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh, personal communication, 24 November 2010.

9 Sub-Saharan Africa

9.1 Sub-Saharan Africa: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. *(Unless otherwise specified)*

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Cote d'Ivoire	.	.	NK	.	.	NK	.	.	.
Dem Rep of the Congo
Djibouti	.	.	NK	.	.	NK	.	.	.
Equatorial Guinea
Eritrea
Ethiopia
Gabon	.	.	NK	.	.	NK	.	.	.
Gambia
Ghana	.	.	NK	.	.	NK	.	.	.
Guinea
Guinea-Bissau
Kenya	2004, 00-2	0.16	0.73	1.3	30,264	130,748	231,231	C	CIDU
Lesotho
Liberia
Madagascar
Malawi	.	.	NK	.	.	NK	.	.	.
Mali
Mauritania
Mauritius	2004	2.01	2.07	2.13	17,000	17,500	18,000	A	CIDU
Mozambique
Namibia
Niger
Nigeria	.	.	NK	.	.	NK	.	.	.
Republic of the Congo
Rwanda
Sao Tome & Principe
Senegal	.	.	NK	.	.	NK	.	.	.
Seychelles
Sierra Leone†	.	.	NK	.	.	NK	.	.	.
Somalia
South Africa	2004	.	0.87	.	.	262,975	.	B	LTIDU
Swaziland‡	2007	.	NK	.	.	NK	.	.	.
Togo§	2009	.	NK	.	.	NK	.	.	.

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Uganda	.	.	NK	.	.	NK	.	.	.
United Rep of Tanzania	.	.	NK	.	.	NK	.	.	.
Zambia	.	.	NK	.	.	NK	.	.	.
Zimbabwe

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

† World Health Organisation. Global health ATLAS data, 2009.

‡ International Planned Parenthood Federation (IPPF). Report card HIV prevention for girls and young women. Swaziland: Report card HIV prevention for girls and young women, 2007.

§ UNAIDS. HIV prevention among injecting drug users (IDUs) in Togo, 2009.

9.2 Sub-Saharan Africa: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Cote d'Ivoire
Dem Rep of the Congo
Djibouti	.	.	NK	.	.
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Kenya	2004, 03	36.3	42.9	49.5	B
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius†	2008	.	9.8	.	B
Mozambique
Namibia
Niger
Nigeria	2003, 00	0	5.5	11	B
Republic of the Congo
Rwanda
Sao Tome & Principe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa	2005	4.8	12.4	20	B
Swaziland
Togo
Uganda
United Rep of Tanzania	.	.	NK	.	.

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Zambia
Zimbabwe

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded).

† Ministry of Health Quality of Life Mauritius. AIDS unit data cited in Oodally, F., UNAIDS. Response to "Mauritius - UN Reference Group - Final Data Check". Mauritius 2009. Received by the Reference Group to the UN on HIV and Injecting Drug Use on 15 October 2009, 2009.

9.3 Sub-Saharan Africa: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs				Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	Number of IDUs on ART	IDUs on ART per 100 IDUs living with HIV (range)
Cote d'Ivoire	.	.	.	.	Nil	0 ^(A)	0	.	.
Djibouti	.	.	.	.	Nil	0 ^(A)	0	.	.
Gabon	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Ghana	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Kenya	0 ^(B)	0 ^(B)	0 ^(B)	0	M	NK ^(A)	NK	38 ^(B)	<1 (<1 – <1)
Malawi	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Mauritius	4900 ^(A)	26 (26 – 27)	118866 ^(A)	6 (6 – 7)	M, O	757 ^(B)	4 (4 – 4)	198 ^(B)	11 (4 – 92)
Nigeria	0 ^(E)	0%	0 ^(E)	0	Nil	0 ^(E)	0	.	.
Senegal	0 ^(A)	0%	0 ^(A)	0	B, O	NK	NK	.	.
Sierra Leone	NK ^(A)	NK	NK ^(A)	NK	Nil	0 ^(A)	0	.	.
South Africa	0 ^(A)	0%	0 ^(A)	0	B	NK ^(A)	NK	.	.
Swaziland	0 ^(C)	0%	0 ^(C)	0	Nil	0 ^(C)	0	.	.
Togo	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Uganda	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Utd Rep. of Tanzania	0 ^(B)	0%	0 ^(B)	0	Nil	0 ^(B)	0	.	.
Zambia	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.	.
Extrapolated regional estimates*	.	<1% (<1% – 1%) †	.	<1 (<1 – <1) §	.	.	<1 (<1 – <1) ‡	.	<1 (<1 – <1) ¶

Countries in region for which no reports of IDU identified: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Dem Rep of the Congo, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Mali, Mauritania, Mozambique, Namibia, Niger, Republic of the Congo, Rwanda, Sao Tome & Principe, Seychelles, Somalia, Zimbabwe

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 13 countries; these 13 countries account for 93% of the estimated regional IDU population.

