

# Migration and the Global Drug Crisis: Genesis, Drivers, and Societal Pathology

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## Abstract

*Migration has become a major concern to the global community, because of its diverse and far-reaching consequences. Migration may simply be considered the mass movement of a collection of people from one location to another. Human migration has been part of the existence of human species and commonly a response to prevailing adverse situations or need that may include, ecological or climate change and attendant agricultural failure, environmental degradation, economic distress, persecution, insecurity or wars. One of the most well-known and recorded migration in history is the movement of the Israelites (exodus) from Egypt. Recent recognized drivers or push factors of migration are persecution, insecurity, quest for employment. Migration may be associated with crops, agricultural practice, art, culture but whether migration is associated with drug trafficking contributing to the current international drug crisis or epidemic is rarely considered. This paper examines international migration, the major driving forces focusing on the linkage between and the epidemic of drug addiction, the genesis, drivers and the ills or pathology it inflicts on society. In this paper we shall attempt to provide an evidence-based linkage between drugs misuse and migration, key drivers, and attendant harmful consequences on society (societal pathology). Very importantly, the paper attempts to proffer solutions of how the global drug crisis can be addressed; fundamentally by responsive, sustained good governance, human compassion and care and establishment of international institutions to promote health education, control and regulate migration with a delineation for drug trafficking and abuse. The overall consequences of migration related drug crisis globally are far reaching; including sociopolitical, economic, security and health, but can be mitigated by good governance, humane relationships, and functional national and international partnerships by regulatory and control agencies.*

**Keywords:** Migration, crime rate, morbidity and mortality, drug crisis, governance, societal pathology.

***Quote: 'The line between a medicine and a poison is often exceedingly narrow'***

***- W. H. Haines (1904) Textbook of Legal Medicine and Toxicology***

## **Introduction**

Migration basically connotes mass movement of a people from one location to the another. Migration is not a new phenomenon.<sup>1</sup> Human migration is always a response to a stimulus, which may include ecological and environmental change or threat, economic, political, security and wars. Some of the common causes or drivers of mass movement or migration are shown in table 1. The most historic migration in human history is the movement (exodus) of the Israelites from Egypt due to maltreatment and oppression (Exd. 1: 1-22) as illustrated in figure 1.

Some of these drivers are clearly evident in Africa, also South America the continents with the largest migrant populations globally. Table 1 below depicts the list of the key drivers of migration. The true picture was aptly painted by Fluhaux and Haas<sup>2</sup> who examined migration in Africa, trends, patterns and drivers.<sup>2</sup>



Figure 1. Illustration of the historical (biblical) exodus of the Israelites from Egypt and their guidance by a pillar of fire going ahead of them.

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<sup>1</sup> Finlayson C (2005). Biogeography and evolution of the genus Homo. Trends Ecol Evol. 20: 457-463.

<sup>2</sup> Fluhaux M. L., Haas H. (2016) African migration, trends, patterns, drivers. Comp. Migrn. Stud. 4: 1

## Materials and Methods

The method employed in this investigation, largely involved searching the credible literature reporting on migration, and the drug problem or crisis that are PubMed indexed or at least PubMed Central, Index medicus, Science Citation Index (SCI), Scopus.

Information was also sourced from important websites and reports from reputable organizations, such UNDP, ILO, WHO, IOM, UNODC, CDC, NCDC, IDA, NAFDAC, NDLEA, NBS, etc. and many others reputable sources. The information was subjected to critical and thorough analysis before arriving at a synthesis presented here.

The common and most well-known of the drivers of migration are as evident in table 1 below.

**Table 1. Common drivers of migration**

	Causes / Drivers	Remarks
1.	Bad governance	Evident in many African and South American countries
2	Human rights denial/ exploitation	
3.	Economic/ greener Pasteur	Linked to poor governance
4	Social & political oppression	Myanmar and Ethiopia
5.	Agricultural failure/ famine	
7	Environmental degradation/ climate change	
8.	Insecurity/ war	Exemplified by the Russian invasion of Ukraine
9	Liberation movement	South Sudan
10	Quest for better education-golden fleece	Many African countries, including Nigeria
11.	Religious persecution/ ethnic cleansing	Common in many third world countries, Myanmar China; the Holocaust dispersed the Jews all over the world
12	Abhorrent cultural practices	Killing of twins in Calabar – stopped by Mary Slessor
13	Medical tourism	Poor health systems

## **Results and Discussion**

### **Migration and Economy**

It has been recognized from history that there is an intimate nexus between trade (economics) and migration, capital like labour is a driver of production causing transborder movement or migration. International movement of labour may therefore be considered a response (one of the push or pull factors) to economic principles, which is considered conventional. Capital may move from one country in order to hire workers in another country, this is essentially what is operative when say a corporation like Mandillas sets up a production plant abroad. In the alternative, labour may depart one country in search of capital (employment) in another country, which is what obtains when workers migrate to a new country in search of employment by another organization in the new abode. Thus, it appears rational to view the politics of immigration as part of the broader integration of the world economy (globalization) and may be another illustration of the movement of factors of production from one country to another in line with the observation of Frieden et al.<sup>3</sup> One tempting question however is, if capital drives transborder movement of labour (migration), do drugs do the same? This is an aspect of migration that has not received any attention or only very limited exploration.

This paper examines the connection between migration and the global drug crisis or epidemic, and the drivers and societal disorders or pathology. Whereas the health impacts of migration have received some measured attention, one of the most recent being that of Schwerdtle et al.<sup>4</sup>, the association between migration and the exploding global drug crisis is hardly explored. One of the very few reports only referred to it in passing as, mental health disorders relating to social change and substance abuse as a component of the health impacts in migrant populations. In this report, circuitous evidence reveals a nexus between international migration and the global drug crisis.

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<sup>3</sup> Frieden, J. A., Lake, D. A., Schultz, D. A. (2016). World Politics: Interests, Interactions, Institutions. Norton and Company. New York. Pp 372-377.

<sup>4</sup> Schwerdtle P, Bowen K, McMichael C (2018). The health impact of climate related migration. BMC Medicine. 16: DOI 10.1186/s12916-017-0981-7

Table 2 shows the major countries of destination during this period, two of which interestingly are among the epicentre of the current global drug crisis.

Table 2. Major Countries of destination Pre-World War 1

	Country	Observation
1	Canada	Very cosmopolitan
2	Australia	cosmopolitan
3	Argentina	Cosmopolitan
4	United States of America	Very cosmopolitan

Source: Frieden et al (2016)<sup>3</sup>

It is perhaps appropriate to take a quick look at the countries with the leading number of international migrants.

Table 3. Countries with the largest number of international migrants as of 2013.

Country	Total Migrants	As % of Total
United States	45,785, 090	14.3
Russia	11,048, 064	7.7
Germany	9, 848, 244	11.9
Saudi Arabia	9, 060, 433	31.4
United Arab Emirate (UAE)	7, 826, 981	83.7
United Kingdom (UK)	7, 439, 086	12.4
France	7, 439,086	11.6
Canada	7, 824, 069	20.7
Australia	6,468, 640	27.7
Spain	6,466, 605	13.8

United Nations Population Division <sup>3a</sup>

<sup>3</sup> Frieden, J. A., Lake, D. A., Schultz, D. A. (2016). World Politics: Interests, Interactions, Institutions. Norton and Company. New York. Pp 372-377.

<sup>3a</sup> United Nations Population Division

### **Economic Factors and the Unanswered Question**

It is recognized that higher wages in wealthy nations attract workers from poorer nations embracing skilled and unskilled workers. Migration may lead to lower wages for local workers; the Heckscher- Ohlin theory or effect, which is not difficult to understand. Could this phenomenon contribute to the drug epidemic as local workers seek other ways to supplement their income?

Migration benefits destination countries in a number of ways:

- ✓ Access to larger labour force
- ✓ Lower cost of production
- ✓ Lower wages

Employers in specific industries benefit or gain from lower wages and cheap labour.

In the United States for example, migrant workers are particularly employed in the underlisted sectors:

- ✓ Agricultural
- ✓ Restaurants/ Eateries
- ✓ Hospitality industry
- ✓ Construction

Migrant workers are commonly paid lower wages that may not meet their subsistence. One is thus tempted to ask if this could be a driver for the drug epidemic as these workers resort to drug trafficking to supplement their meager wages and consequently one of the drivers of the drug crisis.

