

Drug control policies in Eastern Europe and Central Asia

The economic, health
and social impact



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Executive summary

The former communist countries of Eastern Europe and Central Asia (EECA) are transition economies, attempting to manage rising healthcare costs whilst reforming their health systems.¹ EECA is one of the few regions in the world where the incidence of Human Immunodeficiency Virus (HIV) is going up. Because of competing needs, public health interventions for HIV have been low on policy-makers priority lists, with the allocation of domestic funds to scaling-up HIV prevention programmes falling short of demand.^{2,3}

Criminalisation of drug use and incarceration for drug-related offences are one of the main influences behind an increase in prison populations in EECA countries.⁴ Arresting and putting people who inject drugs (PWID) in prison is both expensive^{5,6} and associated with an increase in HIV infections.⁷ The funds allocated to incarcerating PWID massively outweigh those spent on prevention and treatment for this group. The stigma associated with drug use in EECA further hinders the expansion of HIV prevention programmes within mainstream public health.⁸

In parts of Western Europe, evidence-informed, properly scaled up, community-led harm reduction services exist, where criminal sanctions for individual use and possession of drugs are removed and human rights are respected.⁹ Such harm reduction approaches have helped decrease problems with drug use, reduce overcrowding in prisons and dramatically reduce the incidence of HIV in PWID.⁹ The case for addressing punitive criminalisation strategies and stigma associated with HIV in PWID in EECA is clear, yet progress towards decriminalisation remains slow.

This Economist Intelligence Unit (EIU) report aims to capture the attention of policy-makers in four study countries in the EECA region; Belarus, Kazakhstan, Kyrgyzstan and Russia to make the case for the cost effectiveness and health gains achieved when the criminalisation of drug use is reduced, harm reduction is scaled up and stigma and discrimination towards PWID and other vulnerable populations is reduced. To eliminate HIV in PWID this report arrives at the following four recommendations:

A shift in resource allocation. Investing the money saved from decriminalising drug use and possession for personal use (€38m-€773m over 20 years) into scaling up antiretroviral therapy (ART) and opioid agonist treatment (OAT) could effectively control the current HIV epidemics among PWID in the four study countries for no added cost. This both achieves the Joint United Nations Programme on HIV and AIDS (UNAIDS) coverage targets of ART in all settings, increases the coverage of OAT and reduces HIV incidence in PWID by 79.4-92.9% over 20 years. As OAT is not available in Russia, scaling up needle and syringe programmes (NSP) is an alternative solution which would be cheaper than scaling up OAT and ART. It would cost on average €46.5m per year to get 60% coverage of PWID and avert around 14,000 HIV infections per year. What is striking about these findings are the savings and HIV infections averted following such a simple shift in resources from criminalisation to harm reduction approaches, something governments cannot ignore.

Scaling up harm reduction in prison and continuity of care on release. Punishment should restrict freedom, not healthcare. Harm reduction needs to be scaled up not only in the community but also in prisons. The data explaining the risk of HIV transmission in prison is often blurred by underreporting and poor data collection. Special attention should be given to PWID when they leave prison, to ensure they continue to receive services, prevent overdose and further offending. Transitional care, which includes the provision of harm reduction interventions in prison and sustaining them post release is crucial to reducing HIV prevalence in the long term and should be made part of a national framework that straddles health and the criminal justice system.

Tackling stigma and discrimination. Stigma and discriminatory attitudes towards vulnerable populations need to be stopped. Stigma-reducing workshops which educate the health and law enforcement sector on HIV prevention is a simple yet scarce solution in EECA.

The importance of counselling, supporting positive mental health, addressing homelessness, preventing overdose and providing access to sexual and reproductive health services should be central to these educative workshops. Long term solutions require consistent and robust data collection on violence, discrimination and stigma, alongside actively using tools of influence such as shadow and alternative reporting to UN human rights treaty bodies.

Urgent law enforcement reform. To stop law enforcement officers from committing corrupt practices, there must be a reform of not only the police, but also a complete makeover of drug legislation and healthcare policies supporting drug users and people living with HIV. Punitive laws against key populations must be removed, and vulnerable populations such as sex workers, men who have sex with men, trans people, prisoners and PWID should be protected rather than antagonised by legal aid and law enforcement institutions.

About this report

This report describes the methods and main findings from The Economist Intelligence Unit research on the criminalisation and health of people who inject drugs (PWID) in four Eastern Europe and Central Asia (EECA) countries: Belarus, Kazakhstan, Kyrgyzstan and Russia. These countries were selected based on their high burden of drug use and disproportionate regulations and practices towards PWID. They are also politically influential countries in the regional context, with Russia setting a standard for drug policies in many of the countries in Eastern Europe and Kazakhstan in Central Asia. This report explores the consequences of punitive law enforcement policies using a modelling approach which estimates the savings and benefits from scaling up public health interventions for PWID, as opposed to the current criminalisation approach. The report concludes with key recommendations for improving EECA's harm reduction practices for PWID with a view to reducing the prevalence of HIV. Country profiles which explore the coverage of harm reduction interventions, attempts to implement public health policies for PWID, and the current regulations associated with drug related crimes are included in the Appendix. In most EECA countries, access to reliable prison data and an account of the operation of the penitentiary systems are limited. To supplement the published literature, interviews with experts were conducted, extracts of which are displayed in italics throughout the report.

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Project overview

Background

Eastern Europe and Central Asia (EECA) is the only global region where HIV incidence (+72%) and mortality (+24%) have increased since 2010.¹⁰ The Joint United Nations Programme on HIV/AIDS (UNAIDS) sets the global targets for reducing the HIV/AIDS epidemics, more commonly known as the 90-90-90 strategy. This strategy aimed to do the following by 2020:

- 90% of all people living with HIV will know their HIV status.
- 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy.
- 90% of all people receiving antiretroviral therapy (ART) will have viral suppression.

All EECA countries actively supported these UNAIDS targets in June 2016, committing to implementing ambitious policies and programmes.¹¹ Despite this, in 2019, neither Belarus, Kazakhstan, Kyrgyzstan or Russia had met these targets.¹² The previous UNAIDS target to halve HIV among PWID by 2015 was missed by a huge 80%. Continuing on this trajectory will mean also missing the more ambitious target to end AIDS (Acquired Immune Deficiency Syndrome) by 2030.¹³ Despite the severity of the HIV epidemic in EECA, it has not been considered a public health crisis by local governments, which may in part be due to political barriers which make tackling this issue all the more challenging.

The HIV epidemic in this region is largely fuelled by injecting drug use, which accounts for 48% of new HIV infections^{14,15} with PWID also having a high HIV prevalence (7.3-53.4%).¹⁶

Many PWID are diagnosed late, suggesting that HIV testing is not delivered at the scale required.¹⁷ In 2016, the UN General Assembly held a special session on the world drug problem, addressing the need for a person-centred, human rights approach to drug use, “saturating areas with high HIV incidence with a combination of tailored prevention interventions.” Unfortunately, such saturation has not occurred in EECA.

The region in general is characterised by suboptimal HIV prevention and treatment,^{18,19} which is perpetuated by limited investments, especially domestic sources of funding.²⁰ HIV prevalence is often concentrated among other high risk groups such as prisoners,⁷ with around 58% of PWID having spent time in prison at some point in their life.¹⁶ Although injecting drug use typically reduces within prison, high levels of risk exist due to limited access to sterile injecting equipment and increased syringe sharing.^{21,22}

UNAIDS holds the following risk factors responsible for HIV transmission among PWID:¹⁵

1. Criminalisation and punitive laws
2. Absent or inadequate prevention services
3. Widespread societal stigma
4. Lack of investment

Due to slow progress in meeting the UNAIDS targets in the EECA region, demonstrated by a continued increase in HIV infections, the extent and impact of these risk factors are studied in more detail in this report.

Objectives

To understand the societal and political barriers and the costs involved in scaling up HIV prevention for PWID and treatment targets, the objectives of this research programme are to:

Chapter 1: Explore the burden of HIV in PWID, the provision of harm reduction services and the investment environment in EECA.

Chapter 2: Explore qualitatively drug law enforcement and conviction bias in each country, reviewing literature and policy, and conducting interviews with experts.

Chapter 3: Use a modelling approach for four country settings (Belarus, Kazakhstan, Kyrgyzstan and Russia) to estimate the potential benefits in terms of health outcomes and savings of reducing criminalisation, and investing the saved costs into increasing OAT and ART.

Chapter 4: Discuss the implications of the findings and recommendations for the future.

Chapter 1: Commissioning in the dark

The unknown burden of people who inject drugs

Across Europe in general, there are major disparities in the provision of HIV care among sub-regions²³, and considerable uncertainty around estimating the prevalence of PWID²⁴, making the planning and commissioning of interventions challenging. While there is a general understanding that HIV prevalence among PWID is much greater than the rest of the population, usually 28 times higher,¹⁵ in practice, scaling up harm reduction services for PWID is hindered by poor data availability.²⁵ Data describing the EECA region often comes from studies with varying sample sizes and data collection methods, making solid conclusions about the characteristics and access to public health services for PWID difficult, but there are some common features. All countries show low coverage of harm reduction interventions,

high incarceration rates, and increasing HIV prevalence for PWID.¹⁷ Using data from a routinely conducted national sentinel Integrated Biological Behavioural Survey (IBBS)²⁶ in four study countries, the prevalence of HIV in PWID (expressed as a proportion of all PWID) is the highest in Russia, followed by Belarus, Kyrgyzstan and Kazakhstan using data from multiple years (60%, 31%, 14% and 8% respectively) (Table 1). As HIV is concentrated in high risk groups such as PWID and prisoners, interventions need to span the community and prisons. According to IBBS data, in Belarus around 76.2% of PWID were incarcerated at some point, a substantial figure, followed by Kyrgyzstan (46%), Kazakhstan (43.6%) and Russia (34%) (Table 1). Data on the number of prisoners is fairly well reported in several different places, with Russia having the largest prison population, followed by Kazakhstan, Belarus and Kyrgyzstan (Table 1).

Table 1: The burden and costs of harm reduction programmes

	Belarus	Kazakhstan	Kyrgyzstan	Russia
Demographics				
HIV Prevalence in PWID ²⁷⁻³⁰	30.8% (2017)	7.9% (2018)	14.3% (2016)	60% (2017)*
Prison population ³¹	32,500	35,219	10,574	602,176
HIV prevalence in prisons (2015) ³²	6%	3%	11%	7%
PWID population size ^{16,27-29,33}	75,000 (2014)	120,500 (2016)	25,000 (2013)	1,881,000 (2017)
OAT coverage ³⁴⁻³⁶	3.7% (community 2019)	<1% (2019)	4% (2019)	0%
ART coverage among HIV + PWID ^{27-30,36,37}	40.5% (2018)	28.5% (2018)	27% (2016)	42% (2017)*
Recent coverage of NSP programmes in community ²⁷⁻²⁹	69.4%	87.4%	55.7%	No data
Viral suppression among HIV + PWID ³⁸⁻⁴¹	45.8% (2016)	54% (2018)	89% (2019)	81% (2017)*
Needle syringes received per person per year ²⁴	27 (16-72)	145 (98-216)	246 (166-366)	2 (1-3)
Number of NSP operational sites ⁴²	34	144	40	20
Proportion of PWID ever incarcerated ^{27,29,43,44}	76.2% (2020)	43.6% (2018)	46% (2016)	34% (2012)*
Costs				
Cost of ART per person per year (2018) ^{45,46}	€302	€1,230	€363	€1,259
Cost of OAT per person per year (2018) ^{45,46}	€550	€422	€383	€441 (scaled from Kazakhstan)
Cost of prison per person per year ^{5,47}	€5,480 (scaled from Azerbaijan, 2014)	€5,952 (scaled from Russia costs, 2018)	€1,259 (2018)	€6,641 (2018)
Pre-prison one-off cost per person (2010) ⁴⁷	€960 (scaled from Russia costs)	€1,161 (scaled from Russia costs)	€2,008	€1,371
GDP per capita (2018)	€5,419	€8,157	€1,123	€9,586

Abbreviations: **ART** - antiretroviral therapy, **NSP** - needle syringe programmes, **OAT** - opioid agonist treatment.

