KEY POINTS

- People who inject drugs are 22 times more at risk of HIV compared with the general population. This risk arises particularly from sharing needles and injection equipment but is reinforced through criminalisation, marginalisation and poverty.

- Geographically, Eastern Europe and Central Asia make up the majority of new HIV infections among people who inject drugs.

- Harm reduction methods, such as needle and syringe programmes, opioid substitution therapy and counselling are proven, effective HIV prevention strategies for people who inject drugs.

Explore this page to find out more about HIV prevention for people who inject drugs, barriers to HIV preventions, antiretroviral treatment and what needs to happen next.

People who inject drugs (also known as PWID) are among the groups most vulnerable to HIV infection. It is estimated that people who inject drugs are 22 times more likely to acquire HIV than among the rest of the population.1 Drug use now accounts for an ever-growing proportion of those living with HIV. On average one in ten new HIV infections are caused by the sharing of needles.2 Moreover, it is estimated that 25% of new infections outside of sub-Saharan Africa are among injecting drug users.3 It is thought that there are approximately 11.8 million people who inject drugs worldwide, and 13.1% of them are thought to be living with HIV.4 Three countries account for nearly half of all people who inject drugs globally - China, Russia and the United States of America (USA).5

In Eastern Europe and Central Asia, which saw a 29% increase in new HIV infections between 2010 and 2017, the burden is particularly high among people who inject drugs. In 2017, 39% of new HIV
cases in the region were among this group.6

Despite the increased risk of HIV for people who inject drugs they are among those with the least access to HIV prevention, treatment and healthcare. This is because drug use is often criminalised and stigmatised.7 In 2011, the Political Declaration on HIV committed world governments to halving HIV transmission among people who inject drugs by 2015. This target was missed by 80% highlighting the shortage of effective prevention for this group.8

Why are people who inject drugs at risk of HIV transmission?

Sharing needles

If a needle has been used by an HIV-positive person, infected blood in the needle can be injected into the next person who uses that needle. Furthermore, injecting drug users are more likely to test for HIV late, increasing the chance of onward HIV transmission.

Unfortunately, sterile syringes are not always readily available, especially in countries with no/low roll-out of needle and syringe programmes (NSPs). A lack of awareness or education about safe injecting is another major reason for sharing needles.

Other reasons for needle sharing are that it is part of a social and cultural norm among people who inject drugs, and that it can act as a form of bonding.9

Criminalisation and marginalisation

Legislation that criminalises possession and use of drugs for personal consumption leads to more risky forms of drug use. Along with other punitive policies and practices which discriminate against people with a history of drug use, criminalisation reinforces the marginalisation of people who inject drugs while also discouraging them from accessing harm reduction and other healthcare services. This hugely increases vulnerability to HIV infection,10 and has a negative effect on HIV prevention and treatment outcomes.11

Drug paraphernalia laws in some countries make it an offence to distribute or possess syringes for non-medical purposes, with people arrested for carrying them. This forces people to avoid carrying new needles, and use shared ones instead.12 13

When we [inject] drugs we need to be quick. Police might come at any time. For that reason...we don’t mind sharing with others.

- Drug user, Imphal, India14

In some countries police crackdowns on drug use and users have targeted healthcare and harm reduction services. This discourages people who inject drugs from accessing these services and has contributed to the spread of HIV.15

Despite overwhelming evidence that it has little or no impact on the number of people using drugs,
the ‘war on drugs’ approach, which criminalises and uses aggressive policing and sanctions against
drug users, continues to prevail in many countries. Country data collected by the United Nations
Office of Drugs and Crime (UNODC) shows that the percentage of people who use illicit drugs has
remained stable since at least 2006.16

Poverty

Poverty and drug taking are linked in a complex and mutually reinforcing manner which contributes to
the spread of HIV. The majority of drug users, including people who inject drugs, are relatively poor in
the societies in which they live. Moreover, social and economic disadvantage is strongly associated
with drug use disorder (when recurrent drug use becomes a detriment to people's health, work,
school or home life).17 Poverty may mean people choose cheaper ways of taking drugs such as
sharing needles with others. Economic marginalisation may lead to behaviour associated with
increased risk of HIV such as sex work or selling sex for drugs.

