Good Health
Data Science-B

Drugs the cancer of the Society

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Introduction

Drugs are the substances that when are administered to an organism, they have both psychological and physical effects. Since the last mid-century, the drugs have been a part of our culture now. Popularized in the 1960s by musicians they have now invaded every aspect of the society an estimated 280 million people consume illegal drugs internationally. As the survey in 2007 in America, more than 8% of the population has access to drugs. Every one of us knows of a person from our own lives that are addicted to drugs. Worldwide, 3 million deaths every year result from harmful use of alcohol, this represents 5.3 % of all deaths. The most common drug available and used is Marijuana. The abuse of these drugs invites situations like Cardiovascular risks, Mental Health effects, Psychological dependence. According to the United Nations 2008 World Drug Report, about 3.9% of the world's population between the ages of 15 and 64 abuse marijuana. Illicit drug use is responsible for over 750,000 deaths per year. Through this report, I wish to focus on how drugs and addiction to drugs are slowly destroying our youth and future. Also, with this report, I aim to find the steps taken by multiple governments around the world to tackle this problem suggest a way to fix everything.

DEAD: Drugs. Ends. All. Dreams.

Datasets:

The relevant datasets and resources are mentioned at the bottom of the document.

The technologies used to recover the important data from the mentioned sources are:

Scraping, downloading datasets, refining them to show the information required for the graph.

https://ourworldindata.org/.

https://data.world/datasets/drugs

https://www.emcdda.europa.eu/data/stats2018/drd

Exploration and Insights
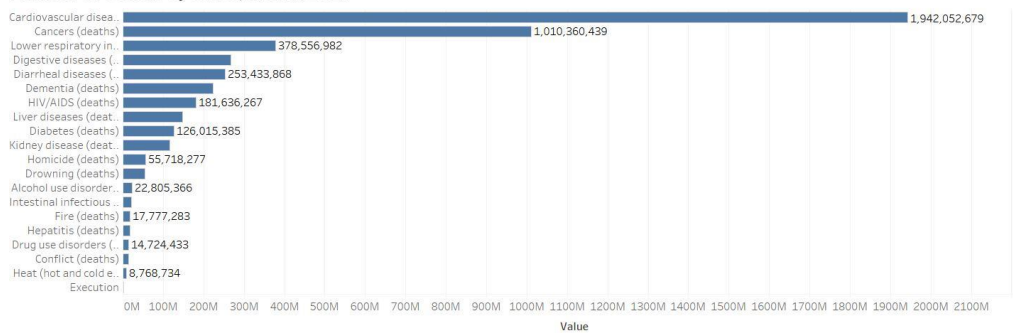
Total Deaths due to Illicit Drugs

Over 750,000 people die every year due to the use of illicit drugs.

Globally drug usage was approx. double the deaths due to the Homicide itself in 2017.

Deaths due to drug usage can be indirect or Direct.

Direct deaths are caused by the overdoses however the indirect deaths are not because of an overdose but still due to drugs. For example, an accident due to drunk driving or acquiring a disease which becomes the cause of death, due to use/abuse of drugs over a long time. In the graphs below a comparison between deaths due to various factors is shown and in the graph under it, the comparison between direct deaths due to drugs and indirect deaths due to drugs is shown. And as you can see, even though drugs are dangerous but the number of direct deaths is way less than indirect deaths, the reason drugging, as some might say is fun but they end up killing more people in longer times.

