**RESEARCH PAPER**

# Drug demand and use in Africa

## Modelling trends to 2050

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## Summary

Mitigating the production, transportation and consumption of illicit substances remains a high priority for policymakers globally, although the manifestation of the problem varies considerably across countries. These disparate concerns are united by the element of transnational organised crime, which is central to the global drug market. This report explores a forecast of drug demand in sub-Saharan Africa from 2018 to 2050 and highlights two significant regions – East Africa, which is expected to experience the sharpest increase in the proportion of its population using illicit drugs, and West Africa, which is set to remain the continent's largest regional drug market.

## Key points

- The modelling done for this paper projects that by 2050 there will be about 14 million more people using drugs in sub-Saharan Africa. This figure represents the most substantial increase in the absolute number of drug users in any region in the world.
- West and East Africa are becoming more important to the global distribution of drugs.
- In the past few decades alone, the number of people in West Africa who use illegal drugs or prescription opioids for non-medical purpose is estimated to have more than tripled.
- East Africa is projected to experience the sharpest increase in the share of its population using illicit drugs.
- While the challenges around law enforcement are relatively well understood, the strain that increased drug use places on public health systems is underappreciated.

# Methodology and scope of the report

In its *World Drug Report 2012*, the only publication by the United Nations Office on Drugs and Crime (UNODC) to offer a forecast of drug use, UNODC presented a comprehensive and detailed analysis of global drug use, along with a projection of global drug demand up to 2100.

According to UNODC, the methodology 'most likely to materialise and have a direct bearing on illicit drug use – can be derived from demographic projections'.[1] The *World Drug Report 2012* projects global drug use by starting with a regional average prevalence rate in 2012, which then converges towards a global prevalence rate of 5% over time.[2]

While this report does not dispute the validity of demographic forecasts, it strives to move beyond a forecast of drug use rooted in the assumption of a homogeneous regional prevalence rate, eventual global prevalence rate and a medium-variant global population projection.

Using the International Futures (IFs) modelling platform, developed and housed at the Frederick S. Pardee Center for International Futures at the Josef Korbel School of International Studies at the University of Denver, this report expands on UNODC's methodology in several ways. Firstly, demographic factors are supplemented by the socio-economic drivers of drug demand derived from both the literature and the statistical analysis undertaken at the Pardee Center.

Secondly, to help compensate for the dearth of available data on drug consumption, the IFs drug demand model complements its estimates of drug use with data on medical treatment for problems associated with drug abuse from the Institute for Health Metrics and Evaluation (IHME), which gathers and publishes data on drug prevalence in 186 countries.

Thus, the IFs drug demand model forecast draws on a large dataset which has greater spatial and temporal coverage than that used by UNODC for its 2012 forecasts.

Finally, the model incorporates recent data from the first comprehensive national drug use survey in Nigeria, conducted by Nigeria's National Bureau of Statistics and the Centre for Research and Information on Substance Abuse, with technical support from UNODC (see Annexure).[3]

The result is a forecast of drug use that uses a more comprehensive set of driving variables or correlations and is initialised from a dataset with better historical coverage than other currently available projections. The forecast presented in this paper, therefore, helps to paint a more nuanced picture of the way drug use may unfold in sub-Saharan Africa.

## Box 1: The International Futures (IFs) Model

IFs is a global modelling platform that integrates a large number of data series across a wide range of development systems including agriculture, economics, education, energy, the environment, infrastructure, health, governance, technology and international politics. In addition, the model has a repository of more than 4 000 data series for 186 countries and can forecast hundreds of variables to 2100.

IFs is an integrated assessment model, using multiple techniques such as econometric modelling, computer-generated equilibrium models and social accounting matrices to produce forecasts.

The tool allows users to undertake three types of analysis. Firstly, they can explore historical trends and the relationships among development systems to gain a better understanding of how a country or region has progressed over time. Secondly, these relationships are formalised within the model to produce an integrated Current Path scenario that helps users understand where a country or region seems to be heading in current circumstances and barring major shocks to the global system. Thirdly, IFs allows for scenario analyses to augment the Current Path scenario by exploring the leverage policymakers may have to push different systems to achieve more desirable outcomes.[4]

## Definitions

This research recognises that there is a dearth of scientific and legal clarity about what exactly constitutes 'drug abuse'. In this paper, we use the relatively neutral terms 'drug use', 'prevalence' or 'consumption' and also use the terms 'substance' and 'drug' more or less interchangeably.

The projections set forth in this paper represent estimates of drug use or consumption and not the level

of production or trafficking in a given region, although there may be a correlation in some instances.

The model projects demand for both *illegal* drugs and the non-medical use of prescription opioids, both referred to as 'drug use' (Box 2). Illegal drugs include amphetamines, cocaine and opiates.

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### Box 2: Drug types[5]

Amphetamines and amphetamine-type stimulants: a group of substances composed of synthetic stimulants controlled under the Convention on Psychotropic Substances of 1971 and form the group of substances called amphetamines, which includes amphetamine, methamphetamine, methcathinone and the 'ecstasy'-group substances and their analogues.

Cocaine: an addictive drug derived from coca or prepared synthetically, used as a stimulant and sometimes, medicinally, as a local anaesthetic.

Opioids: a generic term applied to alkaloids from the opium poppy (opiates) and their synthetic analogues (mainly prescription or pharmaceutical opioids).

Opiates: a subset of opioids, comprising the various products derived from the opium poppy plant, including opium, morphine and heroin.

Prescription/pharmaceutical opioids: a subset of opioids referring to their synthetic analogues, such as fentanyl, and pain relievers available legally by prescription, such as oxycodone, hydrocodone, codeine, morphine, tramadol and many others.

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As this paper is primarily concerned with the harm caused by illicit drug use, it focuses mainly on 'problem users' who may suffer direct health consequences from the use of illicit drugs and whose families and communities might suffer from broader negative effects. The forecast, therefore, explicitly excludes users of cannabis, in part because there is a lack of medical consensus about its harm and, more practically, because some African states, among them Ghana and South Africa, are experimenting with decriminalising and/or legalising the substance.[6]

Drug consumption is measured by the number of people using drugs (illegal drugs or prescription opioids for non-medical purpose) as well as the share of the total population which uses drugs in a given year (the annual prevalence rate).[7] It is therefore taken to reflect drug demand.

## Data issues and other limitations

As the authors of the paper 'Finding a foothold – assessing forecastability in transnational organised crime' state: 'The obstacles associated with modelling any phenomenon that operates outside the regulated economy and away from official surveys and censuses are many.'[8] The inherently hidden and often taboo nature of drugs makes it very difficult to measure illegal drug use and the non-medical use of legal drugs precisely. In addition, the *World Drug Report 2017* also notes that '[b]ecause of the differences in reporting, comparisons across countries and regions' are extremely difficult.[9]

> The inherently hidden and often taboo nature of drugs makes it very difficult to measure illegal drug use and the non-medical use of legal drugs precisely

However, while no statistical model is capable of forecasting with complete precision the number of individuals who use drugs, the specific type of drugs they use or the quantities they consume, quantitative models do allow us to better understand likely drug demand in the future.

Constructing the model for this paper involved supplementing UNODC data with that from the IHME, notably its Global Burden of Disease (GBD) project, and blending a number of forecasting techniques.

UNODC relies largely on reporting from member states who submit the annual report questionnaire (ARQ), which reports drug seizures by type and quantity.[10] Reporting is voluntary and tends to be weaker in states that have less capacity to conduct systematic and standardised nationwide surveys.

While countries are ostensibly obliged to complete ARQs there is no penalty for non-compliance. In 2017 only 24% of African states reported, against about 80% in Europe and 60% in Asia.[11] UNODC draws data from national governments and non-governmental organisations (NGOs) to compensate for missing survey data, then standardises it to fit ARQ reporting

groups. When no data are available UNODC calculates prevalence based on that in other countries in the same sub-region.[12]

However, the data from IHME have significantly more spatial and temporal coverage than those from UNODC. Unlike UNODC, which also supplements their data using household surveys, the IHME relies on hospital and treatment-centre records.

For countries for which UNODC data were not available, drug prevalence rates were initialised using coefficients for individual drug types provided by statistical relationships between UNODC and IHME data.

Figure 1 shows the data coverage by UNODC for each African country, clearly illustrating the dearth of data for Africa.

For cocaine, amphetamines and prescription opioids there is coverage of only a handful of Africa's 54 countries, while there is significantly more coverage of opiate use. That said, more than 20 African countries have still not provided data about opiate use, a factor that clearly limits the ability to forecast, but also justifies the use of IHME data to supplement the information from UNODC.