Note: Data availability in Russia is inconsistent, with estimates coming from different major cities and different sources. St Petersburg had the best data availability for most of the data points required using the IBBS so is used as a proxy for Russia where data for Russia as a whole was not available.

*Data for St Petersburg not Russia

Harm reduction

What is harm reduction?

Harm reduction encompasses a range of interventions, programmes and policies which aim to reduce the health, social and economic harms of drug use to individuals, communities and societies. Providing interventions and support to PWID rather than punishing them, is a public health approach which has reduced HIV prevalence, rates of incarceration, overdose deaths and other health related risks in other parts of Europe.⁴⁸ Harm reduction typically consists of three main interventions: opioid agonist treatment (OAT), needle syringe programmes (NSP) and antiretroviral therapy (ART). It may also include outreach work, health promotion and education.⁴⁹

In terms of all people living with HIV, the 90-90-90 UNAIDS targets meant that roughly 81% of all people living with HIV needed to be on ART treatment, and 73% of all people living with HIV needed to be virally suppressed for countries to be able to reach the goal of ending AIDS by 2020.⁵⁰ UNAIDS advises 40% of all PWID need to be on OAT to reach high coverage levels, a number based on levels of coverage achieved in countries with well-established OAT programmes. For NSP programmes, high coverage levels are 60% and above.⁵¹

Harm reduction interventions have produced very beneficial outcomes in different parts of the world.⁵²

However, they are more commonly available in the community and severely lacking in prisons globally, especially in EECA.^{53,54} ART has been shown to dramatically reduce the morbidity associated with HIV infection, and can fully prevent people from transmitting HIV.⁵⁰ OAT is an evidence-based treatment that can reduce overdose mortality,⁵⁵ reduce the transmission of HIV, and improve HIV treatment outcomes.⁵⁵⁻⁵⁸ OAT can also improve the HIV treatment cascade by recipients having contact with a health professional thus making them more likely to receive advice and seek HIV testing and treatment.^{20,58} This finding has been confirmed in EECA.^{59,60} There are also some studies which suggest OAT can reduce levels of crime and prison sentences among PWID.⁽⁶⁰⁻⁷⁴⁾ One study found that increasing OAT coverage to 50% of PWID in prison and retaining them on OAT after release reduced new HIV infections in PWID overall by 20% in 15 years.⁷⁵ There are also psychosocial and social benefits.⁷⁶ Taken together these benefits can indirectly reduce HIV transmission via lowering the number of PWID in prison and improving the recruitment to, and preventative benefits of, HIV treatment such as ART.⁷⁴ Evidence evaluating the effectiveness of NSPs has shown marked decreases in HIV transmission by as much as 33-42% in some settings.⁵¹

Access and barriers to services in EECA

There are huge disparities in access to harm reduction services in the EECA region. There are also large differences between access to harm reduction in the community and prison settings, with the latter often having very little or no access at all. Moreover, prisons are generally a difficult environment to get data, especially on HIV. Similarly to the community, there are no mandatory virus tests in prisons but also data collection on drug injecting can be skewed as it can lead to incriminating prisoners and disciplinary sanctions, so often injectors prefer to remain undercover.⁷⁷

Access to OAT is only possible in three of the four study countries, as it is banned in Russia, despite civil society in Russia advocating for harm reduction interventions recommended by the World Health Organization (WHO). Although possible, access to OAT in Belarus, Kazakhstan and Kyrgyzstan is low to negligible.⁷⁵ Peter Meylakhs, an Associate Professor at St Petersburg School of

Economics and Management studies drug trends and the availability of harm reduction services in the region. Professor Meylakhs explains the banning of OAT in Russia is largely due to an old generation of narcologists who view its provision to a drug user as swapping one opiate for another, which is a reward, not a treatment. “Even for cancer treatment when patients need strong pain killers such as morphine, there are issues in Russia around supplying opioids for medical use, even when the patient is in pain and dying. The methods are very conservative.”

Only 3% of prisoners in Kazakhstan were registered as opioid dependent according to the National Narcological Registry,⁷⁵ despite local survey data reporting 43.6% of all PWID in 2018⁷⁸ spent time in prison in Kazakhstan at any time in their lives. In Kyrgyzstan, the National Narcology Registry indicates 13.7% of prisoners in Kyrgyzstan were opioid dependent in 2015, which amounted to 1,353 opioid dependent prisoners (taken as a proportion of the prison population in 2015). In the same year (2015), only 400 prisoners received OAT in Kyrgyzstan,⁷⁵ suggesting around



There are huge barriers to accessing harm reduction services from law enforcement. If you think about the continuum of care, it's very difficult to access harm reduction services when you have pressure from law enforcement and the risks of being arrested when you try. As a vulnerable person, you just wouldn't risk it.

Mikhail Golichenko, Lawyer and Senior Policy Analyst at the HIV Legal Network



953 opioid dependent prisoners went without OAT. Altice et al (2016) estimated 1,066, 205, 1,227 people had community access to OAT in Belarus, Kazakhstan and Kyrgyzstan respectively.^{42,75} However, this covers less than 5% of PWIDs in each country,^{42,75} falling way below the UNAIDS target of 40% coverage.⁵¹ Coverage has not greatly improved over time, with more recent data suggesting that 3.7%, <1% and 4% of PWID received OAT in Belarus, Kazakhstan and Kyrgyzstan respectively (Table 1).

For PWID in the community, NSPs are available in all four countries to varying degrees. IBBS data reports 69.4%, 87.4% and 55.7% of PWID in Belarus, Kazakhstan and Kyrgyzstan respectively had contact with NSP programmes.^{28,78} Contact with these programmes does not mean everyone received the clean needles and syringes they need, with only Kyrgyzstan meeting the UNAIDS target of 200 clean needle syringes per person per year (Table 1).²⁰ In Belarus, 61.3% of PWID inject for six to nine years on average, with the majority of PWID injecting on a daily basis.²⁸ Belarusian PWID would need around 364 clean needles per person per year, but only 27 per person per year were received.²⁴ In Russia, the data paints a particularly morbid picture. Data on the number of needle and syringe programmes in Russia recorded 20 operational sites in 2018.⁴² Another source reported only 2¹⁻³ needle syringes were distributed per person per year.²⁴ This devastatingly low coverage for such a cheap and effective intervention, is making it extremely likely that PWID share needles on a regular basis.¹⁷ The only country where NSPs are available in prison is Kyrgyzstan. In Belarus, Kazakhstan and Russia, there is no access to clean needles and syringes in prison at all.⁷⁵

Access to ART is similarly limited in all four countries. Only 44% of people with HIV are on

ART in EECA.⁷⁹ ART coverage for PWID with HIV in the community was the highest in Russia at 42%, followed by 40.5% in Belarus, 28% in Kazakhstan and 27% in Kyrgyzstan (Table 1).

Access to HIV services offering ART and other HIV testing and treatment programmes are lacking and there is poor integration with harm reduction programmes. This makes it difficult for PWID to access HIV treatment which includes ART.⁸⁰ ART is technically available in prisons, with 34% of prisoners in Kazakhstan reported to have access in 2015, 69.9% in Kyrgyzstan and 5% in Russia (data missing for Belarus), however there is a general consensus that access is negligible and does not meet human rights recommendations.⁷⁵

Dr Zhannat Kosmukhamedova is the Head of the Regional Programme Office for Eastern Europe, within the United Nations Office on Drugs and Crime (UNODC) and explains that in all these countries (Belarus, Kazakhstan, Kyrgyzstan and Russia) the UNODC are working on improving many drug policy issues including access to harm reduction, but progress is slow:



There are so many barriers to accessing harm reduction, to OAT and to other HIV prevention services, many of which are grounded in stigma, it's impossible to speak to one policy change. We also have a problem with health services. There are huge gaps in understanding what the needs of people who use drugs are and stigma exists among health care workers too. The problem does not solely lie with law enforcement.

Sergey Soshnikov, who is a Senior Researcher at the Moscow Institute of Physics and Technology, explains there are still very simple barriers to understanding the scientific evidence base around harm reduction which would help improve understanding of its effectiveness. “Medical doctors in Russia on the whole don’t speak any English. Policy-makers in Russia rarely speak English. I want to be an advocate for the evidence base, helping translate it to medical doctors, rather than continue with all this darkness that surrounds the issue.”

Health systems in EECA remain vertical, with a slow pace of health reforms. Better integration of care would help with accessing testing and treatment under the same roof, without restrictions or stigma. In Kazakhstan, improvements are being made.

Overall access to harm reduction is way below the expected coverage targets from UNAIDS⁵¹ and is a leading factor to the continuing rise in HIV infections in the region.



A lot of health reforms have happened in Kazakhstan. It used to be a very vertical system, but during the past three years substance use specialists have been placed in primary health care clinics. Training has been conducted to enable primary care staff to better recognize substance use disorders in terms of how to counsel them. But there is still a long way to go.

Anna Deryabina, Director of International Centre for AIDS Care and Treatment Programs (ICAP) Central Asia



Chapter 2: Pride and shame



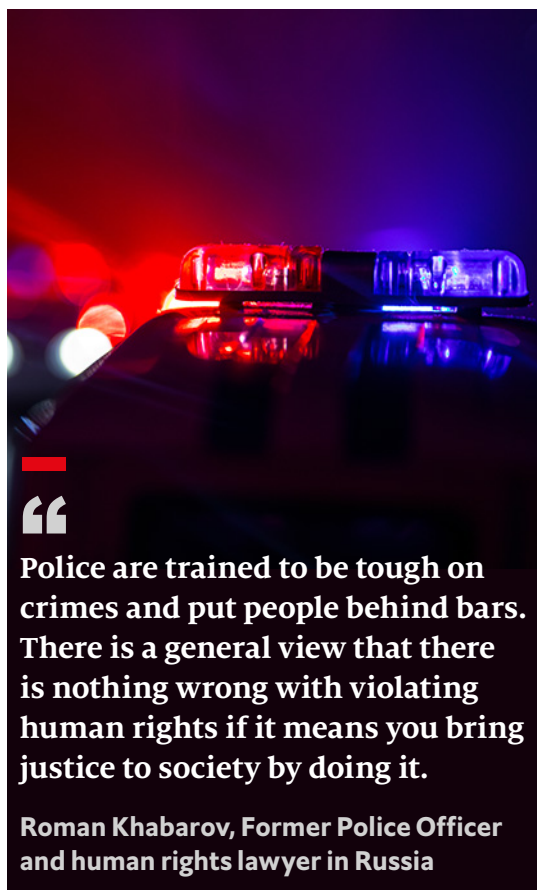
The view of law enforcement is that if you don't lock people who use drugs up, they will die of an overdose tomorrow, so locking them up is good for them. The lack of harm reduction services available in the community makes the police think they have more of a point.

Anya Sarang, President, The Andrey Rylkov Foundation for Health and Social Justice

Drug law enforcement and conviction bias

Drug laws, regulatory and policy frameworks which drive the policing and incarceration of PWID are an important component of the legal environment surrounding harm reduction. However, in EECA, these laws are especially punitive, and their enforcement policed heavily, which affects PWID's behaviours, attitudes and health most acutely. The HIV epidemic in EECA has been driven by political neglect and policies which marginalise PWID. Possession of small amounts of illegal substances results in various criminal charges and fines, and incarceration is the most common punishment for any amount of drug possession. Arrests without legal cause are also common amongst PWID, which happen on the streets, in methadone clinics, in health units and outside pharmacies, a kind of police harassment that makes engagement with HIV services unlikely.¹⁹

Roman Khabarov was a Russian police officer forced to retire when his liberal views and outspoken interest in democracy clashed with drug law enforcement decisions within his team. Roman's views were labelled as working against "usual police protocol".



Police are trained to be tough on crimes and put people behind bars. There is a general view that there is nothing wrong with violating human rights if it means you bring justice to society by doing it.

Roman Khabarov, Former Police Officer and human rights lawyer in Russia

Similarly to Mrs Sarang, Mr Khabarov describes how Russian law enforcement officials on the whole view drug-related crime as a punishable offence, which will not change overnight and requires a lot of public debate before that view comes close to being reversed.