§ Regional estimate derived using available data from 13 countries; these 13 countries account for 93% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 13 countries; these 13 countries account for 74% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 2 countries; these 2 countries account for 29% of the estimated regional IDU population living with HIV.

10 Middle East and North Africa

10.1 Middle East and North Africa: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Algeria	.	.	NK	.	.	NK	.	.	.
Bahrain	.	.	NK	.	.	NK	.	.	.
Cyprus†	2007	0.08	0.10	0.13	442	572	778	C	CIDU
Egypt	.	.	NK	.	.	NK	.	.	.
Iraq	.	.	NK	.	.	NK	.	.	.
Israel	.	.	NK	.	.	NK	.	.	.
Jordan	.	.	NK	.	.	NK	.	.	.
Kuwait	.	.	NK	.	.	NK	.	.	.
Lebanon	.	.	NK	.	.	NK	.	.	.
Libyan Arab Jamahiriya	2001	.	0.05	.	.	1,685	.	C	REG
Morocco	.	.	NK	.	.	NK	.	.	.
Occupied Palestinian Territories	.	.	NK	.	.	NK	.	.	.
Oman	.	.	NK	.	.	NK	.	.	.
Qatar	.	.	NK	.	.	NK	.	.	.
Saudi Arabia	.	.	NK	.	.	NK	.	.	.
Sudan	.	.	NK	.	.	NK	.	.	.
Syrian Arab Republic	.	.	NK	.	.	NK	.	.	.
Tunisia	.	.	NK	.	.	NK	.	.	.
Turkey	.	.	NK	.	.	NK	.	.	.
United Arab Emirates	.	.	NK	.	.	NK	.	.	.
Yemen	.	.	NK	.	.	NK	.	.	.

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

† European Monitoring Centre for Drugs and Drug Addiction. Statistical Bulletin 2009. EMCDDA, Lisbon, 2009.

10.2 Middle East and North Africa: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Algeria	.	.	NK	.	.
Bahrain	2000	.	0.3	.	B
Cyprus	2006	.	0.0	.	B
Egypt	2006	0.6	2.55	4.5	B
Iraq	.	.	.	.	.
Israel	2005, 02-06	2.07	2.94	3.81	B, A
Jordan	.	.	NK	.	.
Kuwait	.	.	NK	.	.
Lebanon	.	.	NK	.	.
Libyan Arab Jamahiriya	2004	.	22	.	B
Morocco	2006	.	6.5	.	C
Occupied Palestinian Territories	.	.	NK	.	.
Oman	2000, 00-05	5	11.8L	18.6	B
Qatar	.	.	NK	.	.
Saudi Arabia	1997	.	0.14	.	B
Sudan	2003	.	0	.	B
Syrian Arab Republic	.	.	NK	.	.
Tunisia	1997	.	0.3	.	B
Turkey	2005, 2001	2.3	2.65	3	B
United Arab Emirates	.	.	.	.	.
Yemen	.	.	.	.	.

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded).

10.3 Middle East and North Africa: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs			Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	IDUs on ART per 100 IDUs living with HIV (range)
Algeria	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Bahrain	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Cyprus	NK ^(B)	NK	5 ^(B)	0.01(0.01 – 0.01)	B, O	19 ^(A) – 71 ^(C)	9 (2-14)	.
Egypt	NK ^(A)	NK	NK ^(B)	NK	Nil	0 ^(B)	0	.
Iraq	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Israel	NK ^(A)	NK	NK ^(A)	NK	B, M	530 ^(A) – 570 ^(A)	NK	.
Jordan	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Kuwait	0 ^(A)	0%	0 ^(A)	0	Nil	0	0	.
Lebanon	600–800 ^(B)	NK	> 2000 ^(B)	NK	B	112 ^(A)	NK	.
Libyan Arab Jamahiriya	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Morocco	611 ^(B)	NK	44696 ^(A)	NK	M ^	0 ^(A)	0	.
Occ. Palestinian Terr.	NK ^(A)	NK	NK ^(A)	NK	Nil	0 ^(A)	0	.
Oman	NK ^(A)	NK	2400 ^(B)	NK	Nil	0 ^(A)	0	.
Qatar	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Saudi Arabia	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Sudan	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Syrian Arab Republic	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Tunisia	680 ^(A)	NK	5924 ^(A)	NK	Nil	0 ^(A)	0	.
Turkey	0 ^(D)	0%	0 ^(D)	0	Nil	0 ^(B)	0	.
United Arab Emirates	0 ^(A)	0%	0 ^(A)	0	NK	NK ^(B)	NK	.
Yeman	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0	.
Extrapolated regional estimates*	.	2% (1% – 3%) †	.	<1 (<1 – 1) §	.	.	1 (<1 – 1) ‡	.