Number of Deaths by cause, World. 2017

Cause	Value
Cardiovascular disea..	1,942,052,679
Cancers (deaths)	1,010,360,439
Lower respiratory in..	378,556,982
Digestive diseases (..	
Diarrheal diseases (..	253,433,868
Dementia (deaths)	
HIV/AIDS (deaths)	181,636,267
Liver diseases (deat..	
Diabetes (deaths)	126,015,385
Kidney disease (deat..	
Homicide (deaths)	55,718,277
Drowning (deaths)	
Alcohol use disorder..	22,805,366
Intestinal infectious ..	
Fire (deaths)	17,777,283
Hepatitis (deaths)	
Drug use disorders (..	14,724,433
Conflict (deaths)	
Heat (hot and cold e..	8,768,734
Execution	

0M 100M 200M 300M 400M 500M 600M 700M 800M 900M 1000M 1100M 1200M 1300M 1400M 1500M 1600M 1700M 1800M 1900M 2000M 2100M

Value

Alcohol use disorders (deaths), Cancers (deaths), Cardiovascular diseases (deaths), Conflict (deaths), Dementia (deaths), Diabetes (deaths), Diarrheal diseases (deaths), Digestive diseases (deaths), Drowning (deaths), Drug use disorders (deaths), Execution, Fire (deaths), HIV/AIDS (deaths), Heat (hot and cold exposure) (deaths), Hepatitis (deaths), Homicide (deaths), Intestinal infectious diseases (deaths), Kidney disease (deaths), Liver diseases (deaths) and Lower respiratory infections (deaths). Details are shown for Alcohol use disorders (deaths), Cancers (deaths), Cardiovascular diseases (deaths), Conflict (deaths), Dementia (deaths), Diabetes (deaths), Diarrheal diseases (deaths), Digestive diseases (deaths), Drowning (deaths), Drug use disorders (deaths), Execution, Fire (deaths), HIV/AIDS (deaths), Heat (hot and cold exposure) (deaths), Hepatitis (deaths), Homicide (deaths), Intestinal infectious diseases (deaths), Kidney disease (deaths), Liver diseases (deaths) and Lower respiratory infections (deaths).

Number of Deaths due to Drugs in 2017
The Blue color shows the direct deaths (overdoses)
Orange color shows the indirect deaths(DUI, Diseases, injury etc)

Drug overdoses (direct) (deaths)	
Drug use (risk factor) (deaths)	
Number of Records	

0M 5M 10M 15M 20M 25M 30M 35M 40M 45M 50M 55M 60M

Value

Measure Names
■ Drug overdoses (direct) (deaths)
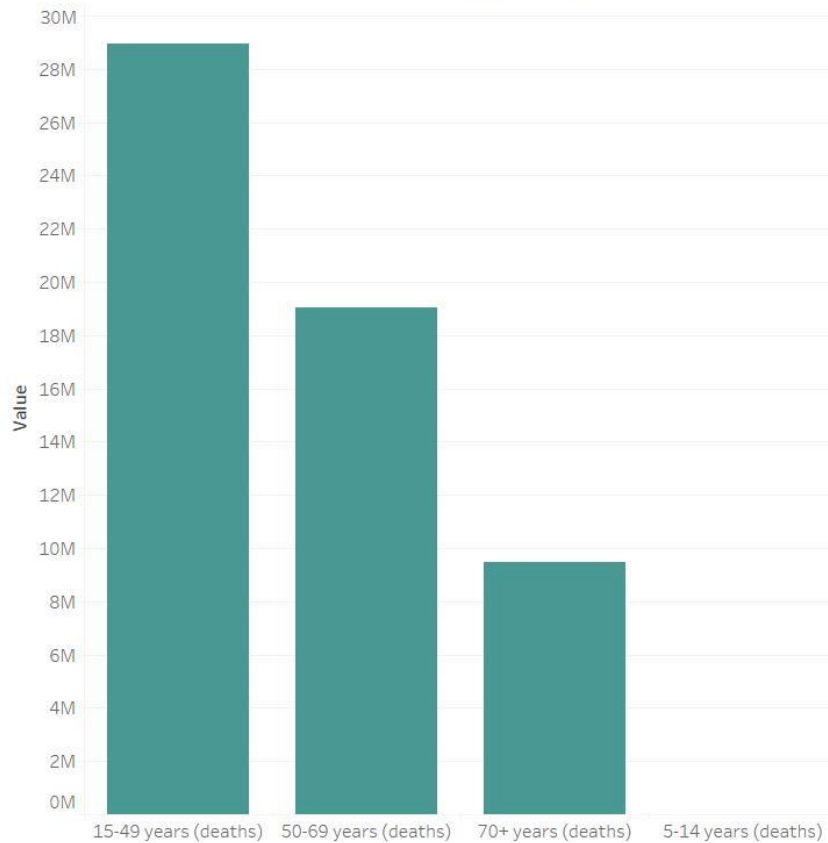■ Drug use (risk factor) (deaths)
■ Number of Records