There is a misconception in EECA that prisoners can be cured of their drug problems by temporarily forcing them to stop using once they are inside.⁸¹ On the whole, this strategy backfires as evidence shows incarceration increases the transmission of HIV and hepatitis C among PWID⁶, increases overdose death⁸² and reduces contact with harm reduction and treatment interventions.⁸³ Even when harm reduction services are available, the criminalisation of drug use and harsh punishments discourage their uptake and limit the dynamism of relief efforts.²⁰



Nikita Taranishenko worked as both an investigator and a prosecutor of drug law enforcement cases in Russia, and shares similar insights to Mr Khabarov. “The leaders of the police and the court system need to change but individual members of staff can’t make that happen. Individual police personnel are not encouraged to have initiative; they are encouraged to be obedient and loyal.” Mr Taranishenko explains that obedience and loyalty directly translate to exercising stigma and bias towards drug users, something that must be done to be respected by your superiors:



There are virtually no acquittals of drug cases. I have never witnessed one during my whole career. Drug cases are suspiciously over-criminalised. A lot of police time is also spent intercepting online drug purchases, a process which provides the buyers with coordinates to a drug collection point. It was too easy for the police to turn up at these exact coordinates and arrest the buyer there and then. Because users generally buy in bulk, it makes it very easy to charge the user with possession of large amounts, even if they were intended for personal use.

Nikita Taranishenko, former prosecutor, currently a human rights lawyer, Russia

Criminalisation of drug use and incarceration for drug-related offences are one of the main influences behind an increase in prison populations in EECA countries,⁴ a very expensive strategy given prison maintenance and policing costs are large.^{5,6} The WHO in collaboration with the Council of Europe encourages health services in prisons to be “broadly equivalent to health services in the wider community”.⁸⁴ In theory, this would create a captive, health promoting environment leaving prisoners in a healthier state than when they arrived. Health interventions in prison could help prevent transmission into the community post release.⁷⁷ Unfortunately the WHO school of thought is aspirational rather than operational in EECA, with the prison environment encouraging rather than preventing more harmful drug behaviours. Some people end up injecting drugs in prison when they were previously clean,⁸¹ which is especially unsafe, as there is no—or very limited—access to clean needles.^{21,22,53,85}

Evidence and policy supporting interventions that transform these kinds of police encounters with PWID from a source of harm to a source of harm reduction are greatly needed in EECA.⁴ There is a growing body of evidence that indicates policies based solely on law enforcement without taking human rights into account make the health of PWID worse.⁸⁶ National responses to PWID currently range from those that are evidence-informed—properly scaled up, community-led harm reduction services, which do exist in many parts of Western Europe and Australia—to punitive measures and long prison sentences.⁹ The favoured law enforcement process in EECA countries has not helped contain drug use or the HIV epidemic.⁵ More often than not, it is fuelling it.

In many countries where aggressive drug policies are in place, the availability of drugs has increased, while the price of drugs has remained stable or declined.⁸⁶ Drug laws and the banning of certain substances have also had limited impact on the overall level of drug use in EECA countries.⁵

Despite supportive evidence and policy, the demand for decriminalisation in EECA still remains low on the political agenda. The Belarusian authorities for example, choose to ignore the criminalisation of drug use for a variety of reasons. Yaroslav Romanchuk a Belarusian economist and politician and President of the Mises Centre elaborates:



Drugs are like the enemy, to fight this, funds should not be spared. These dogmas have been engrained into the heads of law enforcement from an early age, at schools and universities. Providing scientific evidence, analysis of regulatory policy and cost analysis is meaningless to security officials. They don’t understand it. The fight against drugs neatly fits into the system of motivation for security officials. They receive promotions, new titles, awards and decriminalisation means the loss of these corporate benefits.

Stigma and punishment

Punishment for non-violent drug crimes and the stigma involved create a situation where human rights norms are not applied to PWID.¹³ This can lead to police harassment, misuse of power, and generally makes the lives of both PWID and their families very difficult.¹³ The stigma associated with drug use also significantly hinders the expansion of harm reduction services within mainstream public health in EECA countries.⁸

Negative views towards PWID have been described as a social norm going beyond the police. This is largely driven by a lack of understanding of what stigma is,⁸⁷ compounded by a complete absence of anti-discrimination policies.⁸⁸ A survey which investigated the extent of HIV-related stigma towards people living with HIV in Belarus found that 40.5% of respondents with HIV experienced confidentiality breaches from health care workers such as disclosure of their HIV diagnosis, while 15.5% were refused medical care.⁸⁷

Prison managers struggle to provide health interventions to inmates as they face confliction between rising drug use in prisons and political and economic barriers from their respective governments.⁸¹ This creates a political climate that prioritises law enforcement over health.⁵ The fear of stigmatisation and discrimination often leads to drug dependent prisoners hiding their addiction and therefore not seeking medical attention.⁸¹ This leads to a further cascade of problems around underreporting, making the data supporting the commissioning of services in prisons for PWID with HIV unreliable.⁸⁹ The post prison release environment for PWID is poorly understood, but without adequate support it is also littered with problems such as social isolation, homelessness, a return to drug use, overdose and reincarceration.^{6,90}

“

I left the police in Russia because I saw corruption, it was everywhere and at that time I was in a position where I would need to decide, either to delve into corrupt relations, or leave the police. I worried that if I started taking bribes I would not leave at all. In the Russian system and other former USSR countries, it remains fairly similar to when it was USSR. We lock people up who are advocating for human rights.

Mikhail Golichenko. Lawyer and Senior Policy Analyst at the HIV Legal Network



The post-release environment for PWID can be associated with a greater injecting and sexual health risk than for other PWID in the community who have not been in prison.^{43,91} A recent meta-analysis found that being released from prison is associated with an 81% increased risk of HIV infection.⁶ Anya Sarang who runs the only non-governmental organisation (NGO) that provides harm reduction services to people who use drugs in Moscow, Russia stated:



You can't maintain health in a Russian prison; it's a torture in itself, so when people get out of prison many die of an overdose. Just with our small service operating in Moscow we have helped avert 500 overdoses a year, and these are the ones we are told about, so it could be more.

Anya Sarang, President, Andrey Rylkov Foundation for Health and Social Justice

Data from Belarus and Kyrgyzstan shows that PWID are likely to have multiple incarcerations in their lifetime; on average 2.9 and 3.9 times respectively (Table 1),^{28,29} a re-offending cycle which is exacerbated by limited post release support.

There is increasing global recognition of the role of law enforcement in protecting and promoting the health of diverse and vulnerable communities. In the context of HIV prevention, treatment and care, functional partnerships between the law enforcement sector, social services and health are required.⁷⁶ For this to happen stigmatising attitudes need to change, as well as the laws. There have been some efforts to improve these partnerships by the UNODC, which has introduced police referral schemes. These schemes employ special strategies that encourage police officers to connect PWID to relevant services during their day to day street policing.

The scheme encourages drug-related arrests to be viewed as an opportunity to offer relevant assistance, rather than immediate incarceration.⁹² So far police referral schemes have been introduced, and officers have been trained in Belarus,⁹² Kazakhstan⁹³ and Kyrgyzstan. Dr Zhannat Kosmukhamedova from the UNODC is still in the process of developing these police referral schemes:



It is a case of positive collaboration, simply that the police know what harm reduction is, and they can refer drug users, rather than criminalising them. We took the inspiration for these police referral schemes from Western Europe where they have had great success.

Chapter 3: Unwilling rather than unable – investing in harm reduction

The price of punitive policies

Despite the success of harm reduction programmes, governments in the EECA region are generally unwilling rather than unable to allocate funds to them.⁵ There are some cost effectiveness analyses that have shown OAT can achieve savings when reductions in crime are accounted for,^{94,95} yet the stigmatising attitude towards PWID in the region, continues to be a barrier to change.⁴ To achieve global HIV prevention and treatment targets, decriminalisation and scale up of HIV testing and harm reduction services among people in prison and the community in the EECA region needs to happen alongside tackling stigma.^{7,76}

UNAIDS estimated that globally, US\$2.3 billion (around €2.1 billion) annually was required to fund HIV prevention among PWID in 2015, but funding fell short by a huge 93%.⁹⁶ One study estimated a redirection of just 2.5% of the US\$100 billion (around €87.8 billion) spent each year on drug control globally could secure a 78% reduction in new HIV infections among PWID by 2030.⁹⁷ In the EECA region, an eight country study discovered that NSPs could avert between 10 and 40% of HIV infections and were cost effective in all eight countries.⁹⁸ The benefit in terms of life years gained for OAT is estimated to be four times the treatment cost.⁹⁶ OAT can be cost effective for reducing overdose mortality and HIV transmission, even when reductions in crime are accounted for.^{16,17} Establishing the cost effectiveness of ART is a bit more difficult in EECA, as it is the most expensive harm reduction intervention of the three, with coverage among PWID who are HIV positive less than 1% in many



countries.⁷⁶ Despite this there are some studies showing ART to be cost effective for reducing HIV morbidity and infectivity among PWID in this region.^{37,99,100} Lack of funding for harm reduction and HIV treatment is an ongoing challenge. Global resources to fight HIV have been accessible to EECA in the past, but that access has been slowly withdrawn. This is because many countries in EECA have moved up economically and while domestic funding has increased in the region, it does not meet the funding gap left behind from withdrawal of international funds.³ There is an urgent need for cost effective solutions to harm reduction and HIV treatment which can be presented to local governments in EECA.

The current misguided approach to policy that leads to police harassment and the governments' disbelief in harm reduction interventions also have significant financial consequences as well as health ones. The costs of law enforcement in Russia for one year of drug cases, before court verdict, was estimated to be slightly more than US\$100m (around €92m),⁵ funds which could be redirected to harm reduction. In Kyrgyzstan, the government spends around US\$1.25m per year (around €1.1m) to prosecute crimes related to drug possession. OAT costs roughly US\$500 (€459) per patient per year in Kyrgyzstan, while punishment costs at least US\$625 (€574) per each person convicted for a drug possession.⁵

Taken together, the evidence suggests that shifting from the current policy of criminalising drug use to a public health approach involving an improvement in OAT and ART provision for PWID could be cost effective and is integral for reducing the high levels of HIV transmission occurring in this region.⁷⁶

Modelling the impact of decriminalisation and scaling up public health

Methods

In this section, the results of a novel, dynamic, HIV transmission model are presented. The model estimates the costs of criminalising drug use, the detrimental effects of criminalisation on HIV transmission and the potential benefits, costs and savings of reducing incarceration while scaling up harm reduction. The model predicts the public health benefits over a criminalisation approach in Belarus, Kazakhstan, Kyrgyzstan and Russia on HIV transmission and total life years.

The model does this by estimating the impact of reducing incarceration of PWID and scaling up

harm reduction interventions incrementally. Due to the governments' previous reluctance in the EECA region to allocate funds to harm reduction, the incremental approach models the cost savings from reducing incarceration and how these can be re-allocated to harm reduction, without adding additional funds. It then models the additional costs governments will need to invest to scale up harm reduction to meet recommended UNAIDS targets. At the same time the model works out how many HIV infections can be averted and the life years and productivity gained over a 20-year period, from each scenario considered; including what will happen to HIV infections if countries continue with current practices relating to PWID (baseline).

Detailed epidemiological, incarceration and intervention coverage data were used for the model for each country, as summarised in Table 1. Data on the costs of incarceration, ART and OAT were obtained from various sources outlined in Table 1, and the productivity of PWID were estimated using survey data on the proportion of community PWID employed and the mean wages for each country. The impact of NSPs was more difficult to estimate. This is because the reported coverage of NSPs in the region encompasses referrals for HIV testing, not solely giving out syringes. For this reason it is not possible to get an accurate estimate of the numbers of needles and syringes distributed to each injector. Secondly, most (>75%) of PWID in this region obtain needles and syringes from pharmacies rather than NSPs.¹⁰¹⁻¹⁰³ A lack of data precluded modelling scale up of NSPs as a harm reduction intervention in the same way we modelled OAT and ART. Despite these limitations, the effect of NSPs on the HIV epidemic are included in the baseline model for all countries. Because OAT is banned in Russia and NSPs are one of the main harm reduction interventions, we estimated the cost and impact of NSPs for Russia only (Box 2).