### **Migration: The Changing Equation**

Migration not unexpectedly changes the countries of origin and destination in some ways

These ways may include:

- ✓ Posing a cultural threat to host societies.
- ✓ Introduction of diversity
- ✓ Changes social and political nature of local society, including drug culture where it exists.
- ✓ Threat to national security is evident in some centres.
- ✓ Westernization of migrants, including drugs were prevalent.
- ✓ Migration contributes to globalization in positive and negative ways.
- ✓ Migration may raise more questions than answers.

### **The Global Drug Crisis (Epidemic)**

Is there any link between the global drug crisis and migration?

This question may be partly answered by the report of Feltner in the newsletter of the Council on Foreign Relations draws instructive attention to the opioid overdose in the United States which may mirror the global picture and magnitude.<sup>5</sup> The investigator underscores the situation as having reached an epidemic proportion, endangering not only public health but also economic productivity and the security of the country and by extension the world as whole. The report points out that over 2 million deaths from opioid overdose or poisoning have been recorded since 2000. Fentanyl, a potent synthetic opioid has heightened the crisis. Remarkably it has been observed that a major share of the drug supply originates from Mexico, a notable major migration hot spot or nation to the United States. A similar observation has also been made in Canada<sup>6</sup>, another major migration destination country and the second per capita consumer of opioids globally <sup>6a</sup>. Thus, the US or North American opioid epidemic may serve as an indicator of the rising global drug crisis.

### **Drug Abuse and Trafficking: A humanitarian Crisis**

Ghada Waly, the Executive Director of the United Nations Office of Drugs and Crimes (UNODC) has also recently observed that drug misuse and illicit trafficking has become a humanitarian crisis, which has remained sustained for several decades <sup>6b</sup>. She emphasized that this has a number of societal consequences (societal pathology), including:

- ✓ Deterioration in health
- ✓ Untimely death of millions globally with attendant economic and social derangements
- ✓ Crippling of the economy
- ✓ Vulnerable population at risk of other pathologies

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<sup>5</sup> Felter C. (2022) Council on Foreign Relations News Lett.

<sup>6</sup> Canadian Institute of Health Information (2017). Opioid – Related Harms in Canada

<sup>6a</sup> (International Narcotic Control Board, 2017)

<sup>6b</sup> Waly G (2020) Message on International Day Against Drug Abuse and Illicit Trafficking UNODC (United Nations Office on Drugs and Crime , Vienna (June, 2020)

Figure 2 below illustrates the rising death toll from common drugs of abuse, corroborating Waly, observation.

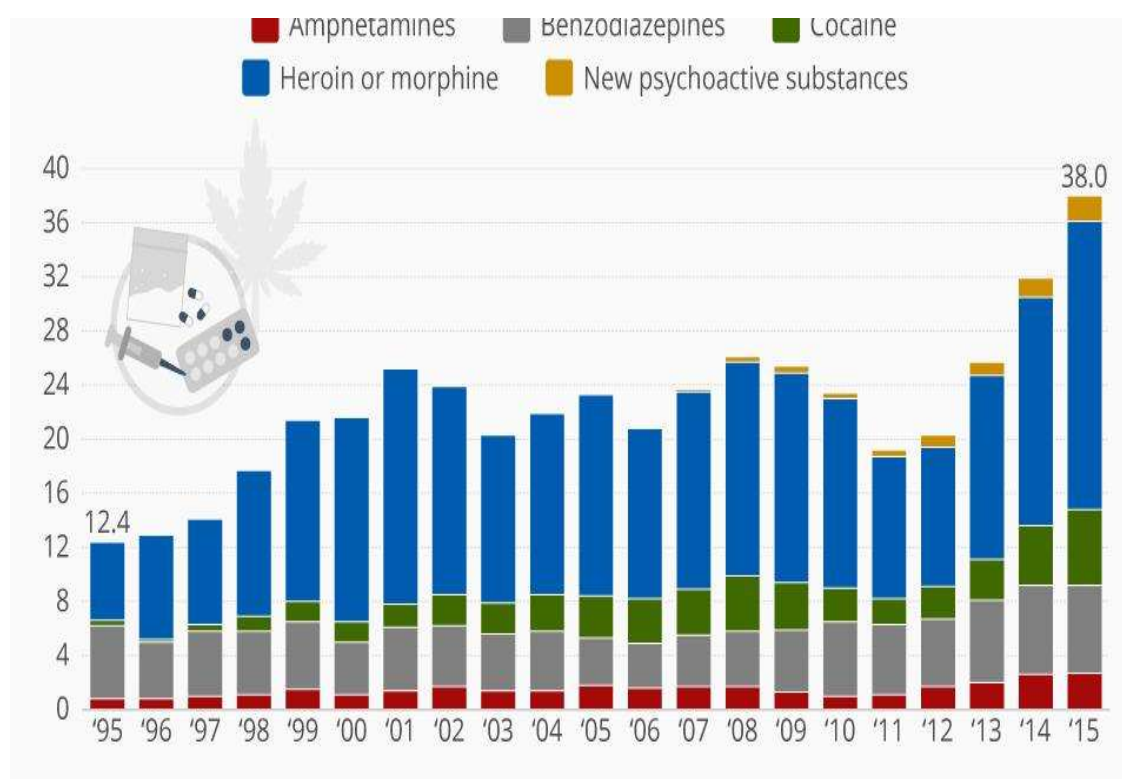


Figure 2a. Increasing death from drug misuse in about 20 years.<sup>7</sup>

As shown in figure 2 above, Kessel demonstrates the progressive increase in death from drug misuse, especially as regards major drugs of abuse, such as amphetamines, benzodiazepines, cocaine, heroin or morphine as well as emerging psychoactive substances.

### Origin of the Drug Crisis

The beginning of the drug crisis is uncertain. But the onset of the phenomenon is based mainly on speculative observations and connections. There is however general agreement that it is not new and may be traceable to the introduction of cigarettes by Columbus to the New World and the use of Tarshish in the Persian Gulf where it was employed for many deadly crimes including assassination.<sup>8</sup>

<sup>7</sup> Kessel I V. 2017. Death from drug misuse on the increase since the last 20 years. World Drug Report. UNODC

<sup>8</sup> Hansen T. 1989. Coping with Drug Abuse. CTS Publication. London. Pp1-10.



Evidence also exists that one of the very common drugs of abuse, amphetamine, a class of chemical compounds that share a common phenylethylamine structure was first synthesized in 1877 by Lazar Edeleanu, a Roman chemist who was working at the at the University of Berlin, Germany<sup>9</sup>, where he synthesized amphetamine from ephedrine. Ephedrine itself being a plant derivative isolated for the first time from the plant *Ephedra sinica* and had been extensively employed in Oriental traditional Chinese medicine for thousands of years and was at the time called ‘ma huang’.

A derivative from amphetamine, methamphetamine 3, 4-methylenedioxyamphetamine (MDMA) was later synthesized from ephedrine by the organic chemist and pharmacologist Nagai Nagoyoshi in 1893 at Tokyo Imperial University, now University of Tokyo, Japan. For nearly half century scientists were uncertain as to the pharmacological significance of amphetamine.



Molecular Structure of amphetamine, Molecular formula: C<sub>9</sub>H<sub>13</sub>N

By the late 1920s, Smith Kline and French (SKF), a prominent pharmaceutical company at the time introduced the drug to the market as a racemic (mixture of enantiomers of asymmetric structure, mirror images) of amphetamines in the form of a vasodilating inhaler, using the trade name ‘Benzedrine’.

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<sup>9</sup> Lemos NP (2013). Amphetamines. In: Kwon TC, Magnani B, Rosano G, Shaw LM (Eds). The Clinical Toxicology Laboratory: Contemporary Practice of Poisoning Evaluation. American Association for Clinical Chemistry (AACC) Press, Washington. Pp 97-108

It is perhaps strikingly important here to remark that the stimulant effects of the drug soon came to the attention of physicians who started using it for the treatment of narcolepsy (day time sleepiness). This may at least in part be the genesis of the drug crisis as the significant stimulant effect stimulant effect resulted in tremendous widespread recreational use that reached an epidemic proportion between the 1940s and 1950s<sup>9, 10</sup>. It is also significant to note that amphetamines were widely used for their stimulant effects by soldiers involved in the World War II (WWII) and the Vietnam war<sup>9,10</sup>. These may have introduced it to their immediate circle of friends on discharge from military service and ultimately to the general public.