Injecting drugs and sex work

Although people who inject drugs constitute a key group in themselves, there is also an overlap
between drug addiction and those involved in sex work. Individuals who fall into both categories are
particularly vulnerable to HIV. In Central Asia, Afghanistan and Mongolia, HIV prevalence among
female sex workers who also inject drugs is 20 times higher than sex workers who don't inject
drugs.18

Women who inject drugs

In many cases, women are more susceptible to HIV infection because of gender-based violence (GBV).
Women may be pressured to share needles and engage in high-risk sexual activities. Women
-especially mothers), are also more likely to conceal their drug-taking behaviour because of societal
discrimination, and the threat of losing custody of their children. This discourages them from
accessing medical care and HIV services.19 Other studies have shown that women who inject drugs
are more likely to experience sexual violence from police and law enforcement agencies.20 In 2013,
global HIV prevalence among women who inject drugs was 13%, compared to 9% among men who
inject drugs.21

Imprisonment and detention

It is estimated that between 56% and 90% of drug users will be imprisoned at some point in their life.
The predominantly punitive global response to drugs also means that around one in five prisoners
worldwide are being held on drug-related charges.22

In many countries, prisons remain environments with high levels of drug use and high prevalence of
HIV. In this context, incarceration of drug users fuels HIV transmission, especially in overcrowded
prisons where syringe sharing and unprotected sex is more common.23

Despite this, there are significant gaps in prevention, treatment and harm reduction services in many
prisons around the world. In 2015 only eight countries had at least one needle and syringe
programme in prison and only 43 have opioid substitution therapy (OST).24

In many Asian countries, drug detention centres are compulsory, with drug users forced to spend time
there with no access to OST or treatments for withdrawal symptoms.25 This discourages many people
who inject drugs from accessing health services including HIV treatment and prevention.

Legalising and enforcing harm reduction methods, engaging people who inject drugs in the HIV response, and investing adequate funding in services for people who inject drugs, are essential to implementing effective HIV prevention services.

Combination HIV prevention

Reducing HIV transmission among people who inject drugs needs a combination of approaches such as:

- stopping discrimination and marginalisation - people who inject drugs face serious discrimination from a multitude of sectors of society, including a lack of inclusion in medical trials. Including people who inject drugs in research is important in the global HIV response
- stopping apathy - much of society is indifferent to the rights of people who inject drugs; they must be shown the same human rights as others
- stopping inattention - people who inject drugs are too often treated as one homogenised group. HIV prevention initiatives must focus on subgroups such as women who use drugs or young people who use drugs.26

Access to mental health services, sexual health check-ups and condoms is necessary alongside harm reduction measures. Efforts need to focus on prevention rather than simply awareness.27
Harm reduction programmes

Harm reduction programmes include needle and syringe programmes (NSPs) and opioid substitution therapy (OST).

These are effective in preventing HIV because they provide clean needles to drug users, and offer substitution medicines like methadone as an alternative to injecting drugs. Despite their resounding success in various settings worldwide, of the 140 countries that reported data on people who inject drugs to UNAIDS in 2018, only 86 have NSPs, and 44 had OST available. These programmes need to be scaled up everywhere in order to have a preventative effect for people who inject drugs and the wider population, with current provision failing to reach most people who inject drugs.

Low dead-space syringes

Syringes that are used to inject drugs contain either a high, or a low 'dead-space' area, which is where fluid (including blood) collects after injecting. High dead-space syringes are often preferred because they are cheaper, come with detachable needles, and are more readily available.

However, low dead-space syringes collect 1,000 times less fluid, meaning HIV cannot survive very long in this type of syringe. The risk of HIV infection is reduced if someone uses a low dead-space syringe after an HIV-positive person. Unfortunately, access to low dead-space syringes is sparse. These need to be supplied to NSPs and pharmacies.