The model was calibrated for each country using data on incarceration dynamics of PWID, trends in the coverage of OAT and ART, and data on the HIV epidemic among PWID. The model was used to compare the impact and costs over 20 years of the following scenarios:

- 1. Baseline:** The countries continuing as they currently are with existing coverage of OAT and ART and levels of incarceration
- 2. Scenario 1 - Decriminalisation:** Moving to decriminalise drug use and possession for personal use
- 3. Scenario 2 - Public health approach:** Reinvesting saved costs into scaling up ART to 81% coverage and OAT up to 40% coverage as per UNAIDS/WHO guidelines.

For modelling decriminalisation, estimates of the proportion of last incarcerations due to drug use or drug possession for personal use were available for Russia (46.4%, 2012-13) and Kyrgyzstan (24.8%, 2017-2020).^{21,43} For the other two settings, we conservatively assumed 24.8%, as for Kyrgyzstan. For each scenario, we considered the breakdown of the costs to determine where costs are saved or not, and then estimated the number and percentage of HIV infections prevented and life years gained (LYG) over the 20-year period for the Public Health scenario compared to the baseline scenario. Compared to the baseline scenario, the overall incremental costs over 20 years for the Public Health scenario were then combined with estimates of the incremental LYG to estimate the incremental cost effectiveness ratio (ICER) in terms of the cost per LYG. These were compared to the commonly used willingness-to-pay threshold of GDP per-capita.¹⁰⁴ As we were only able to get detailed incarceration and intervention coverage data for St Petersburg rather than Russia as a whole, we assume the HIV epidemic, incarceration

patterns and intervention coverage are consistent across Russia and we scale up the cost results and LYG from St Petersburg to get an estimate for the whole of Russia, assuming 1,881,000 PWID.¹⁶

For each country the model predicts the following outcomes:

- HIV prevalence – Total number of people with HIV in country
- HIV incidence – Number of new cases of HIV in country
- Total life years – An estimate of the average years of life expectancy
- All outcomes projected between 2020-2030 and 2030-2040.

Results: The costs and impact of scaling up and the savings made from reducing incarceration by scenario

The model suggests that before scaling up, across the four countries in 2020, the proportion of PWID currently incarcerated varies from 16.3% to 35.2%, with this being highest in Belarus and lowest in Russia. The HIV epidemics in PWID in each country vary in terms of HIV prevalence, from 6% in Kazakhstan in 2020 to 53% in Russia.

Baseline: Across the four countries, the baseline scenario retains current coverage of NSP, OAT and ART in prison and in the community, and predicts no change in current criminalisation and punitive policies surrounding PWID. This is estimated to cost between €197m in Kyrgyzstan to €4,129m in Kazakhstan and €42.8Bn in Russia (scaled up from St Petersburg) between 2020 and 2040 (discounted at 3%), equating to a yearly cost per PWID of €534-2,255 depending on the country, with 74% to 97% of these costs due to incarceration (Figure 1).

Scenario 1 - Decriminalisation: By removing incarceration due to criminal sanctions for drug use and possession for personal use, which the evidence suggests could reduce the number of incarcerations among PWID by 25% to 46%, then the overall costs of criminalisation should reduce by €38m to €773m due to reduced prison costs (Figure 1), with the estimated savings in Russia being €11.1Bn (scaled up from St Petersburg).

Scenario 2 – Public Health approach: If these cost savings are diverted to scaling up ART and then OAT, then all countries can afford to scale ART up to the recommended UNAIDS target of 81% coverage and OAT to between 29.7% (Kyrgyzstan) and 41.8% (Kazakhstan) coverage depending on setting. This means recommended WHO and UNAIDS targets of 81% ART and 40% OAT coverage were achieved in Belarus and Kazakhstan and came very close in Russia. This scenario will save 17,768 to 1,092,931 life years (discounted 3%) over 2020 to 2040 and decrease HIV incidence by 79% to 93% over 20 years. Costs are saved over time due to improvements in productivity, as controlling addictions and ensuring people with HIV are virally suppressed, makes for a healthier and more productive workforce. Further savings are made as less ART is required in the future if HIV infections decrease. This scenario is

therefore cost-saving compared to baseline. It also costs less than the GDP per capita per LYG compared to just decriminalisation for each country, except in Kyrgyzstan, where it costs 1.34 times the national GDP per capita. After 20 years, this intervention will have dramatically reduced HIV incidence by over 80%, with prevalence also decreasing considerably, but more slowly as shown in figure 2.

We also checked the additional expense and impact of scaling up to full WHO and UNAIDS coverage targets in Kyrgyzstan and Russia, the two countries where the money saved from decriminalisation was not quite enough to reach 40% coverage of OAT. Full scale up costs were still lower than the baseline scenario in Russia and only 0.2% (€0.5 million) more than the baseline in Kyrgyzstan. More importantly full scale up had a very small additional impact on averting HIV infections Kyrgyzstan and Russia (1-3%).

Figure 3 denotes the cost savings achieved when productivity gains are monetised and subtracted from the costs of scaling up each scenario. Incorporating productivity gains makes all countries cost-saving (Figure 3). All results outlining the cost savings and infections averted by scenario are available in appendix II, Tables A1-A2.

Scaling up NSP programmes in Russia

Recent evidence for Russia suggests that PWID on average only receive 2-3 syringes(105) from NSP per year (3.5m distributed in 2016 for 1.8m PWID)(16) with from 5%(105) to at most 25%(106) of PWID being in contact with NSP in the last year in 2017. Despite this low coverage, these harm reduction interventions may still be having an impact, with data from various Russian studies suggesting intervention contact can be associated with reduced injecting risk behavior,¹⁰⁷ lower HIV prevalence (adjusted Odds Ratio (OR) 0.74, 95% CI 0.56-0.97)¹⁰⁸ and possibly even reduced HIV incidence¹⁰⁹ (adjusted Hazard Ratio 0.25, 95% CI 0.06-1.09). This aligns with data from the best available evidence for the impact of NSP interventions on HIV transmission, a meta-analysis from 2013 that suggested that being in recent contact with NSP (or exchanging enough syringes for all your injections) reduced the risk of HIV acquisition by 58% (OR 0.42, 95% CI 0.22-0.81).¹¹⁰ If we assume that NSP costs €57 (€35-110) per PWID per

year³ and we assume the current coverage in Russia is 5-25% on average, then it would cost on average €46.5 million (€22.1-109.2m) per year to get 60% of PWID (assuming 1.8m PWID) in contact with NSP in Russia.

This scale-up would be cheaper than scaling up OAT (40% coverage) and ART (90/90/90 target) in Russia (estimated to cost €338.2m for OAT and €291.3m for ART per year), and if it halves HIV acquisition risk for anyone on NSP then it could avert about 14,000 (10,000-19,000) infections per year* compared to 38,110 per year for ART and OAT at target coverage levels for whole of Russia.

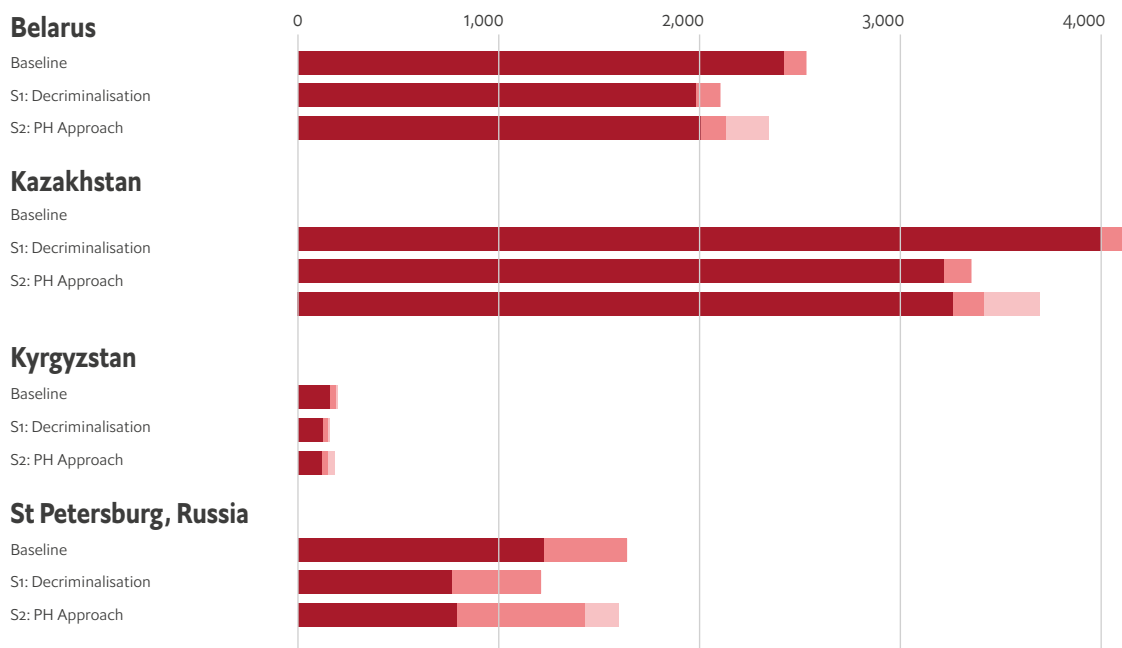
Although this suggests a large impact and low cost, there are considerable uncertainties in the actual impact of NSP interventions in Russia which means these projections are more uncertain than for scaling up OAT and ART. Data needs to be collected to enable a more thorough analysis evaluating whether harm reduction interventions are associated with beneficial outcomes as has recently been done for Ukraine.¹¹¹

*Assuming our scaled up yearly new infection estimate for St. Petersburg of 2,020 [1,628-2,531])

Figure 1: Projected costs and their breakdown for each intervention scenario in each setting

Cost (millions of euros)

Prison costs ART costs OAT costs



Note - The total costs scaled up to Russia based on St Petersburg data are:

Baseline €42,770,967,632

Decriminalisation €31,613,818,550

Public health scenario €41,678,036,253

Full scale up €41,760,991,209

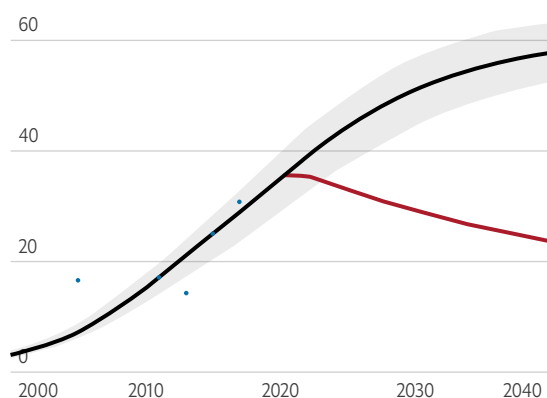
Figure 2: A comparison of (a) modelled HIV prevalence and (b) incidence projections for each setting for baseline and public health scenario from 2020 to 2040.

The grey shaded area gives the 95% credibility intervals around the baseline model projections. The whiskers around different data points (red) denote the 95% confidence intervals; if no whiskers are shown then no 95% confidence intervals could be estimated.

