ESACD
Eastern & Southern Africa Commission on Drugs

The Eastern & Southern Africa Commission on Drugs

Drug policy and infectious disease transmission in Eastern and Southern Africa

Andrew Scheibe

NOVEMBER 2021

ABOUT THE AUTHOR

Dr Andrew Scheibe is a medical doctor by training who works in harm reduction research, programmes and policy in South Africa and the region. His work focuses on the intersections between infectious diseases, determinants of health, drugs and rights. He works as an independent consultant and is also a technical advisor for TB HIV Care and is a researcher at the University of Pretoria's Department of Family Medicine and a visiting professor at the Urban Futures Centre at the Durban University of Technology.

Contents

Acronyms and abbreviations

ART	Antiretroviral therapy
EAC	East African Community
ESA	Eastern and Southern Africa
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
NSP	Needle and syringe programme
OST	Opioid substitution therapy
PWID	People who inject drugs
SADC	Southern African Development Community
SDG	Sustainable Development Goal
STI	Sexually transmitted disease
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNGASS	United National General Assembly Special Session
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

SUMMARY

This brief provides an overview of key issues relating to drug policy and the transmission of human immunodeficiency virus (HIV), tuberculosis (TB), hepatitis B virus (HBV) and hepatitis C virus (HCV) in Eastern and southern Africa (ESA). It focuses on heroin (the most widely used opiate in ESA[1]), cocaine and methamphetamine. These substances have the potential to cause relatively more harm to individuals and society than other substances, apart from alcohol, which is responsible for significant harm to individuals and society.[2]

The brief frames the broad factors that influence an individual's drug use experience and risk. This is followed by an overview of the epidemiology of drug use; the epidemiology of priority infectious diseases among people who use drugs (specifically people who inject drugs); and drug-related harms in ESA. Thereafter, the links between drug policy and infectious disease are discussed. Drug policy and related health interventions and laws and policies are presented, based on the World Health Organization's (WHO) Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations.3 Examples of how drug policy has been used as a public health tool and as a public health threat in ESA are included. The brief ends with conclusions and recommendations based on the information presented.

Data for this brief was drawn from a desk review, supplemented by information provided by drug policy experts. Due to weak surveillance systems and limited research in ESA, little country-level data was available.

Key points

To reduce the transmission of priority infectious diseases among people who use drugs, their partners and the general population, policymakers and other stakeholders should:

- Ensure the meaningful participation of people who use drugs in drug policy and drug service processes.
- Decriminalize drug use and possession of drugs for personal use as well as the possession of drug-using equipment.
- In the context of criminalization, police should refer people who use drugs who commit drug-related offences of a minor nature to voluntary health and social services before arrest. If arrested and charged, diversion should occur to avoid incarceration.
- Include clear support for harm reduction interventions in drug and health policy including the WHO package of health interventions and critical enablers.
- Ensure drug, health and related policy is harmonious in prioritizing public health and the protection of human rights.
- Develop sustainable financing solutions for core health and harm reduction interventions.
- Savings from decarceration and supportive approaches to drugs should be allocated to health and social services.
- Plan to integrate harm reduction into universal health coverage.
- Ensure access to affordable diagnostics (for HIV, TB, HBV and HCV) and medications that are required for comprehensive harm reduction (including methadone, buprenorphine and naloxone and medications for the prevention and treatment of HIV, TB, HBV and HCV).
- Collect and report data on targets linked to SDG 3.3 that relate to people who use drugs in a manner that safeguards the rights and privacy of people who use drugs.
- Ensure that people who use drugs are involved in the monitoring of policy implementation and service delivery towards continuous quality improvement.

BOOMING DRUG USE

There has been a marked increase in the use of heroin, methamphetamine and cocaine in Africa over the past two decades.[4] Between 0.2 and 1.1% of people aged 15–64 in Africa (1.4 million–7.9 million people) used heroin in 2019.[5] Concurrently, injecting drug use is becoming more common across countries in the region, with an estimated 410 000 people who inject drugs in ESA in 2019.[6] Fourteen million additional people are expected to use drugs in sub-Saharan Africa by 2050.[7] Women who use drugs face high levels of violence, stigma and barriers to services.[8]

The potential for heroin, methamphetamine and cocaine to cause harm is influenced by many factors. Drug use experience is influenced by the drug (i.e., the amount used, method of administration, purity), personal characteristics (i.e., gender, age, co-morbidities, personality) and the context in which drugs are used (i.e. socio-economic status, criminalization of drug use).[9]

Infectious disease transmission is most acute in relation to people who inject drugs, and among people in prison.[10] People with opioid dependence are much more likely to die than people in the general population.[11] In 2013, injecting drug use accounted for 1% of HIV, 1% of HBV and 26% of HCV infections in sub-Saharan Africa.[12]

HIV epidemics among people who inject drugs are expanding in countries without established harm reduction services.[13] The HIV prevalence among people who inject ranges from 15% to 21% in East African states and is estimated at 21% across countries in Southern Africa.[14] Women who inject drugs have a notably higher HIV burden than their male counterparts.[15]

Concentrated HCV epidemics exist among people who inject drugs in the region.[16] Over 90% of people who inject drugs in Mauritius[17] and parts of South Africa have been infected with HCV.[18] In sub-Saharan Africa, 74% of people who inject drugs who are living with HIV have HIV-HCV co-infection, and 14% have HIV-HBV co-infection.[19]

The TB burden among people who use drugs is high.[20] The elevated TB burden is due to high HIV prevalence, poor nutrition and frequent incarceration of people who use drugs.[21]

People who use drugs have been particularly affected by the coronavirus (COVID-19) pandemic.[22] Human rights violations, violence, limitations on movement, involuntary detoxification and interruptions in health and harm reduction services have been recorded among people who use drugs across ESA.

Factors influencing a person's drug use experience and risk

Several factors affect a person's drug use experience. This includes the type of the drug and patterns of use, the individual's unique characteristics and the context in which drug use occurs.

The type of drug taken has a direct effect on a person's experience and risks. For example, opiates (e.g. heroin) have a calming, euphoric, anaesthetic and sedating effect.[23] In contrast, stimulants (e.g. methamphetamine and cocaine) arouse, enable concentration and increase confidence.[24] The time of onset is shorter and intensity of a drug's effect is greater through injecting than smoking.[25] An excessive dose or use of several drugs at one time may lead to overdose.[26] Prolonged use may result in tolerance and neurobehavioral changes.[27] Furthermore, the (illicit) drug manufacturing process and ingredients (including contaminants) can increase the potential for harm.[28]

Physical, physiological, emotional and mental health characteristics influence a person's drug-using experience.[29] Personality, emotional maturity, gender, culture, social class, physical and mental health, social skills, self-esteem, sexual behaviours, engagement with the criminal justice system, housing, education, employment, values and beliefs influence drug use experience and risk.[30] Exposure to traumatic life events and chronic stress increase the likelihood of developing a drug use disorder.[31]

The environment in which drugs are consumed may contribute to or lessen risk.[32] Social relationships, family conflicts, parental drug use, peer use and community's perspectives of drug use influence one's drug use experience.[33] The risks associated with drug use within prison are distinct from those within the community.[34] Poverty and social exclusion contribute to problematic drug use within society.[35] Social inequities are linked to cycles of poverty, unemployment, limited education, conflict and substance use.[36]

The criminalization of drug use, drug possession or possession of drug using equipment (e.g. needles and syringes) increases harm for people who use drugs and the community.[37] Similarly, the enforcement of laws affects sub-groups of people in different ways. Poor and marginalized groups of people who use drugs often have more negative experiences with the police and prison than richer people.[38]

Drug policy and infectious disease transmission

Drug policy affects health.[39] Drug policy contributes to the environment in which drug use takes place and the transmission and impacts of infectious disease.[40] Ending the epidemics of AIDS, TB and hepatitis by 2030 (included as part of Target 3.3 of the Sustainable Development Goals (SDGs)) requires that the specific needs of people who use drugs are accounted for.[41]

The dominant drug policy approach in ESA has been based on prohibition.[42] Criminalization, incarceration, stigma and exclusion resulting from this drug policy approach have increased the infectious disease burden in Africa.[43] Consequently, the African Union has adopted a plan of action on drugs that aligns with the principles of human rights and public health.[44] Most national HIV strategic plans of countries in ESA define people who inject drugs as a key population in need of tailored interventions, and several include the need for policy reform.[45]

The WHO has defined a clear set of recommended health interventions and policy recommendations to address HIV and related comorbidities among people who use drugs in community and prison settings.[46] Core harm reduction interventions include needle and syringe programmes (NSPs) for people who inject drugs, opioid substitution therapy (OST) for people with opioid dependence, other evidence-based drug treatment interventions and the prevention and management of overdose. Prevention, testing and treatment of HIV, viral hepatitis, TB and sexually transmitted infections, as well as sexual and reproductive health services for people who use drugs, should be layered onto harm reduction services. Other important interventions include the decriminalization of drug use, combating stigma and discrimination, ensuring the acceptability of services, empowering community members and addressing violence.[47]

The effectiveness of harm reduction in reducing infectious diseases among people who use drugs in African contexts has been demonstrated. Seven countries in ESA provide OST and seven have NSPs.48 National harm-reduction programmes in Mauritius, Tanzania and Kenya have significantly reduced new HIV infections among people who inject drugs in those countries.[49]

DRUG USE IN EASTERN AND SOUTHERN AFRICA

Drug use has increased significantly in Africa over the past two decades.[50] Despite the huge sums of money spent on the global 'war on drugs',[51] global production of opium and cocaine has doubled and seizures of amphetamines have increased tenfold since 1998.[52] Prohibitionist drug policy approaches have had little, if any, effect in reducing the growth of domestic drug use in Africa.[53]

Countries in ESA are part of drug trafficking routes and have local consumer markets. Opiates and cocaine pass through the ESA region to reach European markets.[54] At the same time, methamphetamine is produced in ESA for domestic use and for export.[55] Due to criminalization, stigma and weak surveillance, the size of specific drug markets in the region remains poorly quantified. According to the 2021 UN Office on Drugs and Crime (UNODC) World Drug Report, in 2019 there were 3.6 million opiate users (predominantly heroin), 2.0 million cocaine users and 2.7 million amphetamine users in Africa.[56]

Injecting drug use is widespread across ESA.[57] It is estimated that in 2019 there were 260 000 people who injected drugs in Eastern Africa and 150 000 people who injected drugs in Southern Africa (see Figure 1).[58] Emerging research and programme data point to increasing injecting practices in ESA. In 2017, injecting drug use practices were reported in 36 countries in sub-Saharan Africa, up from 13 in 2007.[59]

	Number			Prevalence (percentage)		
Population size	Best	Lower	Upper	Best	Lower	Upper
Opiates (Africa)	3 490 000	1 410 000	7 690 000	0.49	0.2	1.08
Cocaine (Africa)	1 950 000	520 000	4 260 000	0.27	0.07	0.58
Amphetamines (Africa)	2 720 000	690 000	5 810 000	0.38	0.10	0.82
Injecting practices						
Eastern Africa	260 000	90 000	680 000	0.13	0.08	0.24
Southern Africa	150 000	100 000	180 000	0.14	0.10	0.17

FIGURE 1: Annual prevalence of drug use in Africa and injecting drug practices, 2019.