Also, seizure data are, by their very nature, ambiguous. If in one of two countries with the same level of overall

**Figure 1:** Data coverage from UNODC, clockwise from top left: amphetamines, cocaine, opiates, prescription opioids



*Source: UNODC*

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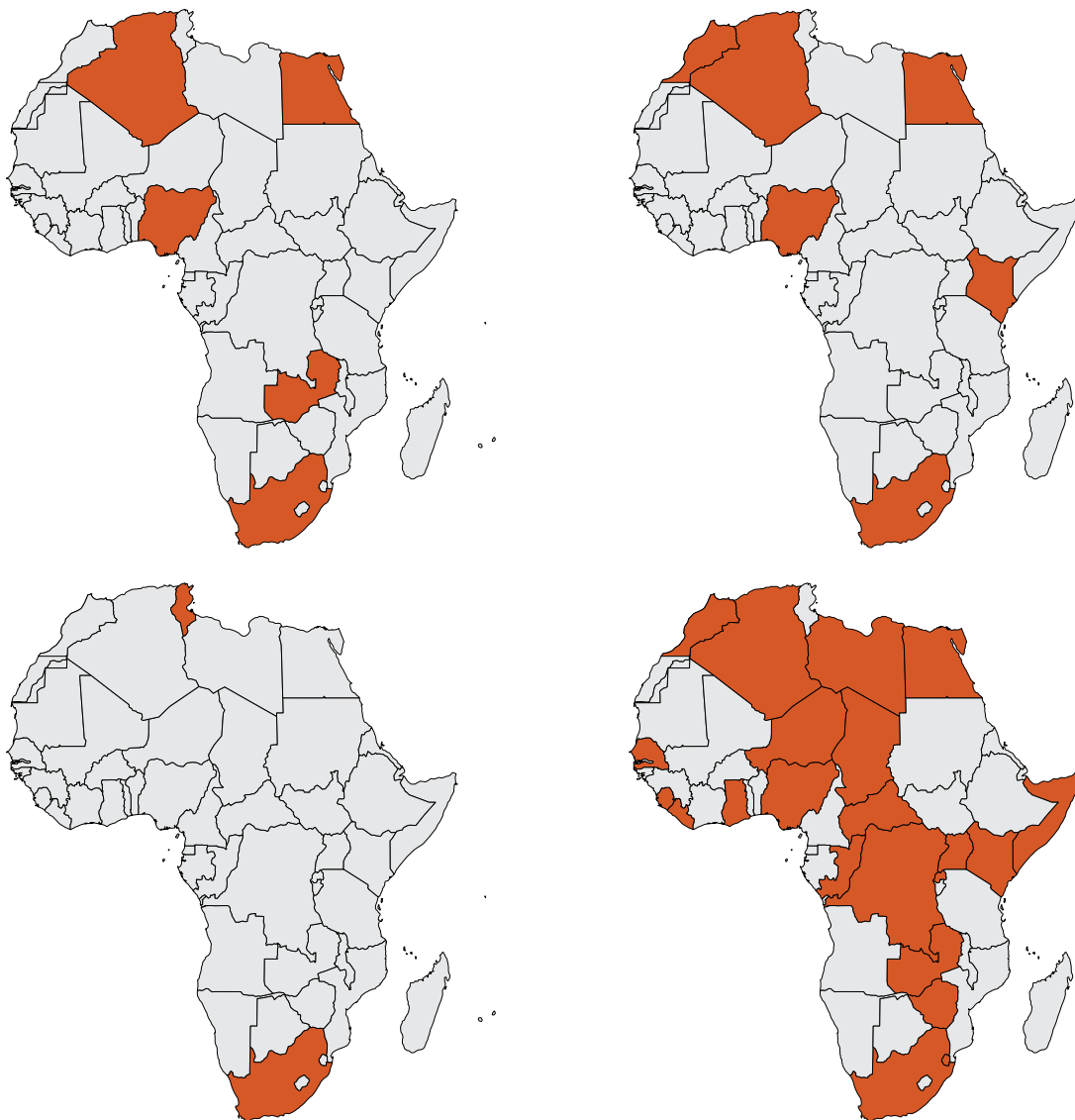
drug use the authorities decide to focus on supply and ramp up law enforcement efforts, there are likely to be higher numbers of seizures, which could give the misleading impression there is a higher drug prevalence in that country than in the other.

Thus seizure data can tell us something about the level of drug use *or* the efficacy of law enforcement *or* indicate a policy preference *or,* probably, some combination of these.

To formulate effective policies, decision-makers need access to reliable information and a comprehensive framework for understanding the way issues of concern may unfold. The use of a dynamic and integrated model helps to illustrate the most likely trajectory of a system and can offer some insight into ways of driving that system in a more desirable direction.

Therefore, if drug abuse is believed to have a significant impact on law enforcement capacity, public health priorities or familial and community relationships in Africa, a concrete understanding of how that problem may unfold, (i.e. a forecast) is essential.

## Drivers of drug demand

Drug use is influenced by multiple factors at the personal and micro level that are too complex and too dynamic to capture in a formalised model.[13] However, at the macro level certain demographic and socioeconomic factors tend to correlate with higher levels of drug consumption.

Developing this forecast involved examining these different drivers, using both the existing literature and statistical analysis testing the validity of the relationship between a number of different 'driving' variables and overall drug consumption.

Although the use of illicit drugs varies widely across different social and cultural groups, UNODC notes some patterns that make it possible to isolate particular drivers. Along with the relative size of the youth population, levels of urbanisation and gender equality, the drivers incorporated within IFs include poverty, inequality and government expenditure on health.[14]

## Demographic factors

Generally, young people are more likely than older people to use drugs.[15] For example, in 2013 in the United States illegal drug use among the 18-25 age cohort was eight times higher than among people over 50.[16] In Nigeria in 2017 the highest level of drug use was among people aged between 25 and 39.[17]

Males are more likely to use drugs than females, irrespective of levels of gender equality.[18] In Nigeria in 2017, for example, three in four drug users were men,[19] compared to two in three globally,[20] and men were nearly twice as likely as women to consume opioids. Among high-risk drug users in Nigeria in the past year the male prevalence rate was five times higher than that of females.[21] This is in line with the general tendency of men to engage in riskier behaviour than women, which is reflected in a number of indicators.[22]

## As gender equality increases, women and girls become more likely to consume illicit substances, although still in smaller quantities than males

As gender equality increases, women and girls become statistically more likely to consume illicit substances, although still in smaller quantities than males.[23] The gender gap also varies according to drug type.[24] In Nigeria, for example, it was less pronounced in the case of amphetamines and the misuse of pharmaceutical opioids and cough syrups.[25]

People living in urban areas are also more likely to consume drugs than those living in rural areas.[26] There is, however, some ambiguity about what exactly constitutes a rural setting, even in developed countries.[27] The general finding is that young people in cities are more likely to experiment with illegal drugs because they have easier access to them but also because cities themselves tend to carry the additional risk factors cited by the World Health Organization (WHO).

The WHO has found that people living in urban spaces may suffer enhanced stress from 'adverse events, such as overcrowded and polluted environments, poverty and dependence on a cash economy, high levels of violence and reduced social support'.[28] In the United Kingdom people living in urban areas were nearly twice as likely to use heroin, cocaine or LSD than those in rural areas.[29]

Broader local and international factors also create a natural ebb and flow in the popularity of certain drugs. Cocaine, for instance, was extremely popular in the United States in the 1980s and early 1990s. However, an aggressive policy response, improved public awareness of the effects of the drug and the emergence of new – often cheaper – options led to a move to other illicit substances, like methamphetamines and prescription opioids.

## While the segment of the population vulnerable to drug abuse remains relatively static, the choice of drug is cyclical and influenced by many factors

This implies considerable elasticity in determining what types of drugs people use, which can be influenced by a variety of factors, including price, availability and the stigma that surrounds certain drug types. So, while the segment of the population vulnerable to drug abuse remains relatively static, the choice of drug is cyclical and influenced by many factors.

Demographically, 'a young man in a city has the highest risk of using illicit drugs and an old woman in the countryside has the lowest'.[30] Africa is a young, largely rural continent with low levels of gender equality but, as its population becomes more urban and more inclusive, structural pressures will begin to mount and drive up drug use on the continent over the coming decades.

## Economic factors

A number of economic factors also tend to increase the prevalence of illegal drug use. Higher levels of disposable income are associated with higher levels of drug consumption, especially among younger people.[31] This applies particularly to cocaine, which is generally expensive.[32] Developed countries such as the US, with high disposable incomes, generally have higher levels of illicit drug use. There are outliers, however, such as Japan and Singapore,[33] which, despite high levels of disposable income, are characterised by low levels of illicit drug consumption.

According to the *World Drug Report 2012*, high levels of income inequality[34] are another enabling factor for the 'development of a drug problem'.[35] Generally, societies with high levels of income inequality are more vulnerable to crime, including drug trafficking. Drug trafficking, which may be perceived as a strategy for upward social mobility, is, in itself, a risk factor for illegal drug consumption, increasing, as it does, the availability of drugs.[36]

People who are systematically excluded from the labour market may be more disposed to participate in the illegal drug trade. A review of 28 studies on drug use, published between 1990 and 2015, found evidence that economic recession and the resulting unemployment aggravated psychological distress, which increased the propensity to consume illegal drugs.[37] Poverty is another risk factor for drug use, especially for opiates.[38]

Lastly, the IFs drug model factors in a relationship between per capita health spending and the non-medical use of prescription opioids.[39] The higher the per capita expenditure on health the more opioids will be available for prescription and the more doctors will be available to prescribe them, which increases the risk of misuse. However, despite very low per capita health expenditure in Nigeria and, presumably, in West Africa generally, the misuse of prescription opioids is significant, mostly driven by the misuse of tramadol. This suggests that there may be deeper drivers at work that have yet to be analysed.

## Cultural factors

The myriad cultural factors that influence drug use are even more difficult to measure or quantify than economic or demographic drivers. However, many countries have experienced a confluence of increasing social liberalisation with high urbanisation and migration rates. The proliferation of the Internet and associated exposure to new cultures and ideas may influence traditional value systems, with consequences for a country's resilience to drug use that are difficult to anticipate.

While culture can act as a deterrent, it can also be an important factor in promoting drug use. Some have argued that Western culture, for instance, may be a 'potent and under-estimated social factor behind drug use and abuse'.[40]

A number of factors relating to governance may also affect the likelihood of an individual using illegal

substances. A strong government with a heavy law enforcement presence and stiff penalties, such as that in Singapore, may deter the trafficking, distribution and consumption of drugs. Alternatively, robust education programmes about the dangers of illicit drug use and effective treatment programmes to care for people who fall through the cracks may help to keep prevalence rates low, as they do in Belgium. But, a strong and capable state is required to implement either of these programmes effectively.

Finally, a host of behavioural and psychological factors may influence the decision to consume illegal drugs. Exposure to violence, work overload, post-traumatic stress disorder, neglect and abuse and dysfunctional households have all been associated with a higher propensity for drug use.[41] Children who are exposed to neglect or abuse are more likely to suffer from mental health problems that correlate with the likelihood of substance abuse.

## Children who are exposed to neglect or abuse are more likely to suffer from mental health problems that correlate with the likelihood of substance abuse

A major finding of the *World Drug Report 2012* is that drug use in developing countries (like those in much of sub-Saharan Africa) is expected to increase, while that in developed countries is projected to level out or even decline over time.

