

## Drug trafficking, use, and HIV risk: The need for comprehensive interventions

Jessie Mbwambo, Sheryl A. McCurdy, Bronwyn Myers, Barrot Lambdin, Gad Paul Kilonzo, Pamela Kaduri

### Abstract

The rapid increase in communication and transportation between Africa and other continents as well as the erosion of social fabric attended by poverty, ethnic conflicts, and civil wars has led to increased trafficking and consumption of illicit drugs. Cannabis dominates illicit trade and accounts for as much as 40% of global interdiction. Due to escalating seizures in recent years, the illicit trade in heroin and cocaine has become a concern that has quickly spread from West Africa to include Eastern and Southern Africa in the past 10 years. All regions of Africa are characterized by the use of cannabis, reflecting its entrenched status all over Africa. Most alarming though is the use of heroin, which is now being injected frequently and threatens to reverse the gain made in the prevention of HIV/AIDS. The prevalence of HIV infection and other blood-borne diseases among injection drug users is five to six times that among the general population, calling for urgent intervention among this group. Programs that aim to reduce the drug trafficking in Africa and needle syringe programs as well as medication-assisted treatment (MAT) of heroin dependence while still in their infancy in Africa show promise and need to be scaled up.

**Keywords:** drug trafficking, drug use, HIV risk, comprehensive interventions, Africa

### Résumé

Le rapide développement des moyens de transport et de communication entre l'Afrique et les autres continents aussi bien que l'érosion du tissu social appuyé par la pauvreté, les conflits ethnique et les guerres civiles a conduit à l'augmentation du trafic et de la consommation des drogues illicites. Le cannabis domine le commerce illicite et représente autant que 40 % d'interdiction mondiale. En raison de l'intensification des saisies ces dernières années, le commerce illicite de l'héroïne et de la cocaïne est devenu une préoccupation qui s'est rapidement étendue de l'Afrique occidentale pour inclure l'Afrique Orientale et Australe

**Jessie Mbwambo, MD**, is a Psychiatrist and the Program Coordinator for the Tanzania AIDS Prevention Program that also houses the Methadone Assisted Treatment program in Dar es Salaam, Tanzania. She has worked with Dr McCurdy in the Community component of the TAPP program as well as researched with the University of Texas School of Public Health in a National Institute of Drug Abuse research program of Young Injectors in Dar es Salaam. For the last 20 years, she has been working in the area of HIV infections and more recently has focused her work on and is working with people who use/inject drugs and is one of the persons instrumental in setting the first public methadone clinic in mainland sub-Saharan Africa. She is a core member of the International Reference groups to the UN on HIV and injection drug use.

**Sheryl A. McCurdy, PhD**, is Associate Professor at the University of Texas School of Public Health. She has conducted National Institute on Drug Abuse and Social Science Research Council/American Council of Learned Societies-funded research as well as CDC HIV Prevention programming for heroin users in Tanzania. For the last 25 years, her work has focused primarily on health and gender issues in Tanzania. Her publications are in public health, medicine, history, and African Studies journals and books. Dr McCurdy is co-editor and contributor to 'Wicked' Women and the Reconfiguration of Gender in Africa. She is on the editorial board of the Journal of Sexually Transmitted Diseases and is currently serving on the Board of the African Studies Association.

**Bronwyn Myers, PhD**, is Chief Specialist Scientist in the Alcohol and Drug Abuse Research Unit at the South African Medical Research Council, where she heads the treatment and other interventions research sub-stream, and is an honorary Associate Professor at the University of Cape Town's Department of Psychiatry and Mental Health. She is a core member of the International Reference group to the UN on HIV and injection drug use and has acted as a technical expert to the WHO on substance abuse treatment services. Dr Myers has more than 10 years of research experience in behavioral interventions for substance use including substance-related risk for HIV and health systems research and has published prolifically on the topic of substance use and HIV and particularly on substance abuse treatment services research in Africa.