Note: Prevalence of people who inject drugs is the proportion of the population aged 15–64.
Source: UNODC, World Drug Report 2021, 2020, p 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003

An overview of current data of numbers of people who use heroin, amphetamines and cocaine, as well as numbers of people who inject drugs, is shown in Figure 2.

	Number of people using the drug			People who inject drugs	
Country	**Heroin**	**Amphetamines**	**Cocaine**	**UNAIDS**	**Other source***
Botswana					
Comoros					
Eswatini	4 766	699	14 474	300	854
Kenya	66 000	3 000	10 000	16 000	35 000
Lesotho	2 900	540	17 500		130
Madagascar					15 500
Malawi	380	70	5 000		450
Mauritius				11 700	6 000
Mozambique				2 200	
Namibia					
Rwanda					
Seychelles				2 500	
South Africa	400 000	290 000	350 000	82 500	
Uganda				7 400	

Tanzania	473 152	930	26 674	36 000	67 203
Zambia				26 800	
Zimbabwe					

Blank spaces: no data identified

FIGURE 2: Estimated number of people who use drugs, by country (most recent estimates).

Sources: UNAIDS, Key population atlas, https://kpatlas.unaids.org/dashboard; Global Initiative Against Transnational Crime (GI-TOC), Drug market value study, forthcoming; Mauritian Ministry of Health and Quality of Life, A respondent driven survey among people who inject drugs in the Island of Mauritius: Integrated biobehavioural surveillance, 2017, 2018, http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/hivaids/policy/policy-guidance-for-key-populations-most-at-risk2/people-who-inject-drugs-pwid; Harm Reduction International, Global state of harm reduction 2020, https://www.hri.global/global-state-of-harm-reduction-2020

Modelling data suggests that between 2018 and 2050 the prevalence of annual drug use will increase by 5% in this region (Figure 3) translating to 14 million people. This increase will be fuelled by increased drug availability, economic development, population growth and urbanization.[60]

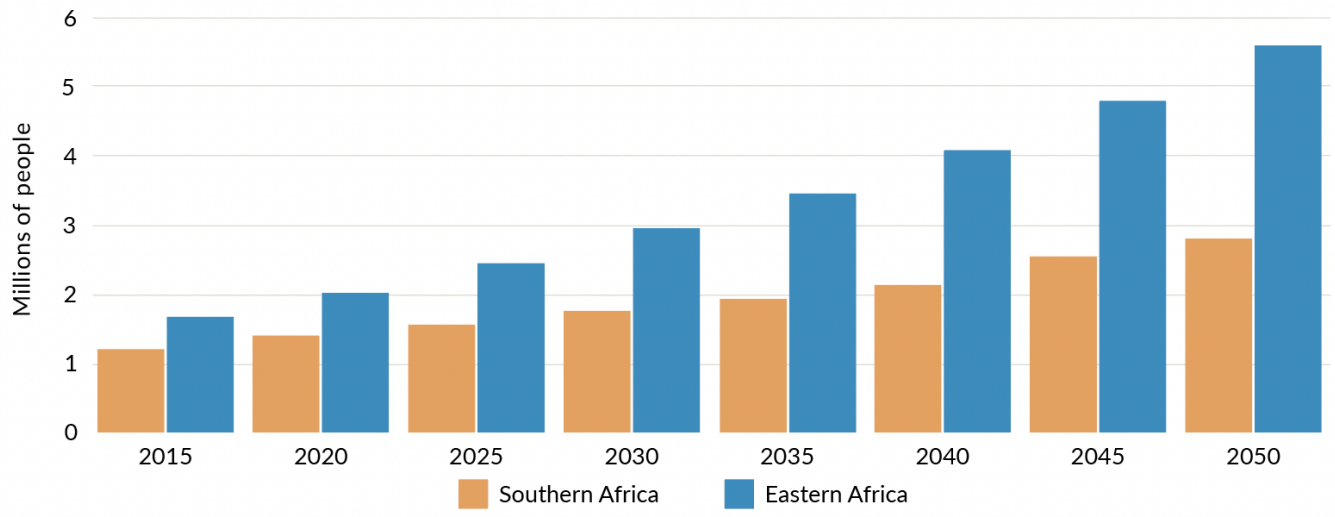

FIGURE 3: Predicted trends in use of drugs (opioids, cocaine and amphetamines) in African regions, 2015–2050.

Source: Adapted from Zachary Donnenfeld, Julia Bello-Schunemann and Lily Welborn, Drug demand and use in Africa: Modelling trends to 2050, ENACT, 2019, https://enactafrica.org/research/research-papers/drug-demand-and-use-in-africa.

DRUG USE AND INFECTIOUS DISEASE

Epidemiology of priority infectious diseases in the context of drug use

Globally, and within Africa, the risks of infection with HIV, HBV, HCV and TB are higher among people who use drugs than the general population.[61] Risks of infection are particularly high among people who inject drugs.[62] These infections are responsible for much disease and death.[63]

HIV

HIV epidemics among people who use drugs in Africa are expanding. HIV can be transmitted via blood or through unprotected sex, as well as vertically from mother to child.[64] In 2018, people who inject drugs accounted for 8% of all new HIV infections (15–49 years) in ESA.[65] Across Africa the prevalence of HIV is almost three times higher among people who inject drugs (aged 15–64) than among their counterparts in the general population (11% vs. 4%, respectively).[66] The estimated HIV prevalence among people who inject drugs in East and in Southern Africa is 16% and 22%, respectively.[67] Women who inject drugs are particularly affected by HIV.[68] Gender perspectives on drug use and risk are included in Annex 2.

Viral hepatitis

Viral hepatitis is a priority health concern among people who use drugs. HBV and HCV are transmitted via blood. HBV is also spread through unprotected sex and from mother to child.[69] HBV is common in sub-Saharan Africa, with HBV prevalence among people who inject drugs estimated at 4%,[70] similar to the general population.[71] In contrast, in sub-Saharan Africa, the prevalence of HCV is seven-fold higher among people who inject drugs than among people in the general population.[72] Viral hepatitis and HIV co-infection is more common among people who inject drugs than the general population.[73]

TB

People who use drugs are a key risk population for TB. TB (including drug-resistant TB) among people who use drugs is increased due to high levels of HIV infection, poor nutrition and frequent incarceration.[74] Little data exists on TB among people who use drugs in ESA, but research points to a high burden. For example, active TB case-finding among OST clients in Dar es Salaam (Tanzania) in 2011 revealed a TB prevalence of 4%.[75] More recently, in 2018, 4% of 1 809 clients attending Mozambique's first drop-in centre for people who use drugs in Maputo were diagnosed with TB[76] (compared to around 0.5% in the general population in that country[77]).

COVID-19 AND PEOPLE WHO USE DRUGS

The COVID-19 pandemic has highlighted the vulnerabilities affecting people who use drugs.[78] Globally and in the ESA region, access to harm reduction services were negatively affected by COVID-19. For example, in South Africa people experiencing homelessness were placed in emergency shelters without planning to manage opioid withdrawal or continue harm reduction services.[79] In Kenya, NSP and OST services were temporarily interrupted and adherence to OST and antiretroviral therapy (ART) was negatively affected.[80] In Tanzania, increased vulnerabilities of women who use drugs, many of whom engaged in sex work, were highlighted alongside challenges in accessing harm reduction services.[81] In parallel, the benefits of harm reduction were demonstrated in locations where COVID-19 responses adopted them.[82] The WHO has reaffirmed that NSP and OST are essential health services that should continue uninterrupted in emergency health and pandemic situations.[83]

Disease and death related to drug use and infectious disease

Globally, people with opioid dependence have a 25-fold higher mortality risk than people in the general population.[84] The risk of death is highest among people who inject opioids, largely due to overdose.[85] The risk of death among people who use opioids are generally higher in lower and middle income countries than in high income settings.[86] The risk of death is also increased in the context of HIV infection and injecting drug use.[87]

Untreated viral hepatitis accounts for most of the disease and disability among people who use drugs worldwide and is significant in Africa.[88] In 2013, a quarter of the total burden of disease due to HCV in sub-Saharan Africa was from injecting drug use.[89] HIV and viral hepatitis co-infection speeds up the disease processes and increases the risk of death.[90] In 2013, the burden of disease due to injecting drug use in sub-Saharan Africa was 1% for HIV, 1% for HBV and 26% for HCV.[91]

DRUG POLICY AND INFECTIOUS DISEASE

Drug policy refers to laws in relation to the production, distribution, sale, possession and use of specifically controlled substances.[92] It consists of a set of rules, which in democratic societies are developed in a collective manner and are enforced by government.[93]

Drug policy should enhance individual and societal health, well-being and development. Drug policy should uphold human rights, in particular the right to the highest attainable standard of health for all people.[94] It should enable voluntary access to harm reduction, drug treatment and infectious disease and related services for people who use drugs.[95] Furthermore, drug policy ought to strike a balance between ensuring uninterrupted access to controlled medicines (e.g., methadone and buprenorphine) for treatment and minimizing diversion and illegal trade thereof.[96] Drug policy has a cross-cutting impact on the SDGs relating to poverty, human rights, gender equality, health and safety.[97] Ending the epidemics of AIDS, TB and hepatitis by 2030 (included in SDG Target 3.3) requires that the needs of people who use drugs are catered for.[98]

How drug policy impacts infectious disease

Drug policy affects infectious disease transmission and outcomes in many ways. Like other laws, drug policy can either foster or impede infectious disease transmission.[99] The implementation of drug policy (or lack of implementation) affects economic, health care and social conditions. These conditions in turn affect people and communities' exposure to infectious disease. Social conditions also influence behaviours, while individual-level characteristics may increase or decrease a person's risk of infection and related consequences. Laws also affect retention in care.[100]

Globally, and in Africa, the dominant approach to drug use is through punitive responses, which act as threats to public health.[101] Criminalization, incarceration, stigma and exclusion resulting from drug policy contribute to an increased likelihood of exposure to infectious disease (see Annex 2).[102] Additionally, people who are excluded and disempowered are more likely to incur negative health outcomes of an infectious disease,[103] pushing them further down the socio-economic hierarchy, where they are ultimately at higher risk of future illness and negative health outcomes.[104] The outcome document of the 2016 United Nations General Assembly Special Session (UNGASS) on drugs promotes human rights, health and development.[105] Since 2016, several resolutions passed by the Commission on Narcotic Drugs reaffirm commitments to infectious disease, evidence-based interventions, comorbidities and rights.[106]

Repressive drug control approaches have contributed to the expanding HIV and viral hepatitis epidemics among people who use and inject drugs.[107] Restrictive drug policy has also limited access to controlled and required medications. In the five years since the UNGASS on drugs, the number of HIV infections due to injecting drugs increased by 2% (to 10% in 2019), while 40% of new HCV infections are linked to drug injecting.[108]

The financing directed towards prohibitionist drug policy results in fewer available resources for health and social investments.[109] The African Union supports harm reduction and a balanced drug policy,[110] and drug policy reform towards enhancing public health is underway in Africa, but progress is slow.

Drug policy and health interventions related to drug use and infectious disease

A comprehensive set of evidence-based health sector interventions applicable to people who use drugs is included in the WHO's Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations[111] (see Figure 4). The guidelines include four harm reduction interventions aimed at drug-related risks, namely: NSPs, OST, drug dependence treatment and opioid overdose prevention and management.