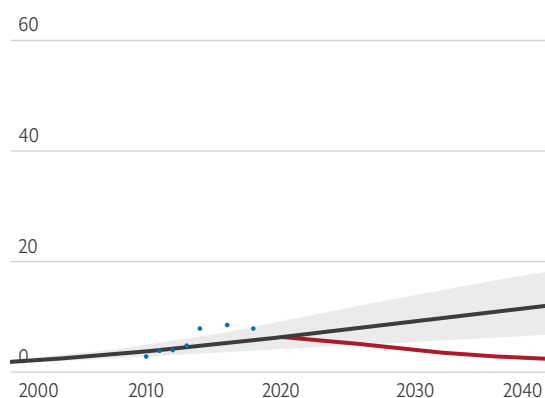
a: PWID HIV Prevalence (%)

— Baseline
— S2: PH Approach
• Data points

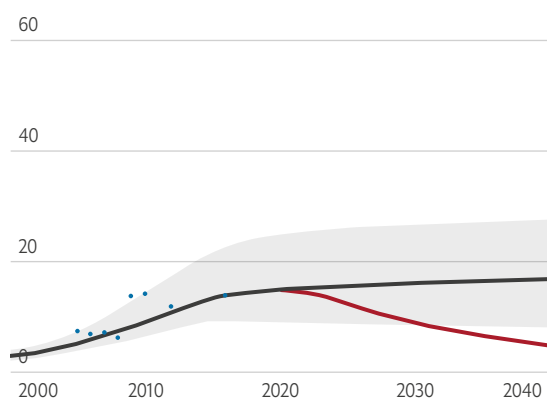
Belarus



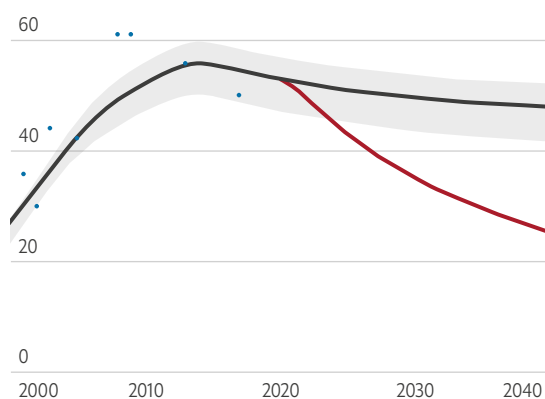
Kazakhstan



Kyrgyzstan



Russia

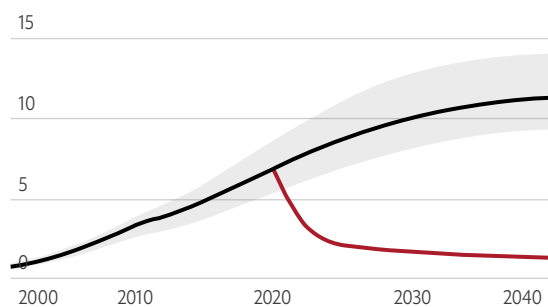




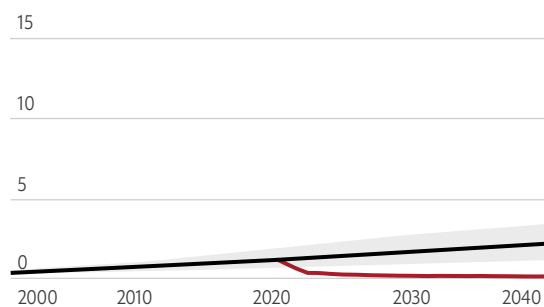
b: PWID HIV Incidence (per 100py)

— Baseline
— S2: PH Approach

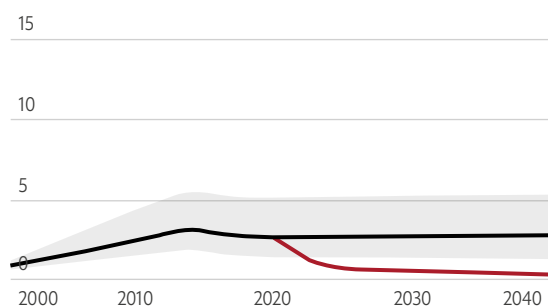
Belarus



Kazakhstan



Kyrgyzstan



Russia

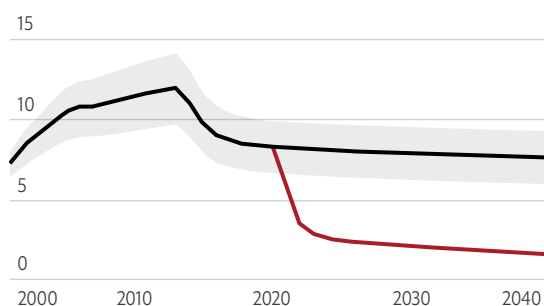
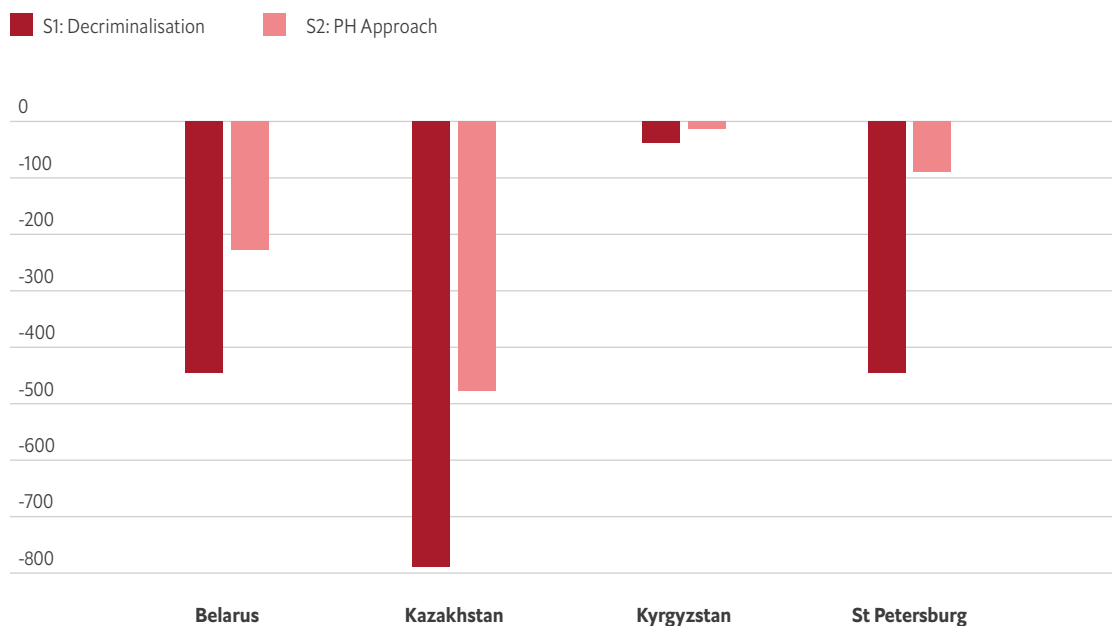


Figure 3: Total incremental economic impact of each scenario

Incremental costs of each scenario minus incremental productivity gains



Costs for Russia scaled up from St Petersburg data are:

Decriminalisation € -11,659,333,962

Public health scenario € -2,339,246,921

Full scale up € -2,264,103,295

Conclusion

This report summarises the economic benefits and the societal and political barriers to scaling up HIV prevention and treatment for PWID in EECA. The novel HIV transmission model has demonstrated how reducing incarceration and scaling up harm reduction interventions can contribute to economic growth, as well as reducing HIV incidence by 79% to 93%. The case for addressing punitive criminalisation strategies and stigma associated with HIV in EECA is clear, yet progress in the direction of decriminalisation remains slow. Continuing down the slow route, means human rights will continue to be violated. To help chart a course for the elimination of HIV in EECA, and stop discrimination towards PWID and other vulnerable communities, this report arrives at four key recommendations:

A shift in resource allocation

Our model has helped make the case for the cost effectiveness of harm reduction interventions in EECA, in four politically influential countries. What is striking about these findings are the savings and HIV infections averted following a simple shift in resources from criminalisation to harm reduction approaches, something governments cannot ignore. To summarise this shift, investing the money saved from decriminalising drug use and possession for personal use (€38-773m (€11.1bn in Russia scaled up from St Petersburg) over 20 years) to scaling up ART and OAT could effectively control the current HIV epidemics among PWID in the four study countries for no added cost. This not only achieves the UNAIDS coverage targets of ART in all settings, but also increases the coverage of OAT up to 29.7-41.8% (as recommended by WHO) and reduces HIV incidence by 79-93% over 20 years.

This comes close to achieving the WHO/UNAIDS targets for eliminating HIV in these settings by 2030. The health gains and productivity of the population as a consequence of scaling up harm reduction to almost full WHO/UNAIDS targets makes this approach cost-saving in all countries. Scaling up NSP as an alternative to scaling up OAT, which is banned in Russia, would be even cheaper than scaling up OAT and ART. It would cost on average €46.5m per year to get 60% coverage of PWID and avert around 14,000 HIV infections per year.

Although domestic HIV investment has been increasing in EECA, it has been difficult to ensure money from national budgets are used for key populations in EECA.³ Total domestic spending, accounted for only 46% of the total US\$1.6bn per year required to meet the 2020 Fast Track Targets for the EECA region.¹¹² In the current economic climate, these findings provide invaluable insights for how the health of PWID can be improved at no extra cost, and significant progress towards eliminating HIV among PWID can be achieved.

Scaling up harm reduction in prison and continuity of care on release

Regardless of the reason for imprisonment, punishment should revolve around a lack of freedom, not a lack of healthcare.¹¹³ Coverage of harm reduction needs to be scaled up, not only in the community but also in prisons. To help with implementation of harm reduction in prisons, there needs to be better data collection on the health of prisoners. The model results suggest that the risk of HIV transmission is reduced in prison in Belarus, Kazakhstan and Russia, despite it

being well known that initiation of injecting drug use may occur in prison.^{75,77} There is evidence which suggests that PWID in prison tend to inject less frequently, as its more difficult to attain drugs, but injecting is more harmful when they do. Nurali Amalzhonov, President of the Central Asian People Living with HIV Association in Kazakhstan states:

“Drugs are brought into prisons despite the ban. There is no harm reduction, the prisoners don’t know about the concepts of safe sex, single-use syringes, or how HIV is transmitted. The exact HIV infection risk however is not known in the Kazakhstan penitentiary system as IBBS data have not been collected since 2014.”

The data explaining the risk of HIV transmission in prison is often blurred by underreporting and poor data collection. Harm reduction in prisons therefore remains a priority, to reduce the number of PWID, reduce unsafe injecting in prisons and reducing the future burden and costs associated with injecting drugs. Special attention is also needed for PWID and people living with HIV when they leave prison, to ensure they continue to receive services, prevent overdose and further offending. Transitional care, especially the provision of OAT during incarceration but also sustaining it post release is crucial to reducing HIV prevalence in the long term and should be made part of a national framework that straddles health and the criminal justice system.⁷⁵



You can’t compare the Russian public now to what it was like in the 90s for example. If you said to a member of the public in the 1990s that a police officer was violent to an organised crime group, they would think this was ok. Now, there would be an adverse reaction. The perception has changed due to mass media, human rights lawyers, and a growing public understanding the violence is bad.

Roman Khabarov, former police officer and human rights lawyer in Russia.

Urgent law enforcement reform

As Mr Khabarov alludes, cultural attitudes in Russia are changing, albeit slowly. To stop law enforcement officers from committing corrupt practices, there must be a reform of not only the police, but also a complete makeover of drug legislation and healthcare policies supporting drug users and people living with HIV.

Punitive laws against key populations must be removed, and vulnerable populations such as sex workers, men who have sex with men, trans people, prisoners and PWID should be protected rather than antagonised by legal aid and law enforcement institutions.¹¹⁴ Decision makers need to shift ownership of drug regulations

from law enforcement to healthcare, with only the highest threshold of drug cases, relating to trafficking and supply being left to the police. This would help reduce the number of people convicted of drug crimes in prison and significantly reduce opportunities for corruption. The changes to the law which are afoot in Kyrgyzstan, supported by the Open Society Foundations are an example of how stigma can be tackled indirectly, by amending the laws so they disable opportunities for corruption.



To change the approach means a completely new relationship between society, government and business. It is not only necessary to decriminalise the consumption of narcotic drugs, but also abolish the bans on the production and consumption of drugs and dual-use raw materials. The population needs to be educated on consumption and use, starting in schools and universities and the administrative and criminal codes need to be amended.

Yaroslav Romanchuk, economist and politician, President of the Mises Centre, Belarus.

There needs to be more work with governments on decriminalisation and introducing more enabling legal environments for increased intake of HIV-related prevention and treatment services. This might include efforts to further

sensitise the judiciary system, specifically judges and prosecutors so they can better understand the needs of PWID and people living with HIV.