**Barrot Lambdin, PhD, MPH**, is Director of Implementation Science at Pangaea Global AIDS Foundation and is Affiliate Assistant Professor with the Department of Global Health at the University of Washington. Dr Lambdin's research has focused on identifying bottlenecks and solutions to the implementation of proven interventions for HIV prevention and treatment. He has been involved with initiatives looking at the impact of integrating HIV services into primary health care, health workforce shortages, mapping patient flow, and strengthening management to support integration in Mozambique. Currently, Dr Lambdin is leading implementation science efforts with methadone and outreach services for people who inject drugs in Tanzania and scale-up of HIV testing and linkage into HIV treatment for men who have sex with men in China.

**Gad Paul Kilonzo, BA, MBChB, MMed (Internal Medicine) FRCP(c), MD**, is Professor of Psychiatry at the Muhimbili University of Health and Allied Sciences, working in the area of substance abuse prevention and treatment for the last 20 years. He was awarded the Serge Sotiroff Memorial Award, UN International Drug Control Programme.

**Pamela Kaduri, MD, MMed**, is a postdoctoral fellow with the SAMI/CIHR program and a clinical fellow registered with the Department of Psychiatry, University of Toronto. She is also with the Addictions Program at the Centre for Addiction and Mental Health. She obtained her MD and MMed (Psychiatry) from Muhimbili University of Health and Allied Sciences, Tanzania. She has been involved in teaching, research, policy development, and clinical support on areas of substance use and mental health. She was involved in the development of guideline documents for work on interventions on injection drug use and HIV in Tanzania, which led to the initiation of MAT pilot project. Other areas of interest include integration of research into practice and policy, as well as public health aspects of addiction and mental health.

Correspondence to: jmbwambo@gmail.com

dans les dix ans passés. Toutes les régions de l'Afrique sont caractérisées par l'utilisation du cannabis, reflétant son statut de retranchement dans l'Afrique entière. Le plus alarmant pourtant, c'est l'utilisation de l'héroïne qui est maintenant fréquemment injectée et qui menace de renverser le gain les avantages déjà enregistrés dans la prévention du VIH/SIDA. La prévalence de l'infection au VIH et d'autres maladies transmises par voie sanguine parmi les utilisateurs des drogues par injection est 5 à 6 fois celui de la population en générale; ceci appelle à l'intervention urgente parmi ce groupe. Les programmes qui visent à réduire le trafic de drogue en Afrique, des programmes de seringue d'aiguille à usage unique aussi bien que la médication ont aidé le traitement de dépendance d'héroïne. Ces programmes, encore jeunes dans le continent, sont promettant et ont besoin d'être passés à l'échelle.

*Mots clés: trafic de drogue, utilisation de drogue, le risque de VIH, interventions complète, Afrique*

## Introduction

Concern over drug trafficking and abuse in Africa is a recent phenomenon. A radical change appears to have taken place about 40 years ago when trafficking and abuse crept into the mainstream society, and there has been a dramatic acceleration of these trends during the past 30 years. Concern regarding abuse of drugs such as heroin and cocaine is even more recent, starting about 25 years ago in some countries and escalating to involve more countries in the past 10 years.

There is also consensus of opinion that these changes in drug abuse have been preceded and are accompanied by a gradual shift in trafficking routes as well as gradual and inexorable erosion of traditional social fabric and values. Social disintegration is accelerating under the adverse influences of growing 'poverty, civil war, tribal conflicts, droughts and other natural catastrophes (which leads) to famine and massive displacement of populations, creating a situation in which drug abuse worsens rapidly' (International Narcotics Control Board 1994).

However, with these realities, there is a limited scope of intervention activities addressing both drug trafficking and drug abuse, highlighting the imperative for comprehensive interventions at all levels in affected countries.