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 16 countries; these 16 countries account for 77% of the estimated regional IDU population.

§ Regional estimate derived using available data from 18 countries; these 18 countries account for 78% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 20 countries; these 20 countries account for 69% of the estimated regional IDU population.

11 Australasia

11.1 Australasia: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
Australia	2005	<i>0.65</i>	<i>1.09</i>	<i>1.50</i>	89,253	149,591	204,564	A	CIDU
New Zealand	2006	<i>0.49</i>	<i>0.73</i>	<i>0.97</i>	13,535	20,163	26,792	B	CIDU

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

11.2 Australasia: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. Lancet 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
Australia	2006	.	1.5	.	A
New Zealand	2006	.	1.6	.	B

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded).

11.3 Australasia: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010;375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs				Opioid substitution therapy		Antiretroviral treatment		
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	Number of IDUs on ART	IDUs on ART per 100 IDUs living with HIV (range)
Australia	NK ^(B)	NK	29346601 ^(A)	213 (156-358)	B, M	35848 ^(C)	23 (17-39)	518 ^(C)	22 (10-89)
New Zealand	NK ^(E)	NK	2508837 ^(B)	122 (91-179)	NK	NK ^(B)	NK ^(B)	.	.
Extrapolated regional estimates*	.	.	.	202 (148-334) †	.	.	23 (17-39) §	.	.

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 2 countries; these 2 countries account for 100% of the estimated regional IDU population.

§ Regional estimate derived using available data from 1 country; this country accounts for 69% of the estimated regional IDU population.

12 Pacific Island States and Territories

12.1 Pacific Island States and Territories: Country level prevalence of injecting drug use

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of IDU estimate	Prevalence of injecting drug use, 15-64 year olds (%)			Estimated number of people who inject drugs			IDU estimate grade	IDU definition
		Lower	Mid	Upper	Lower	Mid	Upper		
American Samoa
Fed. States of Micronesia	.	.	NK	.	.	NK	.	.	.
Fiji	.	.	NK	.	.	NK	.	.	.
French Polynesia	.	.	NK	.	.	NK	.	.	.
Guam	.	.	NK	.	.	NK	.	.	.
Kiribati	.	.	NK	.	.	NK	.	.	.
Marshall Islands
Nauru
New Caledonia	.	.	NK	.	.	NK	.	.	.
Palau
Papua New Guinea	.	.	NK	.	.	NK	.	.	.
Samoa	.	.	NK	.	.	NK	.	.	.
Solomon Islands	.	.	NK	.	.	NK	.	.	.
Tonga	.	.	NK	.	.	NK	.	.	.
Tuvalu
Vanuatu	.	.	NK	.	.	NK	.	.	.

NK: Injecting drug use reported among those who inject drugs but a prevalence estimate could not be made. CIDU: Estimate made for “current injectors” (indirect estimates were defined as “current IDUs” unless otherwise specified; current use defined as having injected in the past year); LTIDU: Estimate of “lifetime injectors”; REG: Estimate derived from cumulative registries of drug users.

IDU estimate grade: A – Indirect prevalence estimation methods; B – General population survey; C – Experts’ judgement with method by which estimate was obtained known, Delphi method or other consensus estimate or government registration of drug users; D1 – Official government estimate with no methodology reported; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded)

Prevalence figures in *italics* indicates these were calculated by the authors using reported estimate of number of people who inject drugs and UN Population Division estimates of 15-64 year old population ⁴²¹; midpoint figures for estimated number of people who inject drugs in *italics* indicates these were calculated by taking the midpoint of the reported range; figures for lower and upper estimated numbers of people who inject drugs in *italics* indicate these were calculated by the authors using reported prevalence estimates of injecting drug use and UN Population Division estimates of 15-64 year old population. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi. Because estimates of prevalence were calculated by the authors using UN population estimates these may differ to those in the reports from which the data was drawn due to different general population estimates being used. For further detail on methods used to make these estimates see www.idurefgroup.com/IDUepi.