By introducing a dynamic model that draws on a wide number of drivers of drug use, this forecast is able to capture some of that nuance. This forecast is not intended as an authoritative or definitive representation of drug demand, but rather represents an effort to improve the collective understanding of the drivers of demand, the associated policy responses and some potentially fruitful avenues for future research.

## Drug use in Africa

Illegal drug use poses a formidable problem to governments in Africa, from both a law enforcement perspective and a public health standpoint. Not only

will an increasing number of users (particularly of injected drugs) present the risk of another spike in HIV, Hepatitis C and other costly diseases, but the growing significance of Africa as a key transportation hub will place enormous strain on law enforcement in countries already struggling to improve governance and reduce corruption. Moreover, UNODC has identified drug trafficking itself as a potential driver of illegal drug use, which could compound the problem.[42]

IFs estimates sub-Saharan Africa's illicit drug usage rate in 2018 at about 1.6% – higher than levels in the Middle East and North African (MENA), Latin America and the Caribbean, South Asia and East Asia and the Pacific.[43] However, the estimated rate of 1.8% in Europe and Central Asia is higher.

Sub-Saharan Africa is projected to experience a 5% increase in its illicit drug usage rate between 2018 and 2050. While this increase is significant, it is far outpaced by those in East Asia and the Pacific and South Asia, where prevalence rates are projected to increase by nearly one-third by mid-century. In the same period Europe and Central Asia, Latin America and the Caribbean and MENA are expected to experience increases of 14%, 23% and 18% respectively.

However, while the increase in the prevalence rate may not appear to be remarkable, the rapid population growth projected for sub-Saharan Africa between 2018 and 2050 means the continent will experience the largest increase in the absolute number of illicit drug users, as measured in millions of people, of any region in the world.

Because sub-Saharan Africa's population will roughly double between 2018 and 2050, against less than 40% in MENA and 29% in South Asia (the next two fastest-growing regions), the rise in total drug consumption measured in millions of users is projected to be significant.

While the number of drug users will increase by about 70% in MENA and South Asian countries, the growth in sub-Saharan Africa will be nearly 150%.

The modelling done for this paper projects that by 2050 there will be about 14 million more people using drugs in sub-Saharan Africa. This figure represents the most substantial increase in the absolute number of drug users in any region in the world and, as indicated in Figure 2, it is comparable to the current total drug-using populations of Europe and Central Asia and Latin America and the Caribbean combined.

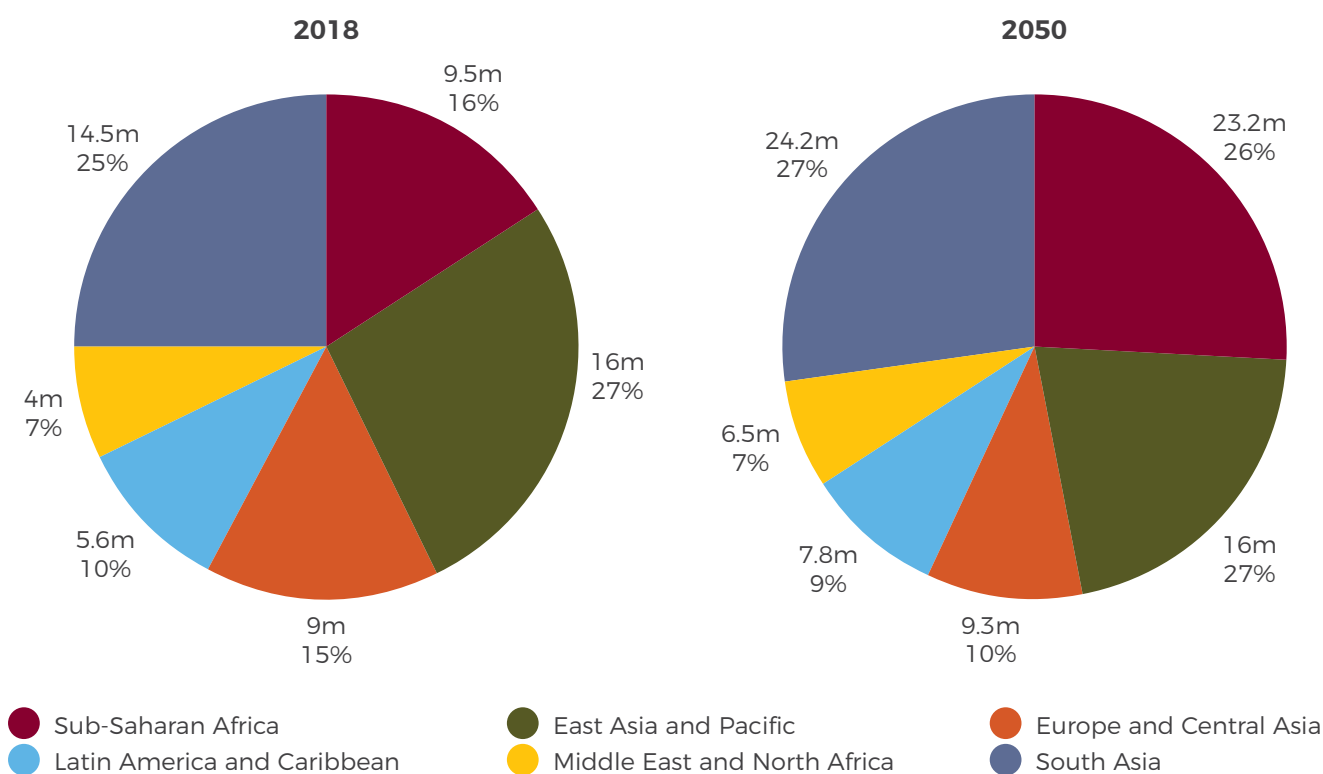**Figure 2: Number of people using illicit drugs, select World Bank regions**
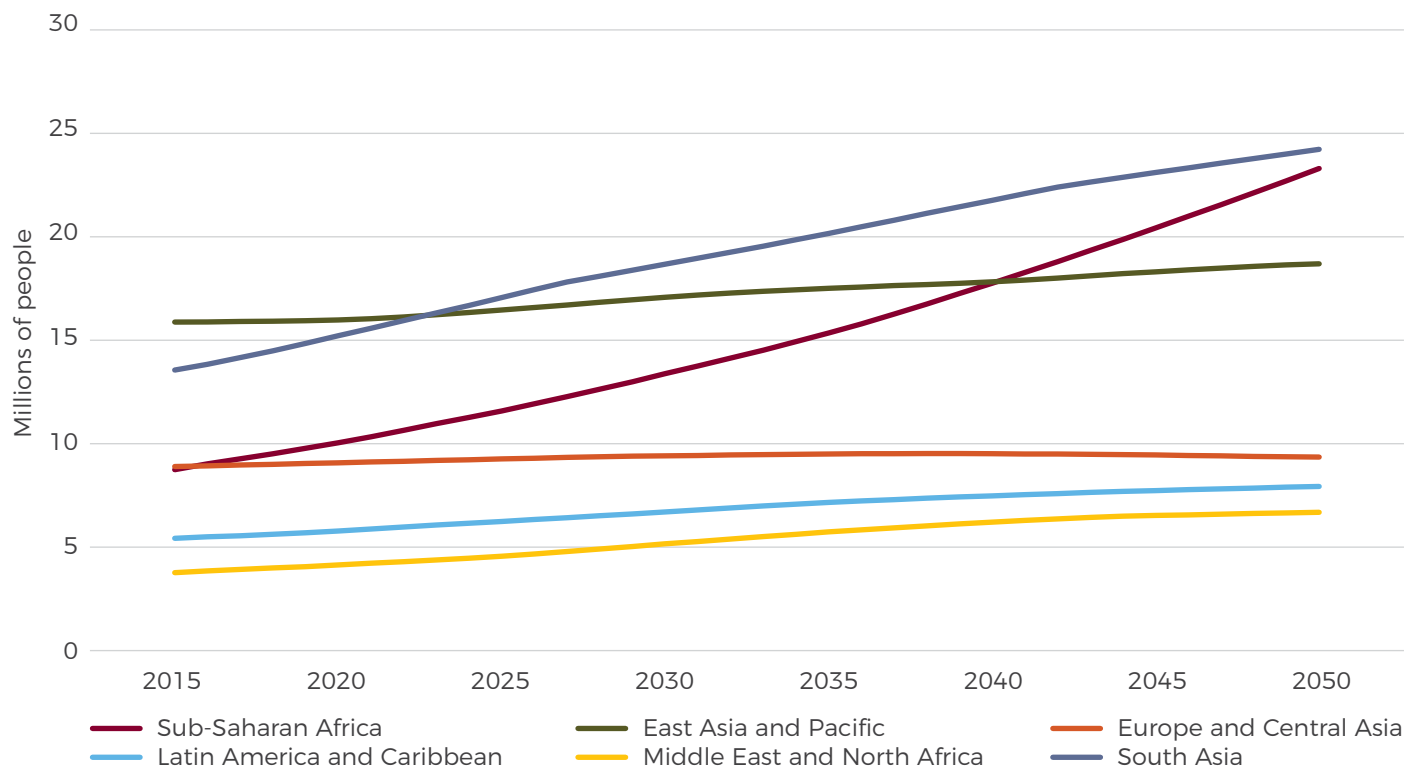