Tackling stigma and discrimination

More needs to be done to reduce stigma and discriminatory attitudes towards vulnerable populations. Introducing stigma-reducing interventions (sensitising workshops, educational briefings) in the health and law enforcement sector are one solution. These might include educating service providers on what HIV prevention should entail, such as counselling, mental health support, addressing homelessness, overdose prevention and sexual and reproductive health.¹¹⁵ As experts describe, there are some positive examples of police referral training in EECA where stigma and discrimination are addressed alongside the benefits of harm reduction. So far these are led by international aid with minimal engagement from local governments, thus needs to become government policy which expands to health care workers too. Aside from ad-hoc NGO support, mental health services are completely unavailable in the region and also require urgent investment to help tackle stigma. In Russia experts talk to a glimmer of hope around on-going research around the provision of online rehabilitation programmes for drug users, something which has been boosted during a telemedicine shift since the covid-19 pandemic. Communities in EECA are receiving technical assistance to collect data on violence, discrimination and stigma, and are more actively using tools of influence, such as shadow and alternative reporting to UN human rights treaty bodies.¹¹⁵ This needs to be expanded, as it creates more opportunities for protection in specific cases of health-related rights violations, which particularly evident in relation to women.¹¹⁵

Notes on interpretation

The modelling benefited from detailed country-specific data on HIV epidemics among PWID in EECA. However, data was more limited in Belarus and Kazakhstan. There was enough data to complete the model, but future iterations could be improved with better data availability. Importantly, there was little data to estimate the relative level of transmission risk in prison so instead the model reproduced the patterns of HIV prevalence. This assumption was reasonable when compared to available data which suggested higher injecting rates were to be expected in Kyrgyzstan than Russia. Some cost estimates were converted from other settings or did not include overheads; sensitivity analyses showed that varying these estimates should not affect our overall findings.

There are some further benefits of OAT/ART scale-up that were not included in the model. As the model only looked at HIV transmission among PWID, the impact of changing drug policy on other infectious diseases was not captured. In EECA PWID also experience high levels of hepatitis C infection and prisons also include a lot of tuberculosis transmission.⁷⁵ Because of this, focusing solely on HIV means underestimating the impact of reducing incarceration and scaling-up OAT on life years gained. Whilst we modelled reduced incarceration of PWID as a result of

decriminalisation, this would likely also result in reduced incarceration of people who use drugs through non-injection routes, leading to greater reductions in the overall costs of changing drug policies. It is also possible that decriminalisation could have greater impact than just reducing drug-related incarcerations among PWID as modeled. For example, it is possible that by reducing the number of PWID with criminal records, levels of employment may increase, reducing the need to commit acquisitive crime and so further reducing incarceration. We did not consider the possible implications of decriminalisation on changes in policing – which may lead to reduced policing costs, or at least free up police resources to focus on other crimes. Although we included the effects of OAT in reducing incarceration, and the subsequent cost savings, we did not include possible cost savings to society through the effect of OAT in reducing in crime,¹¹⁶ which analyses in high-income countries suggest can make OAT cost-saving.^{94,95}

Finally, public spending and lost productivity is only part of the costs to society in relation to illicit drugs. There is also the economic impact on neighbourhoods affected by drug dealing or open drug scenes.⁴⁹ Further analyses should consider how including these possible unmeasured effects and the wider social costs may affect the cost and impact of changing drug policies in these settings.

Appendix I: Country profiles



Belarus

HIV prevalence in PWID: 30.8%	OAT coverage: 3.7% community
Prevalence of HIV in prison: 6%	ART coverage: 40.5% community
Prevalence of HIV in the community: 0.5%	NSP coverage: 69.4% community
PWID population size: 75,000	OAT coverage in prison: Not known
Prison population: 32,500	ART coverage in prison: Not known
Average duration of injecting in PWID: 6.9 – 10.5 years	Proportion of PWID ever incarcerated: 76.2%

Access to services

In 2007, an OAT programme started in Belarus using a grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The programme included the provision of methadone under strict medical supervision, medical check-ups, psychological support and social work services. HIV self-testing and selling HIV tests in pharmacies started in 2017, and government-funded ART coverage increased from 8,600 people in 2016 to 22,000 people in 2018 by simply reducing the price of treatment.¹¹⁷ In the same year 19 government OAT sites had popped up across Belarus, but they still covered less than 5% of PWID in the country. Belarus aspires to increase OAT coverage to the UNIADS target of 40% in order to lower the number of new cases of HIV.¹¹⁸

A 2013 study reviewing the cost effectiveness of OAT in Belarus suggested it was inexpensive (US\$1.3 per patient per day) to implement in

this country.⁸ Despite NSP covering 69.4% of the community, the number of needle syringes provided per person is low (37/PWID/year)¹⁷ which may in part be due to a lack of clarity around the legal status of NSP. There are no guidelines or quality standards which define NSP delivery or use as a tool for harm reduction in Belarus.⁸

Around one million HIV tests are performed each year in Belarus but are not targeting key populations such as people who use drugs. Large proportions of these tests are conducted on pregnant women, blood donors and military personnel and are provided exclusively by recognised medical institutions. Official statistics, therefore, account for only a portion of HIV-positive people (experts approximate that only one-sixth of HIV-positive people in Belarus are recorded).¹¹⁹ It has been calculated that between 6%¹²⁰ and 23%⁸ of PWID have been tested for HIV in Belarus.

Drug law enforcement policy

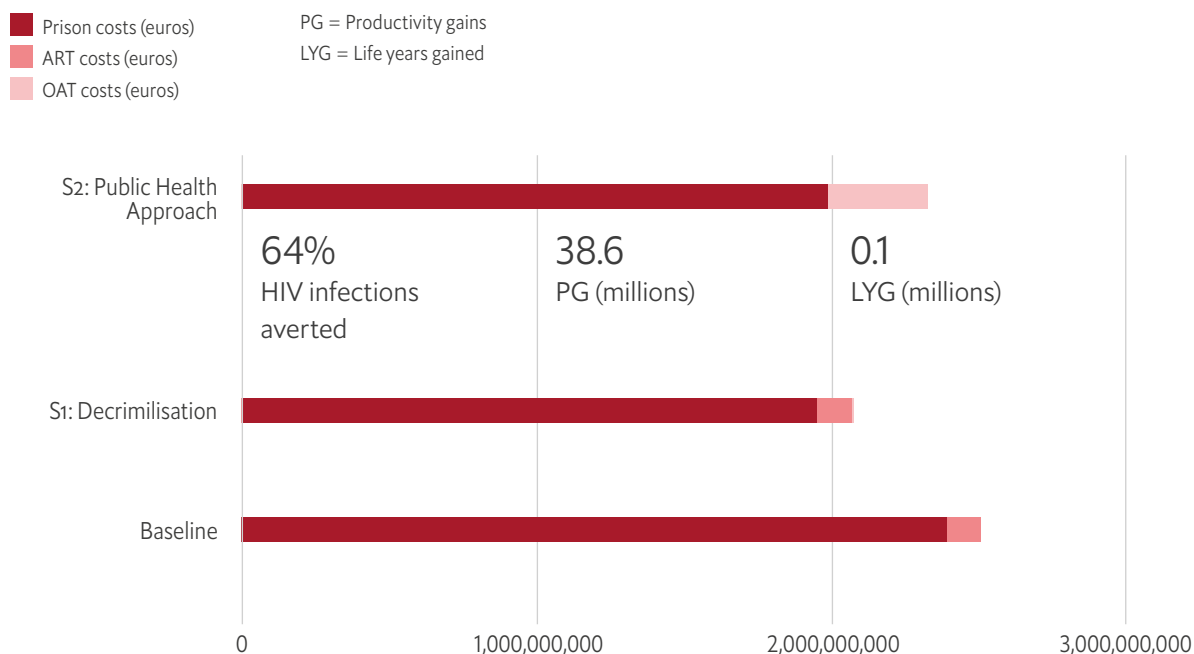
“Decriminalisation is a topic for those who prioritise human rights and freedom, human dignity and also consider human capital valuable for the development of the country as a whole. Belarus is an authoritarian country, where power structures do not care about human rights and freedoms. Citizens of Belarus live by laws, and one of those laws is drug prohibition. Hence the preservation of the Belarusian penitentiary system as a system of torture, humiliation and deprivation of a person’s dignity.” Yaroslav Romanchuk, economist and politician, President of the Mises Centre, Belarus

In Belarus, possession of illicit drugs can be punishable by up to 15 years in prison. The punishment varies from a six-month to a 15-year prison sentence with or without confiscation of

property. If a crime was committed when the person was intoxicated, the punishment is likely to be more severe. If a crime is committed by a drug addict, then the offender may receive mandatory treatment while in prison.¹¹⁹

There has been training on police referral schemes in Belarus, to improve access to harm reduction services, including cooperation between the UNODC and the Ministry of Interior. The outcome of this training has not yet been evaluated.⁹² There were also slight changes to the law on the 13 June 2019, when the Belarusian House of Representatives, passed amendments to the Criminal Code. The amendments mean that the lower limit of punishment under the 2nd and 3rd parts of the article that count for drug distribution is reduced by 2 years.¹²¹

Costs, infections averted and productivity gained between 2020-2040



- Decriminalisation in Belarus would save €431m.
- In the public health approach scenario, €431m could be diverted to scaling up ART to recommended UNAIDS target coverage, with money left over to buy OAT for 41% of PWID. This would result in 79% decrease in HIV infections and a total of 100,126 life years gained.
- This would also generate €38.6m in productivity. These productivity gains would increase the cost gains from full scale up from €189m to €228m.



Kazakhstan

HIV prevalence: 7.9%	OAT coverage in community: <1%
Prevalence of HIV in prison: 3%	ART coverage in community: 28.5%
Prevalence of HIV in community: 0.2%	NSP coverage: 87.4% community
PWID population size: 120,000	OAT coverage in prison: Not known
Prison population: 35,219	ART coverage in prison: 34%
Average duration of injecting in PWID: 10 years	Proportion of PWID ever incarcerated: 43.6%

Access to services

“Treatment services for people who use drugs in Kazakhstan do not operate the way they should. It’s almost like they exist because they should in principle. Kazakhstan is currently portraying an image of doing the right thing, by signing declarations but there is no true understanding of what rehabilitation means or what it should look like for people who use drugs in the community. It’s not for lack of funding; it’s the prioritisation of the health workforce and the mentality of the government.” Anna Deryabina, Director of International Centre for AIDS Care and Treatment Programs (ICAP) Central Asia

Since 2010, new HIV infections have increased by 29% and AIDS-related deaths have increased by 32%. In response, the government has incorporated the Fast Track approach into its national HIV plan, and moved to a test and treat approach in 2018.⁵⁰

OAT services have been introduced as a pilot initiative in 10 sites across Kazakhstan¹²² but are only available if people are registered with the

Narcological Register. Therefore there needs to be a scaling up of HIV testing efforts as well as HIV treatment and care in Kazakhstan.^{122,123}

In 2017, the government of Kazakhstan initiated an assessment of OAT programs, which found only 2.69% of all injecting drug users on the outpatient register in Kazakhstan were receiving OAT, falling short of the WHO recommendation of at least 20% coverage. One of the barriers to the uptake of the OAT programme was a failure to reach unanimous support from government law enforcement and healthcare institutions.⁸⁸ In one study which surveyed 80 nurses, social workers, outreach workers and providers of HIV care found that PWID and people with HIV are often segregated in healthcare settings. There is both the use of unnecessary precautions by providers, and unauthorised disclosure of HIV status.¹²⁴

Across Kazakhstan, NSP programmes are the most widespread service available for PWID, with around 137 services available in primary care clinics, HIV centres and NGOs.¹²³