## Drug trafficking in Africa

Cannabis production, the domestic market, and intraregional trafficking of cannabis herb dominate the African illicit drug trade (United Nations Office on Drugs and Crime 2011). African countries account for the highest levels of cannabis production in the world and 25% of the world supply (United Nations Office on Drugs and Crime 2007). Cannabis herb that leaves the continent is primarily destined for Europe. In Africa, Morocco dominates the production and trafficking of cannabis resin primarily destined for North Africa and the Middle East (United Nations Office on Drugs and Crime 2007, 2011).

West Africa was a transit site for heroin trafficking as early as the 1950s, when Lebanese smuggled Near East heroin from Beirut through Kano, Nigeria and Accra, Ghana, to New York City (Akyeampong 2005; Ellis 2009). Nigerians and Ghanaian traffickers joined the global movement of illicit substances during the 1960s when they began exporting cannabis to Europe. During the early 1980s, they added cocaine and heroin to their repertoire (Ellis 2009). Nigerians dominated the trade and during the 1980s

brought heroin from Pakistan to Nigeria, where it was repackaged and sent to the USA (Drug Enforcement Administration 2001; Shaw 2002).

Nigerian traffickers set up bases in Benin, Ivory Coast, Liberia, and South Africa during the early 1990s. By the late 1990s, Nigerian crime syndicates dominated the retail market in Moscow and controlled 80% of the North American heroin trade coming from Southeast Asia (Ellis 2009). The bulk trade in heroin in large containers moved by air and sea, layered on top of the courier system, was first detected in 1993 when Nigerian authorities arrested a Nigerian for transporting 250 kg from a Thailand home.

Of the approximately 470 metric tons of heroin trafficked globally in 2009, the United Nations Office on Drugs and Crime (2011) estimates that 375 tons, or 80%, reached consumers. Authorities believe that during that year traffickers moved 40–45 tons of Afghan heroin into Africa. Twenty-five tons were likely trafficked from Pakistan, 5–6 tons from the United Arab Emirates, 5–6 tons from India, and 5 tons from the Islamic Republic of Iran. By 2009, the major transportation hubs in Africa dominated by the West African crime syndicates were Kenya, Tanzania, Nigeria, and South Africa (Harrigan 2009). In 2009, the global trade in heroin earned US\$61 billion with criminal syndicates earning the greatest profits; it is estimated that in the same year Africa's heroin trafficking market was worth an estimated US\$3.2 billion (United Nations Office on Drugs and Crime 2011). According to the United Nations Office on Drugs and Crime (UNODC), between 2005 and 2007, trafficking of heroin escalated exponentially, and in 2009, an estimated 34 tons of heroin was consumed in Africa, highlighting that the region has established itself as a destination for heroin and not just as a thoroughfare.

During the mid-1980s, drug traffickers started using East African countries as their transit sites. One of the first seizures was during 1985 at Nairobi's Jomo Kenyatta International Airport (<http://goinghome.com>, 2012). East Africa became part of a second drug networking system in Africa that was also dominated by Nigerians, but increasingly Kenyans and Tanzanians became implicated in the trade.

By the late 1990s, there were reports that traffickers moved cocaine in commercial containers from Colombia to West Africa. Between 2000 and 2008, authorities detected cocaine cargoes of 2.3–7.5 tons near Benin, the Canary Islands, Ghana, Guinea-Bissau, Liberia, Mauritania, Senegal, and Sierra Leone

(Ellis 2009). Once cocaine arrives by ship and air to West Africa, it is trafficked across the Sahara to Europe. Estimates from 2009 suggested that 35 tons of cocaine left South America for Africa, but only 21 tons actually arrived in Europe. It is thought that West Africans consumed the remaining 14 tons of cocaine. Authorities suggest that West African cocaine traffickers' income, including US\$4 billion from West African customers, was between US\$1.8 and US\$2.8 billion in 2009 (United Nations Office on Drugs and Crime 2011).