Drug overdoses (direct) (deaths), Drug use (risk factor) (deaths) and Number of Records. Color shows details about Drug overdoses (direct) (deaths), Drug use (risk factor) (deaths) and Number of Records.

Total Deaths due to Illicit Drugs categorized via age group

The following graph shows the number of deaths due to drug overdose across the world. Direct deaths are shown in the following graph. A total of more than 166000 people dies every year due to drugs and the sad part is we can see is more than 50% are the people under 50 years of age.

Premature deaths due to drug usage grouped by age.

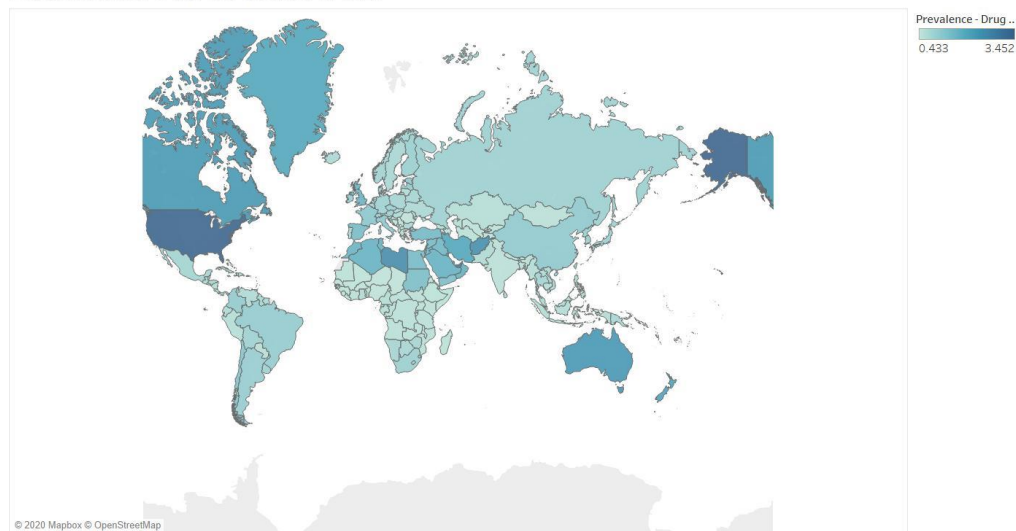15-49 years (deaths), 50-69 years (deaths), 70+ years (deaths) and 5-14 years (deaths).

Prevalence of disorders due to drugs in 2017 around the world

Drugs have been known to create mentally as well as psychological disorders in its users. A huge population of the earth is facing unhealthy mental health due to the usage of drugs. As you can see from the visualization below, how grave the situation is now. And how much we need to act now. It's hard to see a country not facing this problem and it's very seldom that

we see people talking about it. The mental health of our future generation is at the moment