Drug policy needs to provide explicit support for harm reduction interventions. Harm reduction and integrated HIV, TB and viral hepatitis services are required to end these epidemics. The WHO has set a target of 300 injecting packs per person who injects per year[112] and 50% OST coverage[113] to end HCV and HIV as public health threats among people who inject drugs by 2030.

HARM REDUCTION INTERVENTIONS TO REDUCE INFECTIOUS DISEASE TRANSMISSION

- Harm reduction is an evidence- and rights-based public health approach aimed at reducing drug and other related risks.[114] It aims to save lives and improve health.
- NSPs are structured services that provide sterile needles and syringes and related equipment (sterile water, alcohol swabs, tourniquets, cookers) to people who inject drugs to reduce the risk of HIV and HCV infection and transmission.[115] Programmes include mechanisms for the safe return and destruction of used equipment. NSPs also include education and support around safer drug use. They are the cornerstone of infectious disease responses for people who inject drugs as they are often the first contact with the health system and enable access to additional services.[116]
- OST is the recommended treatment for opioid dependence.[117] It involves the prescription of an opioid agonist medication (methadone or buprenorphine) by a trained clinician at an appropriate dose for as long as a person requires it. OST saves lives and reduces injecting and HIV and HCV transmission.[118] It improves retention on HIV, TB and viral hepatitis treatment as well as physical and mental health, and reduces engagement in crime.[119]
- Other drug-dependence treatment involves evidence-based psychosocial behaviour change interventions (e.g. cognitive behavioural therapy) aimed at reducing or stopping substance use and related risk.[120] These interventions can improve the outcomes of people on OST[121] and are used to treat and reduce the harms of problematic stimulant or other drug use.[122]
- Opioid overdose prevention and management involves training on overdose prevention, identification and management, including first aid and the use of naloxone (a short-acting opioid antagonist) to reverse the overdose in community settings by people likely to witness an overdose.[123]
- Safe drug consumption sites (also known as safe injecting sites and overdose prevention sites) provide safe places for the hygienic consumption of drugs in a non-judgemental setting. Drug use takes place under medical or trained peer supervision.[124] Safe drug consumption sites reduce overdose and increase uptake of harm reduction and health services.[125]

HIV prevention	
1.	**Condoms and condom-compatible lubricant programming.**
2.	**Pre-exposure prophylaxis for key populations at substantial risk of HIV infection.**
3.	**Post-exposure prophylaxis for all eligible people on a voluntary basis after possible exposure to HIV.**
4.	**Voluntary medical male circumcision within combination HIV prevention packages for adolescents aged ≥15 years and adult men in settings with generalized epidemics.**
Harm reduction for people who use drugs	
5.	**NSPs.**
6.	**OST.**
7.	**Evidence-based interventions, including brief psychosocial interventions involving assessment, specific feedback and advice, for harmful substance use.**
8.	**Opioid overdose prevention and management.**
HIV testing and counselling	
9.	**Voluntary HIV testing and counselling.**

Treatment and care
10. ART for people living with HIV.
11. Prevention of mother-to-child transmission.
Prevention and management of co-infections and co-morbidities
12. TB prevention, screening and treatment services.
13. HBV and HCV prevention, screening and treatment services.
14. Routine screening and management of mental health disorders.
Sexual and reproductive health
15. Screening, diagnosis and treatment of STIs
16. Reproductive options.
17. Abortion laws and services should protect the health and human rights of all women.
18. Cervical cancer screening.
19. Access to contraception and pregnancy care.

FIGURE 4: Health sector interventions for key populations.

Source: WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124

No country in the ESA region has met the WHO's global 2020 harm reduction service delivery coverage targets for HIV and HCV elimination. Seven countries in ESA provide OST and seven have NSPs.[126] Countries in ESA are far from reaching the UNAIDS HIV treatment and viral suppression targets for people who inject drugs. Even where harm reduction programmes for people who inject drugs are well established, less than two-thirds of people who inject drugs living with HIV are on ART (e.g. 68% in Kenya (2017),[127] 52% in Mauritius (2016)[128] and 29% in Mozambique (2014)[129]). Data on the HIV viral load among people who inject drugs is limited and points to low levels of suppression.[130]

Still, ESA countries that have committed to harm reduction interventions are demonstrating the positive impact on their HIV epidemics among people who inject drugs. Zanzibar[131] and Mauritius[132] have demonstrated reductions in HIV prevalence in repeated cross-sectional surveys after sustaining and expanding their harm reduction programmes.

Drug policy to address structural barriers for people who use drugs

'Critical enablers' are strategies, approaches and activities that improve health and social service access, quality and effectiveness. The WHO's set of critical enablers for people who use drugs is included in Figure 5. These relate to the review of laws and policies that criminalize drug use, and the inclusion of anti-discrimination and protective laws, and include other actions aimed at increasing access to services, empowering people who use drugs and reducing violence.[133] Drug policy should support and harmonize with these recommendations to enable people who use drugs to access health services and realize health.

1.	Laws, policies and practices should be reviewed and, where necessary, revised by policymakers and government leaders, with meaningful engagement of stakeholders from key population groups, to enable and support the implementation and scale-up of healthcare services for key populations.
2.	Countries should work towards implementing and enforcing anti-discrimination and protective laws derived from human rights standards to eliminate stigma, discrimination and violence against people from key populations.
3.	Health services should be made available, accessible and acceptable to key populations, based on the principles of medical ethics, avoidance of stigma, non-discrimination and the right to health.
4.	Programmes should work toward implementing a package of interventions to enhance community empowerment among key populations.
5.	Violence against people from key populations should be prevented and addressed in partnership with key population-led organizations. All violence against people from key populations should be monitored and reported, and redress mechanisms should be established to provide justice.

FIGURE 5: Critical enablers for people who use drugs.

Source: WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications/i/item/9789241511124.

At a country level, in 2018, people who inject drugs were defined as a key population in the national HIV strategic plans of all countries in ESA except for Botswana, Malawi and Zimbabwe,[134] but only four countries highlighted the specific needs of people who inject drugs in national viral hepatitis strategies in ESA.[135] An overview of selected drug policy by country is given in Annex 3.

Drug policy as a public health tool or threat

Decreasing incarceration rates would have a significant impact on reducing HIV, HCV and TB infections among people who use drugs.[136] In communities of people who inject drugs with an HIV prevalence over 5%, incarceration is estimated to contribute to 12–55% of infections – largely due to incarceration and increased drug use practices post-release as well as disruptions in drug-related treatment. Alternatives to incarceration for minor drug-related offences avoid the potential harms of engagement with the criminal justice system, including potential exposure to TB.[137] Greater health benefits are realized if referrals to health and social services are voluntary and occur before being arrested and charged by police.[138]

Decriminalization of drug use together with access to harm reduction services significantly reduces drug-related death and infectious disease transmission.[139] In Portugal, the decriminalization of drug use (in 2001) and allocation of resources to finance harm reduction and drug treatment services reduced drug-related deaths and drug-related prison offences, as well as halving new HIV infections in the country.[140] Similar public health gains have been noted in the Netherlands, Switzerland and the Czech Republic where decriminalization has been implemented.[141] In the long term, the legal regulation of drugs is likely to have public health outcomes that are even greater than decriminalization.[142]

Drug policy should include anti-discriminatory policy and aim for zero stigma and discrimination towards people who use drugs. Barriers to accessing drug services stemming from stigma and discrimination are well described in the ESA region.[143] People who use drugs who are at risk of infectious disease are more likely to access, engage and persist in services that are supportive and non-discriminatory.[144] Drug policy should enable gender-responsive approaches.[145]

Appropriate prioritization and financing of the implementation of public health informed drug policy is required for infectious disease epidemic control. Good coverage of harm reduction services with the integration of screening, vaccination and treatment of infections (e.g. HBV, HIV, HCV, TB) contribute to further reductions in infectious disease transmission among people who use drugs and their larger communities. Adherence to treatment, notably HIV, HCV and TB treatment, is improved when linked to OST (for people with opioid dependence) and when harm reduction principles are integrated into service delivery.[146]

Collaboration and harmonization among the health, social, police and justice sectors around public health are critical to ensure effective responses for infectious diseases.[147] Overarching drug policy can and should provide the framework for national consensus building and mutually respected objectives that protect rights and effectively prevent the spread of infectious diseases.[148]

CONCLUSION AND RECOMMENDATIONS

Over the past two decades, there has been a notable increase in the use of heroin, cocaine and methamphetamine in the ESA region. This is despite a major focus on prohibition and punitive-based drug policies. Ongoing increases in drug use prevalence in ESA are predicted in the medium to long term. Emerging data points to a high burden of disease related to HIV, viral hepatitis and TB among people who use and inject drugs. Injecting injuries and overdose are poorly quantified and are likely to contribute to significant disease and deaths in the region.

Drug use among young people, including injecting, will negatively affect development opportunities unless public health and rights-aligned drug policy is adopted and implemented. Achievement of SDG 3.3 and targets to end HIV, viral hepatitis and TB as public health threats by 2030 will be more likely if rights-based public health approaches for people who use drugs are implemented in contexts of supportive drug policy. Delays in developing and implementing drug policy that is rights-affirming, evidence-based and aligns with the principles of harm reduction have contributed to infectious disease transmission among people who use drugs in community settings, in prisons and in the broader communities of ESA.

The criminalization of drug use contributes to a large proportion of arrests and incarcerations in ESA. This approach increases exposure to infectious disease and amplifies transmission within prisons and in the general community. The criminalization of drugs and moral framing of drug use also fuel stigma and discrimination towards people who use drugs, both of which are major barriers to health care access. This negatively affects retention in care and health outcomes. The criminalization of drug use also contributes to onward transmission of infectious disease among people who use drugs and their partners, families and the broader community. Women who use drugs in ESA are vulnerable and their health and rights have been negatively affected by current drug policy approaches and the lack of gender-appropriate interventions. The COVID-19 pandemic has amplified inequality, and demonstrated that NSPs and OST, as well as infectious disease testing and treatment, are essential services in ESA.

The WHO's set of evidence-based health interventions (inclusive of harm reduction) and critical enablers should be applied in ESA countries. Scale-up of integrated harm reduction services has been shown to be effective in several African contexts. Loss of health gains has also been noted where drug policy has reverted to prohibition and incarceration. The following interventions are recommended.

Overarching drug policy

Broadly, drug policy reform processes should start with policymakers becoming familiar with the experience of countries that have adopted progressive drug policy. This can be done through reading case studies, engaging with academic and civil society organizations supporting evidence-based drug policy reform, and arranging study tours and learning exchanges. The WHO provides guidance on how public health policy can be addressed to reduce drug-related risks.[149]

People who use drugs should be engaged and meaningfully involved in the review and development of drug policy. This could be done through engaging with organizations and networks led by or working with people who use drugs and including their representation in committees and structures responsible for policy development, review and implementation.[150]

Countries should decriminalize drug use and allow the possession of acceptable amounts of drugs for personal use and the possession and distribution of drug use equipment.[151] As part of this process, policymakers should explore longer-term solutions towards the legal regulation of drugs towards safe supply, management and access to opioids and stimulants and reduction of harms, learning from countries that have moved in this direction.[152]

Where decriminalization will take time to implement, countries should explore and pilot options for the diversion of people charged with minor, non-violent drug-related offences to health and social services as alternatives to criminal sanctions.[153] Diversion should be implemented by police and law enforcement agents before people are formally charged.[154]

Countries should ensure that health, drug and law enforcement policies are harmonious, mitigate stigma and discrimination[155] and address the needs of sub-populations, including young people,[156] women,[157] migrants, gender diverse people and people of sexual minority groups who use drugs.[158]

Financing

Countries should commit to developing sustainable financing solutions for universal access to a package of evidence-based harm reduction and drug treatment interventions in community and prison settings. The WHO provides guidance to develop and implement universal health coverage.[159] Progress should be made towards the inclusion of a package of harm reduction interventions under universal health coverage and as part of national health insurance.