Source: IFs version 7.36

**Figure 3: Number of people using illicit drugs, African regions**
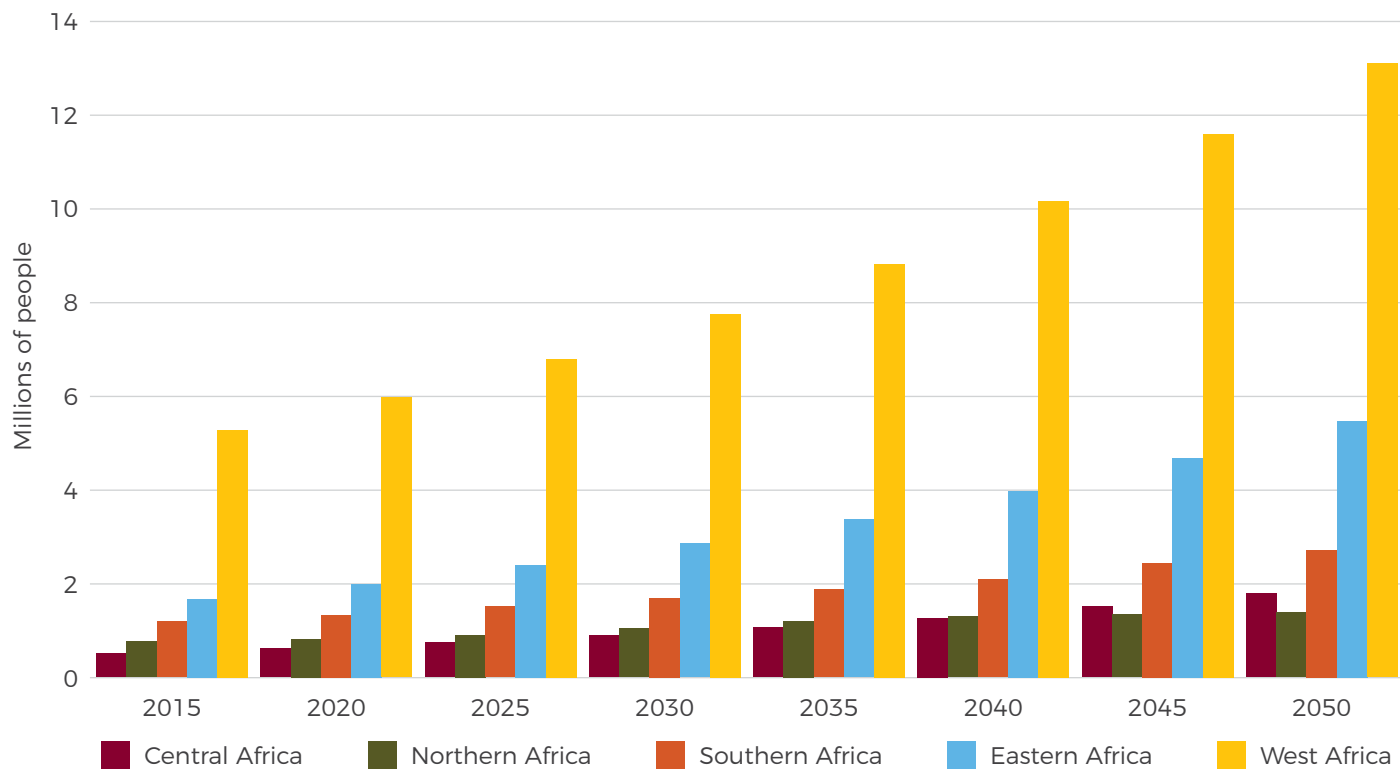


Source: IFs version 7.36

**Figure 4:** Distribution of people using illicit drugs, select World Bank regions

**2018**



9.5m
16%

14.5m
25%

4m
7%

5.6m
10%

9m
15%

16m
27%

**2050**



24.2m
27%

6.5m
7%

7.8m
9%

9.3m
10%

23.2m
26%

16m
27%

- ● Sub-Saharan Africa
- ● East Asia and Pacific
- ● Europe and Central Asia
- ● Latin America and Caribbean
- ● Middle East and North Africa
- ● South Asia

*Source: IFs version 7.36*

Not only will the continent be the most rapidly growing consumer market, certain regions, notably West and East Africa, are becoming more important to the distribution of drugs around the world. This means that African states, already struggling to build capacity and deliver goods and services to underserved communities, will have to battle the negative consequences associated with higher drug use and distribution. Recent research has shown the potential for the drug trade to become 'intimately bound up with political financing, and… facilitated by stability and rapidly growing economies'.[44]

All six world regions are projected to experience an increase in the volume of drugs consumed but, as stated above, the largest growth is likely to take place in sub-Saharan Africa.[45] With Africa's share of global consumption projected to double between 2015 and 2050, the continent will become more important to the global drug trade.

South Asia is set to experience the next most dramatic increase, roughly 80%, in the same period. These developments will have enormous implications for law enforcement agencies working to combat the global drug trade, governments struggling to build domestic capacity and health organisations working to improve livelihoods in challenging developmental contexts.

Not only will Africa be the most rapidly growing consumer market, West and East Africa are becoming more important to the distribution of drugs around the world

In addition to the significant costs of resources devoted to law enforcement, there are likely to be severe human consequences. Estimates vary, but the US spends roughly US$70 billion a year on the 'drug problem', with about half going to law enforcement and the other half largely to treatment, with a small portion dedicated to prevention. Since 1980 the population of the US has grown by 40%, but the number of people incarcerated for drug crimes has increased 10-fold.[46]

Despite the economic and human cost of this level of imprisonment, the US has not stemmed its drug problem. In 2017 opioids killed more than 72 000 people, far more than in any other country. The US is an extreme case – a distorted public health system has amplified years of failed drug policy in the midst of a significant political and economic shift – but its history is still instructive.

## East Africa

Among the five African regions explored in this report East Africa is projected to experience the sharpest increase (nearly one-third) in the proportion of its population using illicit drugs between 2018 and 2050.

In comparison, drug use is projected to increase by approximately one-fifth in Central and North Africa, while in Southern Africa it is expected to remain relatively stable, at approximately 1.3% of the population. In West Africa, even though the prevalence rate is expected to decline slightly in the next few decades, population growth will result in an increase in the absolute number of people using drugs.

The dramatic increase in drug use projected in East Africa is attributed to several factors. For one, it is expected to be the continent's most rapidly urbanising region, with its urban population increasing by 70% between 2018 and 2050 compared to 50% in West Africa, the continent's second-fastest urbanising region.

East Africa also has a persistently large youth bulge (the proportion of the population between 15 and 29 relative to the total adult population). In 2018 East and Central Africa's youth bulges of 50% were the largest on the continent. Along with being a driver of drug consumption, a large youth bulge has been linked to a higher probability of social instability and violence.[47]

East Africa is also projected to be the region where gender equality will progress most rapidly, although by 2015 the region already had the second-highest levels of gender equality. According to IFs, by 2050 gender equality is expected to increase by 22% in East Africa, against 13% in North Africa and 12% in West Africa.

Economic forces are also likely to drive a more rapid increase in the prevalence rate in East Africa than in other regions. Household consumption, for example, is projected to more than triple in Central and West Africa by 2050 but to increase more than five times

in East Africa. While household consumption is not necessarily synonymous with disposable income, it is a necessary – if insufficient – condition for its growth.

Although the forecast indicates that there is likely to be a significant rise in drug use in Africa, particularly in East Africa, it tells us little about the overall levels of trafficking or the volume of drugs moving through the region. But, a number of factors could influence that trend. Firstly, as incomes rise in Africa, local prices for 'fashionable' drugs may increase and, given the additional cost and risk of transporting such substances from Africa to Europe, it may be more attractive for traffickers to unload an increasing share of their product in African markets rather than using the continent mainly as a transit point. In addition, there could be increased domestic production of methamphetamines, which would complicate the dynamics among trafficking, transit and destination globally.

In short, this forecast indicates a significant increase in drug use and drug demand, which may correlate with increased trafficking on the continent. While in the long term East Africa is the region likely to experience the most dynamic growth in its illicit drug markets, in the short to medium term West Africa presents a significant challenge to law enforcement and public health officials alike.

## West Africa

In past years various reports from international organisations, government agencies and others have alerted policymakers to the rise in consumption of illegal drugs and the non-medical use of prescription opioids in West Africa.[48]

According to IFs, until mid-century West Africa will remain – by a significant margin – the largest regional drugs market in Africa in terms of the number of expected drug users (Figure 3). The incorporation of new data from UNODC on drug use in 2017 in Nigeria, which currently accounts for more than half of West Africa's population,[49] significantly improves the confidence in the forecast for this region.

West Africa's drug market is set to more than double from about 5.7 million users in 2018 to approximately 13 million in 2050. This will raise the region's profile as a destination market and further incentivise local drug production.