Population with drugs use disorder in 2017

Prevalence - Drug ..
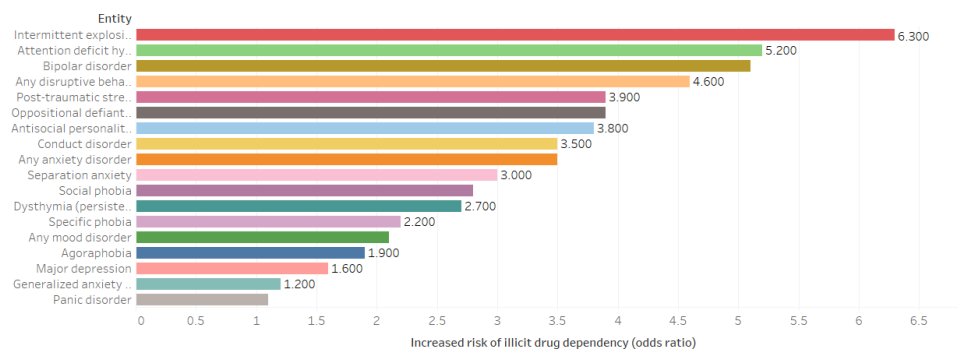0.433   3.452

© 2020 Mapbox © OpenStreetMap

Map based on Longitude (generated) and Latitude (generated). Color shows sum of Prevalence - Drug use disorders - Sex: Both - Age: Age-standardized (Percent) (%).. Details are shown for Entity. The view is filtered on Latitude (generated) and Longitude (generated). The Latitude (generated) filter keeps non-Null values only. The Longitude (generated) filter keeps non-Null values only.

endangered.

Burdens due to drugs and disorders that come with it.

It is often the deaths due to drugs are recorded however generally when people have to live with the disabilities/problems related to drugs throughout their lives often goes unrecorded. Here from the graph below an attempt has been made to show the problems caused due to drugs which sometimes does not cause death but act as a burden on the human lives.
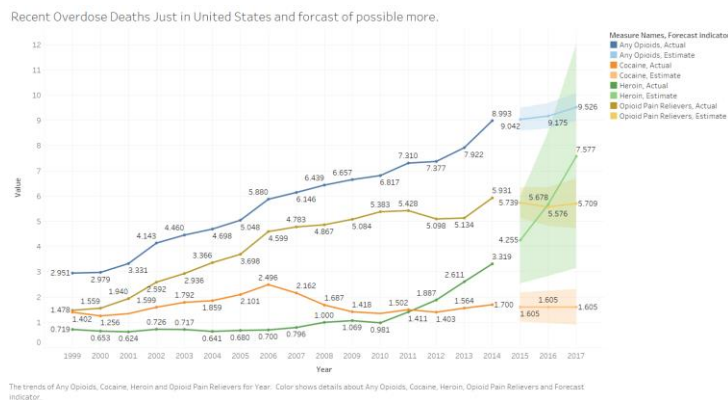
Sheet 1

Sum of Increased risk of illicit drug dependency (odds ratio) for each Entity. Color shows details about Entity.

Entity
- Agoraphobia
- Antisocial personality disorder
- Any anxiety disorder
- Any disruptive behaviour disorder
- Any mood disorder
- Attention deficit hyperactivity (ADHD)
- Bipolar disorder
- Conduct disorder
- Dysthymia (persistent, mild depression)
- Generalized anxiety disorder (GAD)
- Intermittent explosive disorder
- Major depression
- Oppositional defiant disorder
- Panic disorder
- Post-traumatic stress disorder (PTSD)
- Separation anxiety
- Social phobia
- Specific phobia

Drug Overdose Death rates: Overview

The graph below shows the drug overdose deaths rates measured as number of deaths per100,000 people.

Recent Overdose Deaths Just in United States and forcast of possible more.

The trends of Any Opioids, Cocaine, Heroin and Opioid Pain Relievers for Year. Color shows details about Any Opioids, Cocaine, Heroin, Opioid Pain Relievers and Forecast Indicator.

   We can see that over the years the deaths due to Cocaine might have remained approximately constant, however, the deaths due to the Prescribed Pain relievers have skyrocketed, also the Opioids usage and deaths linked to opioids like Heroin have a steep rise.