Drug law enforcement

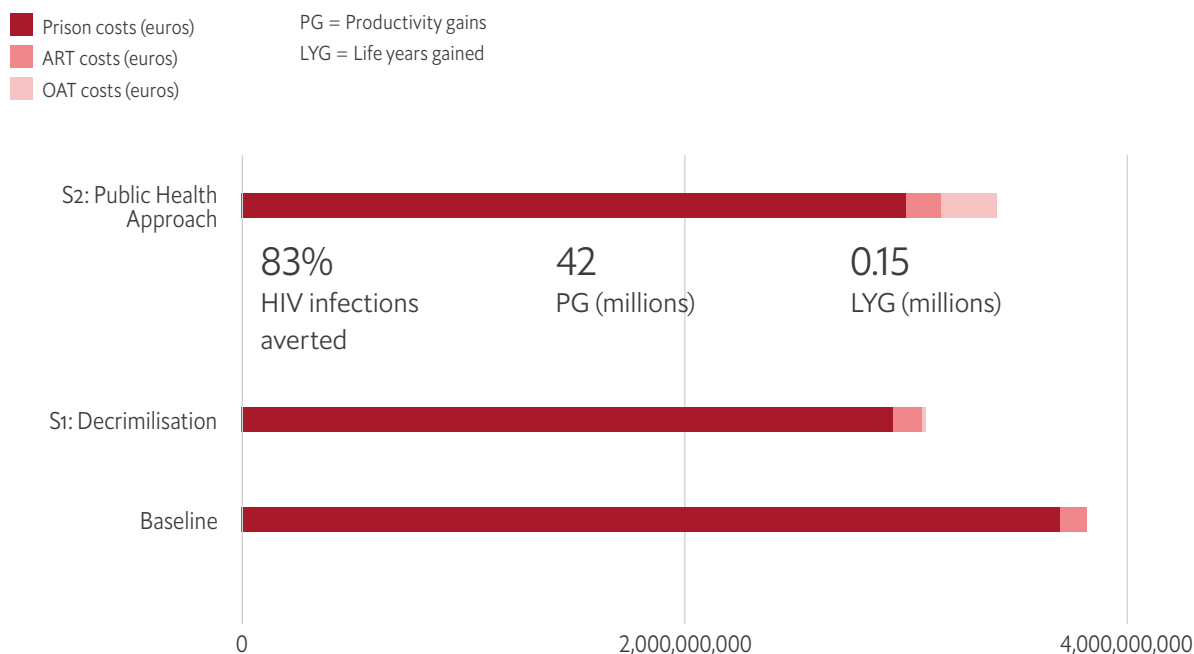
“The policies in Kazakhstan and Kyrgyzstan are very much influenced by Russia, and most of the medical literature read comes from Russia. Narcologists in Russia think the only way to solve addictions is to make people drug-free. If you tell governments in Kazakhstan and Kyrgyzstan that Portugal for example has a successful approach to harm reduction, they won’t listen, as they trust Russian authorities more.” Anna Deryabina, Director of International Centre for AIDS Care and Treatment Programs (ICAP) Central Asia.

A 2014 report conducted by the Pompidou Group of the Council of Europe, found that legal and political barriers prevent OAT becoming available and acceptable to the wider public in Kazakhstan.¹²⁵ PWID cannot take OAT home to administer, so they have to travel large distances to receive a daily dose. Secondly, the police are a barrier. PWID complain that doctors give the police medical information about their OAT clients, making them an automatic target for crime-related interrogation, discouraging access.⁸⁸ In 2016, the

UNODC conducted training for police officers on HIV services for PWID in Kazakhstan⁹³ to improve access to harm reduction services.¹²² Despite this, the punishments for consumption, possession and supply of drugs remains harsh, associated with large fines and sentencing.

Non-medical use of psychoactive substances in public places is a criminal offence and is punishable by a fine of between €493 and €1,074. For small amounts there is the option of community service instead of a fine, but for very large quantities, consumption is punishable by a prison sentence of between 3 and 7 years. The punishments for supply or any activity related to supply of drugs ranges from imprisonment for a term of 5 to 15 years with confiscation of property. A fine ranging between €754 and €3,267 dependent on the quantity supplied and age of the offender can also be expected. For both possession and supply, if the sentence granted is less than 5 years, the court does take into consideration each individual crime and determines whether the perpetrator can be “corrected” without serving a sentence and the courts can release him/her from serving the sentence and apply probation supervision.¹²⁶

Costs, infections averted and productivity gained between 2020-2040



- All of these scenarios are less costly than the baseline and bring greater benefits in terms of HIV infections averted and LYG.
- Decriminalisation in Kazakhstan would save €773m.
- In the public health approach scenario, €773m can be used to scale up ART to recommended UNAIDS target coverage, with money left over to buy OAT for 40% of PWID. This results in 84% decrease in HIV infections and a total of 148,464 life years gained.
- This would also generate an additional €42.4m in productivity on top of the savings associated with scaling up (€436.7m) compared with baseline.



Kyrgyzstan

HIV prevalence: 14.3%	OAT coverage in community: 4%
Prevalence of HIV in prison: 11%	ART coverage in community: 27%
Prevalence of HIV in the community: 0.2%	NSP coverage in community: 55.7%
PWID population size: 25,000	OAT coverage in prison: Not known
Prison population: 10,574	ART coverage in prison: 69.9%
Average duration of injecting in PWID: 10 years	Proportion of PWID ever incarcerated: 46%

Access to services

Since 2010, new HIV infections have increased by 21% and AIDS-related deaths have decreased by 9%.¹²⁷ Kyrgyzstan was the first country in Central Asia to initiate a pilot OAT programme in 2002. Kyrgyzstan was reported to be distributing >200 syringes to each PWID per year in 2015.¹⁷ It is also one of only seven countries worldwide, and the only country in Central Asia, that provides both OAT and NSP in prisons. These efforts remain under-scaled however. In a study which took a randomly selected, nationally representative sample of prisoners, who had been released within six months in Kyrgyzstan, it was found that prisoners who were injecting drugs were more likely to have a severe addiction before they were imprisoned. OAT treatment was only available for 11% of the people injecting drugs in this study.⁷⁷

An evaluation of the OAT programme in Kyrgyzstan was conducted in June 2015. It explored how the country had implemented recommendations for OAT programmes in an earlier 2008 study. The findings showed that the government, the United Nations and other international donor organisations, had invested considerable financial and human resources in expanding OAT in the community and prison sectors in Kyrgyzstan. The overall

number of OAT sites increased more than twofold, from 13 in 2008 to 31 in 2015, and the number of PWID receiving OAT increased from 729 to around 1200. The Ministry of Health in Kyrgyzstan continues to implement OAT in a geographically decentralised manner. Access to OAT is also available in prisons in Kyrgyzstan, covering half (eight) of the 16 prisons, a real victory given the post-soviet economic, social and political realities. After release, prison staff refer patients for a continuation of OAT in the community. Despite these efforts, by 2015 OAT remained poorly integrated into the mainstream health system and existed solely as a donor-funded project.¹²⁸

As the increase of OAT availability in Kyrgyzstan was entirely funded by donors, there is a risk harm reduction achievements will not be sustainable in the future without continued, state level investment. The government in Kyrgyzstan and different parts of it (health care, law enforcement, penitentiary) did not openly voice their support of the benefits of OAT throughout this program.¹²⁸ The government of Kyrgyzstan did recently implement a rapid HIV testing program for people at higher risk of HIV and launched an adherence program for people living with HIV based on mobile technology. It is too early to tell what the impact of these services will be.¹²⁷

Drug law enforcement

Kyrgyzstan has taken steps to decriminalise small scale drug possession, and reject criminal penalties for sex work. Despite this, police practice still deviates from formal laws because of poor legal and public health knowledge and negative attitudes towards harm reduction. In 2005, the HIV response in Kyrgyzstan included some training for police officers on HIV, other sexually transmitted infections, law and policy related to sex work and drug use, as well as providing contact information for local harm reduction programs. None of these programs were formally evaluated and were ad hoc in nature. A survey of police officers who had received this training found an increased likelihood of referring individuals to harm reduction programs.¹²⁹

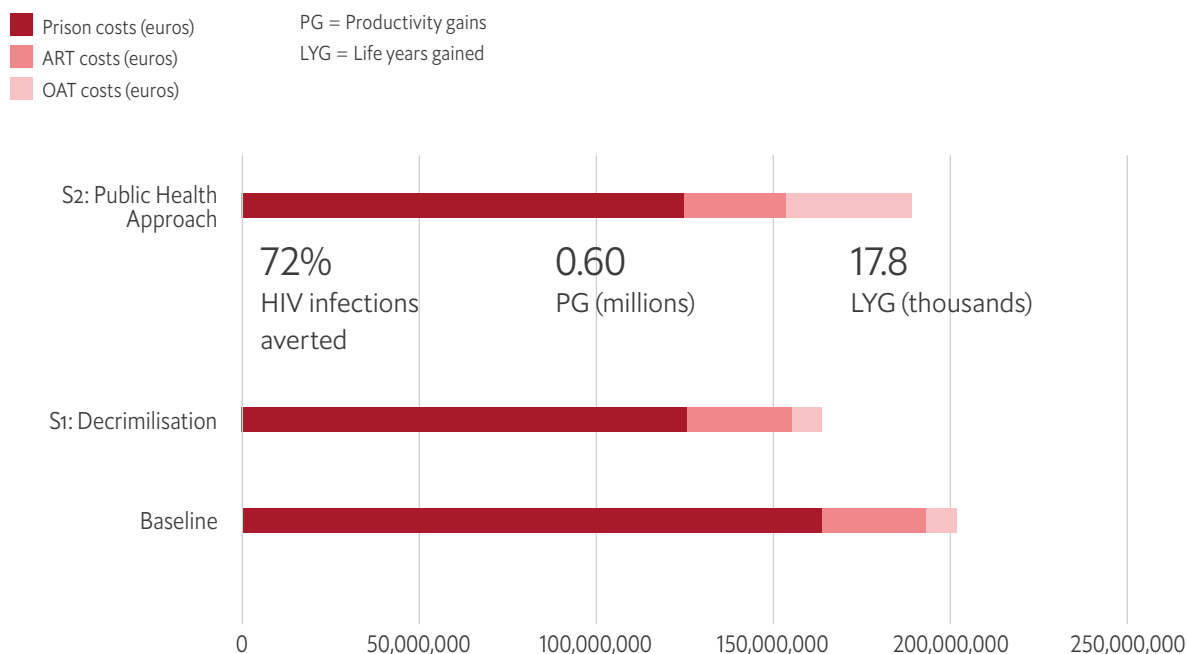
In Kyrgyzstan, consumption of drugs in public places is an administrative offence, punishable by a fine of between €69 and €213. These penalties do not vary by drug, quantity, if the person is addicted to drugs or not, or for repeat offences. For possession of small amounts, a fine of between €188 and €754 can be expected, with some restrictions of freedom but not imprisonment. As the amounts possessed grow larger so do the fines and imprisonment is compulsory. Fines range between €1,508 and €2,262, and dependent on the amount of drugs, can result in a 1.5 to 7.5 year sentence. The penalties stay the same regardless of drug, but if they are not paid within one month, the amount

is doubled. Following further non-payment, for more than two months, the court replaces the fine with imprisonment. For supplying drugs, the punishment and fines are the most severe, ranging between €754 and €3,267 and 5 to 12 years in prison. For both possession and supply, if the sentence granted is less than five years, the court does take into consideration each individual crime and determines whether the perpetrator can be “corrected” without serving a sentence, the courts can release him/her from serving the sentence and apply probation supervision.¹²⁶

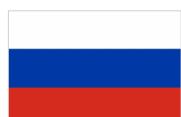
Changes to the law are afoot in Kyrgyzstan, driven by the Open Society Foundations, an NGO which aims to change current corruption practices within law enforcement. Nuriana Kartanbaeva, Deputy Executive Director of the Law programme within the Open Society Foundations explains:

“We introduced a completely new penitentiary code which aims to humanise and decriminalise the current approach and improve the data collection on crimes. It’s especially important to have unified statistics, to prevent law enforcement officials setting certain criteria on the number of arrests, to show good statistics on crime prevention. The new legislation means every criminal case has to be registered. Officers used to launch pre-trials, unofficially, and bribe the detainees, request money in exchange for favours and then drop these “artificial” charges. With the new legislation, this can’t happen.”

Costs, infections averted and productivity gained between 2020-2040



- Decriminalisation in Kyrgyzstan would save €38m
- In the public health approach scenario, €38m can be used to scale up ART to recommended UNAIDS target coverage, with the money left over to buy OAT for 29.7% of PWID. This results in a 84% decrease in HIV infections and a total of 23,611 LYG.
- This would also generate €597,749 in productivity. These productivity gains would increase the cost savings from €12,526,567 to €13,124,316 compared to baseline.