There is a report that seems to corroborate the use of amphetamine by military personnel that the attending (personal physician) of Adolf Hitler may have 'repeatedly injected 'Hitler with intravenous methamphetamine in the 1940s'.<sup>9, 11</sup>

Methamphetamine abuse progressively rose in the 1950s and 1960s when it was recognized as a social problem (societal pathology?) in the United States of America.

As a response to the magnitude of methamphetamine abuse in the U S, it was classified as a Schedule II Substance in late October 1970, as a component of the Comprehensive Drug Abuse Prevention and Control of 1970<sup>9</sup>. Schedule II Controlled Substances have limited medical application, but a high potential for abuse and may lead to profound psychological or physical dependence or addiction.

The German chemist Anton Kollisch, an employee of Merck synthesized MDMA in 1912 shortly before he was killed in WWI in 1916, about two years later a patent was granted to the drug (MDMA). Unfortunately, the inventor or investigator was not alive to appreciate the full impact of his contribution or invention inflicted on the world.

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<sup>9</sup> Lemos NP (2013). Amphetamines. In: Kwon TC, Magnani B, Rosano G, Shaw LM (Eds). The Clinical

<sup>10</sup> Rasmussen, N (2013) Amphetamine Stimulants: The early history of their medical and non-medical uses. *International Review of Neurobiology*. 120: 9-25

<sup>11</sup> Doyle (2005), D. Adolfe Hitler's medical care. *J R Coll Physicians Edinburg*. 35: 75-82

The drug MDMA, remained in oblivion until the 1970s, when a scientist at the university of California, Berkeley experimented with the drug and shared it among his colleagues, students and friends. This may also have contributed to the genesis of today's drug crisis.

Following this, MDMA within a short period attracted a large clandestine followership involving psychotherapists, college and secondary school students, club adherents, trans versing all age groups and gender in the United States. Like amphetamine, this abuse resulted in classifying MDMA as a Schedule I Controlled Substance in 1980 <sup>9</sup>. Schedule I Controlled Substances incorporates substances with a high potential for abuse, without currently accepted medical application for treatment as well as absence of generally accepted safety for use of the drug or related substances, embracing those covered under medical supervision.

Ephedrine and pseudoephedrine were similarly treated for risk of use in clandestine preparation of amphetamine, culminating in the amendment of the USA Patriot Act, repealing the Methamphetamine Epidemic Act of 2005, amending the sale of ephedrine and pseudoephedrine containing products in the United States <sup>9</sup>.

Disappointingly, despite the extensive legislative measures at restricting possession and production of the drug from which the rest of the world borrowed marginal results were achieved in the drug crisis as corroborated by a report from the Drug Abuse Warning Network (DAWN), revealing that methamphetamine, amphetamine and MDMA accounted for 66, 308, 31, 534 and 17, 865 emergency department (ED) visits owing to distress respectively in the United States , which accounts for 11.6% of nearly one million ED visits in 2008 <sup>12</sup>

Ever since the annual figures have climbed by > 5% in number of ED visits involving amphetamine and related compounds between 2003 and 2008 <sup>9</sup>, <sup>13</sup>, an indication of the magnitude of the problem.

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<sup>5</sup> Felter C. (2022) Council on Foreign Relations News Lett.

<sup>9</sup> Lemos NP (2013). Amphetamines. In: Kwon TC, Magnani B, Rosano G, Shaw LM (Eds). The Clinical

<sup>12</sup> USDHHS (2011) US Department of Health and Human Services- Substance Abuse

<sup>13</sup> USDHHS, 2004

This illustrates the contribution of a collection of related compounds and can be extrapolated to drugs of abuse in other classes, cocaine, opioids cannabis and many others that can be combined with attendant synergistic deleterious effects.

A similar account may be weaved around these other drugs all contributing to the genesis and converging in the crisis we have today.

America, the consumer of about 67% of global drug consumption<sup>13</sup> not surprisingly serves as a reservoir and source distribution after delivery from key producing countries in South America.<sup>5</sup> owing to the role the U S plays in world affairs positive or negative.<sup>14</sup>

It is widely agreed as well that beginning in the 1990s, there has been an upsurge in prescription drugs, especially the use of opioids for pain relief and for reducing suffering in cases of excruciating pain, which is a welcome relief to many, but has unintendedly precipitated the drug crisis and contributed substantially to the crisis with the overt or covert action of major pharmaceutical companies from deceptive marketing unsupported by scientific evidence with the connivance of gullible physicians.<sup>15</sup> David Michael, a former Undersecretary in the US National Institute of Occupational Health and Safety (NIOSH) holds the strong view that overabundance is a very strong contributor to the genesis of the current global opioid epidemic which took its route from the United States.<sup>16</sup>

It is undeniable, that the glut of prescription opioids in virtually unlimited quantities whether as prescription drugs or from diversion to illicit market, contributed to the current epidemic or crisis.

The admonition of Sir William Osler (1849-1919)<sup>17</sup>, a great contributor to the reformation of modern medical practice in Canada, the British Commonwealth and indeed the whole world may be useful here; ‘One of the duties of a physician is to educate the masses not to take drugs’. Sir

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<sup>14</sup> Michael’s House, 2022

<sup>15</sup> Klimas J (2016). Time to confront iatrogenic opioid addiction. The Medical Post. May

<sup>16</sup> Michaels D. (2020). On Opioids. In: The Triumph of Doubt: Dark Money and The Science of Deception. Oxford. Pp 103-116

<sup>17</sup> Bliss, M (1999). William Osler: A Life in Medicine. Oxford University Press. Oxford

Osler also observed that, ' the desire to take drugs is perhaps the greatest feature which distinguishes man from animals.

In tackling the global drug crisis all involved, particularly physicians may need to be reminded of this timeless admonition.

### **Common Drugs of Abuse**

The natural question is what are some of the commonly abused drugs?

These may include:

- ✓ Alcohol
- ✓ Amphetamine
- ✓ Cocaine
- ✓ Nicotine
- ✓ Heroin
- ✓ LSD
- ✓ Opioids

This may be better illustrated by the figure below to mark the International Day of Drug Abuse and Trafficking.

### **The Chemistry of Drugs and their Toxic Actions**

It is necessary to briefly consider the chemistry of drugs and their toxic actions. Drugs are chemicals which modify the physiological integrity of the host (body) for a beneficial outcome or effect. Drugs may however have untoward or side effects that are outweighed by their beneficial effects. The goals of drugs are:

- i. To prevent disease
- ii. To cure disease

Often goals I and II may not be achievable, but drugs should mitigate the progressive, devastating, or destructive features of a disease <sup>18,19,20</sup>

Common Drugs of abuse and illicit trafficking that may lead to addiction and or death include:

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<sup>18</sup> Ebadi, M. (1996). Pharmacology: An Illustrated Review. Little Brown and Company. Boston, pp xi- 21

<sup>19</sup> Harkup K (2015) A is for Arsenic: The Poisons of Agatha Christie. Bloomsbury Sigma, Bedford, London

<sup>20</sup> Woolley D, Woolley A (2017). Practical Toxicology: Evaluation, Prediction, and Risk. CRC Press, Taylor & Francis Group, Boca Raton

- ✓ Alcohol
- ✓ LSD
- ✓ Cocaine
- ✓ Nicotine
- ✓ Heroin
- ✓ Opioids
- ✓ Methamphetamine

### **The Chemistry of Drugs and Toxic Actions: Effect on the Brain**

What everyone should clearly understand about drugs which is often lacking in most people is that appropriate consumption of drugs improves the quality of life, in converse intake of drugs non-discretionally or use of mostly scheduled drugs is harmful and destroys the individual and society. Drugs are thus like a double- edged sword which have to be used and handled with caution.