The forecasted graph predicts a huge increase in the number of deaths if no action is taken. And Opioid pain relievers and Heroin will be the biggest villain of all the drugs.
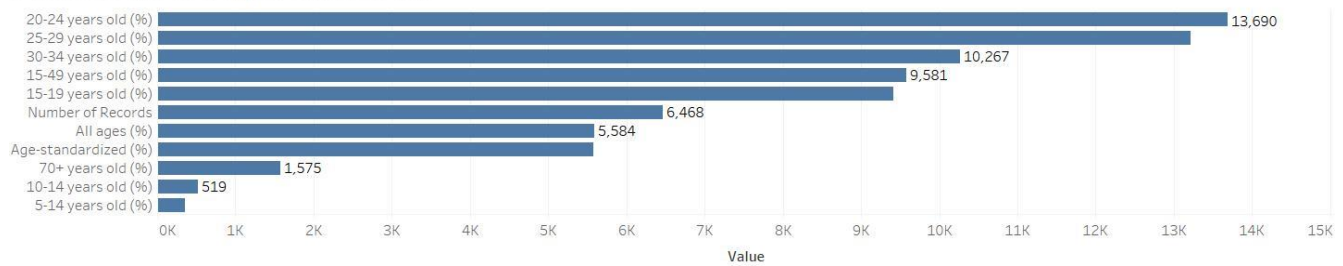
Most vulnerable age group:

From the chart below we can see that Drug use disorders are most common in young people, that is the people from the age 20-24.

Also from the Graph, we can see that most people vulnerable to disorders lie in America. Many social and behavioural traits of people in the rage of 20-24 explain the abuse of drugs. Mainly the reason is Alcohol. Kids get access to alcohol in a very early age and in the '20s, which is considered a period of self-identity and exploration; it creates a higher risk for those kids to fall prey to Drug abuse and eventually leading to Drug-related disorders.

The following visualization is based on the data for America, but it is enough to give us a picture of how dangerous the situation is at the moment.

Disorders due to drugs grouped by age

10-14 years old (%), 15-19 years old (%), 15-49 years old (%), 20-24 years old (%), 25-29 years old (%), 30-34 years old (%), 5-14 years old (%), 70+ years old (%), Age-standardized (%), All ages (%) and Number of Records.

Conclusion

As we can see from the visualizations above the drugs are a menace to the current society. Especially when they are attacking the age group that is considered to be the backbone of any nation. We are seeing more deaths due to the illicit use of drugs as compared to Homicides.

People are losing their lives by abusing prescribed opioids.

Even though it's hard to see from the naked eye, but drugs are slowly consuming our society and making it hollow, as we can see it from the graph that most people did not directly(overdose) but indirectly (long term effect of drugs).

And not only these people who are lucky enough to avoid premature death due to abusing drugs, still live with a burden, a disease, or a disorder.

Hence, it is high time that we say no to drugs and adopt a healthier lifestyle.

And for that, we need harsher laws against drugs. Teaching our kids to hate drugs when they are young. And not motivate certain videos that promote using soft drugs by making it look like a fashion trend that one needs to follow. Another way can be the use of 'Fixing rooms' as used by a few countries in Europe and they have proven to be saving lives of Drug Addicts.

RESOURCES and DATASETS:

https://www.emcdda.europa.eu/

https://www.youtube.com/watch?v=fsFPgTIKnPM

https://www.opensocietyfoundations.org/voices/safe-and-effective-drug-policy-look-dutch

https://www.politieacademie.nl/kennisenonderzoek/kennis/mediatheek/PDF/77217.pdf

http://www.espad.org/sites/espad.org/files/ESPAD_report_2015.pdf

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3137181/

https://www.iii.org/fact-statistic/facts-statistics-alcohol-impaired-driving

https://drugabuse.com/marijuana-abuse/

https://ourworldindata.org/

http://ghdx.healthdata.org/gbd-results-tool

https://www.theguardian.com/world/commentisfree/2018/nov/21/fixing-rooms-saving-lives-drug-addicts