Long-term trends show that cocaine and heroin seizures almost doubled in the decade between 1998 and 2009, while seizures of amphetamine-type stimulants (ATS) more than tripled. Approximately one half of the ATS seized in Africa was amphetamine (United Nations Office on Drugs and Crime 2011). Trafficking of methamphetamine from Africa was reported first at the end of 2008 with methamphetamine seizures being reported in Nigeria and South Africa. While seizures increased, so did the manufacture and trafficking of methamphetamine from countries in West Africa, particularly Nigeria, to East and Southeast Asia, demonstrating new trends in production, movement, and consumption of methamphetamine.

The Drug Enforcement Administration reports that since 2006, intelligence has been indicating that sub-Saharan Africa has become a major transshipment location for methamphetamine precursor chemicals destined for the Americas (Harrigan 2009). By at least 2008, the drug itself was being trafficked from Southern Africa to East Asia, and seizures of African origin methamphetamine more than tripled in 2009 (Ellis 2009).

Seizure of methaqualone in Africa was at 99% of the global total for the drug in 2009. It is a drug predominantly traded and used in South Africa. Due to dearth in information, it is difficult to establish where else the drug is traded. Additionally, while khat is cultivated in many East African countries, it is not under international control, but some countries have legislation that does not allow its cultivation and trafficking (United Nations Office on Drugs and Crime 2011).

## Drug use in Africa

Cannabis, methaqualone, and khat are substances of abuse that are entrenched in the region. Cannabis is the drug that dominates treatment demand, accounting for 64% of the drug-using population in Africa (United Nations Office on Drugs and Crime 2011). The estimated numbers of past-year users aged 15–64 years in East Africa ranged between 21,630,000 and 59,140,000 for cannabis, from 150,000 to 1,790,000 for opioids, and from 140,000 to 1,300,000 for opiates, with minimal or no use for cocaine, amphetamines, and ecstasy (United Nations Office on Drugs and Crime 2011). In Southern Africa, the estimated numbers of past-year users are 3,130,000–7,810,000 for cannabis, 240,000–320,000 for opioids, 210,000–230,000 for opiates, 270,000–730,000 for cocaine, 280,000–780,000 for amphetamines, and 180,000–300,000 for ecstasy (United Nations Office on Drugs and Crime 2011). Although the numbers of amphetamines users in Africa are estimated at 1,180,000–8,150,000; most of these numbers are reflected from Southern Africa (Degenhardt & Hall 2012).

The UNODC also estimates the annual cannabis use prevalence rates to be 2.9% for Comoros, 2.1% for Kenya, 9.1% for Madagascar, 3.9% for Mauritius, 2.5% for Somalia, 3.9% for Namibia, 4.3% for South Africa, 9.5% for Zambia, and 6.9% for Zimbabwe (United Nations Office on Drugs and Crime 2011).

With regard to East Africa specifically, the overall prevalence rate of cannabis use in East Africa is estimated to be 1.7–6.5% for the population (United Nations Office on Drugs and Crime 2011). The annual drug use prevalence rate and the estimated number of opiate users for East Africa are 0.1–1.0% for the population aged 15–64 years (United Nations Office on Drugs and Crime 2011). More specifically, for this region, the annual prevalence rate of the use of opiates in Kenya is 0.73%. In Mauritius, it is 1.9% for opiates and the corresponding figures are 0.14% for Rwanda, 0.16% for Somalia, and 0.06% for Uganda. Mauritius has a prevalence rate of 1.04% for non-medical use of prescription opiates (United Nations Office on Drugs and Crime 2011). Kenya is the main country in East Africa where cocaine features with a prevalence rate of 1.2% (United Nations Office on Drugs and Crime 2011).

For most countries in Southern Africa, cannabis is the primary drug of abuse (with the population prevalence rate estimated at 3.9–9.8%), and relatively little is known about the use of drugs that have the potential to be injected such as opiates, cocaine, and ATS (United Nations Office on Drugs and Crime 2011; World Health Organization 2011). While the regional prevalence rate for opiate use is estimated to be 0.1% for the population (United Nations Office on Drugs and Crime 2011), the use of ATS seems largely limited to Southern Africa, with amphetamine-related problems being reported in South Africa, Zambia, and Zimbabwe (United Nations Office on Drugs and Crime 2011). There are some questions about the validity of the current national estimates for both opiate and ATS use.