Pre-exposure prophylaxis

Pre-exposure prophylaxis (PrEP) is a course of antiretroviral drugs (ARVs) taken before possible exposure to HIV, to prevent an infection from establishing in the body. In 2015, the World Health Organization (WHO) recommended the use of PrEP for people who inject drugs, among other people at substantial risk of HIV.

It is important that other forms of combination prevention are offered alongside PrEP, such as needle and syringe programmes and opioid substitution therapy, as these are the most effective ways of preventing HIV infection from injecting drugs.
Barriers to HIV prevention for people who inject drugs

The illegal nature of injecting drugs can create barriers to accessing adequate HIV prevention, testing and treatment services, making people who inject drugs more vulnerable to HIV.

Without adequate access to these services, there is a high risk that HIV will also be transmitted to sexual partners. The crossover of drug use with sex work means that HIV is more likely to be transmitted to other at-risk populations and their partners.

Punitive laws

Injecting drugs for purposes not prescribed by a doctor is illegal worldwide. The criminalisation of drug use and possession can hinder attempts to engage people who use drugs with available HIV services which may otherwise help to curb HIV.

Decriminalisation would be a more effective approach. It would mean people who inject drugs would not be forced underground to conceal their habit and to escape arrest, but rather be free to engage in the HIV response and be active in protecting their own health.

Portugal's drug law

In 2000 Portugal passed new drug laws downgrading the purchase, possession and consumption of small amounts of drugs. The law also put in place a wide range of prevention and harm reduction measures focused on high-risk groups and areas.

The decade that followed saw a decline in crimes related to drug consumption, problematic drug use, drug-related harms and criminal justice overcrowding. The period also saw a steady decline in new HIV infections among people who inject drugs. In 2013 only 78 new HIV cases were related to drug use.

New drugs: ATS, hagigat, IPEDs

The continuous creation of new drugs, with new ways to take them creates a never-ending cycle of HIV exposure opportunities. Injection of amphetamine-type stimulants (ATS) is increasing in every region of the world, with an estimated 13.9 to 54 million users worldwide. However, very few harm reductions interventions are tailored to people who use ATS and there is an urgent need for adapted harm reduction interventions in light of the increasing ATS injecting.

A new drug named 'hagigat' caused an outbreak of HIV infections in Israel during 2012-2013. Drug users switched from injecting heroin to injecting hagitat, which encourages socialising and needs more 'hits' per day. This led to higher numbers of people sharing needles.

The use of image and performance enhancing drugs (IPEDs) is rising rapidly, especially in more developed nations such as the UK. IPEDs are used to change a person's body image, and increase their level of physical performance. A study in the UK found that HIV prevalence among men who
inject IPEDs was similar to those who inject drugs like heroin and cocaine. This highlights that it is the injecting practice itself that is important to monitor, rather than the type of substance injected.37 38 39

Barriers faced by young people who inject drugs

Although data for people who inject drugs is available, it is unknown how many young people inject drugs, or what the HIV prevalence among this group is. One report has suggested that 3% of young people who inject drugs are living with HIV.40

Young people are also likely to show more high-risk behaviour such as sharing needles or getting needles from unofficial places.41

HIV prevention programmes typically overlook young people at risk of injecting drug use; few reach out to vulnerable youth to prevent them from starting to inject or help them to end their addiction if they have already started. Moreover, prevention programmes do not specifically address the issues that vulnerable young people face, such as peer pressure, unstable family homes or exclusion from school. Some HIV prevention initiatives like OST may even deter young people because they require registration, parental consent or impose age restrictions.42 43

Funding HIV prevention for people who inject drugs

Funding low-cost harm reduction initiatives such as NSPs and OST is a much more cost-effective way of tackling HIV among people who inject drugs than having to pay for antiretroviral treatment (ART) for the rest of a person's life.44

Despite this, a deepening funding crisis is facing harm reduction services globally. The majority of countries that have a large HIV prevalence among their drug user population are middle-income countries. However, international HIV funding for these countries is shrinking as large donors such as the Global Fund shift their focus to low-income countries under the assumption that the funding gap for services will be filled by domestic resources. While there has been an increase in domestic investment in HIV programmes in some countries, very few are prioritising HIV prevention for key populations including harm reduction for people who inject drugs.45