Local assessments of resources allocated to punitive approaches to drug policy can be quantified and compared to the health gains that would be achieved through investments in evidence-based interventions. This comparison can be used to advocate for greater allocations towards public-health approaches to drug use.

Health and harm reduction services

The WHO, the UNODC and the International Network of People Who Use Drugs and other organizations have a wide range of guidance to support planning and implementation of health and harm reduction services.[160] Policymakers should engage with this guidance and ensure these interventions are included, costed and implemented as part of national health, social development and infectious disease strategies. People who use drugs should be meaningfully involved in drug programme planning, implementation, monitoring and evaluation.

Countries should implement a combination of services as recommended by the WHO in community and prison settings, including:

- NSPs for people who inject drugs
- OST and evidence-based drug-dependence treatment
- Overdose prevention and management
- HBV vaccination and HIV pre-exposure prophylaxis
- Testing and treatment for infectious diseases, including HIV, TB, HBV, and HCV
- Integrated sexual and reproductive health services
- Health promotion and behaviour change interventions
- Targeted delivery of services
- Measures to reduce violence against people who use drugs and enabling mechanisms to report violations and for redress and access to justice

Countries should ensure that drug services, including harm reduction services, are classified as essential services to enable continuation during emergency and pandemic situations.[161] Countries may also consider piloting the feasibility and effectiveness of safe drug consumption sites.

Access to diagnostics and medicines

Policymakers within national ministries of health should ensure that relevant infectious disease testing and treatment guidance aligns with the recommendations outlined by the WHO. In the absence of local health products regulatory authorities to accredit and approve diagnostic tests, the WHO has a set of pre-qualified tests that can be used. National

governments should engage with producers of medical technologies (e.g. diagnostic tests) and pharmaceuticals to negotiate affordable prices, with the use of centralized, pooled procurement processes. Testing should be made available in community/primary health care settings for HIV, HBV, HCV and TB. Medications for the prevention and treatment of HIV, HBV and HCV; HBV vaccination; TB treatment and prevention; methadone and buprenorphine for OST and naloxone to manage overdose should be listed as essential medicines for use at the primary care level in community and prison settings.

Strategic information

Countries should adapt and/or develop their national monitoring and evaluation frameworks to include health-related interventions that relate to the SDGs 3.3. Indicator definition, methods of collection and reporting processes are accessible from relevant UN agencies.[162]

Countries should ensure regular collection of quality programme, surveillance and research data for HIV, TB, viral hepatitis and overdose in a confidential manner, disaggregated by gender, age and location, and that personal information is carefully guarded. Countries should regularly review data and conduct evaluations to assess the impact of investments. Data reviews should inform programmes and policy.

Quality

Countries should maximize the quality of health and harm reduction services for people who use drugs. This can be done through development and implementation of policy, minimum standards and quality assurance processes that align to the WHO and other guidelines.[163]

Countries should include mechanisms for sensitization and requisite capacity development training for health, social, police, prison and related service providers who enact policy around drugs, infectious disease and evidence-based and rights-affirming interventions, including harm reduction.[164] Finally, people who use drugs should be engaged as part of the community monitoring of drug services in community and prison settings.[165]

ANNEX 1:
SELECTED DRUG POLICY AND INFECTIOUS DISEASE IN AFRICA

Continental level
The African Union's Plan of Action on Drug Control and Crime Prevention for 2019–2023 specifies the need for harm reduction services, alternatives to imprisonment, balanced and harmonized drug policies and support for related research and data collection.
Regional level
The East African Community's Policy on the Prevention, Management and Control of Alcohol, Drugs and other Substance Use includes interventions to prevent youth initiation of alcohol and drug use, controls on production of supply and distribution of drugs and management of drugs and their effects. The policy includes harm reduction, and promotion and protection of the health and well-being of citizens and notes the challenges that punitive approaches pose to health interventions.
The Southern African Development Community (SADC) drug policy focuses on the elimination of drug trafficking, drug use and drug production and includes policy support for criminalization. The SADC's Regional Strategy for HIV Prevention, Treatment and Care and Sexual and Reproductive Health and Rights among Key Populations defines people who use drugs as a key population for HIV and highlights their need for increased access to sexual and reproductive health and rights and HIV prevention, treatment and care. It also includes suggestions for policy reform to reduce stigma and discrimination and violence, and how to address legal, policy and cultural barriers to HIV-related services. The SADC's Parliamentary Forum's Minimum Standards for the Protection of the Sexual and Reproductive Health of Key Populations in the SADC region supports the protection of the sexual and reproductive health of key populations. The document recommends that parliamentarians review laws relating to drug use and amend them to reduce personal and social harms. It also includes support for harm reduction, including NSPs and OST.
Country level
The Global Initiative Against Transnational Crime (GI-TOC)'s assessment of African drug policy in 2019 classified countries into six categories:* ▪ State-led reformers: states whose policy noted the need to mitigate the effects of infectious and other health conditions. This includes countries that have made changes to drug policy in relation to cannabis for medical use (Lesotho and Zimbabwe) and where drug policy reform was being actively explored (eSwatini and Seychelles). ▪ State-contested reformers: states where drug policy reform had been proposed and elements of the state were unsupportive (South Africa, Zambia, Malawi, Mozambique and Kenya). ▪ Drug policy retractors: states that had previously embraced drug policy reform and were reverting to prohibitionist approaches (Mauritius and Tanzania). ▪ Drug policy reform resistors: states that had opted to retain prohibition measures (Uganda). ▪ Inertial states: states that had not discussed or engaged in debate about drug policy reform (Namibia, Botswana, Rwanda and the Comoros). * *Some drug policy positions have changed since this review was done.*

Sources: African Union, African Union Plan of Action on Drug Control and Crime Prevention (2019–2023), STC-HPDC-3/EXP/SA24677, African Union, 2019, https://au.int/sites/default/files/newsevents/reports/36768-rp-aupa_on_drug_control_2019-2023_final_with_foreword_-_english_.pdf; J Eligh, The evolution of illicit drug markets and drug policy in Africa, GI-TOC, 2019, https://globalinitiative.net/analysis/the-evolution-of-illicit-drug-markets-and-drug-policy-in-africa; SADC Parliamentary Forum, Minimum standards for the protection of the sexual and reproductive health of key populations in the SACD region, 2019; AIDS and Rights Alliance for Southern Africa, 'Don't treat us as outsiders' – Drug Policy and the Lived Experiences of People Who Use Drugs in Southern Africa, 2019, https://idpc.net/publications/2019/07/don-t-treat-us-as-outsiders; East African Community, East African Community Regional Policy on Prevention , Management and Control of Alcohol, Drugs and Other Substance Use, East African Community Secretariat, 2019, pp 3–41; and Southern African Development Community, Regional strategy for HIV prevention, treatment and care and sexual and reproductive health and rights among key populations, 2018, https://www.sadc.int/files/2715/3060/7629/SADC-regional-strategy-hiv-srhr-key-pops_FINAL.pdf.

ANNEX 2:
DRUG POLICY, INFECTIOUS DISEASE AND POPULATIONS WITH SPECIAL NEEDS

Women who use drugs

- Women who are at the intersection of poverty, criminalization, motherhood and drugs are at high risk of infectious diseases, affecting them and their households.
- The HIV prevalence among women who inject drugs in sub-Saharan Africa is 2.8-fold higher than among men who inject drugs.
- Women who use drugs in ESA experience high levels of violence (five-fold higher than women who do not use drugs), exploitation and abuse by male partners. Social norms, traditional gender roles and patriarchy contribute to the violence and internal stigma affecting women who use drugs. These factors contribute to concealment of drug use among women.
- Few survivors of violence have access to justice.
- Many women who use drugs in ESA engage in sex work, and are at increased risk of infectious disease where both practices are criminalized.
- Women who use drugs also experience challenges in accessing harm reduction and other services. Few health and drug services in ESA integrate the sexual, reproductive, maternal and child health needs of women who use drugs in a gender-appropriate manner.
- Fear of losing custody of children is an important barrier for many women in accessing services.
- Women who are charged with drug-related crimes often receive harsher sentences than men for minor infractions. Very few prison services provide harm reduction services for women.

Sexual minority groups

- Social exclusion, violence and discrimination (and resultant chronic stress, mental health conditions and trauma) among gender diverse people and members of sexual minority groups contribute to higher levels of drug use and harm among them.
- Few drug services adequately cater for the needs of these groups of people.
- Many gender diverse people experience multiple intersectional risks that increase their vulnerability to HIV and infectious disease in the context of drug use.

Young people who use drugs

- ESA has a young and growing population. In the future, many young people will use drugs.
- For some young people, drug use is part of adolescent experimentation, reward-seeking and risk-taking. Among others, it may be linked to their exposure to social and family challenges, violence, trauma and exclusion.
- Many people who use drugs by smoking will progress to injecting, particularly those with opioid dependence.
- Drug policy needs to keep young people safe. It needs to be rights-affirming and situated within an evidence-based framework. Prohibitionist and punitive approaches to drug policy have had many negative effects on the physical, social and emotional well-being of young people.
- Entry of people who use drugs into the criminal justice system due to their drug use is a strong predictor of the development of a substance use disorder.
- Health and harm reduction services should be provided and tailored to young people and should not have age restrictions for access. Parental/guardian consent requirements for testing, treatment and care should also be removed.
- Interventions for young people who use drugs should address the social norms of drug use among adolescents using evidence-based interventions that build decision-making and social skills.

People in prison and other closed settings

- The criminalization of drug use is an important contributing factor to incarceration.
- Globally, around 1.9 million people are arrested due to drug use (61% of all drug-related arrests), and 470 000 people are in prison and have been sentenced in relation to drug use or possession.

- In Africa, the overwhelming proportion of contacts with the criminal justice system are linked to cannabis (80–90%), with around 10% of contacts related to amphetamine-type stimulants and less than 5% to opioid use.
- Prisons are risk environments for infectious diseases.
- Drug use is common within prison settings in ESA, where access to harm reduction interventions is severely limited. Only Mauritius, Seychelles and Kenya include some OST services in prison settings.
- Continuation of OST and infectious disease treatment from community to prison settings is important to reduce transmission of infections and maintain the benefits of OST when people are released.
- Post-release opioid-related overdose is the leading cause of death among people released from prison.