An exception to this is South Africa, which arguably has one of the most entrenched drug economies in the region, and illicit drug use is therefore subject to continuous monitoring and investigation. Since South Africa's transition to democracy in 1994 and subsequent opening of the country's borders, there has been an influx of and a growing burden of harm associated with illicit drug use. In terms of population-level prevalence for illicit drug use, the prevalence rate of opiate use is estimated at 0.1%, cocaine use at 0.3%, ATS at 0.2%, and opiates such as heroin at 0.1% for the population aged 15–49 years (Shisana, Rehle, Simbayi, Parker, Zuma, Bhana, et al. 2005). In addition, a recent nationally representative survey reported that at least 13% of the general population met DSM-IV criteria for a lifetime substance use disorder (Herman, Stein, Seedat, Heeringa, Moomal & Williams 2009). As this survey only included South African citizens and did not include refugees and other undocumented persons, it is possible that these estimates under-represent the true prevalence of substance use disorders in the country.

However, when regional patterns of illicit drug use are considered, a more disturbing picture emerges. Illicit drug use appears to be concentrated in the large urban centers of the country, with many of the rural provinces still largely unaffected by the use of

illicit drugs that have the potential to be injected (Dada, Plüddemann, Parry, Bhana, Vawda & Fourie 2011; Herman et al. 2009; Reddy, James, Sewpaul, Koopman, Funani, Sifunda, et al. 2010). Notably within the large urban centers of the country, the use of illicit drugs that have the potential to be injected (such as cocaine, heroin, and ATS) appears to be on the rise (Dada et al. 2011; Parry, Plüddemann & Myers 2007).

## Drug-related harm and interventions

Evidence that the use of drugs with the potential to be injected is on the rise in parts of Africa may have profound implications for the course of HIV (Dahoma, Salim, Abdool, Othman, Makame, Ali, et al. 2006; McCurdy, Williams, Kilonzo, Ross & Leshabari 2005). Although injection drug use is relatively uncommon in Africa, there is potential for rapid transition from non-injection to injection drug use to occur. Should this occur, it would have major implications for the spread of HIV, given that several studies have already noted high levels of risky injection practices such as needle-sharing and poor needle disposal practices among people who inject drugs (Dahoma et al. 2006; Dos Santos, Trautmann & Kools 2011; McCurdy et al. 2005; Needle, Kroeger, Belani, Achrelkar, Pafry & Dewing 2008; Plüddemann, Parry, Flisher & Jordaan 2008). Apart from the contribution that unsafe needle use may make to HIV transmission in the country, there is also evidence indicating that illicit drug use contributes to the transmission of HIV through unsafe sexual practices. Research has shown that the use of drugs is an indirect driver of the HIV epidemic through the contribution of drugs to sexual risk-taking behaviors such as early sexual debut, inconsistent condom use, and multiple sexual partners (McCurdy et al. 2005; Parry, Plüddemann, Myers, Wechsberg & Flisher 2011). Further, people who use drugs may engage in sex trading in exchange for drugs or money to buy drugs, which is also associated with a broad range of sexual risk-taking behaviors (Browne & Wechsberg 2010; Floyd, Hedden, Lawson, Salama, Moleko & Latimer, 2010). In addition, there is evidence that drug use increases risk for intimate partner violence (Jewkes, Levin & Penn-Kekana 2002), which in itself is an independent risk factor for HIV (Jewkes, Dunkle, Nduna & Shai 2010). From these findings, it is clear that failure to address drug use and associated risk behaviors may have negative implications for efforts to prevent new HIV infections in the region.

