


# Session 12

## Hope for the Future: Policy and Treatment Options

**12 December 2018**

This class certainly has been depressing. With a steady drumbeat of policy disasters followed by human disasters, I'm surprised anyone is still reading this. At least with the class title of The War on Drugs, you knew what you were getting yourself into. But in this session, we turn away from the human misery and focus on some glimmers of hope for a better future. The drug problem has been such a cataclysmic disaster that all over the world, people have been searching for solutions, in the form of better policy and addiction treatment options. While there is no one single change that will turn things around, there are hundreds of changes that are being explored in communities across the country and around the world which together have the potential to turn the tide of drug abuse and build a better society for our children.

The Supreme Court is currently hearing a challenge to civil asset forfeiture laws. In a case called [Tyson Timbs and a 2012 Land Rover LR2 vs. State of Indiana](https://www.indystar.com/story/news/2018/11/30/civil-forfeiture-timbs-v-indiana-scotus-supreme-court/2148377002/) , a small time drug dealer named Tyson Timbs is claiming that the forfeiture of his Land Rover violated the Constitution's 8th Amendment prohibitions against excessive fines because the fine for his crime of selling 2 grams of heroin was only \$10,000, while the Land Rover was worth \$42,000. The state of Indiana is arguing that although the cruel and unusual part of the Constitution's 8th Amendment applies to states, the excessive fines clause only applies federally, not at the state level. It will be interesting

to see if our newly conservative Supreme Court strikes down the tool of civil asset forfeiture which has become so vital to the financial health of our police.

Another criminal justice issue is the restoration of voting rights to people who have been convicted of a crime. Florida recently passed a voter initiative which [restored voting rights to non-violent felons after they complete their sentence](#) <sup>↗</sup>

([https://ballotpedia.org/Florida\\_Amendment\\_4,\\_Voting\\_Rights\\_Restoration\\_for\\_Felons\\_Initiative\\_\(2018\)](https://ballotpedia.org/Florida_Amendment_4,_Voting_Rights_Restoration_for_Felons_Initiative_(2018))). As New Jersey contemplates legalizing marijuana, it is also considering [expunging the criminal records of people convicted in the past of certain drug offenses](#) <sup>↗</sup>

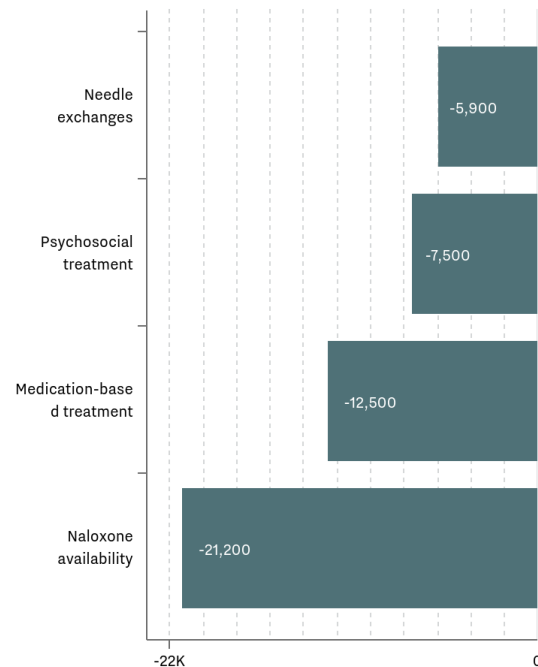
(<https://www.nytimes.com/2018/11/28/nyregion/legalization-marijuana-new-jersey.html>). As in many states, New Jersey arrested black residents at three times the rate of white residents, and some see restoration of voting rights as a reversal of racist law enforcement which disenfranchised generations of black men.

Finally, a Federal judge recently ruled that a [Massachusetts man facing a jail sentence could not be denied access to treatment for his opioid addiction](#) <sup>↗</sup> (<https://www.nytimes.com/2018/11/28/us/inmate-methadone-opioid-addiction-ruling.html>), and ordered the state to give him methadone. The ruling was just for one inmate, but it sets a precedent to allow prisoners nationwide to sue their states to obtain medicine-assisted treatment for their addictions. It's hard not to see such a trend as a turning point away from the pure punishment model of criminal justice and towards a more compassionate treatment of prisoners as human beings.