Sources: Z Donnenfeld, J Bello-Schunemann and L Welborn, Drug demand and use in Africa: Modelling trends to 2050, ENACT, 2019, https://enactafrica.org/research/research-papers/drug-demand-and-use-in-africa; Harm Reduction International, The Global State of Harm Reduction 2020, 2020, https://www.hri.global/global-state-of-harm-reduction-2020; J Leung, A Peacock, S Colledge, J Grebely, EB Cunningham, M Hickman et al., A Global Meta-analysis of the Prevalence of HIV, Hepatitis C Virus, and Hepatitis B Virus among People Who Inject Drugs – Do Gender-Based Differences Vary by Country-Level Indicators?, Journal of Infectious Diseases, 220, 1, 2019, 78–90; WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124; UNODC, World Drug Report 2020: Socioeconomic characteristics and drug use disorders, World Drug Report Booklet 5, 2020, p 1–33, https://wdr.unodc.org/wdr2020/en/socioeconomic.html; UNODC, Were you really raped, or did you just not get paid? A needs assessment of women who use drugs in four cities in South Africa, 2019, https://www.unodc.org/documents/southernafrica/Publications/Health/WWUD_In_our_own_words_2019_web.pdf; K Malinowska-Sempruch and O Rychkova, The Impact of Drug Policy on Women, Open Society Foundations, 2015, pp 1–24, https://www.opensocietyfoundations.org/sites/default/files/impact-drug-policy-women-20160928.pdf; International AIDS Society, Women who inject drugs: Overlooked, yet visible, 2019, pp 1–12; SADC Parliamentary Forum, Minimum standards for the protection of the sexual and reproductive health of key populations in the SACD region, 2019; H Otanga, F Jeneby, M Handulle, M Busz, H Sumnall and MC Van Hout, Understanding experiences of gender-based violence among women who use drugs and developing prevention and response frame work in Coast, Kenya, Mainline, 2021; MEWA, Reach Out Trust, The Omari Project, M Carriere and L Essink, Women who use drugs in Kenya: the needs of female drug users, Mainline, 2016; UN Women, A gender perspective on the impact of drug use, the drug trade, and drug control regimes, 2014, https://www.hr-dp.org/contents/1004; MSMGF and COC, The impact of drug policies on the human rights of lesbian, gay, bisexual, trans and intersex people: Joint civil society submission to the Officer of the High Commissioner for Human Rights, May 2018, https://www.ohchr.org/Documents/HRBodies/HRCouncil/DrugProblem/HRC39/GlobalActionGayMenHealthRights.pdf; WHO, HIV and young people who inject drugs: Technical guide, 2015, pp 1–34, http://www.inpud.net/UNAIDS_YKP_Briefs_PWID_2014.pdf; I Obot and J Csete, Prevention of Drug Use and Drug Use Disorders, Open Society Foundations, 2015, https://www.opensocietyfoundations.org/publications/prevention-drug-use-and-problematic-use#publications_download; D Barrett, The Impacts of Drug Policies on Children and Young People, Open Society Foundations, 2015, pp 1–28, http://www.ohchr.org/Documents/HRBodies/HRCouncil/DrugProblem/OpenSocietyFoundations.pdf; WL White, Recovery/remission from substance use disorders: an analysis of reported outcomes in 415 scientific reports, 1868–2011, Philadelphia Department of Behavioral Health and Intellectual disAbility Services and the Great Lakes Addiction Technology Transfer Center, 2012, https://www.naadac.org/assets/2416/whitewl2012_recoveryremission_from_substance_abuse_disorders.pdf; A Kamarulzaman, SE Reid, A Schwitters, L Wiessing, N El-Bassel, K Dolan et al., Prevention of transmission of HIV, hepatitis B virus, hepatitis C virus, and tuberculosis in prisoners, Lancet, 388, 10 049, 2016, 1 115–1 126.

ANNEX 3:
OVERVIEW OF SELECTED DRUG POLICY BY COUNTRY

Country	Criminali-zation of possession of drugs / drug use	Policy support in National HIV Strategic Plan					Policy for HCV services for PWID	Drug policy position*
		PWID included	Support for NSP	Support for OST	Support for drug use law reform	Support for PWID services		
Botswana	Yes	No	No	No	No	No	No	Inertial
Comoros	Yes	Yes	No	No	No	No	No	Inertial
eSwatini	Yes	Yes	No	Yes	No	Yes	No	Reformers
Kenya	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Contesters
Lesotho	Yes	Yes	No	No	No	No	No	Reformers
Malawi	Yes	No	No	No	No	No	No	Contesters
Mauritius	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Retractor
Mozambique	Yes	Yes	No	No	No	No	No	Contesters
Namibia	Yes	Yes	No	No	No	No	No	Inertial
Rwanda	Yes	Yes	No	No	No	No	No	Inertial
Seychelles	Yes	Yes	Yes	Yes	No	No	No	Reformers
South Africa[i]	Yes	Yes	No	No	No	No	Yes	Contesters
Uganda	Yes	Yes	No	No	No	No	No	Resistor
Tanzania	Yes	Yes	Yes	No	No	Yes	Yes	Retractors

Zambia	Yes	Yes	Yes	No	Yes	Yes	No	**Contesters**
Zimbabwe	Yes	No	Yes	Yes	No	No	No	**Lack of capacity**

i. The current National HIV Plan includes support for harm reduction services and recommendations for drug policy reform.
* Drug policy position:

State-led reformers: states whose policy note the need to mitigate the effects of infectious and other health conditions. This includes countries that have made changes to drug policy in relation to cannabis for medical use.

State-contested reformers: states where drug policy reform had been proposed and elements of the state were unsupportive.

Drug policy retractors: states that had previously embraced drug policy reform and were reverting to prohibitionist approaches.

Drug policy reform resistors: states that had opted to retain prohibition measures.

Inertial states: states that had not discussed or engaged in debate about drug policy reform.

Sources: UNAIDS data 2020, pp 1–248, https://www.unaids.org/en/resources/documents/2020/unaids-data%0Ahttp://www.unaids.org/sites/default/files/media_asset/20170720_Data_book_2017_en.pdf; WHO, Focus on *k*ey populations in national HIV strategic plans in the WHO African region, September 2018, p 48, http://apps.who.int/iris/bitstream/handle/10665/275494/WHO-AF-CDS-HIV-02.2018-eng.pdf?ua=1; J Eligh, The evolution of illicit drug markets and drug policy in Africa, GI-TOC, 2019, https://globalinitiative.net/analysis/the-evolution-of-illicit-drug-markets-and-drug-policy-in-africa; WHO, Access to hepatitis C testing and treatment for people who inject drugs and people in prisons – a global perspective: policy brief, 2019, https://apps.who.int/iris/handle/10665/312116.

Notes

[1] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[2] J van Amsterdam, D Nutt, L Phillips and W van den Brink, European rating of drug harms, *Journal of Psychopharmacology*, 29, 6, 2015, 655–660.
[3] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[4] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[5] Ibid.
[6] Ibid.
[7] Z Donnenfeld, J Bello-Schunemann and L Welborn, Drug demand and use in Africa: Modelling trends to 2050, ENACT, 2019, https://enactafrica.org/research/research-papers/drug-demand-and-use-in-africa.
[8] Harm Reduction International, The Global State of Harm Reduction 2020, 2020, https://www.hri.global/global-state-of-harm-reduction-2020.
[9] N Zinberg, *Drug, Set and Setting: The Basis for Controlled Intoxicant Use*. New Haven: Yale University Press, 1984.
[10] ML Ndeffo-Mbah et al, Dynamic Models of Infectious Disease Transmission in Prisons and the General Population, *Epidemiologic Reviews*, 40, 1, 2018, 40–57.
[11] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[12] WHO, Global health estimates 2019, Deaths by cause, age and sex, by World Bank income group, 2000–2019, 2020, https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates.
[13] Joint United Nations Programme on HIV/AIDS (UNAIDS), Do No Harm: Health, human rights and people who use drugs, 2016, http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=54015717&lang=tr&site=ehost-live; Joint United Nations Programme on HIV/AIDS (UNAIDS), Health, rights and drugs: Harm reduction, decriminalization and zero discrimination for people who use drugs, 2019, Joint United Nations Programme on HIV/AIDS (UNAIDS), Health, rights and drugs: Harm reduction, decriminalization and zero discrimination for people who use drugs, 2019.
[14] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003; Joint United Nations Programme on HIV/AIDS (UNAIDS), UNAIDS data 2019.
[15] Ibid.
[16] J Leung et al., A Global meta-analysis of the prevalence of HIV, hepatitis C virus, and hepatitis B virus among people who inject drugs – do gender-based differences vary by country-level indicators?, *Journal of Infectious Diseases*, 220, 1, 2019, 78–90.
[17] Mauritian Ministry of Health and Quality of Life, A respondent driven survey among people who inject drugs in the Island of Mauritius, Integrated biobehavioural surveillance, 2017, 2018, https://health.govmu.org/Documents/Main%20Page/New/IBBS%20Survey%20report%20for%20PWIDs%202017.pdf.
[18] University of California San Francisco, Anova Health Institute and National Institute for Communicable Diseases, Brief report of the TipVal Study: An integrated bio-behavioral surveillance survey among people who inject drugs, 2018.
[19] L Platt et al., Prevalence and burden of HCV co-infection in people living with HIV: A global systematic review and meta-analysis, *Lancet Infectious Diseases*, 16, 7, 2016, 797–808; CW Spearman et al., Hepatitis B in sub-Saharan Africa: strategies to achieve the 2030 elimination targets, *Lancet Gastroenterology Hepatology*, 2, 12, 2017, 2 121.
[20] Stop TB Partnership, Key populations brief: People who use drugs, http://www.stoptb.org/assets/documents/resources/publications/acsm/kp_peopleusedrugs_spreads.pdf.
[21] Stop TB Partnership, Key populations brief: People who use drugs, http://www.stoptb.org/assets/documents/resources/publications/acsm/kp_peopleusedrugs_spreads.pdf; A Gupta et al., Active case finding for tuberculosis among people who inject drugs on methadone treatment in Dar es Salaam, Tanzania, *International Journal of Tuberculosis and Lung Disease*, 18, 793–798.
[22] KeNPUD, Harm reduction in context of COVID-19 in Kenya, International Network on Health and Hepatitis in Substance Users, 2020 [17]; International Network on Health and Hepatitis in Substance Users, Harm reduction responses in the age of COVID-19: Documenting the experiences of people who use drugs in South Africa, March 2021, https://inhsu.org/wp-content/uploads/2021/03/Harm-Reduction-Responses-during-COVID-19_INHSU.pdf; Eurasian Harm Reduction Network, Harm reduction service delivery to people who use drugs during a public health emergency: Examples from the COVID-19 pandemic in selected countries, November 2020, https://harmreductioneurasia.org/wp-content/uploads/2021/01/covid-19-best-practices-eng.pdf.
[23] WHO, Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence, 2009, https://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf.
[24] UNODC, WHO and UNAIDS, HIV prevention, treatment, care and support for people who use stimulant drugs, 2019, https://www.unodc.org/documents/hiv-aids/publications/People_who_use_drugs/19-04568_HIV_Prevention_Guide_ebook.pdf.
[25] N Zinberg, *Drug, Set and Setting: The Basis for Controlled Intoxicant Use*. New Haven: Yale University Press, 1984.
[26] WHO, Community management of opioid overdose, 2014, p 374–95, https://apps.who.int/iris/bitstream/handle/10665/137462/9789241548816_eng.pdf.
[27] WHO, Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence, 2009, https://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf.
[28] C Cole et al., Adulterants in illicit drugs: a review of empirical evidence, *Drug Testing and Analysis*, 3, 2, 2011, 89–96.
[29] N Zinberg, *Drug, Set and Setting: The Basis for Controlled Intoxicant Use*. New Haven: Yale University Press, 1984.
[30] T Rhodes et al., Public injecting and the need for 'safer environment interventions' in the reduction of drug-related harm, *Addiction*, 101, 10, 2006, 1 384–1 393.
[31] UNODC, World Drug Report 2020, Socioeconomic characteristics and drug use disorders, World Drug Report Booklet 5, 2020, pp 1–33, https://wdr.unodc.org/wdr2020/en/socioeconomic.html.
[32] N Zinberg, *Drug, Set and Setting: The Basis for Controlled Intoxicant Use*. New Haven: Yale University Press, 1984.
[33] T Rhodes et al., Public injecting and the need for 'safer environment interventions' in the reduction of drug-related harm, *Addiction*, 101, 10, 2006, 1 384–1 393 and T Rhodes et al., Risk factors associated with drug use: the importance of 'risk environment', *Drugs: Education, Prevention and Policy*, 10, 4, 2003, 303–329.
[34] H Stöver, F Meroueh, A Marco, K Keppler, P Saiz de la Hoya, R Littlewood et al., Offering HCV treatment to prisoners is an important opportunity: key principles based on policy and practice assessment in Europe, *BMC Public Health*, 19, 1, 2019.
[35] UNODC, World Drug Report 2020. Socioeconomic characteristics and drug use disorders, World Drug Report Booklet 5, 2020, pp 1–33, https://wdr.unodc.org/wdr2020/en/socioeconomic.html.
[36] UNODC, World Drug Report 2019: Executive Summary, 2019, https://wdr.unodc.org/wdr2019/en/exsum.html.