Despite evidence on the links between illicit drug use and HIV risk in most countries in Africa where data are available, people who use drugs have been a neglected population in terms of HIV prevention and treatment efforts. Most HIV risk reduction interventions for people who use drugs are not provided at a huge scale, thus not making an impact on HIV incidence. By and large, the focus of HIV preventative work has been on reducing risk among the general population through HIV awareness and testing campaigns, prevention of mother-to-child transmission, provision of condoms, and improvement of access to antiretroviral medication. At present, there are few specialty HIV services available for people who use drugs. Harm reduction services that serve to limit the risk of new infections among people who use drugs are generally frowned upon and are rarely provided

within specialty drug treatment services (Myers 2010), and there is still debate at a policy level about whether these services are needed or appropriate (Parry & Myers 2011).

Specifically, despite their ability to reduce HIV among people who inject drugs, there are only a handful of dedicated needle and syringe exchange programs available in the region. In addition, with the exception of Mauritius and the pilot MAT program in Tanzania, in other countries, for example, South Africa, MAT is only readily available in the private medical or drug treatment sector where high costs make the life-saving medications largely inaccessible (Myers 2010; Petersen, Plüddemann, van Hout, Parry & Myers 2012).

The continued failure to provide people who use drugs with targeted HIV prevention and treatment efforts is worrisome as this could have a deleterious effect on efforts to curtail the HIV epidemic in Africa. To address this situation, better data on the prevalence of illicit drug use and associations with HIV must be routinely collected. Such data would serve as a powerful advocacy tool for the introduction and scaling up of harm reduction services (including interventions to reduce sexual risk-taking) for people who use drugs and may help facilitate the introduction and scaling up of evidence-based HIV services for people who use drugs.

## Interventions for drug trafficking and use

Overall efforts to address drug problems typically intend to disrupt either the supply side or the demand side of the issue. With regard to supply reduction, international effort at interdiction of drug trafficking is one of the interventions used to reduce drug trafficking and the supply of drugs. However, the African continent is vast with areas that have poor infrastructure and are thus difficult to man. In addition, the newer trafficking routes often avoid known maritime monitoring routes and focus on trafficking through remote, sparsely populated areas, such as the Sahel; in these areas, law enforcement intelligence and monitoring may be missing (Wyler & Cook 2010). The failure to interdict drug traffickers is also a result of a lack of manpower, technology, and financial resources (Wyler & Cook 2010). Corruption also serves as a serious threat to the reduction in drug trafficking.

Drug trafficking interventions need to specifically focus on staff to include training maritime, law enforcement, anti-corruption, financial, immigration, and customs staff at ports of both entry and exit. In addition, financial support needs to be secured to procure equipment for navigation, communication, and day-and-night-time radar surveillance through the use of vision systems, cars, aircraft, and boats. However, interventions only targeting the supply side will have limited impact on isolation.

To that end, interventions targeting demand and harm reduction in the form of evidence-based treatment, including MAT for opiate dependence and other forms of pharmacotherapy, are vitally important to address drug use more broadly. For over 50 years, MAT has been shown to be a proven strategy which