**Figure 5:** **Number of people using illicit drugs, West Africa and the rest of Africa**
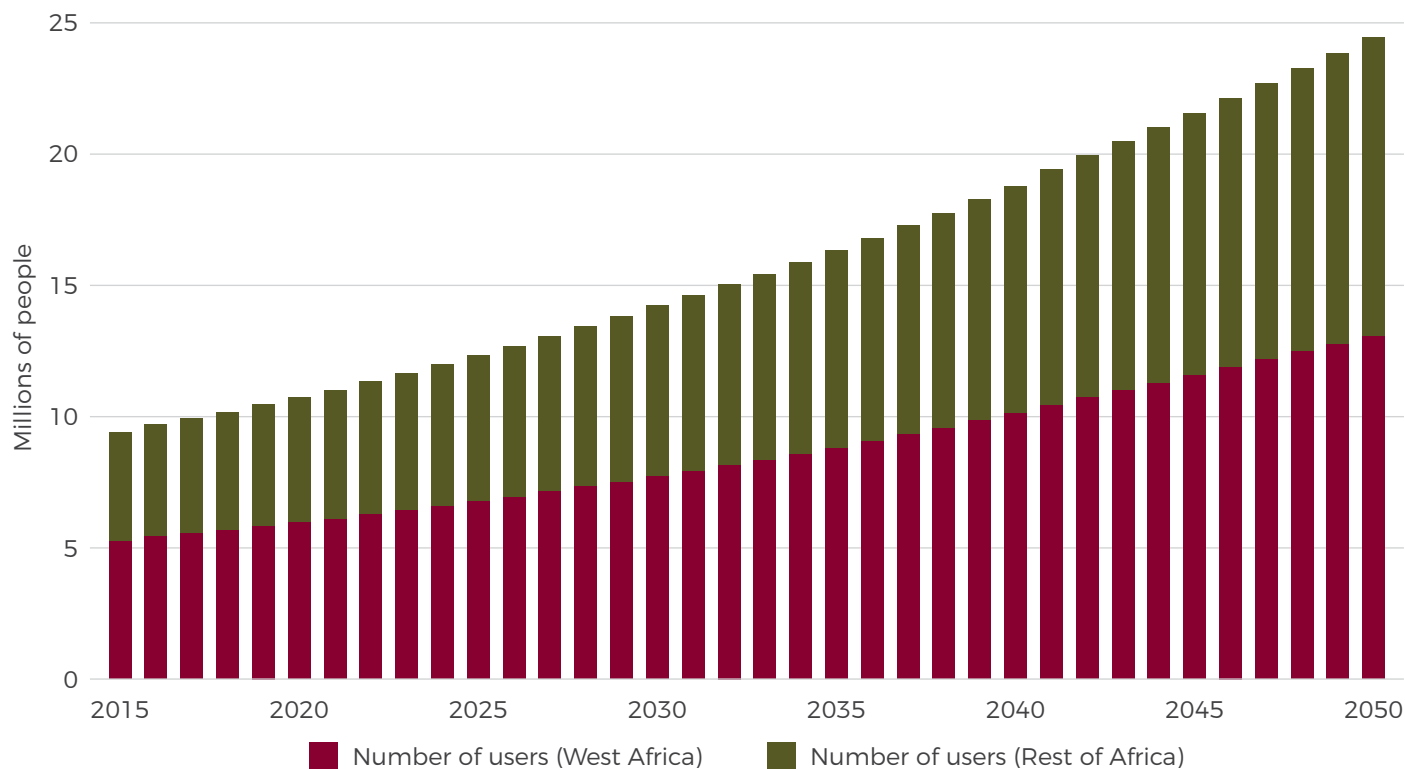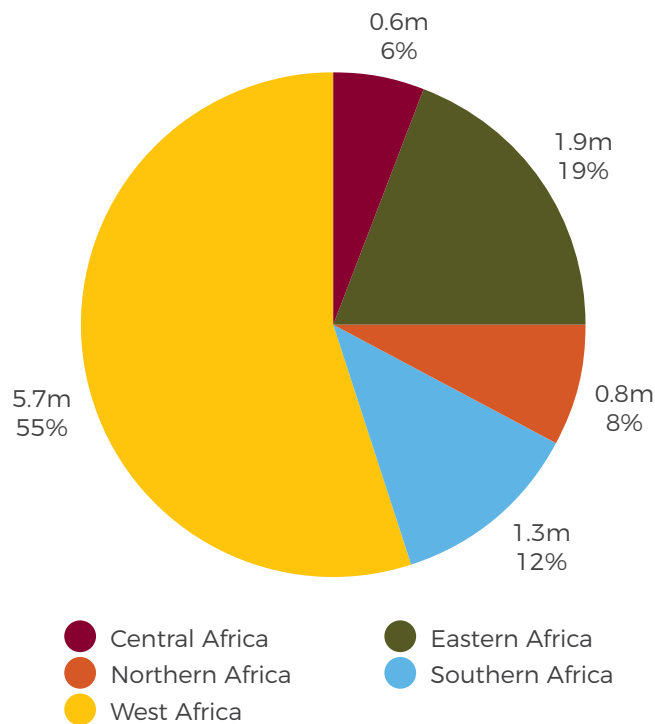


Source: IFs version 7.36

With an estimated 2.8% of the adult population using drugs in 2017,[50] the region also has by far the highest drug usage rate on the continent. And even though this rate is expected to remain steady until 2050, population growth in particular will drive dramatic growth in the total market size.

## The number of people in West Africa who use illegal drugs or prescription opioids for non-medical purpose has more than tripled

In the past few decades alone, the number of people in West Africa who use illegal drugs or prescription opioids for non-medical purpose has more than tripled from an estimated 1.6 million in 1990 to 5.7 million in 2018. The region is currently home to more than half (56%) of Africa's drug users, even though it only accounts for about 30% of the continent's population (Figure 6).

**Figure 6:** **Distribution of people using illicit drugs, African regions, 2018**



Source: IFs version 7.36

## Variables

West Africa's demographic profile is characterised by a large, fast growing, young and increasingly urban population.

Between 1990 and 2018 the population more than doubled, from almost 180 million to close to 380 million people. With the second-highest population growth rate on the continent after Central Africa, about 775 million people are expected to live in West Africa by 2050.[51]

The region's youth bulge will remain large. By 2050 half of its population will be under 24 years old and close to 30% of those older than 15 will be younger than 29. This increases the region's vulnerability to the consumption of drugs, particularly opiates and amphetamine-type stimulants (ATS).[52] Data compiled by the West African Epidemiological Network for Drug Use (WENDU) for the period 2014 to 2017 show that most drug users seeking treatment were between 20 and 34 (with the highest number in the 20-24 age bracket).[53]

In Nigeria the use of amphetamines and ecstasy was prevalent among young people and negligible among older people, while age does not appear to play a significant role in pharmaceutical opioid use.[54] The average age of first use of heroin was 22 and of pharmaceutical opioids 21.[55]

Gender equality, another factor that correlates positively with the consumption of both ATS and cocaine, is also projected to improve in West Africa.[56]

Since the turn of the century West Africa has urbanised more quickly than any other African region. Between 2000 and 2015 the share of the population living in urban areas grew by 10 percentage points (from roughly 35% to 45%) compared to six percentage points in Central Africa and five in East Africa. According to IFs, West Africa will be 70% urban by 2050, marking a dramatic 25 percentage point increase from 2015. In Nigeria and Ghana more than 75% of the population will live in urban areas by 2050.[57] Only East Africa is expected to urbanise more rapidly.

The UNODC Nigeria survey seems to confirm the positive correlation between urbanisation and drug use in West Africa. In 2017 overall prevalence rates for Lagos state, which includes the megacity of Lagos,

were more than twice as high as the national average (33% versus 14.4%). The figures relate largely to the use of pharmaceutical opioids. Similarly, in Oyo state, which is home to Nigeria's third-largest city, Ibadan, the prevalence rate in 2017 was 23% – also significantly above the national average. However, in Kano state, with the country's second-largest city, Kano, the prevalence rate is significantly lower (16%) although it is still the highest rate in the North West region[58] and above the national average.[59]

## In Nigeria, the highest prevalence of drug use in 2017 was in the southern regions, where disposable income is higher than in the northern regions

Another factor likely to drive future drug demand in West Africa is the expected significant increase in disposable income. From 2000 to 2015 total household consumption – a proxy for disposable income[60] – in West Africa more than tripled. By 2050 total household consumption in West Africa is expected to more than triple over 2018 levels. In combination with rapid urbanisation and population growth, this increase in disposable income will drive the rise of drug consumption.

In Nigeria, the highest prevalence of drug use in 2017 was in the southern regions, where disposable income is higher than in the northern regions.[61] High prevalence in the south-west is driven by Lagos and Oyo states.[62]

At the same time, poverty is a risk factor for the use of drugs, particularly opiates and cheap prescription opioids, such as tramadol. West Africa has the second-highest rate of extreme poverty (about 44% in 2018) in Africa, second only to Central Africa (about 57% in 2018). And although this rate is likely to decline to approximately 24% by 2050, the absolute number of West Africans living in extreme poverty will increase from approximately 165 million people in 2018 to about 206 million people in 2040, before decreasing to roughly 190 million people by mid-century.[63]

## Quantities

The total amount of amphetamines, cocaine, opiates and prescription opioids demanded by West Africans is projected to more than double by 2050, from roughly 185 metric tons in 2018 to 430 metric tons. This increase will overwhelm efforts by law enforcement authorities in the region to screen the inflow of illegal drugs and control the import of prescription drugs and other illicit goods. It will also fuel local production, particularly of amphetamines, a growing problem in some countries in the region.

## Nigeria: A West African case study

The recent UNODC Nigeria drug use survey sheds light on current levels and patterns of use in the country (2017 data). Given that Nigeria accounts for more than 50% of West Africa's population, these findings are probably the best indicator currently available of drug use in West Africa today. WENDU has also compiled data on drug use in West African countries between 2014 and 2017.[64]

According to UNODC's Nigeria survey, the prevalence rate of drug use in Nigeria in 2017 was estimated at 14.4% or 14.3 million people aged between 15 and 64.[65] This rate, which includes the use of cannabis, is more than twice the estimated 2016 global prevalence rate for overall drug use (5.6% of adults).[66] In Nigeria, as in other parts of the world, cannabis is by far the most commonly used drug, followed by pharmaceutical opioids.[67] Excluding cannabis, Nigeria's 2017 prevalence rate was 4.7% in 2017 compared to the global rate of 1.7%. This rate is higher than that in North America, which, up to now, has been considered to have been the highest in the world. The estimated rate of use of amphetamines (0.2%), cocaine (0.1%) and heroin (0.1%) in Nigeria in 2017 were estimated to be much lower, although still significant.[68]

About 0.4% of Nigerians between the ages of 15 and 64 (376 000 adults) were estimated to be high-risk drug users,[69] with the majority regularly using opioids. One in five injected drugs.[70] This rate is almost four times higher than the estimate for Africa included in the *World Drug Report 2018*, which is 0.11%.[71] Moreover, it is high compared to the estimated global prevalence of 0.22%.

Table 1 shows prevalence rates in Nigeria compared to those elsewhere. The extraordinarily high use of prescription opioids and the relatively low prevalence of cocaine, heroin and ATS, which are significantly below the estimates for Africa and for West and Central Africa included in the *World Drug Report 2018*, stand out.

It is unclear what the drivers are of the growing non-medical use of prescription drugs in Nigeria and West Africa. Perhaps the use of prescription drugs is viewed as more socially acceptable than that of substances like cocaine or heroin. The high price of cocaine might also be a deterrent, with traffickers preferring to sell the drug in more profitable markets in Europe or North America. In the case of heroin, the relatively low prevalence could simply be due to limited availability.