The brain is the organ on which drugs of abuse have their most harmful effects. The brain is a key target organ of many drugs of abuse, such as cocaine and amphetamine and one of the organs that clinically manifests intoxications with drugs and chemical.<sup>21</sup> The brain has a remarkable natural mechanism for pain management as outlined below:

- ✓ The body produces its natural chemical, opioid which binds to the receptors in the brain and nerves lessening pain and bringing relief and comfort to the patient.
- ✓ For centuries, products derived from opium (a natural plant product) and subsequently, synthetic morphine were employed for pain relief, a kind of augmentation of the natural mechanism.
- ✓ The external intervention was an effective remedy but with addictive properties of concern.
- ✓ Owing to the beneficial effects observed in the 1960s, there followed widespread unregulated use in the 1990s<sup>16</sup>
- ✓ The mechanisms of action of opioids are that they bind to receptors blocking them with attendant euphoric feeling craved for by users

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<sup>16</sup> Michaels D. 2020. On Opioids. In: The Triumph of Doubt: Dark Money and The Science of Deception. Oxford. Pp 103-116

<sup>21</sup> Hayes, A. W, Kruger G (eds) (2014) Neurotoxicology. In: Principles and Methods in Toxicology. CRC Press, New York.pp. 1596-1597

which became recognized and widely spread. Aspects of the mechanisms of drug action are depicted in figure 3 below.

It is important to recognize that consumers seeking opioid to the exclusion of medical goals irrespective of the deleterious consequences in their lives are generally considered as drug addicts which should be identified to avert the individual and societal damage that may follow.

### **The Chemistry of Drugs and Toxic Actions 3- Addiction**

Addiction, from the foregoing (abuse, misuse, non- medical use of drugs) leads to dependence which is characterized by the following features:

- ✓ Individual becomes dependent on a particular drug.
- ✓ Requires constant supply of drugs.
- ✓ Becomes unable to stop using drugs.
- ✓ Requires medication to be liberated <sup>8</sup>

Drugs only offer a temporary escape from disillusionment, anxiety, and related dysfunction. The deleterious effects may be dose dependent as observed many years ago by the father of modern toxicology, Paracelsus. Additionally, euphoria or state of exaggerated wellbeing, or pleasure is ephemeral with an aftermath of depression, melancholy, which can lead to destruction of the individual, community, and society at large.

### **Allures of Drugs**

It may be appropriate to examine the allures into drug addiction.

It is coincidental that there is a convergence between the drivers of migration and drug addiction.

Some of the drivers or the key drivers of drug addiction include:

- ✓ Disillusionment
- ✓ Unhappiness
- ✓ Unemployment
- ✓ Uncertain future
- ✓ Prolonged reduction of income
- ✓ Low self esteem
- ✓ Lack of contentment (greed).

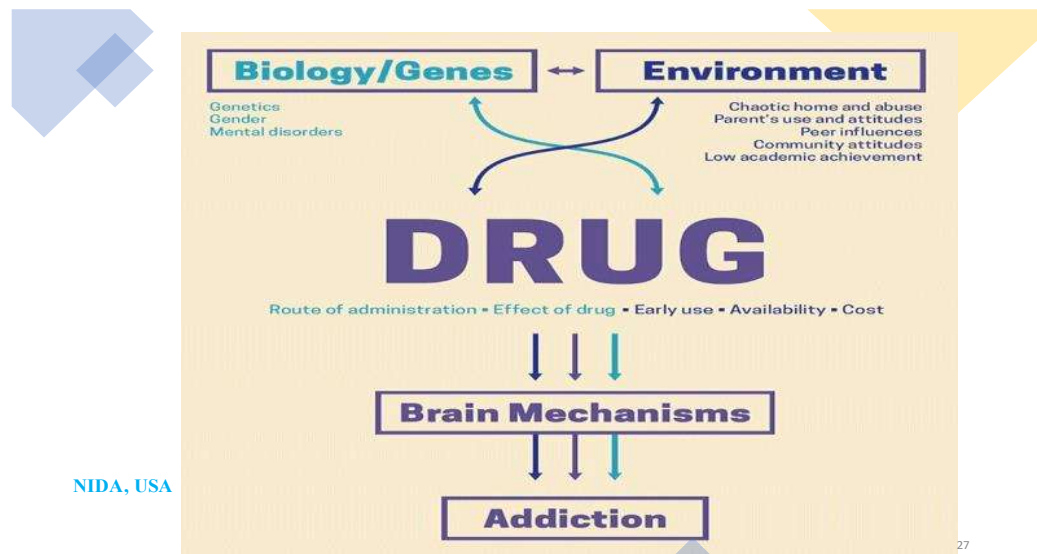
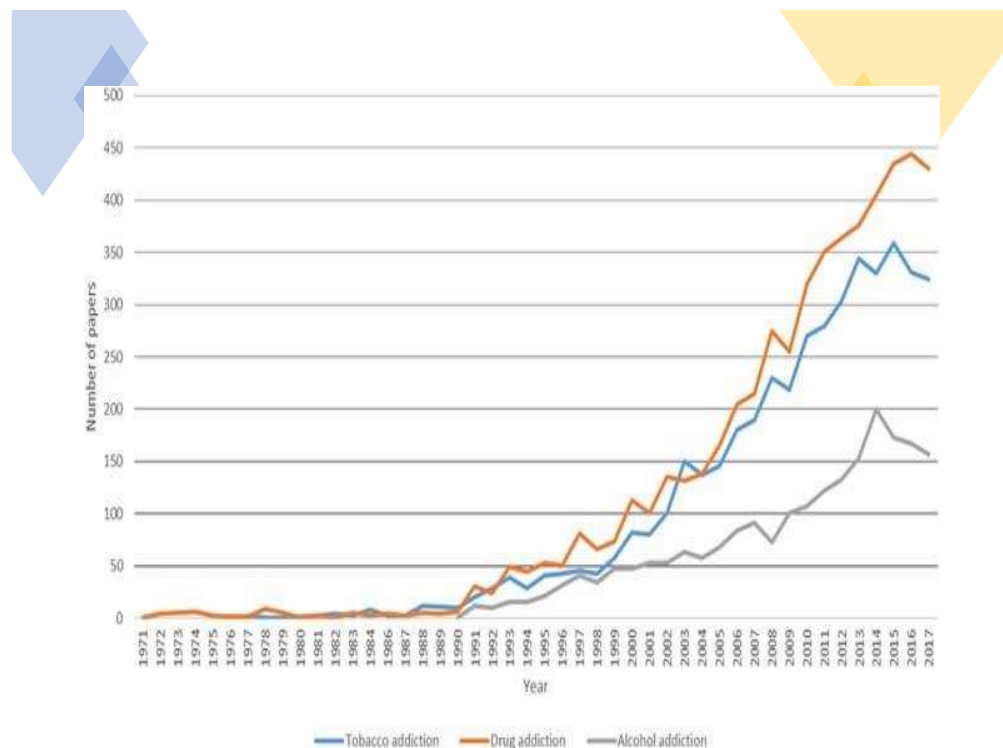


Figure 3b. Determinants of Addiction and Modifiers. Source: National Institute of Drug Abuse, NIDA (USA)<sup>22</sup>



Tran et al 2019...Global Mapping of Substance Abuse. Sub Abuse Treat Prev. Policy 14 :

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Figure 4a. Trends in drug abuse

<sup>22</sup> National Institute of Drug Abuse (NIDA) USA



The trend of drug <sup>23</sup> abuse may also parallel transborder seizures indirectly suggesting a link between migration and the drug crisis.