stabilizes clients who are addicted to opiates and restores them to a better quality of life (Dole, Nyswander & Kreek, 1966). MAT has also been shown to reduce illicit opioid use, injecting use, sharing of injecting equipment, percentage reporting multiple sex partners, exchanges of sex for drugs or money, and reductions in HIV cases (Gowing, Farrell, Bornemann, Sullivan & Ali, 2011). Reducing demand for drugs through evidence-based treatment and MAT is one of the nine evidence-based interventions that form a 'comprehensive package' of interventions for the prevention, treatment, and care of HIV among people who inject drugs as endorsed by WHO, UNAIDS, and UNODC (World Health Organization 2009). The other eight interventions include the following: (1) the provision of needle and syringe programs (NSPs) to people who inject drugs (World Health Organization 2005a, 2005b); (2) HIV testing and counseling (HTC) (World Health Organization 2004); (3) antiretroviral therapy (ART) for those who are HIV infected (World Health Organization 2005a, 2005b); (4) prevention and treatment of sexually transmitted infections (World Health Organization 2007); (5) condom distribution programs for people who use drugs and their sexual partners (World Health Organization 2004); (6) targeted HIV prevention and treatment information, education, and communication (IEC) for people who inject drugs and their sexual partners (World Health Organization 2004); (7) vaccination, diagnosis, and treatment of viral hepatitis (World Health Organization 2007); and (8) prevention, diagnosis, and treatment of tuberculosis (World Health Organization 2008). In addition to these nine interventions, establishing drug and alcohol rehabilitation centers and building a supportive environment for support groups as well as 12-step and livelihood programs are essential for the long-term stability of drug-using populations. Some of these interventions (such as HTC; provision of ART for those who are HIV infected; treatment of sexually transmitted infections; condom distribution programs for people who use drugs and their sexual partners; and targeted HIV prevention and treatment IEC for people who inject drugs and their sexual partners) are available in several African countries. However, for the most part, as the HIV epidemic remains a generalized epidemic, these prevention and treatment services tend to target the general population rather than people who use drugs specifically (Myers 2012). Due to high levels of stigma, people who use drugs may not feel and may not be welcomed by these generic health services, and this may impact on the degree to which these services are utilized. One strategy for addressing this gap in African countries with limited resources would be to consider expanding existing HIV prevention and treatment services for other most-at-risk populations (MARPs) to include services for people who use drugs (Myers 2012). Surveys of MARPs in Africa have consistently found overlaps between various MARPs including men who have sex with men, sex workers, and people who use drugs (Johnston, Holman, Dahoma, Miller, Kim, Mussa, et al. 2010; Parry, Petersen, Carney, Dewing & Needle 2008). Often organizations serving these MARPs are located in highly accessible areas and already provide preventative health services (typically related to sexual health or blood-borne virus testing) to their clients. Given that some of their clientele will be using drugs, they may be willing to expand their target population to include people who use drugs specifically and adapt their services to meet the

intervention needs of people who use drugs (Myers 2012). In contexts where resources for harm reduction services are limited, this may be an efficient and acceptable way of providing targeted services for people who use drugs.

In contrast, other core HIV prevention services for people who use drugs are largely unavailable in the African context. Specifically, needle and syringe exchange programs and MAT remain difficult to access for the large majority of people who use opiates despite overwhelming evidence from multiple systematic reviews that these services reduce HIV transmission and improve quality of life for people who inject drugs (Cross, Saunders & Bartelli 1998; Gowing, Farrell, Bornemann, Sullivan & Ali 2008; Tilson, Aramrattana & Bozzette 2007). In some African countries, laws that prohibit the distribution of syringes still exist, which prevents NSPs from moving beyond the pilot phase. Similarly, policy-makers' apathy toward drug users and their failure to grasp how investing in NSPs and effective treatment for opiate dependence will benefit not only drug users but also the general public through reducing risks of HIV transmission hamper the provision of these services. To move beyond this stalemate, a strong advocacy and drug user network that will continue to argue for greater access to effective medications for opiate dependence is needed in Africa. Outreach services can also be initiated through community-based organizations utilizing traditional outreach workers (i.e. non-drug-using social workers or health professionals or para-professionals), storefront drop-in centers, providing IEC for HIV risk reduction, needle and syringe exchange, needle- and syringe-cleaning kits, 12-step programs, counseling services for individuals, families, and groups, mobile units offering HTC and comprehensive medical services offered through the Ministry of Health facilities including MAT, and referrals to HIV care and treatment; TB diagnosis, care, and treatment; hepatitis C virus diagnosis, care, and treatment; diagnosis and treatment for STIs and other co-morbidities, etc.

## Way forward

We have reached a pivotal point in addressing drug-related issues in Africa. As has been discussed, drug trafficking and use have dramatically increased in regions of sub-Saharan Africa, which also face a high burden of HIV. Governments, international agencies, and program implementers must rise to the occasion and address these intersecting issues as they not only have a deleterious impact on the health and well-being of people who use drugs, but also negatively impact on efforts to curtail the generalized HIV epidemics present in many countries in this region.

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