## **Final Memo**

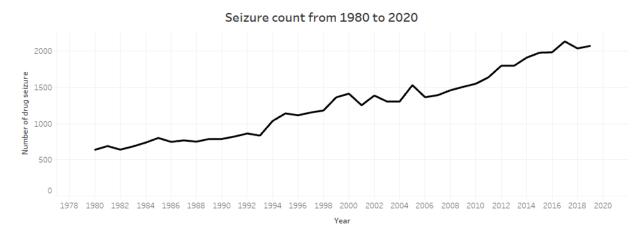
## Changes in Global Drug Seizures from 1980 to 2020: An Annual Analysis

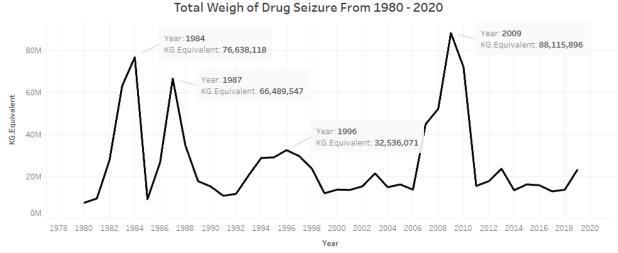
The issue of drug seizures has remained a longstanding challenge worldwide. Understanding the dynamics and changes in global drug seizures over time is crucial for effective policy-making, resource allocation, and combating illicit drug trade. In this analysis, we delve into a comprehensive dataset spanning from 1980 to 2020, shedding light on the annual variations and trends in drug seizures across different regions.

The dataset used for our analysis provides information on drug seizures, including details on countries, regions, drug groups, specific drug types, year, and the corresponding weight seized measured in kilograms. This diverse dataset allows us to explore the multifaceted aspects of drug seizures, ranging from the geographical distribution to the composition of drug groups over the years which we .

An important term we would like to clearly define is "Seizure", seizures in our case refers to the action of a government or regulatory officials forcibly removing the drugs from the possessions of individuals or organizations. The information in our data does not represent drug production or sale.

How has drug seizures changed from 1980 to 2020 in general?





As we analyzed drug seizures from 1980 to 2020, we notices a general rise in quantity of seizures during this period. Despite the increasing number of seizures we noticed an interesting trend with the amount of drugs seized in KG. Aside from the four spikes which turned out to be four big confiscations, the increase in the total kilogram equivalent of drugs seized was not as apparent as the overall seizure count. This data might suggest that while law enforcement has been improving, the production of drugs has either remained steady or experienced minimal growth.

The four large spikes shown on the general trends graph represent four major seizures by authorities in different countries.

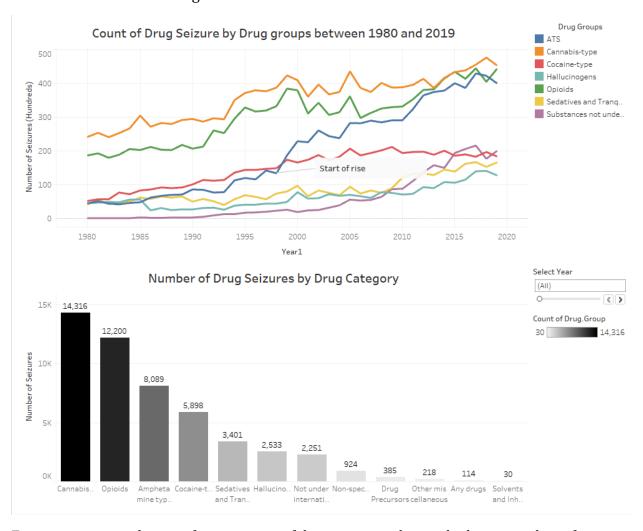
The spike in 1984 was attributed to a significant seizure of cocaine by a combined effort by local and state authorities.

The spike in 1987 politicians aggressively increased their stance against cannabis production within their country which led to a significant increase in seizures.

Egypt is a significant port country as they control ships going through the Suez Canal, despite their lack of drug production they seize a significant amount of drugs from traffickers. In 1996 there was an increased effort to crack down on drugs being transported through their ports largely cannabis which is represented by the significant spike in 1966.

The final spike in 2009 was due to a large seizure in Guatemala of Pseudo-ephedrine which is a precursor in the production for Methamphetamine.

What are the trends of drug seizures across different continents?



Europe is seen as the significant source of drug seizures due to the large number of varying legal systems where drug producers and dealers use loopholes within legal policy to traffic drugs across the continent. Europe also holds a large number of countries with large populations therefore naturally they will have significantly higher seizures relative to other continents.

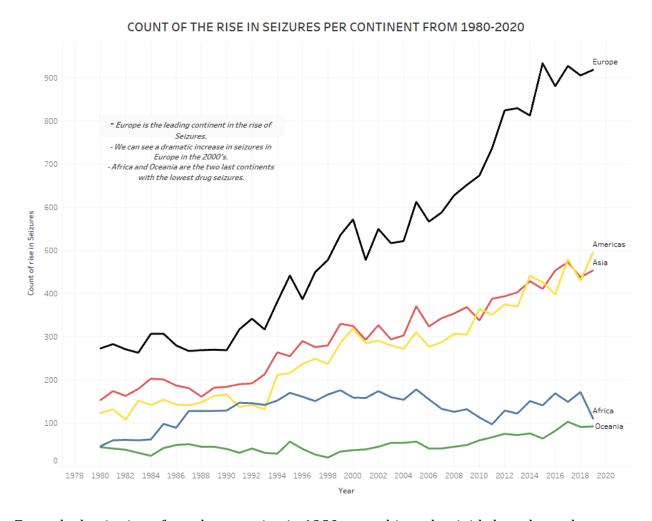
The Americas is a large market for drug production, transportation, and sale therefore despite smaller population sizes compared to other continents, it holds a large share of

drug seizures, many occurring at the US Mexico border and US Canada border. The US being the largest economy in the world is a large incentive for drug traffickers to attempt to smuggle drugs into the country for large profits. Canada has significantly more beneficial government subsidized healthcare programs which results in prescribed drugs being much cheaper when compared to the US, therefore there has been an increase in drugs being purchased in Canada and brought into the US across the border to be sold for a markup, resulting in increased seizures by border authorities.