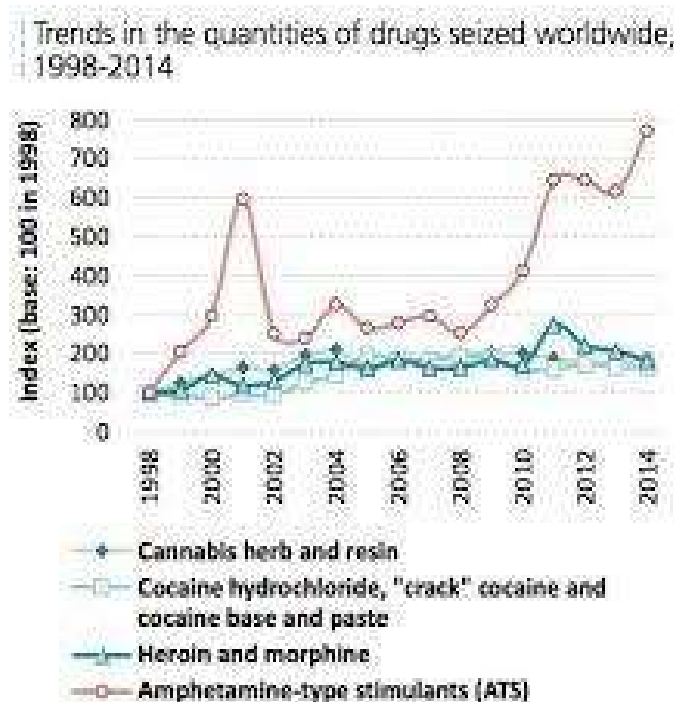


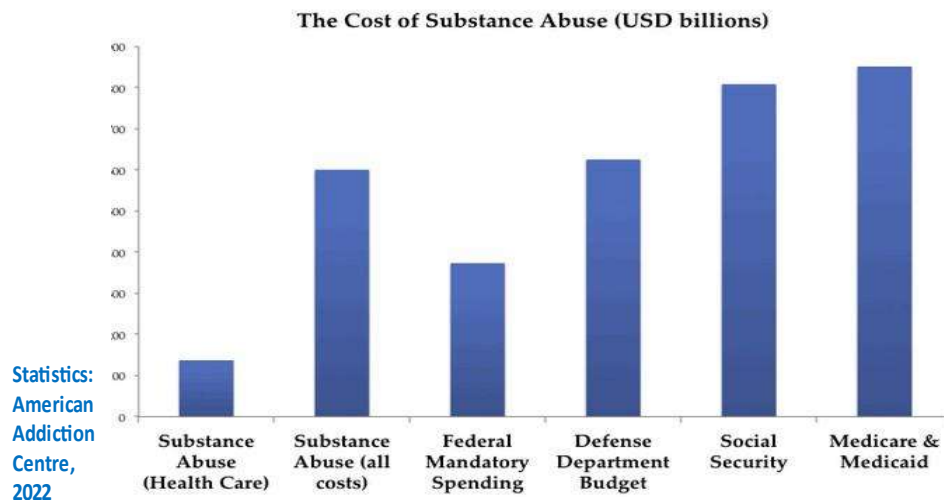
Fig. 4b. Trends in the quantities of drugs seized globally between 1998 and 2014. Source: United States Border Protection <sup>24</sup>

The trend of drugs seized over one and a half decades between 1998 and 2014 appears to parallel the rising volume of migrants as shall be evident below (US Border Protection, <sup>24</sup>, suggesting a link between migration and the global drug problem.

<sup>23</sup> Tran, B. X, Moir M, Latkin C A, Hall BJ, Nguyen C T et al. (2019). Global mapping of substance abuse. Sub. Ab. Treat. Prev. Policy. 14: 1

<sup>24</sup> UNODC (2018)

## COST OF DRUG TO SOCIETY- USA



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Source: Statistics American Addiction Center <sup>25</sup>

Figure 6a. Shows the prominent position drug abuse now occupies compared to major government services.; defense, social security, Medicare, and Medicaid

### THE WEST AFRICAN DRUG CRISIS: A DISCONCERTING SITUATION

The drug problem in West Africa is very disconcerting and appears to at least in part parallel migration and intense trans-border activities in the sub-region as shown in table 4.

Table 4. Trends in drug use and trafficking in West Africa

	Quantity / Proportion	Period	Remark
1.	53 tons of cocaine were seized in West Africa	2019-2021	
2.	52 tons of hashish were seized in WA	2021	

<sup>25</sup> Statistics American Addiction Center

3.	77% of global tramadol is made in WA	-	Indicator of the magnitude of the drug crisis in the sub-region
4.	31.6 % of West Africans, 15-64 years old abuse drugs		
5.	<i>70% of drugs in West Africa originate from Latin America</i>		A major drug hot spot and migration hub in the world
6.	275 million West Africans abuse drugs		Size of the problem
7.	36.3 million West Africans suffer from drug use disorders		A Pointer to the public health crisis

UNODC. 2021. World Drug Report<sup>26</sup>

### **Disturbing Projection of Drug Use in West Africa**

At a meeting held at the Cervantes Institute in Dakar in April 2022, it was reported that drug use is projected to rise to 40% in the short-term and 43% by 2030. Very disturbingly, youth who are the dominant group involved in migration activities is reported to be at greatest risk.<sup>27</sup>

The 2019 World Drug Report (UNODC, 2019) in an observation in Africa, remarked that while fentanyl and its analogues are the major problems of synthetic opioid crisis in North America, the situation in West, Central and North Africa is different. The African sub-regions are experiencing a crisis with tramadol, another synthetic opioid. The global seizures of this drug (tramadol) are reported to have leaped from less than 10 kilogram in 2010 to about 9 tons in 2013 and reached an all-time high of 125 tons.<sup>28</sup>

### **The Nigerian Sombre Picture**

The level of drug use in Nigeria is high<sup>28</sup> Nigeria is a leading country in the West African sub-region. It is therefore not surprising that with the level of free migration in the West African community that the country has its own fair share of the drug crisis, probably associated with migration. This is corroborated by the report of UNODC<sup>24</sup>, which stated that Nigeria was facing hard times with drug misuse.

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<sup>26</sup> UNODC. 2021. World Drug Report

<sup>24</sup> UNODC (2018)

<sup>27</sup> UNODC (2022)

<sup>28</sup> UNODC (2019)

The report indicated that the prevalence of drug misuse was led by the Southwest geopolitical zone, followed by that of North-West zone. As reported by Molobe and Odukoya <sup>29</sup>, the leading countries in drug use or trafficking in West and North Africa are Niger, Chad and Libya, these are well known migration routes to Europe, suggesting an association between migration and drug trafficking and drug misuse in West Africa. The Northern geopolitical zones taken together, account for nearly 36% (35.6%) of drug use or movement in Nigeria. <sup>24</sup> The report of Molobe and Odukoya appears to corroborate the observation of the United Nations Drug Report <sup>27,28</sup>.

The drug crisis in Nigeria may be considered sobering, the age group most involved in drug use is the most economically productive age group, 30-39 years. Over 14.3 million Nigerians are involved in hard drug use, 376,000.00 Nigerians are believed to be high risk drug users.<sup>30</sup> The economic impact of drug use is also striking, the high-risk group is known to expend about half a million naira on drugs annually, while each consumer spends about # 132,000.00. For cannabis as a specific substance abuse, about # 140,000.00 is spent per person according to the National Bureau of Statistics. <sup>30</sup>

Rural- urban drift or migration has also been identified as a response to poor socioeconomic situation, including poverty.<sup>31</sup> It has been observed that a huge number of young people are migrating from villages to Port Harcourt, in Nigeria and that there is an associated rise in associated sexually transmitted diseases <sup>31</sup>. This is unsurprising, even though drugs including alcohol was not mentioned they are recognized to exist in clusters, the Niger Delta is reported to have the highest incidence of HIV/ AIDS in Nigeria, probably a correlate the rising prostitution and teenage pregnancy in the region. This appears corroborate the Lancet Report <sup>32</sup> associating drugs with high-risk behaviour. Increased violence, a recognized feature of drug misuse has also been reported from the Niger Delta Region, curvilinearly

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<sup>29</sup> Molobe, I. D., Odukoya, O.O. (2021). The prevalence of drug use and illicit trafficking: a descriptive cross-sectional study of irregular migrant returnees in Nigeria. *Journal of Migration and Health*. 3: 100034

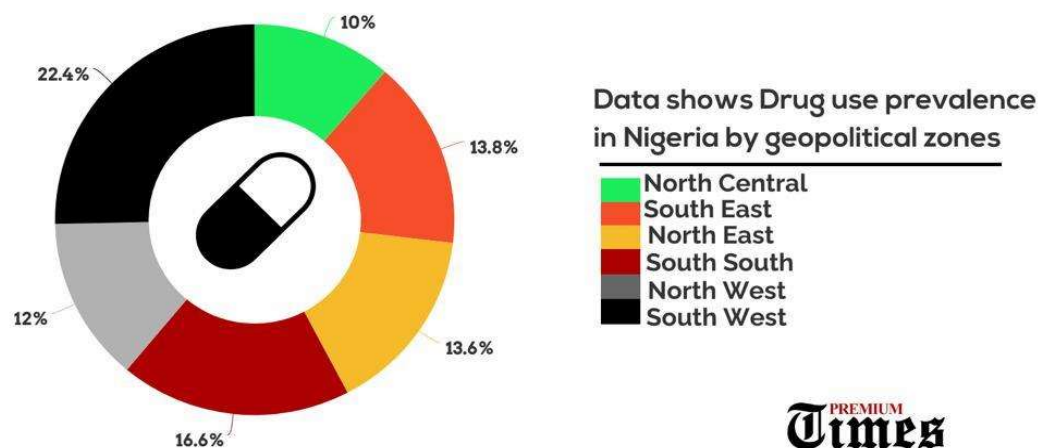
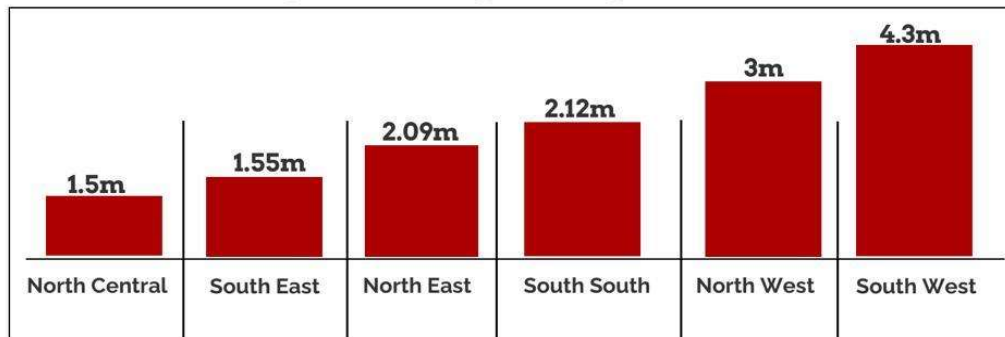
<sup>30</sup> National Bureau of Statistics, 2018