[37] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124 and Transform Drug Policy Foundation, Count the costs: 50 years of the war on drugs, 2012, pp 1–16; and Transform Drug Policy Foundation, Count the costs: 50 years of the war on drugs, 2012, pp 1–16.
[38] A Scheibe, S Shelly and A Versfeld, Prohibitionist Drug Policy in South Africa—Reasons and Effects, *Revue internationale de politique de développement*, 12, 2020.
[39] AJ Siegler, KA Komro and AC Wagenaar, Law everywhere: A causal framework for law and infectious disease, *Public Health Reports*, 135, 1_suppl, 2020, 25S–31S.
[40] WHO, TDR, HRP, Alliance for Health Policy and Systems Research, Social determinants approaches to public health: from concept to practice, eds E Blas, J Sommerfeld and AS Kurup, 2011, https://www.who.int/social_determinants/tools/SD_Publichealth_eng.pdf.
[41] WHO, Global health estimates 2019, Deaths by cause, age and sex, by World Bank income group, 2000–2019, 2020, https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates; Global Commission on Drug Policy, Position paper: Drug policy and the sustainable development agenda, 2018, https://www.globalcommissionondrugs.org/wp-content/uploads/2020/06/2018SDG_ENG_web.pdf.
[42] M Nougier, A Cots Fernández and D Putri, Taking stock of half a decade of drug policy: an evaluation of UNGASS implementation, International Drug Policy Consortium, http://fileserver.idpc.net/library/UNGASS_5y_Review.pdf.
[43] A Scheibe, S Shelly and A Versfeld, Prohibitionist drug policy in South Africa – reasons and effects, *Revue internationale de politique de développement*, 12, 2020.
[44] African Union, African Union Plan of Action on Drug Control and Crime Prevention (2019–2023), STC-HPDC-3/EXP/SA24677, African Union, 2019, https://au.int/sites/default/files/newsevents/reports/36768-rp-aupa_on_drug_control_2019-2023_final_with_foreword_-_english_.pdf.
[45] WHO, Focus on key populations in national HIV strategic plans in the WHO African region, September 2018, p 48, Ahttp://apps.who.int/iris/bitstream/handle/10665/275494/WHO-AF-CDS-HIV-02.2018-eng.pdf?ua=1.
[46] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[47] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[48] Harm Reduction International, The global state of harm reduction 2020, 2020, https://www.hri.global/global-state-of-harm-reduction-2020; C Semá Baltazar et al., Prevalence of HIV, viral hepatitis B/C and tuberculosis and treatment outcomes among people who use drugs: Results from the implementation of the first drop-in-center in Mozambique, *International Journal of Drug Policy*, 90, 2021; Uganda Harm Reduction Network, Ugandan Ministry of Health, U.S. President's Emergency Plan for AIDS Relief (PEPFAR), Centers for Diease Control and Prevention (CDC) and Makerere University, The journey of medically assisted therapy in Uganda, https://ugandaharmreduction.org/wp-content/uploads/2021/02/Journey-of-Medically-Assisted-Therapy-in-Uganda.pdf; Avinash Tharoor, Uganda authorises needle-syringe programme to reduce HIV spread, Talking Drugs, 29 September 2017, https://www.talkingdrugs.org/uganda-authorises-needle-syringe-programme-to-reduce-hiv-spread.
[49] Mauritian Ministry of Health and Quality of Life, A respondent driven survey among people who inject drugs in the Island of Mauritius: Integrated biobehavioural surveillance, 2017, 2018, https://health.govmu.org/Documents/Main%20Page/New/IBBS%20Survey%20report%20for%20PWIDs%202017.pdf; J Stone et al., Modelling the impact of prevention and treatment interventions on HIV and hepatitis C virus transmission among people who inject drugs in Kenya, *medRxiv*, 2021; S Haji, et al., Progress in HIV prevention intervention uptakes among people who inject drugs in Ugunja Island, Zanzibar: analysis of bio-behavioral surveys in 2007, 2012 and 2019, 23rd International AIDS Conference, 2020, https://www.aids2020.org/wp-content/uploads/2020/09/AIDS2020_Abstracts.pdf.
[50] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003
[51] S Rolles et al., Ending the War on Drugs: How to win the global drug policy debate, Transform Drug Policy Foundation, 2015, https://transformdrugs.org/assets/files/PDFs/ending-the-war-on-drugs-2015.pdf.
[52] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[53] Z Donnenfeld, J Bello-Schunemann and L Welborn, Drug demand and use in Africa: Modelling trends to 2050, ENACT, 2019, https://enactafrica.org/research/research-papers/drug-demand-and-use-in-africa; J Eligh, The evolution of illicit drug markets and drug policy in Africa, Global Initiative Against Transnational Organized Crime, 2019, https://globalinitiative.net/analysis/the-evolution-of-illicit-drug-markets-and-drug-policy-in-africa; J Eligh, A synthetic age: The evolution of methamphetamine markets in eastern and southern Africa, GI-TOC, 2021, https://globalinitiative.net/analysis/the-evolution-of-illicit-drug-markets-and-drug-policy-in-africa/; and J Eligh, A shallow flood: The diffusion of heroin in eastern and southern Africa, GI-TOC, 2020, https://globalinitiative.net/analysis/heroin-east-southern-africa/.
[54] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003; J Eligh, A shallow flood: The diffusion of heroin in eastern and southern Africa, GI-TOC, 2020, https://globalinitiative.net/analysis/heroin-east-southern-africa/; and UNODC, Afghan opiate trafficking through the Southern Route, 2015, pp 1–132.
[55] J Eligh, A synthetic age: The evolution of methamphetamine markets in eastern and southern Africa, GI-TOC, 2021, https://globalinitiative.net/analysis/the-evolution-of-illicit-drug-markets-and-drug-policy-in-africa/.
[56] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[57] A Scheibe, Insights into the market value of heroin, cocaine and methamphetamine in six countries in southern and eastern Africa, Global Initiative Against Transnational Organized Crime, 2021.
[58] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[59] L Degenhardt et al., Global prevalence of injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: a multistage systematic review, *Lancet Global Health*, 5, 12, 2017, e1 192–1 207.
[60] Z Donnenfeld, J Bello-Schunemann and L Welborn, Drug demand and use in Africa: Modelling trends to 2050, ENACT, 2019, https://enactafrica.org/research/research-papers/drug-demand-and-use-in-africa.
[61] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003; Joint United Nations Programme on HIV/AIDS (UNAIDS), Do No Harm: Health, human rights and people who use drugs, 2016, http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=54015717&lang=tr&site=ehost-live; Stop TB Partnership, Key populations brief: People who use drugs, http://www.stoptb.org/assets/documents/resources/publications/acsm/kp_peopleusedrugs_spreads.pdf; L Degenhardt et al., Global prevalence of injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: a multistage systematic review, *Lancet Global Health*, 5, 12, 2017, e1 192–1 207; L Degenhardt et al., Estimating the burden of disease attributable to injecting drug use as a risk factor for HIV, hepatitis C, and hepatitis B: findings from the Global Burden of Disease Study 2013, *Lancet Infectious Diseases*, 16, 12, 2016, 1 385–1 398; A Gupta et al., Active case finding for tuberculosis among people who inject drugs on methadone treatment in Dar es Salaam, Tanzania, *International Union Against Tuberculosis and Lung Disease*, 18, 7, 2014, 793–798.
[62] Joint United Nations Programme on HIV/AIDS (UNAIDS), Do No Harm: Health, human rights and people who use drugs, 2016, http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=54015717&lang=tr&site=ehost-live.