12.2 Pacific Island States and Territories: Country level prevalence of HIV among people who inject drugs

Adapted from: Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet* 2008; 372(9651):1733-45. (*Unless otherwise specified*)

Countries and territories	Year of HIV estimate	Prevalence of HIV among people who inject drugs (%)			HIV estimate grade
		Lower	Mid	Upper	
American Samoa
Fed. States of Micronesia	.	.	NK	.	.
Fiji	.	.	NK	.	.
French Polynesia	.	.	NK	.	.
Guam	.	.	NK	.	.
Kiribati
Marshall Islands
Nauru
New Caledonia	.	.	NK	.	.
Palau
Papua New Guinea	.	.	NK	.	.
Samoa	2004-5	.	0	.	D1
Solomon Islands	2004-5	.	0	.	D1
Tonga	2004-5	.	0	.	D1
Tuvalu
Vanuatu

NK: HIV reported among those who inject drugs but a prevalence estimate could not be made. Midpoint prevalence estimates in *italics* indicates these were calculated by taking the midpoint of the reported range. When more than one year or grade is given these are listed in order of the estimate they refer to, i.e. lower followed by upper. For source documents for all figures listed in tables and for further information on how country level estimates were determined see www.idurefgroup.com/IDUepi.

HIV prevalence estimate grade: A – Multi-site seroprevalence study with at least two sample types (e.g. treatment or outreach sample); B – Seroprevalence study from a single sample type; C – Registration or notification of cases of HIV infection; D1 – Prevalence study using self reported HIV; D2 – Estimate with methodology unknown (NB: D2 graded data were excluded).

12.3 Pacific Island States and Territories: Provision of NSP, OST and ART for IDUs

Adapted from: Mathers B, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick R, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet 2010; 375(9719):1014-28.

Countries where IDU reported to occur	Needle and syringe programs			Opioid substitution therapy			Antiretroviral treatment	
	Number of IDUs accessing NSP in a year	% of IDUs accessing NSPs in a year (range)	Number of needles-syringes distributed by NSPs per year	Number of needles-syringes distributed per IDU per year (range)	Forms of OST available	Number of clients in OST (incl. both IDU and non-IDU clients)	OST clients per 100 IDUs	IDUs on ART per 100 IDUs living with HIV (range)
Fed. States Micronesia	0 ^(A)	0%	0 ^(A)	0	Nil	0 ^(A)	0 ^(D)	0 ^(A)
Fiji	0 ^(D)	0%	0 ^(D)	0	Nil	0 ^(D)	0 ^(D)	.
French Polynesia	.	.	.	.	.	.	.	.
Guam	0 ^(A)	0%	0 ^(A)	0	.	.	.	0 ^(A)
Kiribati	.	.	.	.	.	.	.	.
New Caledonia	0 ^(A)	0%	0 ^(A)	0	.	.	.	.
Papua New Guinea	0 ^(B)	0%	0 ^(B)	0	Nil	0 ^(A)	0 ^(A)	.
Samoa	0 ^(D)	0%	0 ^(D)	0	Nil	0 ^(D)	0 ^(D)	.
Solomon Islands	0 ^(D)	0%	0 ^(D)	0	Nil	0 ^(D)	0 ^(D)	.
Tonga	0 ^(D)	0%	0 ^(D)	0	Nil	0 ^(D)	0 ^(D)	.
Vanuatu	0 ^(D)	0%	0 ^(D)	0	Nil	0 ^(D)	0 ^(D)	.
Extrapolated regional estimates*	.	0% †	.	0 §	.	.	0 ‡	0 ¶

Countries in region for which no reports of IDU identified: American Samoa, Marshall Islands, Nauru, Palau, Tuvalu

Year of data: ^(A) = 2009; ^(B) = 2008; ^(C) = 2007; ^(D) = 2006; ^(E) = 2005; ^(F) = 2004; ^(G) = 2003; ^(H) = 2002; ^(I) = 2001; ^(J) = 2000.

M = methadone maintenance treatment; B = buprenorphine maintenance treatment; H = heroin assisted treatment; O = any other form (including morphine, codeine).

* Regional estimates derived from all countries where data on service provision were available for the indicator concerned; if no country estimate for the prevalence of IDU or HIV among IDU then regional IDU and HIV prevalence used for the purpose of deriving these regional coverage estimates.

† Regional estimate derived using available data from 9 countries; these 9 countries account for 96% of the estimated regional IDU population.

§ Regional estimate derived using available data from 9 countries; these 9 countries account for 96% of the estimated regional IDU population.

‡ Regional estimate derived using available data from 7 countries; these 7 countries account for 91% of the estimated regional IDU population.

¶ Regional estimate derived using available data from 2 countries; these 2 countries account for 4% of the estimated regional IDU population living with HIV.

Produced by:
The Secretariat of the Reference Group to the United Nations on HIV and Injecting Drug Use
National Drug and Alcohol Research Centre
University of New South Wales
Australia
2010

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