<sup>31</sup> Tamuno, N. T. (2011). *Oil Wars in the Niger Delta: 1849-2009*. Sterling- Horden Publishers Ltd, Ibadan. Pp 171-190

<sup>32</sup> Lancet Report (2010) AIDS 2010: (Editorial). 376: 2

connecting drugs and migration with social vices, in this case internally as opposed to international migration.

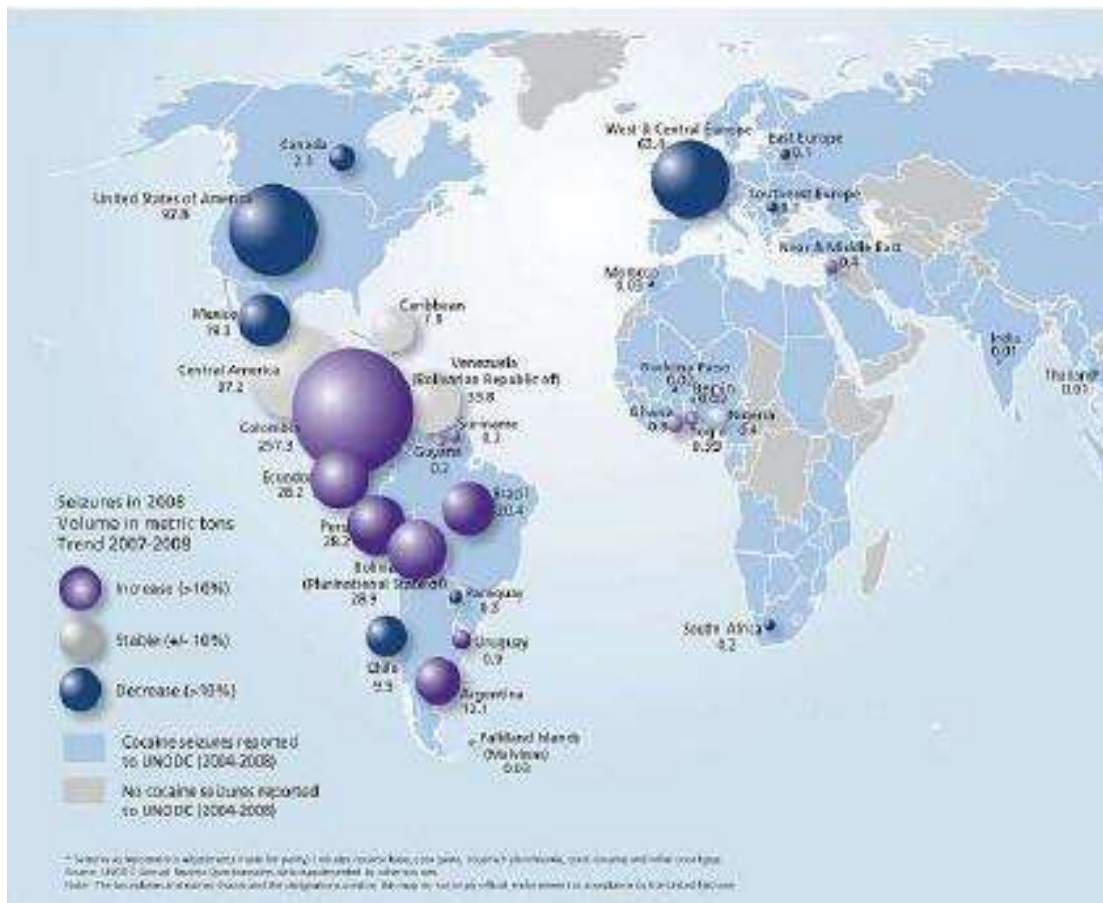
**Prevalence of Drug Abuse in Nigeria by geopolitical zones (2017)**



**PREMIUM**  
**Times**

Source: Report on Drug Use and Health in  
Nigeria 2018 by FMOH, NBS, CRISA and UNODC

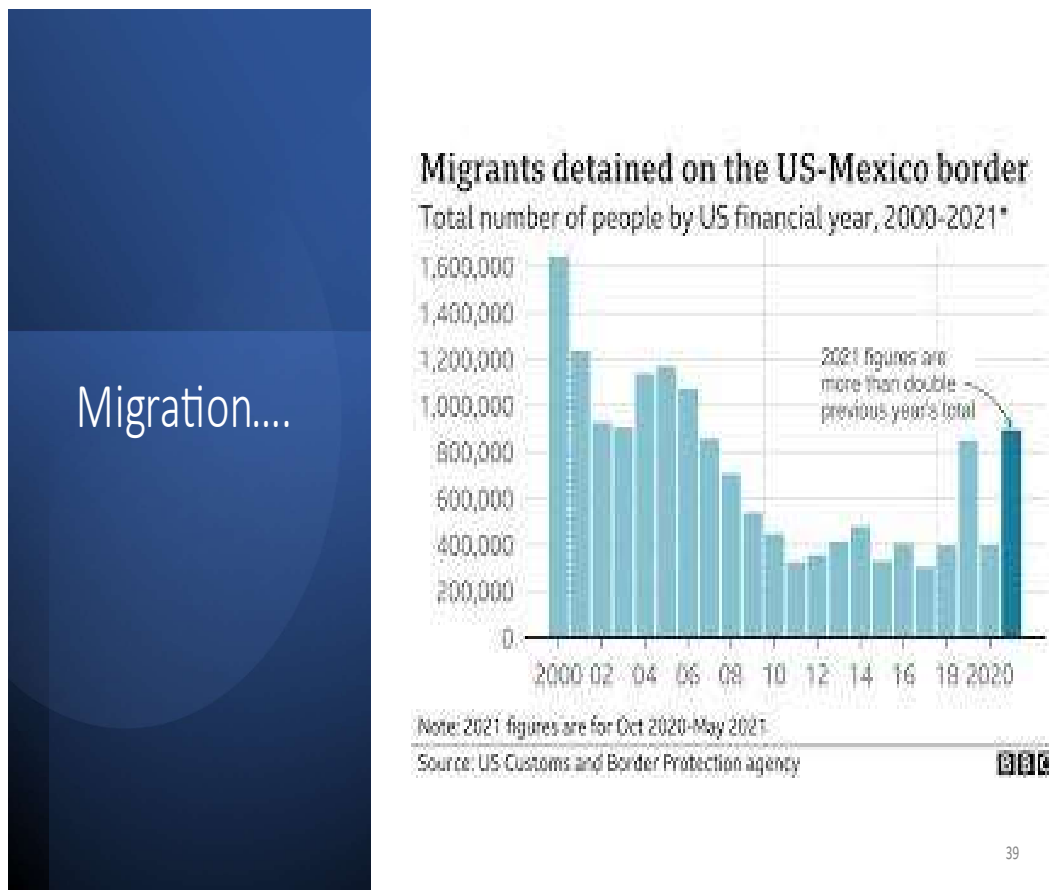
**Figure 6b. Prevalence of Drug misuse according to geopolitical zone.**  
**Source: NBS, UNODC**



**Figure 7. Global drug seizure (UNODC, 2008)<sup>32a</sup>**

Figure 7a above from the UNODC 2002-2008 tells an interesting story showing drug seizures in major migration routes and destination routes, while it was decreasing in North America (embracing Canada) and Europe, it was increasing in most of South America and stable in Nigeria with pockets of stability in other West African states.