## In Nigeria, as in other parts of the world, cannabis is by far the most commonly used drug, followed by pharmaceutical opioids

Given the size of Nigeria's population, the low estimated prevalence rates of cocaine and heroin still reflect high absolute numbers of drug users: 92 000 cocaine and 87 000 heroin users. If these rates also apply to West Africa in general it is possible that up to 184 000 people consume cocaine and up to 174 000 use heroin.[72]

The *World Drug Report 2018* states that 'heroin use in Africa appears to have increased more than in other regions over the period 2006 and 2016, likely reflecting the increasing 'spillover effect of heroin trafficking from South-West Asia along the southern route'.[73] In West Africa, however, Côte d'Ivoire was the only country that reported an increase in heroin use in 2016, while Nigerian figures had stabilised.[74] According to WENDU, between 2014 and 2017 Nigeria, Côte d'Ivoire and Senegal reported the highest use of the drug in West Africa.[75]

Of all drug types, opioids, including heroin, cause the greatest harm to health.[76] Globally, opioids accounted for 76% of drug related deaths[77] and, more generally, users who inject drugs face the greatest health risks. Methamphetamine also causes significant damage to health.[78]

**Table 1:** **Drug use prevalence rates: global, regional and Nigerian**

| | Opioids (opiates and prescription opioids) | Opiates | Cocaine | Amphetamines and prescription stimulants |
|---|---|---|---|---|
| Global | 0.7 | 0.4 | 0.4 | 0.7 |
| North America | 4.2 | 0.8 | 1.9 | 2 |
| South America | 0.2 | 0.08 | 0.95 | 0.25 |
| Central America | NA | NA | 0.66 | 0.21 |
| Oceania | 2.2 | 0.16 | 1.7 | 1.3 |
| Asia | 0.46 | 0.38 | 0.03 | 0.59 |
| Western/Central Europe | 0.57 | 0.53 | 1.2 | 0.67 |
| Africa | 0.32 | 0.3* | 0.47 | 0.88 |
| West/Central Africa | NA | NA | 0.69** | NA |
| Nigeria | 4.7 | 0.1 | 0.1 | 0.2 |

*Source: For Nigeria: Nigeria survey (2017 prevalence rates); for global and world regions: WDR 2018, 13; 40-41 (2016 prevalence rates, best estimates)*

\*  Range from 0.14 (low estimate) to 0.46 (high estimate)
\*\* Range from 0.28 (low estimate) to 1.1 (high estimate)

## A public health crisis

The findings above make it clear that Africa's 'drug problem' is becoming significantly more complex.

While it is acknowledged that drug use in Africa presents many problems for policymakers, the strain on public health systems is likely to be underappreciated, at least at the outset. The fact that between one and two million[79] drug users in West Africa may suffer from disorders related to the use of drugs underscores the public health threat faced by the region. Similarly, many countries on the continent are already struggling with a 'double burden' of disease, with health systems characterised by high levels of both communicable and non-communicable diseases. The addition of a high level of drug addiction could further exacerbate the strain on health systems already struggling to cope with providing even basic services like vaccinations and neonatal care.

To put things in perspective, of the 50 countries with the highest communicable disease burden in the world, 46 are in Africa. Life expectancy on the continent is about 12 years below the global average and infant mortality is more than twice as high. But life expectancy is projected to rise more rapidly in sub-Saharan Africa than in any other region. Living longer will bring a raft of health problems like obesity, diabetes and cancer, which African health systems have yet to deal with in great numbers. Adding a wave of drug addiction could

have unpredictable and pernicious consequences. Even a public health system in an upper-middle-income country like South Africa is ill equipped to handle a spike in infective endocarditis caused by injections of the street drug nyaope, which consists mainly of heroin. Nyaope killed 10 people in just one weekend in July 2018, in part because cases were misdiagnosed at a public clinic.[80]

There is also the issue of the meteoric rise of new psychoactive substances (NPs) and the counterfeit drug trade. In 2016 alone, 72 new NPs emerged, and the WHO estimates that as many as 100 000 deaths per year in Africa alone could be due to counterfeit prescription medication not intended for recreational use.

## Conclusion

In light of rising incomes and an increasingly urban and persistently young population – alongside other changes like rising inequality and improvements in gender equality – drug prevalence in Africa is almost certain to increase in the coming decades. Taking population growth into consideration, though, Africa is poised to experience a much more significant increase in the absolute number of drug users than are other regions of the world.

Although an effort must be made to stem the flow of illicit substances across international borders, experience

gleaned from the US and Western Europe suggests that it is extremely difficult, if not impossible, to deter drug use effectively simply through supply-side action. Moreover, if the choice of specific drugs is elastic, as some literature suggests, even effectively eliminating supply routes could turn into a never-ending game of whack-a-mole, with authorities stamping out one substance just to see another sprout up in its place.

Presuming that drug use in Africa is highly variable, and that each country or economic community will need to determine the extent to which it targets the supply of specific drug types on a more or less ad hoc basis, there are some general recommendations that can be made on the demand side.

## The most effective way to prevent drug use is to focus on parenting, families and life skills education for children and young adults

According to the UNODC 'International Standards on Drug Use Prevention',[81] the most effective way to prevent drug use is to focus on parenting, families and life skills education for children and young adults.[82]

Evidence from elsewhere on the continent suggests that needle-sharing programmes and opioid substitution therapies have been effective in controlling the spread of disease and stemming the risk of addiction.[83] Evidence also suggests that there may be scope to explore decriminalisation as countries become richer, provided there is the necessary institutional capacity.

At present, West African countries are unable to meet the demand for treatment of and care for people with drug use disorders, with the health systems of most ECOWAS member states lacking the financial resources, capacity and facilities to respond adequately.[84] In Nigeria, for example, 2017 data revealed that 40% of high risk drug users wanted treatment but were unable to access it.[85] The main barriers included the cost of treatment and the stigma associated with accessing it as well as the stigma associated with substance use in general.[86]

Effective responses must include efforts to stop or reduce drug production and drug trafficking coupled with an approach aimed at preventing drug use and dependence and the establishment of programmes for the treatment and care of users.

Law enforcement must be strengthened regionally to prevent traffickers and producers from simply moving from country to country to escape tougher regulations or law enforcement in specific countries (the so-called 'balloon effect').

Given the extremely high prevalence of non-medical use of pharmaceutical opioids, tranquillisers and cough syrups, West African governments, in particular, must curb their diversion from legal channels, their illicit production and their availability on illicit markets. At the same time, governments must ensure that such drugs are available for medical and scientific purposes.[87]

This project brought together two datasets gathered by international organisations attempting to use proxies – drug treatment reports from hospitals, surveys and seizure records – to estimate drug use in Africa. Other regions of the world have two to three times as much coverage, depending on the substance and place. It is incumbent on African member states, and UNODC itself, to place a higher priority on reporting and for all countries to go beyond the bare minimum of reporting seizure data to UNODC.

Most countries in West Africa have no monitoring systems in place, but the situation is improving – largely due to external donor support, principally from the European Union. Examples are the creation of WENDU, which has national focal points in the ECOWAS member states and Mauritania,[88] the establishment of the Nigerian Epidemiology Network of Drug Use[89] and Senegal's progress toward a drug information system.[90]

Governments in Africa must continue to improve the evidence base on drug use in the region. This includes monitoring drug use, drug observatories and epidemiological networks and national surveys to achieve a harmonised drug data information system. Such data will also be critical to generating context-specific knowledge about the drivers of drug use.

To better understand the negative consequences of drug use for other important areas of development

like mortality, mental health and economic productivity, it is imperative that the research community and civil society have access to better and more timely information. This will not only help take the research endeavour forward and explore new areas, but will also help us to take a step back and better understand the links between drug use and organised crime. Understanding shifting patterns of drug use over time may help us to connect the flow of supply with demand and ultimately understand how criminal organisations respond to changing market dynamics and perhaps even how they respond to pressure from law enforcement groups.

What is clear is that at present there is a dearth of data coming from African countries. This has implications for the way these countries mitigate the spread of crime associated with drug trafficking, communicable diseases associated with injection drug use, increased mortality rates and other negative social and economic consequences. There must also be more easily accessible information about how supply-side responses can be complemented by harm reduction measures in ways that mitigate the social ills of drug use in more comprehensive ways. Without a better understanding of these dynamics, it will be difficult for policymakers to design appropriate and effective responses.

# Annexure

## Country groups

The work of multiple country groups informs the analysis in this report: The United Nations Statistical Division's geoscheme, the UN Population Reference Bureau regions, the African Futures Project's regions of Africa and African regional economic communities. See the tables below for their country groupings.

For the analysis of West Africa we used the African Futures Project's regional grouping which is consistent with the 15 member states of ECOWAS: Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

**Table A1: African Futures Project (AFP) country groups**

| Country group | Countries |
|---|---|
| **Central Africa** | Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Republic of Congo, Equatorial Guinea, Gabon, Sao Tome & Principe. |
| **East Africa** | Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, Sudan, South Sudan, Tanzania, Uganda. |
| **Southern Africa** | Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, Zimbabwe. |
| **West Africa** | Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo. |
| **North Africa** | Algeria, Egypt, Libya, Mauritania, Morocco, Tunisia. |

**Table A2: World Bank country groups**

| Country group | Countries |
|---|---|
| **East Asia & the Pacific** | Australia, Brunei, Cambodia, China, Fiji, Hong Kong, Indonesia, Japan, North Korea, South Korea, Laos, Malaysia, Federated States of Micronesia, Mongolia, Myanmar, New Zealand, Papua New Guinea, The Philippines, Samoa, Singapore, Solomon Islands, Taiwan, Thailand, Timor-Leste, Tonga, Vanuatu, Vietnam. |
| **Europe & Central Asia** | Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia & Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Kosovo, Kyrgyz, Latvia, Lithuania, Luxembourg, North Macedonia, Moldova, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan. |
| **Latin America & the Caribbean** | Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haití, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad, Uruguay, Venezuela. |
| **Middle East & North Africa** | Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Yemen. |
| **North America** | Canada, USA |
| **Oceania** | Australia, Fiji, Federated States of Micronesia, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu. |
| **South Asia** | Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka. |
| **Sub-Saharan Africa** | Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Republic of Congo, Côte D'Ivoire, Equatorial Guinea, Eritrea, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome & Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, South Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe |

## Project Data

We used a feature of the IFs model that allows users to override the data in the model with alternative data. This feature is used when the data in the model, which are derived from international sources like the World Bank and the Food and Agriculture Organization, need to be updated for a particular project. This involves the creation and imposition of a Project Data file containing the new data on the IFs master database.