## Policy Options for the Opiate Crisis

A recent article in the [American Journal of Public Health](https://www.vox.com/platform/amp/policy-and-politics/2018/8/23/17769392/opioid-epidemic-drug-overdose-death-study) <sup>↗</sup> [\\_ \(https://www.vox.com/platform/amp/policy-and-politics/2018/8/23/17769392/opioid-epidemic-drug-overdose-death-study\)](https://www.vox.com/platform/amp/policy-and-politics/2018/8/23/17769392/opioid-epidemic-drug-overdose-death-study) used a model to estimate deaths over the next decade from opioid use and the potential benefits of various policy options. The researchers estimated that with no policy changes the U.S. will have 510,000 deaths from opioid abuse over the next decade.

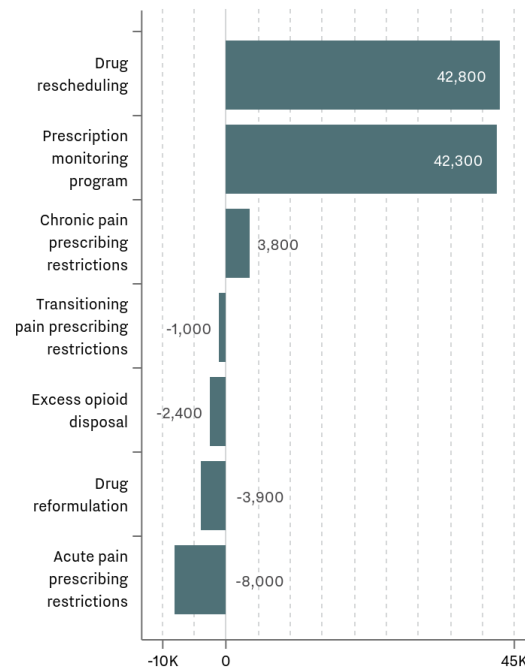
### How different policy interventions would affect opioid-related deaths over 10 years



Source: [American Journal of Public Health](#)

Vox

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Source: [American Journal of Public Health](#)

Vox

Increasing the availability of needle exchanges could save almost 6,000 lives, primarily by reducing the spread of HIV, endocarditis and hepatitis C. Increasing psychosocial treatment could save 7,500 lives. Increasing the availability of medication assisted treatment such as methadone or Suboxone/buprenorphine was estimated to potentially save 12,500 lives, although that number was based on much less than 100% access because researchers assumed that increasing access to medication assisted treatment would be

limited by political resistance. By contrast, France, which encouraged a policy of [widespread medication assisted treatment with buprenorphine](https://www.ncbi.nlm.nih.gov/pubmed/15204673) <sup>↗</sup> (<https://www.ncbi.nlm.nih.gov/pubmed/15204673>) in 1995, has been able to treat half their opiate addicts and has seen opiate deaths fall by 79%.

Making Naloxone widely available to treat overdoses was estimated by the model to have the largest effect, saving over 21,000 lives over ten years. This is a strong trend: already [Walgreens sells Narcan over the counter](https://vitals.lifehacker.com/narcan-is-now-available-over-the-counter-in-45-states-1819896107) <sup>↗</sup> (<https://vitals.lifehacker.com/narcan-is-now-available-over-the-counter-in-45-states-1819896107>) without a prescription in 46 states. Under [Massachusetts General Laws Chapter 94c Section 19](http://choopersguide.com/content/naloxone-laws-by-state-map.html#Massachusetts-Naloxone) <sup>↗</sup> (<http://choopersguide.com/content/naloxone-laws-by-state-map.html#Massachusetts-Naloxone>), “A person acting in good faith may receive a naloxone prescription, possess naloxone and administer naloxone to an individual appearing to experience an opiate-related overdose.”