[63] L Degenhardt et al., Global burden of disease attributable to illicit drug use and dependence: findings from the Global Burden of Disease Study 2010, *Lancet*, 382, 9 904, 2013, 1 564–1 574; L Degenhardt and W Hall, Extent of illicit drug use and dependence, and their contribution to the global burden of disease, *Lancet*, 379, 9 810, 2012, 55–70.
[64] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[65] Joint United Nations Programme on HIV/AIDS (UNAIDS), UNAIDS data 2019.
[66] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003
[67] Ibid.
[68] J Leung et al., A global meta-analysis of the prevalence of HIV, hepatitis C Virus, and hepatitis B virus among people who inject drugs – do gender-based differences vary by country-level indicators?, *Journal of Infectious Diseases*, 220, 1, 2019, 78–90.
[69] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[70] L Degenhardt et al., Global prevalence of injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: a multistage systematic review, *Lancet Global Health*, 5, 12, 2017, e1 192–1 207.
[71] CW Spearman et al., Hepatitis B in sub-Saharan Africa: strategies to achieve the 2030 elimination targets, *Lancet Gastroenterology Hepatology*, 2, 12, 2017, 2 121.
[72] K Mohd Hanafiah et al., Global epidemiology of hepatitis C virus infection: New estimates of age-specific antibody to HCV seroprevalence, *Hepatology*, 57, 4, 2013, 1 333–1 342.
[73] L Platt et al., Prevalence and burden of HCV co-infection in people living with HIV: A global systematic review and meta-analysis, *Lancet Infectious Diseases*, 16, 7, 2016, 797–808; CW Spearman et al., Hepatitis B in sub-Saharan Africa: strategies to achieve the 2030 elimination targets, *Lancet Gastroenterology Hepatology*, 2, 12, 2017, 2 121.
[74] Stop TB Partnership, Key populations brief: People who use drugs, http://www.stoptb.org/assets/documents/resources/publications/acsm/kp_peopleusedrugs_spreads.pdf.
[75] A Gupta et al., Active case finding for tuberculosis among people who inject drugs on methadone treatment in Dar es Salaam, Tanzania, *International Journal of Tuberculosis and Lung Disease*, 18, 793–798.
[76] C Semá Baltazar et al., Prevalence of HIV, viral hepatitis B/C and tuberculosis and treatment outcomes among people who use drugs: Results from the implementation of the first drop-in-center in Mozambique, *International Journal of Drug Policy*, 90, 2021.
[77] WHO, Global tuberculosis report, 2018, https://www.who.int/tb/publications/global_report/gtbr2018_main_text_28Feb2019.pdf.
[78] KeNPUD, Harm reduction in context of COVID-19 in Kenya, International Network on Health and Hepatitis in Substance Users, 2020; International Network on Health and Hepatitis in Substance Users, Harm reduction responses in the age of COVID-19: Documenting the experiences of people who use drugs in South Africa, March 2021, https://inhsu.org/wp-content/uploads/2021/03/Harm-Reduction-Responses-during-COVID-19_INHSU.pdf; E Wisse et al., COVID-19 and people who use drugs; seizing opportunity in times of chaos, *International Journal of Drug Policy*, 90, 2021, 103097; UNAIDS, Tanzanian community-based organizations support women who use drugs, 6 October 2020, https://www.unaids.org/en/resources/presscentre/featurestories/2020/october/20201005_tanzania-women-who-use-drugs.
[79] International Network on Health and Hepatitis in Substance Users, Harm reduction responses in the age of COVID-19: Documenting the experiences of people who use drugs in South Africa, March 2021, https://inhsu.org/wp-content/uploads/2021/03/Harm-Reduction-Responses-during-COVID-19_INHSU.pdf.
[80] KeNPUD, Harm reduction in context of COVID-19 in Kenya, International Network on Health and Hepatitis in Substance Users, 2020; Eurasian Harm Reduction Network, Harm reduction service delivery to people who use drugs during a public health emergency: Examples from the COVID-19 pandemic in selected countries, November 2020, https://harmreductioneurasia.org/wp-content/uploads/2021/01/covid-19-best-practices-eng.pdf.
[81] UNAIDS, Tanzanian community-based organizations support women who use drugs, 6 October 2020, https://www.unaids.org/en/resources/presscentre/featurestories/2020/october/20201005_tanzania-women-who-use-drugs.
[82] KeNPUD, Harm reduction in context of COVID-19 in Kenya, International Network on Health and Hepatitis in Substance Users, 2020; International Network on Health and Hepatitis in Substance Users, Harm reduction responses in the age of COVID-19: Documenting the experiences of people who use drugs in South Africa, March 2021, https://inhsu.org/wp-content/uploads/2021/03/Harm-Reduction-Responses-during-COVID-19_INHSU.pdf; Eurasian Harm Reduction Network, Harm reduction service delivery to people who use drugs during a public health emergency: Examples from the COVID-19 pandemic in selected countries, November 2020, https://harmreductioneurasia.org/wp-content/uploads/2021/01/covid-19-best-practices-eng.pdf.
[83] UNAIDS, Rights in the time of COVID-19 – Lessons from HIV for an effective, community-led response, 20 March 2020, pp 2–4, https://www.unaids.org/en/resources/documents/2020/human-rights-and-covid-19; WHO, Maintaining essential health services: operational guidance for the COVID-19 context, 1, 2020, pp 1–55; and United Nations on Drugs and Crime, COVID-19: HIV prevention, treatment, care and support for people who use drugs, 2020.
[84] WHO, Global health estimates 2019, Deaths by cause, age and sex, by World Bank income group, 2000–2019, 2020, https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates.
[85] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[86] A Bahji et al, Mortality among people with opioid use disorder: A systematic review and meta-analysis, *Journal of Addiction Medicine*, 14, 4, 2020, e118–32.
[87] Ibid.
[88] S Larney et al., A systematic review of injecting-related injury and disease among people who inject drugs, *Drug and Alcohol Dependence*, 171, 2017, 39–49.
[89] WHO, Global health estimates 2019, Deaths by cause, age and sex, by World Bank income group, 2000–2019, 2020, https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates.
[90] WHO, Global progress report on HIV, viral hepatitis and sexually transmitted infections, 53, 2021, pp 1 689–1 699.
[91] WHO, Global health estimates 2019, Deaths by cause, age and sex, by World Bank income group, 2000–2019, 2020, https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates.
[92] International Drug Policy Consortium, IDPC Drug Policy Guide, 3rd edition, 2016, http://fileserver.idpc.net/library/IDPC-drug-policy-guide_3-edition_FINAL.pdf.
[93] Ibid.
[94] International Centre on Human Rights and Drug Policy, UNAIDS and WHO, International guidelines on human rights and drug policy, 2019, pp 1993–1993.
[95] Ibid.
[96] European Monitoring Centre for Drugs and Drug Addiction, Balancing access to opioid substitution treatment with preventing the diversion of opioid substitution medications in Europe: Challenges and implications, 2021.

[97] Global Commission on Drug Policy, Position paper: Drug policy and the sustainable development agenda, 2018, https://www.globalcommissionondrugs.org/wp-content/uploads/2020/06/2018SDG_ENG_web.pdf.
[98] WHO, Global health estimates 2019, Deaths by cause, age and sex, by World Bank income group, 2000–2019, 2020, https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates; and Global Commission on Drug Policy, Position paper: Drug policy and the sustainable development agenda, 2018, https://www.globalcommissionondrugs.org/wp-content/uploads/2020/06/2018SDG_ENG_web.pdf.
[99] WHO, TDR, HRP, Alliance for Health Policy and Systems Research, Social determinants approaches to public health: from concept to practice, eds E Blas, J Sommerfeld and AS Kurup, 2011, https://www.who.int/social_determinants/tools/SD_Publichealth_eng.pdf.
[100] AJ Siegler, KA Komro and AC Wagenaar, Law everywhere: A causal framework for law and infectious disease, *Public Health Reports*, 135, 1_suppl, 2020, 25S–31S.
[101] M Nougier, A Cots Fernández and D Putri, Taking stock of half a decade of drug policy: An evaluation of UNGASS implementation, International Drug Policy Consortium, http://fileserver.idpc.net/library/UNGASS_5y_Review.pdf.
[102] J Csete, et al., Public health and international drug policy, *Lancet*, 387, 10 026, 2016, 1427–1480.
[103] WHO, TDR, HRP, Alliance for Health Policy and Systems Research, Social determinants approaches to public health: From concept to practice, eds E Blas, J Sommerfeld and AS Kurup, 2011, https://www.who.int/social_determinants/tools/SD_Publichealth_eng.pdf.
[104] R Wilkinson and M Marmot, The social determinants of health: The solid facts, WHO, 2003, https://www.euro.who.int/__data/assets/pdf_file/0005/98438/e81384.pdf; R Wilkinson, *The Impact of Inequality: How to Make Sick Societies Healthier*. New York: Routledge, 2005.
[105] United Nations on Drugs and Crime, Outcome document of the 2016 United Nations General Assembly Special Session on the World Drug Problem, 2016, https://www.unodc.org/documents/postungass2016/outcome/V1603301-E.pdf.
[106] C Monareng and M-G Loglo, '2020 Vision': Advocating for drug policy reform in Africa, International Drug Policy Consortium, 2020, pp 1–13.
[107] UNODC, World Drug Report 2021, 2020, pp 1–96, https://www.un-ilibrary.org/content/books/9789210606233c003.
[108] United Nations on Drugs and Crime, Outcome document of the 2016 United Nations General Assembly Special Session on the World Drug Problem, 2016, https://www.unodc.org/documents/postungass2016/outcome/V1603301-E.pdf.
[109] Transform Drug Policy Foundation, Count the costs: 50 years of the war on drugs, 2012, pp 1–16; Global Commission on Drug Policy, War on Drugs: Report of the Global Commission on Drug Policy, 2011, https://www.globalcommissionondrugs.org/reports/the-war-on-drugs.
[110] African Union, African Union Plan of Action on Drug Control and Crime Prevention (2019–2023), STC-HPDC-3/EXP/SA24677, African Union, 2019, https://au.int/sites/default/files/newsevents/reports/36768-rp-aupa_on_drug_control_2019-2023_final_with_foreword_-_english_.pdf.
[111] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[112] WHO, Global progress report on HIV, viral hepatitis and sexually transmitted infections, vol. 53, 2021, pp 1 689–1 699.
[113] UNAIDS, Global AIDS Strategy 2021–2026 – End inequalities, end AIDS, March 2021, https://www.unaids.org/en/resources/documents/2021/2021-2026-global-AIDS-strategy.
[114] E Single, Defining harm reduction, *Drug and Alcohol Review*, 14, 3, 1995, 287–90.
[115] UNODC, International Network of People Who Use Drugs, Joint United Nations Programme on HIV/AIDS, United Nations Development Programme, United Nations Population Fund, WHO, United States Agency for International Development, Implementing comprehensive HIV and HCV programmes with people who inject drugs: Practical guidance for collaborative interventions, UNODC, 2017, pp 1–175, https://www.unodc.org/documents/hiv-aids/publications/Implementing_Comprehensive_HIV_and_HCV_Programmes_with_People_Who_Inject_Drugs_PRACTICAL_GUIDANCE_FOR_COLLABORATIVE_INTERVENTIONS.pdf.
[116] RM Fernandes et al., Effectiveness of needle and syringe programmes in people who inject drugs – An overview of systematic reviews, *BMC Public Health*, 17, 1, 2017, 1–15.
[117] WHO, Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence, 2009, https://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf.
[118] L Platt et al., Needle syringe programmes and opioid substitution therapy for preventing hepatitis C transmission in people who inject drugs, *Cochrane Database of Systematic Reviews*, 9, 2017.
[119] WHO, Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence, 2009, https://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf.
[120] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[121] WHO, Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence, 2009, https://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf.
[122] UNODC, WHO and UNAIDS, HIV prevention, treatment, care and support for people who use stimulant drugs, 2019, https://www.unodc.org/documents/hiv-aids/publications/People_who_use_drugs/19-04568_HIV_Prevention_Guide_ebook.pdf.
[123] WHO, Community management of opioid overdose, 2014, pp 374–395, https://apps.who.int/iris/bitstream/handle/10665/137462/9789241548816_eng.pdf.
[124] K DeBeck et al., Police and public health partnerships: Evidence from the evaluation of Vancouver's supervised injection facility, *Substance Abuse, Treatment, and Prevention Policy*, 3, 1, 2008, 11.
[125] Medically Supervised Injecting Room Review Panel, Review of the Medically Supervised Injecting Room, Victoria Parliament, 2020, https://www2.health.vic.gov.au/about/publications/researchandreports/review-med-supervised-injecting-room-report.
[126] Harm Reduction International, The Global State of Harm Reduction 2020, 2020, https://www.hri.global/global-state-of-harm-reduction-2020; C Semá Baltazar, TA Kellogg, M Boothe, A Loarec, E de Abreu, M Condula et al., Prevalence of HIV, viral hepatitis B/C and tuberculosis and treatment outcomes among people who use drugs: Results from the implementation of the first drop-in-center in Mozambique, *International Journal of Drug Policy*, 90, 2021; Uganda Harm Reduction Network, Ugandan Ministry of Health, U.S. President's Emergency Plan for AIDS Relief (PEPFAR), Centers for Diease Control and Prevention (CDC) and Makerere University, The journey of medically assisted therapy in Uganda, https://ugandaharmreduction.org/wp-content/uploads/2021/02/Journey-of-Medically-Assisted-Therapy-in-Uganda.pdf.
[127] UNAIDS, Key Population Atlas.
[128] Ibid.
[129] MAS Boothe et al., Low engagement in HIV services and progress through the treatment cascade among key populations living with HIV in Mozambique: alarming gaps in knowledge of status, *BMC Public Health*, 21, 1, 2021, 1–8.