The Project Data file used in this report contains estimates of illicit drug use in Nigeria based on new data presented by UNODC's 2018 report, 'Drug Use in Nigeria'. In this report UNODC offers comprehensive, sub-national data on prevalence rates for several types of illicit drugs for the year 2017 based on multiple data collection and analysis methodologies.

The Project Data file contains estimates of prevalence rates based on UNODC's new data for Nigeria for the four types of illicit drugs featured in the IFs drug model.

**Table A3:** **Project Data file series**

| Series name | Country | Source |
| --- | --- | --- |
| SeriesDrugPrevalenceRateAmphetamines | Nigeria | 2018 UNODC Report Drug Use in Nigeria |
| SeriesDrugPrevalenceRateCocaine | Nigeria | 2018 UNODC Report Drug Use in Nigeria |
| SeriesDrugPrevalenceRateOpiates | Nigeria | 2018 UNODC Report Drug Use in Nigeria |
| SeriesDrugPrevalenceRatesPrescriptionOpioids | Nigeria | 2018 UNODC Report Drug Use in Nigeria |

## Acknowledgements

# Notes

**1** UNODC, *World Drug Report* 2012, www.unodc.org/unodc/en/data-and-analysis/WDR-2012.html.

**2** Although the UNODC forecast assumes a 5% prevalence rate, it also indicates that the confidence interval for that forecast is between 3.5% and 7%, in other words, a margin of about 100%. While we appreciate the nuance and caution of this interval, we also note the extremely wide range of potential interpretation.

**3** UNODC, *Drug use in Nigeria* 2018.

**4** IFs is open source and available for download at www.pardee.du.edu.

**5** UNODC, *World Drug Report*, Glossary, 2018, 29.

**6** World Health Organization, *World Health Report 2002 – Reducing Risks, Promoting Healthy Life*.

**7** Annual prevalence refers to the total number of people in a given age range who have used a given drug at least once in the past year, divided by the number of people in the given age range and expressed as a percentage.

**8** A Porter, D Bohl, L Welborn, J Moyer, Finding a Foothold: Assessing forecastability in transnational organised crime, Enact research paper 2, December 2017, 17.

**9** UNODC, *World Drug Report*, Booklet 2: Health, 2017, 27.

**10** UNODC, *World Drug Report*, Chapter 1, 2015.

**11** D Brewley-Taylor and M Nougier, Measuring the 'world drug problem': ARQ revision. Beyond the traditional indicators? *Global Drug Policy Observatory working paper number 3*, January 2015, www.swansea.ac.uk/media/GDPO%20Working%20Paper%20No3%20012018.pdf, accessed on 10 July 2019.

**12** A Porter, D Bohl, L Welborn, J Moyer, Finding a Foothold: Assessing forecastibilty in transnational organised crime, Enact research paper 2, December 2017.

**13** UNODC, *World Drug Report* 2018, 17. Personal factors include behavioural and mental health, neurological developments and gene variations resulting from social influences; at micro level the factors include parental and family functioning, schools and peer influence.

**14** Government health expenditures are correlated with higher prescription drug use, though this relationship is much more significant in developed countries.

**15** UNODC, *World Drug Report* 2012, 59.

**16** US Department of Health and Human Services, Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings, September 2014, www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf.

**17** UNODC, *Drug use in Nigeria*, Executive Summary, 10, 2018. Within this range the age cohort with the highest overall drug use was 30-34. Overall drug use includes cannabis.

**18** UNODC, *World Drug Report* 2012, 8, 86. This does not apply to the use of tranquillisers and sedatives.

**19** UNODC, *Drug use in Nigeria* 2018, 25.

**20** Ibid, 20; UNODC, *World Drug Report* 2012, 64.

**21** For the purposes of the Nigeria survey, high-risk drug users were defined as those who had used opioids, crack/cocaine or amphetamines in the past 12 months and had used those drugs on at least five occasions in the past 30 days. See UNODC, *Drug use in Nigeria* 2018, 31.

**22** C Eckel and P Grossman, Men, Women and Risk Aversion: Experimental Evidence, 2008, https://doi.org/10.1016/S1574-0722(07)00113-8, accessed on 10 July 2019.

**23** UNODC, *World Drug Report* 2012.

**24** UNODC, *World Drug Report* 2018.

**25** UNODC, *Drug use in Nigeria* 2018, 25. Male prevalence rate of 6% versus female prevalence rate of 3.3% for pharmaceutical opioids and 0.3 male versus 0.2 female prevalence for amphetamines.

**26** This distinction is difficult to make because the definition of what constitutes rural or urban may vary widely across, and even within, countries.

**27** See UNODC, *Prevention Of Drug Use And Treatment Of Drug Use Disorders In Rural Settings*, 2017, www.unodc.org/documents/17-01904_Rural_treatment_ebook.pdf.

**28** A Uchtenhagen, Substance use problems in developing countries, *Bulletin of the World Health Organization* 82, 2004, www.who.int/bulletin/volumes/82/9/editorial20904html/en/, accessed on 10 July 2019.

**29** K Smith and J Flatley, Drug Misuse Declared: Findings from the 2010/11 British Crime Survey – England and Wales, *Home Office Statistical Bulletin* 12/11, London, Home Office, July 2011, www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf.

**30** UNODC, *World Drug Report* 2012, 86.

**31** Ibid, 87.

**32** In Nigeria, on average, cocaine users reported spending NGN6 300 (about US$17.5) per day on cocaine. The minimum monthly wage of a full-time worker in 2017 was NGN18 000 (about US$50). See UNODC, *Drug use in Nigeria*, 2018, 28.

**33** UNODC, *World Drug Report* 2012, 87.

**34** As measured by the Gini coefficient, which calculates inequality on a scale of 0 to 100. A score of 0 represents a society with a perfectly equal distribution of wealth while 100 represents a society where one person earns everything.

**35** UNODC, *World Drug Report* 2012, 88.

**36** Ibid; UNODC, *World Drug Report* 2018, 17; See S Haysom, P Gastrow and M Shaw, The heroin coast: A political economy along the East African seaboard, ENACT Research Paper 04, June 2018.

**37** A study of drug use and employment status in the US between 2005 and 2011 found a strong correlation between the two. While about 8% of full-time employees reported having used drugs in the previous month, the figure was more than 10% for part-time workers and 18% for those who were unemployed. From this study it emerged that the unemployed were more than twice as likely to use drugs as full-time workers. See A Badel and B Greaney, Exploring the link between employment status and drug use in the U.S, *Regional Economist, Federal Reserve Bank of St. Louis* 2013, www.stlouisfed.org/publications/regional-economist/july-2013/exploring-the-link-between-drug-use-and-job-status-in-the-us, accessed on 10 July 2019. Unfortunately, examples from African states are difficult to find due to a paucity of data.

**38** UNODC, *World Drug Report* 2018, 17.

**39** The Pardee Center identified this relationship statistically, using data from the US.

**40** R Eckersley, Cultural fraud: The role of culture in drug abuse, National Center for Biotechnology Information, March 2005, www.ncbi.nlm.nih.gov/pubmed/16076585.

**41** UNODC, *World Drug Report* 2012, 64.

**42** Ibid.

**43** This result is highly influenced by the inclusion of new data for Nigeria, specifically the data from UNODC, *Drug use in Nigeria* 2018.

**44** Haysom, Gastrow and Shaw 2018, 40.

**45** For the purposes of comparing volume this paper assumes that each person consumes the same amount and that some users will consume more than one type of drug (polydrug use).

**46** J Bronson and E A Carson, Prisoners in 2017, Bureau of Justice Statistics Washington, DC 2019; Z Zeng, Jail Inmates in 2017, Bureau of Justice Statistics Washington, DC 2019. Available at: https://sentencingproject.org/wp-content/uploads/2016/01/Trends-in-US-Corrections.pdf, accessed on 10 July 2019.

**47** R P Cincotta, R Engelman and D Anastasion, The Security Demographic: Population and civil war after the Cold War, *Population Action International* 2003.

**48** West African Commission on Drugs (WACD), *Not Just in Transit* 2014, 8; INCB Report 2017, Chapter III, 59; see also UNODC, *Nigeria national drug threat assessment* 2018, February 2019; L Bird, Domestic drug consumption in Ghana, an underreported phenomenon, Global Inititative against Transnational Organised Crime, July 2019.

**49** According to IFs population forecast based on data from the United Nations Population Divisions (UNPD) the figure is close to 52%.

**50** This rate does not include cannabis.

**51** This is because the region is 'trapped' in the early stages of the demographic transition, in other words, characterised by relatively high birth and relatively high death rates. The demographic transition is the process by which a population shifts from high to low rates of birth and death.

**52** According to the UNODC Nigeria drug use survey, the use of amphetamines and ecstasy was more prevalent in young people and negligible among older people. See UNODC, Drug use in Nigeria 2018, 12.

**53** WENDU is the West African epidemiology network on drug supply reduction and drug demand reduction. The network is comprised of national focal points in the ECOWAS Member States and Mauritania. WENDU is a platform to foster greater exchange of best practice and common standards on drug data collection and drug supply and use patterns among member states. (The Technical Experts' Meeting of WENDU of 2016 and 2017 and the regional and national workshops for national focal points laid valuable groundwork for influencing policies in data collection systems. ECOWAS member states have recognised the need to have a reliable data collection system on drug use. Hence, the national focal points for drug use data collection have mandates from their respective governments to provide drug information to WENDU). This data is from drug treatment/rehabilitation facilities across West Africa.