<sup>32a</sup> UNODC (2008) Global drug seizure



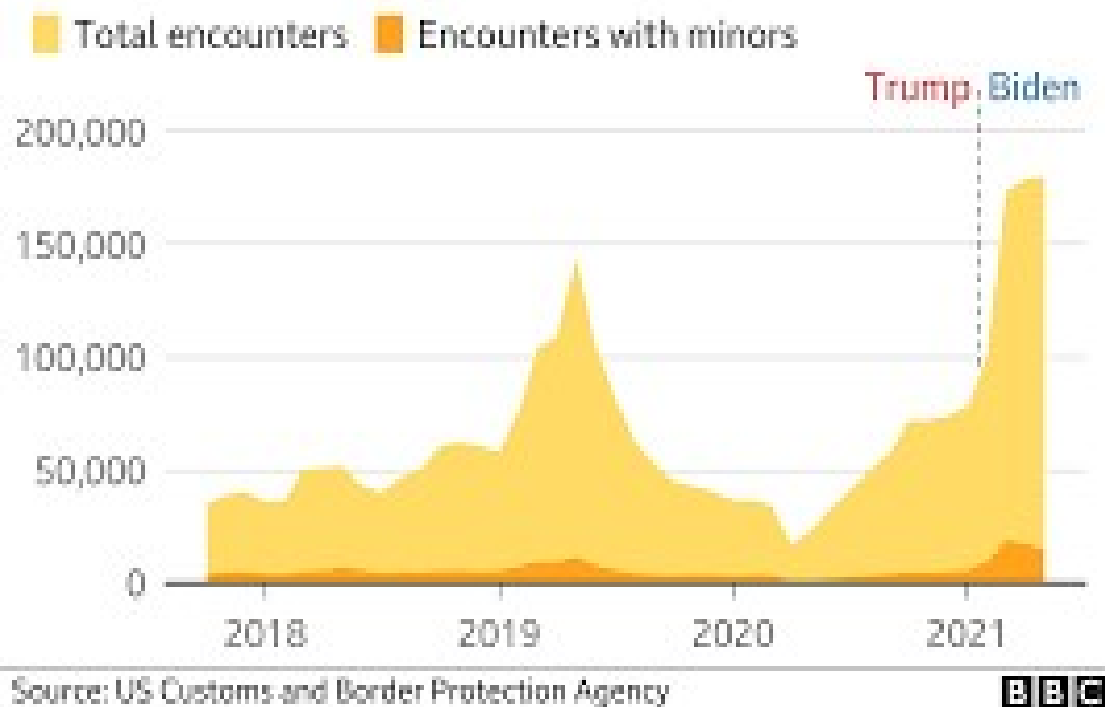
**Fig. 8. Large number of Migrants detained at the US-Mexico border. US Customs and Border Protection Agency 25**

As evident from figure 8 there is rising volume of migrants which more than doubled from 2019 to 2021, suggesting the pressure of migration on that axis, which is also a major drug movement axis or pathway. This appears corroborated by the sharp rise in migrant encounters in the Mexico boarder a major international migration route (BBC,2021).<sup>33</sup> This correlation and the data for global drug seizure, figure 7 appears to argue strongly for a link between migration and the global drug crisis. This appears very significant and remarkable.

This is coupled with the countries of greatest migrant population, Bolivia, Columbia and Peru that are also linked with intense drug trade, consumption and trafficking.

<sup>33</sup> BBC, 2021

## Migrant encounters at the US-Mexico border have risen sharply in recent months



**Figure 9a. Upsurge in US- Mexico border migration**



## TRAFFICKING IN DRUGS.....



45

**Figure 9b. Major trafficking routes also routes of intense migration.**  
Source: CIA, USA

### Economic Drivers of the Global Drug Crisis

Table 5. shows the economic worth of drugs, serving as a driver of the global drug crisis.

**Table A. Global Drug Market Annual Values (US\$)**

Market	Value
Cannabis	\$183 billion to \$287 billion
Cocaine	\$94 billion to \$143 billion
Opiates	\$75 billion to \$132 billion
ATS	\$74 billion to \$90 billion
<b>Global Total</b>	<b>\$426 billion to \$652 billion</b>

Source: Global Financial Integrity (GFI) (2017)

**This is a very tempting economic factor which may serve as a stimulus to keep interest in the drug trade burning and fueling the global drug crisis.**

### Societal Pathology of the Global Drug Crisis

Hard drugs are known to be used in facilitating crimes as they eliminate any form of inhibition. Many countries put very stiff penalties, including death especially in the Muslim world, Indonesia, Singapore, Saudi Arabia etc. Many studies have established a parallel between drug use and crime rate as demonstrated in Canada.<sup>34</sup>

Among the damaging effects of drugs which were well encapsulated by Waly<sup>35</sup> are:

- ✓ Corruption
- ✓ Crime
- ✓ Drug trafficking
- ✓ Drug addiction
- ✓ Violence

These social vices have far reaching community and larger societal consequences (pathology) that may contribute to upheaval and damaging occurrences.

Drug overdose deaths per 100,000 by race and ethnicity reveals that 19.1 – 23.6 for whites, 16.1- 27.3 for blacks , 8-12. 8 for Hispanics, 2.5 – 3.7 for Asians and for American Indians and Alaskan Natives 18.8 – 29.8 (CDC National Centre for Health Statistics, 2018).<sup>36</sup> The overdose death rates appear to be higher for the more migrant populations, African and American Indian Alaskans.

The Canadian picture reveals that this second highest migrant destination country and second highest per capita consumer of opioid worldwide International Narcotic Control Board.<sup>37</sup> Over 21 million opioid prescription.<sup>37b</sup> Opioid prescription rose in 25 years and 4000 deaths of opioid overdose in 2017<sup>38</sup> and Opioid overdoses accounts for 16 hospitalizations per day. These data appear to show some association

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<sup>34</sup> Juristat, 2019

<sup>35</sup> Waly G (2020) World Drug Report. UNODC

<sup>36</sup> CDC National Centre for Health Statistics, 2018

<sup>37</sup> International Narcotic Control Board, 2016

<sup>37b</sup> Institute of Health Information, 2016

<sup>38</sup> Boyd S (2018). Drug use, arrests, policing, and imprisonment in Canada and BC, 2015-2016. Vancouver

between migration and crime and death rates, some of the societal pathology of the drug crises.

It should not be forgotten in history that one of the tragedies that befell humanity was the holocaust<sup>39</sup>, a horrible decision that exterminated over six million Jews in a gas chamber masterminded by Adolfe Hitler who was later found to have been under the influence of drugs, amphetamine<sup>11</sup>. This is an extreme illustration of what inhuman actions individuals can take under the influence of drugs.

This is also playing out today in America, known to consume about 67 % of global drug consumption<sup>16</sup> and has the highest record of gun violence nearly all of which are connected with mental health disorders often traceable to substance abuse.

### Alarming Death Rate from Drugs

CDC, 2017



**Figure 12: Drug overdose contributing to greater mortality in the United States- one of the societal pathologies of the drug crisis**  
**Source: CDC (2017)**

<sup>11</sup> Doyle D (2005) Adolf Hitler's medical care. J.R. Coll. Physicians Edinburgh. 35: 75-82.

<sup>16</sup> Michael House, (2022)

<sup>39</sup> Gutam Y, Abraham, M (2014) (eds). Documents on the Holocaust: Selected Sources on the Destruction of the Jews of Germany, Austria, Poland, and the Soviet Union. Pergamon Press/ Elsevier

Among the deleterious effects of drugs which appear from evidence that may be bumpy or tortuous is that there is a connection between migration and the current global drug crisis, described as having reached humanitarian crisis <sup>35</sup>.

Some of the attendant adverse societal effects or outcomes include:

- ✓ Deterioration in health
- ✓ Premature death of millions worldwide
- ✓ Devastating effects on economic production and wasteful diversion or resources
- ✓ Vulnerable group (the youths) at greater risk
- ✓ Increased societal violence (domestic and) external.
- ✓ Increased global insecurity and terrorism.
- ✓ Family disharmony, including marital instability with attendant societal multiplier effect.