Looking at the prescribing side, the researchers estimated that reducing pharmaceutical opiate availability through tighter prescribing guidelines and widespread prescription registries would actually increase opioid deaths by 85,000, as pharmaceutical pill abusers switched to heroin and fentanyl, with their increased risk of overdose. This seems logical but may be too pessimistic. The state of [Oregon has seen a drop in opioid deaths of 25%](https://www.thefix.com/how-oregon-steadily-decreased-opioid-related-deaths) <sup>↗</sup> (<https://www.thefix.com/how-oregon-steadily-decreased-opioid-related-deaths>) since implementing a prescription monitoring program and vigorously enforcing the CDC prescribing guidelines.

Many of these policy issues will be debated and implemented at the state or local level, not the federal level. This summer, the Massachusetts Senate proposed [establishing safe injection sites](https://www.masslive.com/politics/index.ssf/2018/07/massachusetts_senate_includes.html) <sup>↗</sup> ([https://www.masslive.com/politics/index.ssf/2018/07/massachusetts\\_senate\\_includes.html](https://www.masslive.com/politics/index.ssf/2018/07/massachusetts_senate_includes.html)) where intravenous drug users could be monitored and revived if they overdosed, but the proposal was nixed after [U.S. Attorney Andrew Yelling and Governor Charlie Baker objected](https://www.bostonglobe.com/metro/2018/07/19/baker-opposes-plan-for-safe-drug-injection-) <sup>↗</sup> (<https://www.bostonglobe.com/metro/2018/07/19/baker-opposes-plan-for-safe-drug-injection->

[site/QaaViTwnonds2gyeOC9BnN/story.html](#)), saying that safe injection sites violated Federal law.

Experience with safe injection sites in Vancouver suggest they could [cut overdose deaths by about one third](#) [\(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5685449/\)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5685449/).

## Local Approaches

[This NPR article](#) [\\_ \(https://www.npr.org/sections/health-shots/2018/10/28/658476111/a-rural-community-decided-to-treat-its-opioid-problem-like-a-natural-disaster\)](https://www.npr.org/sections/health-shots/2018/10/28/658476111/a-rural-community-decided-to-treat-its-opioid-problem-like-a-natural-disaster) describes how the sheriff of rural Snohomish County in Washington State completely changed his approach to the drug crisis, treating it like a natural disaster by coordinating county resources to help addicts and their families. *The county's program includes small steps, like making transportation easier for people in drug treatment. They train family members and others in the community on steps to reverse overdoses with medicine, and they send teams of police officers and social workers to help addicted homeless people.*

*Buell's job isn't to arrest the campers, but to help them get drug treatment and housing. He crouches next to the opening of one tent and explains that he and his colleagues will help the campers with food, coffee and transportation to and from appointments.*


*"We're basically your Uber," Buell says.*

*The new approach is paying off. The teams have helped hundreds of people find housing and drug treatment."*

Dr. Carol Sager wrote a book titled [Drug-Free Zone! Keeping Drugs Out of Your Child's School](#) [\\_ \(https://www.amazon.com/Drug-Free-Zone-Keeping-Childs/dp/B008MZLKAE/ref=sr\\_1\\_1?ie=UTF8&qid=1543352780&sr=8-1&keywords=Drug-](https://www.amazon.com/Drug-Free-Zone-Keeping-Childs/dp/B008MZLKAE/ref=sr_1_1?ie=UTF8&qid=1543352780&sr=8-1&keywords=Drug-)