[130] University of California San Francisco, Anova Health Institute and National Institute for Communicable Diseases, Brief Report of the TipVal Study: An Integrated Bio-Behavioral Surveillance Survey among People who Inject Drugs, 2018; and AE Kurth, CM Cleland, DC Des Jarlais, H Musyoki, JA Lizcano, N Chhun et al., HIV prevalence, estimated incidence, and risk behaviors among people who inject drugs in Kenya, *Journal of Acquired Immune Deficiency Syndromes*, 70, 4, 2015, 420–7.
[131] S Haji, F Khalid, C Said, S Mohamd, A Khamis, A Othman et al., Progress in HIV prevention intervention uptakes among people who inject drugs in Ugunja Island, Zanzibar: analysis of bio-behavioral surveys in 2007, 2012 and 2019, 23rd International AIDS Conference, 2020, https://www.aids2020.org/wp-content/uploads/2020/09/AIDS2020_Abstracts.pdf.
[132] Mauritian Ministry of Health and Quality of Life, A respondent driven survey among people who inject drugs in the Island of Mauritius: Integrated biobehavioural surveillance, 2017, 2018, https://health.govmu.org/Documents/Main%20Page/New/IBBS%20Survey%20report%20for%20PWIDs%202017.pdf.
[133] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[134] WHO, Focus on Key populations in national HIV strategic plans in the WHO African region, September 2018, p 48, Ahttp://apps.who.int/iris/bitstream/handle/10665/275494/WHO-AF-CDS-HIV-02.2018-eng.pdf?ua=1.
[135] WHO, Access to hepatitis C testing and treatment for people who inject drugs and people in prisons — a global perspective: policy brief, 2019, https://apps.who.int/iris/handle/10665/312116.
[136] ML Ndeffo-Mbah, et al., Dynamic models of infectious disease transmission in prisons and the general population, *Epidemiologic Reviews*, 40, 1, 2018, 40–57; Stop TB Partnership, Key populations brief: People who use drugs, http://www.stoptb.org/assets/documents/resources/publications/acsm/kp_peopleusedrugs_spreads.pdf.
[137] Stop TB Partnership, Key populations brief: People who use drugs, http://www.stoptb.org/assets/documents/resources/publications/acsm/kp_peopleusedrugs_spreads.pdf; and International AIDS Society, Reducting harm: Police as partners in prevention HIV, promoting public health and protecting the human rights of people who use drugs: policy brief, IAS, 2019, https://www.iasociety.org/Web/WebContent/File/2019__IAS__Brief_Reducing_Harm.pdf.
[138] SE Collins, HS Lonczak and SL Clifase, Seattle's Law Enforcement Assisted Diversion (LEAD): Program effects on recidivism outcomes, *Evaluation and Program Planning* , 64, 2017, 49–56.
[139] ML Ndeffo-Mbah, et al., Dynamic Models of Infectious Disease Transmission in Prisons and the General Population, *Epidemiologic Reviews*, 40, 1, 2018, 40–57; J Csete et al., Public health and international drug policy, *Lancet*, 387, 10 026, 2016, 1 427–1 480; and J Csete, From the mountaintops: What the world can learn from drug policy change in Switzerland, Open Society Foundations, 2010, http://www.soros.org/initiatives/drugpolicy/articles_publications/publications/csete-mountaintops-20101021.
[140] H Sade, Drug decriminalisation in Portugal: setting the record straight, Transform Drug Policy Foundation, 2021, pp 1–4.
[141] Drug Policy Alliance, Approaches to decriminalizing drug use and possession, 2015.
[142] ML Ndeffo-Mbah, et al., Dynamic models of infectious disease transmission in prisons and the general population, *Epidemiologic Reviews*, 40, 1, 2018, 40–57.
[143] Mauritian Ministry of Health and Quality of Life, A respondent driven survey among people who inject drugs in the Island of Mauritius: Integrated biobehavioural surveillance, 2017, 2018, https://health.govmu.org/Documents/Main%20Page/New/IBBS%20Survey%20report%20for%20PWIDs%202017.pdf; A Versfeld, et al, Motivations, facilitators and barriers to accessing hepatitis C treatment among people who inject drugs in two South African cities: A qualitative study, *Harm Reduction Journal*, 17, 39, 2020; G Mburu et al., 'Who has ever loved a drug addict? It's a lie. They think a 'teja' is a bad person': Multiple stigmas faced by women who inject drugs in coastal Kenya, *Harm Reduction Journal*, 15, 1, 2018, 1–8; AIDS and Rights Alliance for Southern Africa, 'Don't treat us as outsiders' – Drug policy and the lived experiences of people who use drugs in Southern Africa, 2019, https://idpc.net/publications/2019/07/don-t-treat-us-as-outsiders, National Institute of Health of the Ministry of Health and the Ministry of Health (MISAU), The Integrated Biological and Behavioral Survey Among People Who Inject Drugs, Final Report, Mozambique, 2014, MISAU, 2014, https://globalhealthsciences.ucsf.edu/sites/globalhealthsciences.ucsf.edu/files/pub/pwid-final-report-20180329.pdf; Uganda Harm Reduction Network, Covid-19 situation analysis report for people who use drugs in Uganda, 2020; JM Hugo et al, Anova Health Institute's harm reduction initiatives for people who use drugs, *Sexual Health*, 15, 2, 2018, 176–178.
[144] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[145] Ibid.
[146] Ibid.
[147] European Centre for Disease Prevention and Control and European Monitoring Centre for Drugs and Drug Addiction, Prevention and control of infectious diseases among people who inject drugs: Guidance in brief, European Monitoring Centre for Drugs and Drug Addiction, 2011, pp 1–8.
[148] International AIDS Society, Reducing harm: Police as partners in prevention HIV, promoting public health and protecting the human rights of people who use drugs: policy brief, IAS, 2019, https://www.iasociety.org/Web/WebContent/File/2019__IAS__Brief_Reducing_Harm.pdf; European Centre for Disease Prevention and Control and European Monitoring Centre for Drugs and Drug Addiction, Prevention and control of infectious diseases among people who inject drugs: Guidance in brief, European Monitoring Centre for Drugs and Drug Addiction, 2011, pp 1–8.
[149] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124.
[150] UNODC, International Network of People Who Use Drugs, Joint United Nations Programme on HIV/AIDS, United Nations Development Programme, United Nations Population Fund, WHO, United States Agency for International Development, Implementing Comprehensive HIV and HCV Programmes with People Who Inject Drugs: Practical guidance for collaborative interventions, UNODC, 2017, pp 1–175, https://www.unodc.org/documents/hiv-aids/publications/Implementing_Comprehensive_HIV_and_HCV_Programmes_with_People_Who_Inject_Drugs_PRACTICAL_GUIDANCE_FOR_COLLABORATIVE_INTERVENTIONS.pdf.
[151] H Sade, Drug decriminalisation in Portugal: setting the record straight, Transform Drug Policy Foundation, 2021, pp 1–4.
[152] Transform Drug Policy Foundation, Blueprint for regulation, 2009.
[153] UNODC and WHO, Treatment and care for people with drug use disorders in contact with the criminal justice system: Alternatives to conviction or punishment, UNODC, 2019, https://www.unodc.org/documents/UNODC_WHO_Alternatives_to_Conviction_or_Punishment_2018.pdf.
[154] SE Collins, HS Lonczak and SL Clifase, Seattle's Law Enforcement Assisted Diversion (LEAD): Program effects on recidivism outcomes, *Evaluation and Program Planning*, 64, 2017, 49–56.
[155] UNAIDS, Key programmes to reduce stigma and discrimination and increase access to justice in national HIV responses: guidance note, 2012.
[156] WHO, HIV and young people who inject drugs: Technical guide, 2015, pp 1–34, http://www.inpud.net/UNAIDS_YKP_Briefs_PWID_2014.pdf.

[157] UNODC, UNWOMEN, WHO and International Network of People who Use Drugs, Women who inject drugs and HIV: Addressing specific needs Issue summary: the key reasons and unique challenges: policy brief, UNODC, 2014.
[158] Harm Reduction International and APCOM, Chemsex and harm reduction for gay men and other men who have sex with men. Briefing note, vol. 44, 2021.
[159] WHO, Universal Health Coverage: Fact sheet, 2021, https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc).
[160] UNODC, International Network of People Who Use Drugs, Joint United Nations Programme on HIV/AIDS, United Nations Development Programme, United Nations Population Fund, WHO, United States Agency for International Development, Implementing comprehensive HIV and HCV programmes with people who inject drugs: Practical guidance for collaborative interventions, UNODC, 2017, pp 1–175, https://www.unodc.org/documents/hiv-aids/publications/Implementing_Comprehensive_HIV_and_HCV_Programmes_with_People_Who_Inject_Drugs_PRACTICAL_GUIDANCE_FOR_COLLABORATIVE_INTERVENTIONS.pdf; UNODC and WHO, International standards for the treatment of drug use disorders, 2020.
[161] WHO, Maintaining essential health services: operational guidance for the COVID-19 context, vol. 1, 2020, pp 1–55.
[162] UNAIDS, Global AIDS Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS, 2017, http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf; UNODC, WHO and UNAIDS, Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users – 2012 Revision, 2012, https://www.who.int/publications/i/item/978924150437; WHO, Tool to set and monitor targets for HIV prevention, diagnosis treatment and care for key populations, 2015, http://apps.who.int/iris/bitstream/10665/177992/1/9789241508995_eng.pdf?ua=1&ua=1.
[163] WHO, Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016, https://www.who.int/publications-detail-redirect/9789241511124; and UNODC and WHO, International standards for the treatment of drug use disorders, 2020.
[164] UNAIDS, Key programmes to reduce stigma and discrimination and increase access to justice in national HIV responses: guidance note, 2012.
[165] UNODC, International Network of People Who Use Drugs, Joint United Nations Programme on HIV/AIDS, United Nations Development Programme, United Nations Population Fund, WHO, United States Agency for International Development, Implementing comprehensive HIV and HCV programmes with people who inject drugs: Practical guidance for collaborative interventions, UNODC, 2017, pp 1–175, https://www.unodc.org/documents/hiv-aids/publications/Implementing_Comprehensive_HIV_and_HCV_Programmes_with_People_Who_Inject_Drugs_PRACTICAL_GUIDANCE_FOR_COLLABORATIVE_INTERVENTIONS.pdf.

GLOBAL COMMISSION ON DRUG POLICY

GLOBAL INITIATIVE AGAINST TRANSNATIONAL ORGANIZED CRIME

The Eastern & Southern Africa Commission on Drugs

The Global Initiative Against Transnational Organized Crime
+27 61 451 9113
secretariat@esacd.org

ESACD
Eastern & Southern Africa Commission on Drugs