Oceania has the lowest drug seizures because of the relatively low population when compared to other continents, as well as the two largest countries, Australia and New Zealand having extremely strict anti-drug laws which deter drug traffickers. Their geographical location also is seen as a barrier as the largest producers in South American, Africa, and Europe are far away.

Africa has relatively low drug seizures due to widespread corruption and lack of government allocation of resources to adequately counter drug traffickers, with the exception of Egypt.

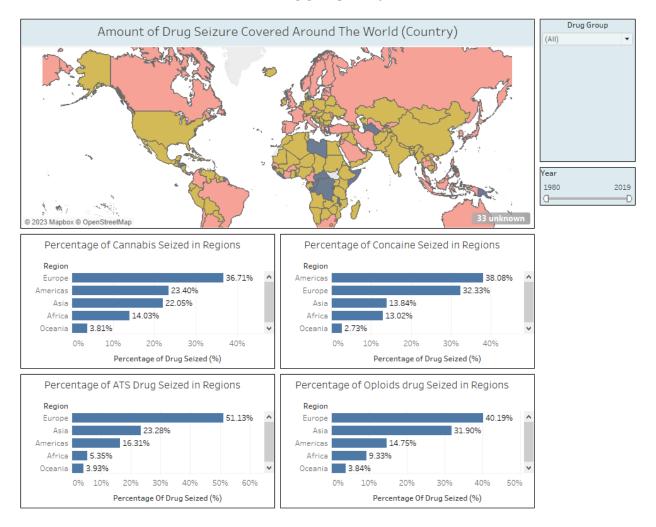
## How have different drug categories grown or shrunk over time?



From the beginning of our data starting in 1980, cannabis and opioids have been the most common drugs seized by authorities. A World Health Organization report also highlights that Cannabis is relatively inexpensive compared to other drugs that are widely produced which contributes to their popularity, thus leading to higher seizures. There was a noticeable rise in seizures of Amphetamine-type stimulants (ATS) around the year 2000, and the quantity of seizures continued to increase, eventually placing ATS as the third most seized drug. A contributor to this increase is the form in which ATS are transported, they exist as a powder but can also be dissolved in liquids which make their transportation much easier, leading to this group of drugs being highly popular among consumers and traffickers alike.

Another drug that shown high growth over time are Substances that are not under international control, they are artificial drugs that are legal but replicate the experience of other traditional illegal drugs. These drugs do not lie under and internationally regulated groups therefore the transport across countries can be legal depending on the laws of each country. These became popular in the early 2000s and have become the 4th most seized drug as many governments begun cracking down on their transportation and use.

## How do the distributions of different drug groups vary across continents?



According to the report, 275 million people used drugs worldwide in 2020. Between the ages of 15–64, around 5.5% of the global population used drugs at least once.

Cannabis was the most commonly prevalent drug used in 107 listed countries and territories, therefore it is logical that the quantity of seizures for cannabis across continents is relatively equal to the global distribution of drugs.

Opioids were the most prevalent drugs in the Middle-East, South and Central Asia, including in India and Iran. Notably, Afghanistan is the world's largest producer of opium, supplying more than 90% of illicit heroin globally.

Cocaine being commonly produced in South America is the most seized in the Americas as the United states is a highly profitable location for distribution.

What are the quantities of drugs being seized in each continent and country?



Although Europe has the highest number of drug seizures, the Americas hold the spot for most drugs seized in weight. Significant seizures in Guatemala, Columbia, Brazil, Mexico and the United States dwarf the amount of drugs seized in other countries across the globe. South American seizures are typically drug busts of farms or labs that are directly producing the product therefore accumulating very high quantities seized. South American countries, such as Colombia and Brazil, are known for their substantial drug production. Colombia, in particular, has long been associated with cocaine production, while Brazil has become a significant hub for drug trafficking due to its extensive borders and proximity to major drug-producing regions. The abundance of drug farms and laboratories in these countries leads to substantial quantities of drugs being seized during law enforcement operations. Central American countries, including Guatemala and Mexico, act as crucial transit points for drugs smuggled from South America to the United States. The extensive coastline, multiple ports, and porous borders in these countries offer opportunities for drug traffickers to move large quantities of drugs across international borders, leading to significant seizures.

Outside the Americas, we see the most notable countries being Egypt and South Africa, these are notable because they are significant port countries where large number of ships stop when making global shipments, therefore that is likely the reason for their high drug seizures. Both Egypt and South Africa are strategically located along major international trade routes, making them crucial transit points for global shipments. Egypt sits at the crossroads of Africa, Asia, and Europe, while South Africa serves as a gateway to the African continent. Their favorable geographic positions make them attractive for drug traffickers seeking to transport narcotics across continents.