Russia

HIV prevalence: 60%	OAT coverage in community: 0%
HIV prevalence in prison: 7%	ART coverage in community: 42%
HIV prevalence in the community: 1.1%	NSP coverage in community: 5-25%
PWID population size: 1,881,000	OAT coverage in prison: 0%
Prison population: 602,176	ART coverage in prison: 5%
Average duration of injecting in PWID: 13.8 years	Proportion of PWID ever incarcerated: 34%

Access to services

"Our NGO is not illegal, but because the Russian government is so against harm reduction, we are often attacked. We face resistance to our work, we are inspected by different ministries and we are fined over and over. We don't have the money to pay these fines. It's annoying, it's expensive and it's threatening. We are always on the edge of being shut down."

Anya Sarang, President of the Andrey Rylkov Foundation for health and social justice.

The Andrey Rylkov Foundation is a non-profit organisation in Russia providing Moscow's drug-injecting population with clean needles and syringes, daily outreach, case management, legal aid and HIV tests to around 4,000 people in Moscow every year. The Foundation is one of a handful of NGOs from which PWID can get support in Russia. While some regions of Russia are more supportive of harm reduction than others, on the whole, state-run organisations do not provide harm reduction services, as they contradict the national drug laws.¹³⁰ OAT is completely banned in Russia⁷⁵ and

ART is available in small amounts but mainly because it is viewed as a medical intervention and not a harm reduction approach.

Given the number of new HIV infections has risen since 2010 from 74,000 to 100,000 in 2017,¹³¹ the current anti harm reduction approach in Russia is likely a contributing factor.

Overdoses are also a big problem for opioid dependents, compounded by the banning of OAT.^{25,132,133} This ban includes prescription use of methadone and buprenorphine, despite these agents being recommended by the WHO as 'essential drugs'.²⁵ One study revealed that in parts of Russia, despite the fact OAT is banned, methadone has emerged to rival heroin as the most commonly available opioid for recreational use.¹³⁴ Heroin use has been decreasing in recent years, from almost 100% of all PWID in 2004-2005, to 77% in 2012-2015.¹³² There is also inadequate testing for HIV and prevention programmes in Russia, especially in PWID.^{135,136} Testing in HIV-exposed infants before 8 weeks of age, is probably the most comprehensive HIV service offered, and stood at 84% in 2017.¹³¹

There is currently no specific legislation on the legal state of same-sex relations in Russia.¹³¹ The continuous growth of the HIV epidemic in Russia is due to a failure of public policy and practice related not only to harm reduction, but also human rights. It is a largely preventable public health crisis and if Russia continues on the same path, HIV incidence will continue to increase.²⁵

The post-release environment for PWID in Russia consists of virtually no support, making high risk behaviours inevitable. Unemployment, resuming opioid use, alcoholism and overdoses are very common for ex-convicts trying to integrate back into the community and it is unrealistic to expect them to avoid re-offending or death without appropriate support.^{43,137}

“Drugs and alcohol are more readily available in Russia than harm reduction. Drugs are available to buy online, and also alcohol addiction and deaths due to alcoholism are huge in Russia. Many people don’t view alcohol as a drug. So it’s ok to be addicted to alcohol and commit homicide, but it’s not ok to use drugs for personal use. There are many things that don’t make sense but there is no one that can address these issues.” Alex Knorre, Doctoral Student, Department of Criminology, University of Pennsylvania

Drug law enforcement

“There is a new drug strategy in Russia which will come into force in 2021. It’s the

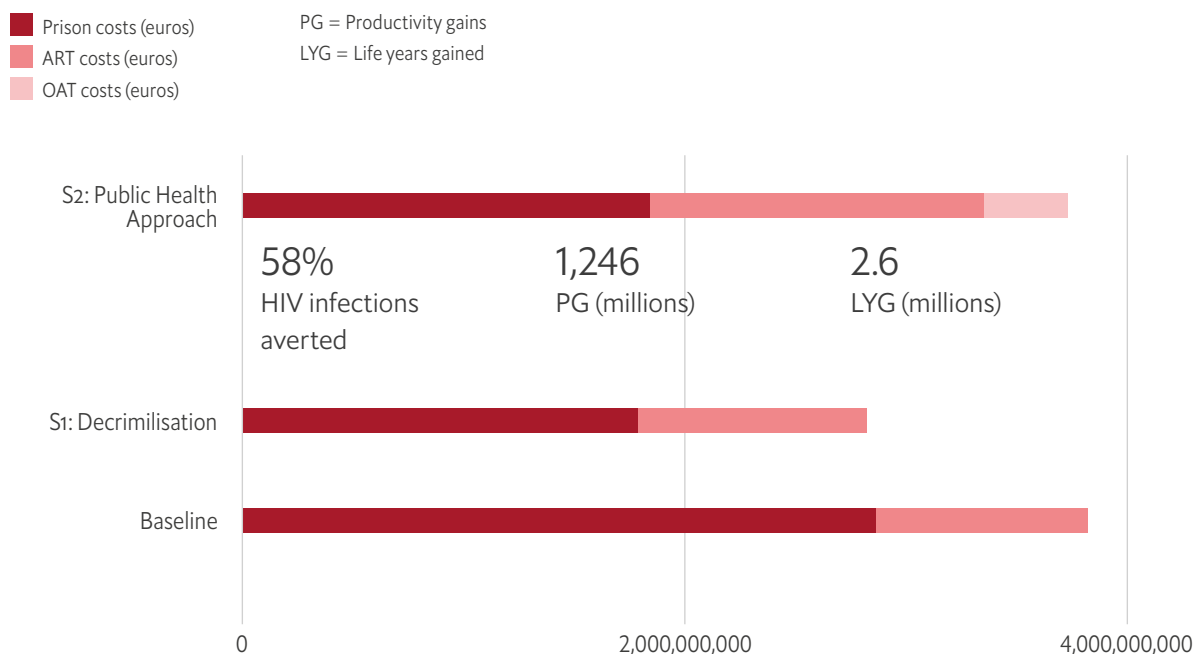
same strategy based on zero tolerance and discrimination. Harm reduction is still considered a threat to the strategy. The state strategy is against any kind of humane treatment of people who use drugs.” Anya Sarang, President, Andrey Rylkov Foundation.

In Russia consumption of drugs and possession of small amounts is an administrative offence punished by a fine between €55 and €70 or administrative detention up to 15 days. Possession of considerable, large and extremely large amounts is a criminal offence, punishable with a fine up to €7,000 or imprisonment from up to 3 to 10-15 years depending on the amount involved (Article 228).¹³⁸ Based on the court statistics people are usually charged under Article 228.2 and 228.3 with average sentence between 3 and 5 years.¹³⁹

There are many biases which exist within the drug law enforcement of PWID which goes beyond the criminal justice system. Roman Khabarov explains:

“There is a clear link between the health system and the police service. There is an obligation for the health service to inform the police when they are treating a registered drug user. This means police officers would often visit health centres when users were in a vulnerable state, in withdrawal, to manipulate that person into admitting to committing a crime they did not do, that the police officer had not witnessed even, to fill a police quota.” Roman Khabarov, former police officer and human rights lawyer in Russia.

Costs, infections averted and productivity gained between 2020-2040



Note: Costs and LYG scaled up from St Petersburg data

- Decriminalisation in Russia would save €11.1Bn compared to current practices.
- In the public health approach, assuming the same ART and OAT coverage levels across Russia as in St Petersburg, this €11.1Bn saved can be used to scale up ART to recommended UNAIDS target coverage, with money left over to buy OAT for 39.5% of PWID with HIV (absolute terms). This results in 58% decrease in HIV infections and a total of 2,586,534 life years gained.
- This would also generate €1.3Bn in productivity. These productivity gains would increase the gains from scaling up from €1.1Bn to €2.3Bn compared to baseline.
- It would cost on average an additional €46.5m per year to get a 60% NSP coverage of PWID in Russia which would avert a further 14,000 HIV infections per year.

Appendix II: Data sources

Three of the four countries in our study have published IBBS reports that are available in the public domain (Belarus, Kazakhstan, and Kyrgyzstan). The sentinel surveillance studies in these countries follow international guidance for the research process from planning, through implementation, data analysis and results reporting.

The IBBS reports are based on the findings of cross-sectional surveys of selected population groups in a country conducted every two years. The surveys collect serological data as well as data on a range of socio-demographic and behavioural variables at selected sentinel surveillance sites. The main study methods include the use of a standardised structured questionnaire and a dried blood spot (DBS) test for HIV, hepatitis B and C, and syphilis.

In the three countries that have published IBBS reports, study participants from the PWID risk group were recruited using the respondent-driven sampling method. To recruit participants from the prisoner risk group which was included only in Kyrgyzstan, a systematic random sample using stratification by correctional facility type was used, as a list of prisoners was easily obtainable.

Sample sizes for key population groups:

PWID — Belarus n=1,660; Kazakhstan n=4,302; Kyrgyzstan n=1,311

Prisoners — Kyrgyzstan only, n=994.

We also used published research reports and international datasets such as Harm Reduction International, The Eurasian Harm Reduction Association and UNAIDS.

Appendix III: Data tables

Table A1: Scenario summary

	Incarceration rate reduced by %	% Incarcerated in 2040	Coverage of ART in 2040	Coverage of OAT in 2040	Number of infections averted compared to baseline	% of infections averted
Belarus						
Baseline	0%	34.6%	39.6%	0.4%	0	
S1: Decriminalisation	25%	27.3%	43.7%	0.6%	-1,629	-2.3%
S2: Public health approach	25%	25.5%	83.8%*	41.2%*	44,624	64%
Kazakhstan						
Baseline	0	30.0%	21.2%	0.2%		
S1: Decriminalisation	25%	22.8%	25.3%	0.2%	-95	-0.2%
S2: Public health approach	25%	21.8%	86.5%*	41.8%*	32,009	84%
Kyrgyzstan						
Baseline	0	16.5%	44.0%	6.8%		
S1: Decriminalisation	25%	12.3%	46.6%	6.3%	1,129	11%
S2: Public health approach	25%	11.7%	88.0%*	29.7%	6,912	69%
Russia						
Baseline	0	16.1%	35.1%	0		
S1: Decriminalisation	46%	8.5%	40.0%	0	-44,865	-3.5%
S2: Public health approach	46%	8.2%	79.7%	39.5%	758,414	58%

*ART coverage increases greater than 81% as calibrated to due to the benefits of OAT on ART recruitment and retention.
Coverage of OAT increases above 40% due to dynamic effects in the model over time.

Table A2: Cost effectiveness analysis

				Comparisons compared to BASELINE			
Scenario	Total Costs	Total Life Years	Total Productivity (euros)	Incremental Costs (euros)	Life Years Gained	ICER (Cost per LYG)	Productivity (euros)
Belarus							
Baseline	2,534,578,868	1,905,493	344,695,939	0	0		
S1: Decriminalisation	2,103,723,830	1,906,415	361,616,889	-430,855,039	923	Cost saving	16,920,951
S2: Public Health approach	2,345,128,162	2,005,618	383,289,012	-189,450,706	100,126	Cost saving	38,593,073
Kazakhstan							
Baseline	4,128,681,587	3,736,146	512,343,667	0	0		0
S1: Decriminalisation	3,355,446,703	3,737,840	531,825,803	-773,234,884	1,694	Cost saving	19,482,137
S2: Public Health approach	3,691,945,813	3,884,610	554,732,297	-436,735,773	148,464	Cost saving	42,388,631
Kyrgyzstan							
Baseline	197,853,088	794,721	14,314,250	0	0		0
S1: Decriminalisation	159,842,974	795,466	14,576,393	-38,010,115	745	Cost saving	262,143
S2: Public Health approach	185,326,522	812,488	14,911,999	-12,526,567	17,768	Cost saving	597,749
St Petersburg, Russia							
Baseline	1,638,734,392	1,592,757	427,565,642	0	0		0
S1: Decriminalisation	1,211,257,416	1,594,060	446,806,442	-427,476,976	1,303	Cost saving	19,240,800
S2: Public Health approach	1,596,859,627	1,691,858	475,317,195	-41,874,765	99,101	Cost saving	47,751,553
Russia (scaled up from St Petersburg)							
Baseline	42,770,967,632	41,570,961	11,159,463,260	0	0	0	0
S1: Decriminalisation	31,613,818,550	41,604,970	11,661,648,140	-11,157,149,082	34,010	cost saving	502,184,880
S2: Public Health approach	41,678,036,253	44,157,495	12,405,778,802	-1,092,931,378	2,586,534	cost saving	1,246,315,543

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