As shown in figure 12. above, overdose deaths contributed most to the totality of other causes of death in the United. This observation may not come as a surprise as it is congruent with the recognition that the United States is the consumer of 67% of illicit drugs globally <sup>16, 40</sup>.

The 2019 World Drug Report gives the scientific community a global view of the dynamics (supply and demand) of drugs, especially of the key drugs of abuse, opiates, cocaine, cannabis, amphetamine-type stimulants (ATS) and the recently developed psychoactive substances, and more importantly their impact on human health. The report underscores the fact that with improved investigations and accruing more accurate data, the deleterious consequences of drug misuse are becoming more evident and make clear that they are more widespread than hitherto thought (UNODC, 2019) and may parallel trends in migration. The suggestion by LeBeau and Montgomery (2020) <sup>41</sup> that the challenges require forensic laboratories for proper investigation, policy formulation and management appear sound and worthy of adoption.

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<sup>16</sup> Michael House, (2022)

<sup>35</sup>Waly G (2020) World Drug Report. UNODC

<sup>40</sup> CDC, 2017

<sup>41</sup> LeBeau M, Montgomery M. (2020) Drug-Facilitated Crimes. In: Levine B. S. Kerrigan S (eds). Principles of Forensic Toxicology, Springer. Switzerland AG, pp 35-43

## Conclusion

An analytical attempt was made to link here in the intersection between migration and the drug epidemic. A set of drivers or factors appears to be determinants in the existence of humans that when altered may compel their dislodgment from one location to another. Traditionally, these may commonly include, economic, search for better education, insecurity, including wars as eloquently demonstrated by the situations in Ukraine, Pakistan, Nigeria, Ethiopia, Libya, Iran and about three decades ago, Rwanda and Uganda. Agricultural failure leading to famine, possibly a consequence of climate change could also be a driver of migration. What has remained largely unexplored is that there is a strong nexus between migration and harmful drug use and trafficking and rarely considered. Evidence, if windy, from this analysis appears to provide a link between the current global drug epidemic and migration.

This disturbing observation is associated with a number of aberrant outcomes that may threaten societal cohesion and lead to societal dysfunction, as shown by economic instability and decline in productivity, poor cognition, violence among others, all of which need to be addressed urgently and creatively.

The key message from this study, is that anomalous outcomes from migration related drug misuse are surmountable, if individual and collective will exists, which derives from good governance that is largely absent in most of the migration nations of origin compared to destination nations and a major driver or contributor to migration and the attendant drug crisis.

While the evidence presented here linking migration and the global drug crisis may be windy, it provides early warning for the global community to act; adoption of the precautionary principle <sup>42,43</sup> rather than strict adherence to weight of evidence is strongly admonished as a rational pathway. The precautionary principle should be adopted while more evidence is awaited from creative studies to avert the emergence of epidemic of severe

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<sup>42</sup> Gilbert SG (2005). Public Health and the Precautionary Principle. Northwest Public Health. Spring/ Summer

<sup>43</sup> Goldstein BD (2006). The precautionary principle: Is it a threat to toxicological science? Int. J Toxicol. 25: 3-7

generalized neurological disorders and other pathological correlates as well as insurmountable attendant social upheaval. Under the precautionary principle, lack of complete scientific or proven certainty (accepting existence of gaps) does not justify postponement of cost - effective measures (inaction) to prevent significant potential health risk or societal disorder.

### **Suggested Action Plan**

Collectively and as individuals, we should endeavour to install good government by electing good leaders to ensure or promote good governance which has sound education, justice, equity zero or minimal corruption as the basis. This should be relentlessly pursued by the global community.

Aristotle's (384- 322) dictum or admonition that, 'all who have meditated the art of governing mankind have been convinced that the fate of the empire depends on the education of youth', who are disproportionately engaged in the migration movement and drug misuse. Education here refers to true schooling in knowledge, ethics, and good judgment.

At the individual level, we may emulate Don Bosco (1815-1888) who came to the need of the ones commonly attracted to the glamour of migration by being a father, teacher, friend, confidant, counsellor, leader and colleague to the youths and in the process counteracting the drivers of migration and attendant allurements to drugs, alcohol or substance abuse.<sup>44</sup> According to Bosco (a Rev father), 'these boys are not bad, take care of them before they enter crime'. Bosco inculcated in them the virtue of hard work and working well finding fulfilment, an antidote to migration. This friend of the youth was also known to often say, 'it is not enough to love the young; they must know that they are loved'. This helps to resist the lure of migration until it becomes inevitable. He was additionally often heard to say, 'In every young person, a point of goodness is accessible, and it is the primary duty of the educator to discover the sensitive cord of the heart so as to draw out the best in the young people'. Thus, in the process reducing the attraction to migration-associated drug use involvement and decreasing the global drug crisis.

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<sup>44</sup> Lemoyne JB (1967). Biographical Memoirs of St, John Bosco. Vol IV, New Rochelle, New York. Pp 52-56

Don Bosco was one of the pioneers of Mutual Aid Societies (MAS) that were established as collaborative financial support to young migrant Catholic workers in the city of Turin in Italy. In 1850 Don Bosco drew up regulations to assist apprentices and their companions when any of them was unintentionally without work or fell ill. This is the kind of welfare scheme, a product of good governance needed today to address destitution that push young people to migration and drug or substance misuse. We all seemed to have failed in this regard and should therefore call for ‘*mea culpa, mea culpa*’ (call for forgiveness).

A kind of global, regional, and individual examination of conscience with a cry for forgiveness, for it is the failure of the elders, especially the leadership that is one of the key drivers of migration and associated drug misuse.

Another figure, that gave succor to the young and one can say detoxified the world or ‘dedrugged’ a toxic world is, Saint (Mother) Theresa of Calcutta, by coming to the aid of the needy and destitute. She was known to always say, ‘Not all of us can do great things, but we can do little things with great love’. Let us emulate her. Yet another reformer who attempts to tackle the problem of drugs is Peter Breggin<sup>45</sup>, a psychiatrist who insists that drugsless approach is better in handling stress associated mental dysfunction that may unwittingly drive the individual to addiction. He admonished against toxic psychiatry and was described as the ‘Conscience of American Psychiatry’. Like Don Bosco, Breggin advocated that therapy and empathy must replace drugs, electroshocks, and biochemical theories.

Absence of the human touch is thus also a driver of migration, precipitating drug crisis. Peter Breggin is known to often ask ‘must it be drugs?’

### **Recommendations**

From the ‘windy’ relationship established between migration and the global drug crisis, the following recommendations appear expedient:

- ✓ Promotion of good governance and justice globally
- ✓ Establishment of educational programmes in schools on migration and world (international) affairs as every youth is a potential migrant particularly in third world countries.

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<sup>45</sup> Breggin P. R (1991). *Toxic Psychiatry*. St. Martin Press. New York

- ✓ Enlargement of employment opportunities and welfare programmes- expanding industrial base
- ✓ Development of health education programmes on drugs- positive and negative aspects
- ✓ Establishment of Drug Addiction / Drug Abuse Warning Network (DAWN)
- ✓ Development of Counselling Units on Drug Abuse in all places of worship.
- ✓ Establishment of National Poison Control Centres- replicated in states and local governments all over the world.
- ✓ Development of Toxicovigilance programmes in every community, particularly in the developing countries
- ✓ Establishment of Drug Testing Centres (Forensic Toxicology Laboratories)
- ✓ Establishment of National Institute of Drug Abuse (NIDA)- NDLEA is not coping.
- ✓ Establishment of Agency for Humane Society and Education in Values
- ✓ Sustainable Development Goal to be revised to ensure healthy lives and promote wellbeing for all- incorporating migration and drug misuse disorders.

Summing it all up in the words of Kilburn (Brain and Chemical Plagues):  
The response of a population to over exposure to drugs has broad health, social and economic implications aptly captured by Kilburn <sup>46</sup>:

‘Imagine a plaque so generalized, so devastating, yet so insidious that most of humankind becomes dysfunctional, suppose further that this dysfunction affects the brain so that perception and memory gradually fade, disorganizing behavior, thrusting its victims into a world of diminishing prospects and individual (societal) disorganization. Should such individual dysfunction rise above a trivial frequency, the collective cost to society could be enormous.

**\*Conflict of interest:** none declared by the authors.

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<sup>46</sup> 46. Kilburn, K. H. (1998) Chemical Brain Injury. Van Nostrand-Reinhold, New York



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