Under-investment in HIV prevention for people who inject drugs is often not a question of lack of resources but of allocation. For example, an estimated US$100 billion is spent annually on global drug control. Reallocating as little as 2.5% of this money from drug enforcement to harm reduction programmes could reduce new HIV infections among people who inject drugs by 78%, alongside a 65% drop in HIV-related deaths. A shift of 7.5% of drug control funding would reduce new infections and HIV-related deaths by around 94%.46

By making small shifts in how we spend existing resources, the world could virtually eliminate HIV among people who inject drugs by 2030.
Antiretroviral treatment for people who inject drugs

Access to ART for people who inject drugs is surrounded by controversy and stigma in many parts of the world, despite the fact that people who are virally suppressed on treatment are much less likely to pass on HIV.

In many countries people who inject drugs who are living with HIV are less likely to be accessing ART than non-drug users. In Russia, for example, people who inject drugs made up 67% of the cumulative HIV cases in 2015, yet represented only 25% of those receiving ART. In 2017, only 53% of the total number of people who were living with HIV in Asia accessed treatment, however for many countries the coverage among people who inject drugs was even lower - just 10.3% of people who inject drugs in Pakistan were accessing ART in 2017 and only 14.1% in Myanmar.

Many governments favour policies that require absolute abstinence from illegal drug use before ART is provided. This deters drug users from seeking ART if they are forced to abstain from their drug addiction.

Supporting people who inject drugs to adhere to their treatment (taking ARVs at the same time every day at least 95% of the time) is an essential part of ensuring treatment is successful.

What needs to happen?

With injecting drug use accounting for a very significant proportion of people living with HIV, a combination of accessible HIV prevention approaches are needed to reduce HIV transmission among people who inject drugs. Better monitoring of this key affected population would also help inform effective HIV prevention responses tailored at the group, particularly young people who inject drugs.

Harm reduction measures including NSPs and OST should be implemented more widely and scaled up where they do exist. NSPs are one of the most effective ways to reduce harm and prevent HIV transmission. They allow people to access social and psychological support to overcome their drug addiction, drug treatment and other health services, alongside clean needles.

Furthermore, stigma and discrimination against people who use drugs needs to be tackled so they can access treatment freely without fear, and reduce the risk of being exposed to HIV. This would also lessen the chance of HIV transmission to other population groups through sex work and unprotected sex in general.

The ‘war on drugs’ and criminalisation of people who inject drugs is pushing them away from services that could improve their health and that of the wider public. Countries need to reconsider any punitive laws and measures, such as detention centres and drug-registers that are very prominent barriers to addressing HIV among people who inject drugs.

Photo credit: ©iStock.com/diego_cervo. Photos are used for illustrative purposes. They do not imply any health status or behaviour on the part of the people in the photo.
1. UNAIDS (2018) ‘Miles to go: closing gaps, breaking barriers, fighting injustices’[pdf]
3. UNAIDS (2018) 'Miles to go: closing gaps, breaking barriers, fighting injustices’[pdf]
4. UNAIDS (2017) Blind Spot: reaching out to men and boys
6. UNAIDS (2018) 'Miles to go: closing gaps, breaking barriers, fighting injustices.'[pdf]
Implement Prevention Programs Among People Who Inject Drugs' Journal of Acquired Immune Deficiency Syndrome 62(5):577-583

28. UNAIDS (2018) 'Miles to go: closing gaps, breaking barriers, fighting injustices'[pdf]


30. WHO (2015) 'Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV'


35. Aidsmap (2013, October) 'Tel Aviv and Bucharest signal warnings of new HIV epidemics among people who inject drugs'


42. International Harm Reduction Association (IHRA) (2013, December) 'Injecting Drug Use Among Under-18s A Snapshot of Available Data'[pdf]


52. Michael Carter, Aidsmap (2012) 'Active injecting drug users must be provided with
adherence support when they start HIV therapy'


Last full review:
11 April 2017

Next full review:
10 April 2020