**54** UNODC, *Drug use in Nigeria* 2018, 12.

**55** Ibid., 27.

**56** Based on IFs, version 7.36.

**57** Ibid.

**58** Nigeria has six geopolitical zones, created for administrative purposes: North Central, North East, North West, South East, South South, South West.

**59** UNODC, *Drug use in Nigeria* 2018, 18.

**60** See S K Mailu, H K Maritim, W K Yabann and L Muhammed, Household Income versus Household Expenditure: an illustration of the superiority of household expenditure as an estimator of living standards, Kenya Agricultural Research Institute. Available at: http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=A8381103746637911789997 1BEBF2B81?doi=10.1.1.197.791&rep=rep1&type=pdf.

**61** UNODC, *Drug use in Nigeria* 2018, 12.

**62** Ibid, 18.

**63** Extreme poverty forecasts from IFs, version 7.36. Extreme poverty is defined as living on less than US$1.90 per day.

**64** The WENDO study is forthcoming (embargoed). The data are based on selected treatment and rehabilitation centres in West Africa.

**65** UNODC, *Drug use in Nigeria* 2018, 9.

**66** UNODC, *World Drug Report* 2018, Executive Summary.

**67** UNODC, *Drug use in Nigeria* 2018, 12.

**68** Ibid.

**69** Defined as those who had used opioids, including heroin; crack/cocaine or amphetamines in the past 30 days. See UNODC, *Drug use in Nigeria*, Executive Summary, 10.

**70** People who inject drugs are at greater risk of social marginalization, of contracting HIV, Hepatitis C and of losing their livelihood.

**71** Range from 0.06 (low estimate) to 0.34 (high estimate).

72 Extrapolation based on population estimates included in IFs, version 7.31 based on UNPD data.

73 UNODC, *World Drug Report* 2018, 21. Based on expert opinions reported to UNODC.

74 Ibid.

75 WENDU report 2019 (forthcoming, embargoed).

76 UNODC, *World Drug Report* 2017, 9.

77 UNODC, *World Drug Report* 2018, 6.

78 Ibid.

79 Taking the global prevalence of users with drug use disordes of 11% as the lower range and Nigeria's prevalence of 20% as the upper range of this estimate.

80 D Chambers, 10 die after destroying their hearts by mainlining nyaope, *Times Live*, July 2018, www.timeslive.co.za/news/south-africa/2018-07-02-10-die-after-destroying-their-hearts-by-mainlining-nyaope/.

81 UNODC/WHO, *International Standards on Drug Use Prevention*, Second updated edition, www.unodc.org/unodc/en/prevention/prevention-standards.html.

82 UNODC, *Drug use in Nigeria* 2018, 44.

83 Haysom, Gastrow and Shaw 2018.

84 UNODC, The ECOWAS Project supports the establishment of an information platform on drug use in West Africa, 29 September 2016, www.unodc.org/westandcentralafrica/en/2016-29-09-epidemiology-training-dakar.html; UNODC, *Drug use in Nigeria* 2018, 10; UNODC, *Nigeria national drug threat assessment* 2018, February 2019.

85 UNODC, *Drug use in Nigeria*, Executive Summary, 8.

86 Ibid; see also International Narcotics Control Board (INCB), Annual Drug Report 2017, 65.

87 UNODC, *Drug use in Nigeria* 2018, 45.

88 UNODC, The ECOWAS Project.

89 UNODC, Nigerian Epidemiological Network on Drug Use – Nigeria is taking a lead in the Continent, www.unodc.org/nigeria/en/drug-response/news/nigerian-epidemiological-network-on-drug-use--nigeria-is-taking-a-lead-in-the-continent.html.

90 UNODC, UNODC supports Senegal in the development of a drug information system, www.unodc.org/westandcentralafrica/en/2018-11-30-senegal-drug-info-system.html.

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## Tackling heroin trafficking on the East African coast

*Simone Haysom, Peter Gastrow and Mark Shaw*

### Summary

In recent years, the volume of heroin shipped from Afghanistan along a network of maritime routes in East and Southern Africa appears to have increased considerably. An integrated regional criminal market has developed, shaping and shaped by political developments. Africa is now experiencing the sharpest increase in heroin use worldwide, and a spectrum of criminal networks and political elites in East and Southern Africa are substantially enmeshed in the trade. New policy approaches are urgently needed.

### Key points

- Responses should address the challenge as a cross-border criminal system.
- Progressive action should be targeted in major drug hubs along the southern route, focusing on vulnerable areas and potential sources of regional instability, such as northern Mozambique.
- The relationship between politics, business and organised crime must be adequately researched and addressed.
- Vetted private sector actors should be engaged to prevent or reverse the criminalisation of key ports.
- Support must be increased for community-based initiatives that mitigate the effects of drug use.
- Programming interventions to reduce violence in the most vulnerable communities affected by the heroin trade in Southern and East Africa should be considered.

**POLICY BRIEF**

This brief focuses on:

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**enact**
Enhancing Africa's response to
transnational organised crime

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Issue 04 | June 2018

## The heroin coast

### A political economy along the eastern African seaboard

*Simone Haysom, Peter Gastrow and Mark Shaw*

### Summary

In recent years, the volume of heroin shipped from Afghanistan along a network of maritime routes in East and southern Africa appears to have increased considerably. Most of this heroin is destined for Western markets, but there is a spin-off trade for local consumption. An integrated regional criminal market has developed, both shaping and shaped by political developments in the region. Africa is now experiencing the sharpest increase in heroin use worldwide and a spectrum of criminal networks and political elites in East and southern Africa are substantially enmeshed in the trade. This report focuses on the characteristics of the heroin trade in the region and how it has become embedded in the societies along this route. It also highlights the features of the criminal-governance systems that facilitate drug trafficking along this coastal route.

### Recommendations

- The East African heroin market forms an integrated regional criminal economy based on the transit of heroin from Afghanistan to the West.
- The transit economy relies on international ports and other infrastructure, and high levels of political protection.
- There is a rapidly growing consumer drug market in the region - one that is much larger than is commonly acknowledged.
- Despite some positive trends in drug users' ability to access health services in several locations in the region, there are nevertheless gaps in appropriate drug treatment interventions.

**RESEARCH PAPER**

This paper focuses on:

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Enhancing Africa's response to
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## The rise of counterfeit pharmaceuticals in Africa
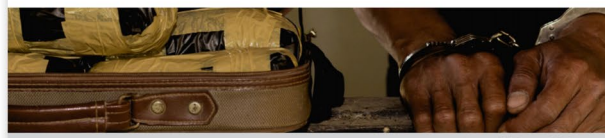
*Robin Cartwright and Ana Baric*

### Summary

Sustainable Development Goal 3 (SDG 3) places significant emphasis on populations' health, and sub-target 3.8 specifies access 'to safe, effective, quality and affordable essential medicines and vaccines for all'. Yet, remarkably missing from the discourse around achieving this goal is the need to address the growing phenomenon of counterfeit medicines, which disproportionately affects developing countries. Counterfeit medicines put people's lives at risk, finance criminal groups and cause profound public health challenges. The full scale of the challenge in Africa is not fully understood, but research suggests that the problem and its impact are severe. If the continent is to make headway in achieving SDG 3, the issue of counterfeit medicines must move higher up on policy agendas. Experience elsewhere suggests that there would be scope for significant positive results.

### Key points

- Addressing counterfeit medicines in Africa may help prevent widespread loss of life, including an estimated 64 000-158 000 avoidable deaths from malaria alone, as well as mitigating other public health and public safety risks.
- Much greater prioritisation of the issue by African states and continental or regional bodies is needed. The response should include a substantial overhaul of the analytical, legal, educational, regulatory and enforcement systems around medical supply chains. The legal and regulatory frameworks for combating medicine fraud will need strengthening.
- These responses would need to be coordinated within a global effort, including setting up a database of intelligence on counterfeits, and improved awareness-raising and training campaigns. National medicines regulation authorities should investigate mass serialisation forms of track-and-trace.

**POLICY BRIEF**

This brief focuses on:

ALL REGIONS

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**enact**
Enhancing Africa's response to
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## Analysing drug trafficking in East Africa

### A media-monitoring approach

*Ciara Aucoin*

### Summary

By analysing drug-related incidents reported in the media in three key East African nations over the past decade, this paper provides insights into drug trafficking in the region. This includes the different drug types in circulation across Kenya, Tanzania and Uganda; the quantities and trafficking methods used; as well as the origin, transit, and destination hubs. The report also suggests patterns in the actors involved, the nature of state responses and the reporting styles of the African and foreign press. The potential for improved sourcing using this methodology, and for greater public awareness of drug trafficking-related harms, lies in the development of stronger and more capable journalism in the region.

### Key points

- East Africa plays an increasing role in the continent's illicit drug trade, particularly as a corridor for flows of heroin and cocaine.
- Media monitoring is an innovative way of gathering data to help illustrate trends in transnational organised crime, including drug trafficking trends.
- Findings show interesting patterns in reporting on major harmful drugs in the region, and the many challenges faced by journalists in investigating and publishing drug trafficking stories.
- The paper calls for greater press freedom and increased training and financial support for investigative journalism in East Africa, and across the continent more generally.

**RESEARCH PAPER**

This paper focuses on:

## About the authors

Zachary Donnenfeld joined the ISS in 2015 as a researcher with the African Futures and Innovation team in Pretoria. Zach has published work on development trends at the country, regional and continental level and also worked extensively on the ability of Africa to meet various Sustainable Development Goals.

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## About ENACT

ENACT builds knowledge and skills to enhance Africa's response to transnational organised crime. ENACT analyses how organised crime affects stability, governance, the rule of law and development in Africa, and works to mitigate its impact. ENACT is implemented by the ISS and INTERPOL, in affiliation with the Global Initiative Against Transnational Organized Crime.

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