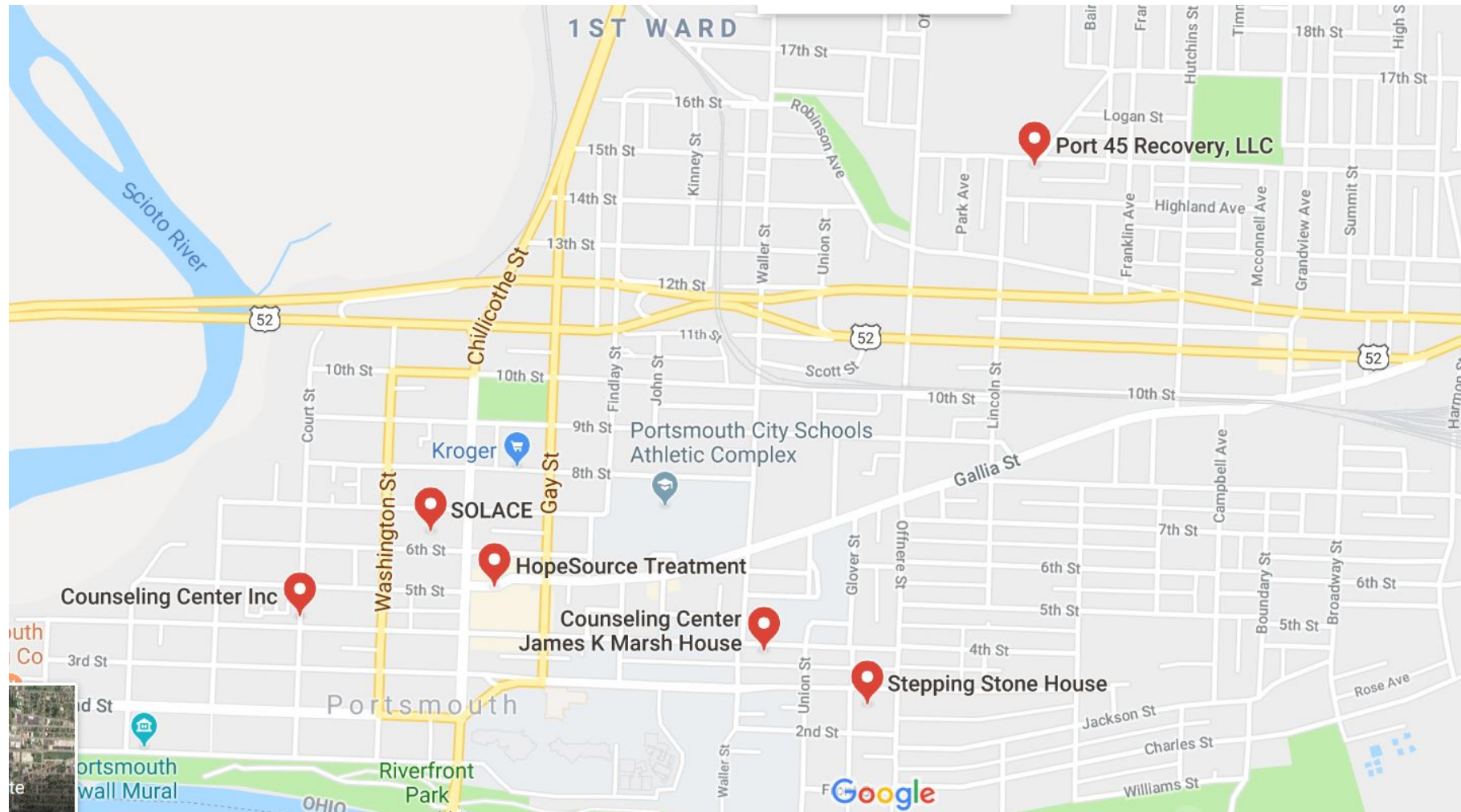
[Free+Zone%21++Keeping+Drugs+Out+of+Your+Child%E2%80%99s+School\)](#). I had thought that reducing drug access in middle and high schools to be an impossibility, but Dr. Sager reports impressive results based on six principles:

1. Parental Involvement, both in school functions and among parents so that parents know what's going on and what to look out for
2. Strong policy against drug use or dealing in schools, with harsh penalties to scare kids straight
3. Staff training, so that teachers know what to look out for and how to intervene with at-risk children
4. Drug use prevention education, using realistic information instead of propaganda
5. Increased student activities, with the goal of 100% participation by all students in a variety of after school programs to keep them engaged and productive
6. Community support, involving law enforcement, health and human services, government, business and other local institutions to share resources and responsibilities to help at risk children.

Dr. Sager gives several examples of schools which completely turned around from heavy drug use and gang involvement, to high achievement and graduation rates. Organizations such as the [Truth Initiative](#)  (<https://truthinitiative.org/news/expanding-our-mission-opioid-education-and-prevention-campaign>) are helping with public education campaigns targeted toward youth.



## Portsmouth Ohio



### [Portsmouth Ohio Recovery Centers](https://www.google.com/maps/search/portsmouth+ohio+recovery/@38.7380243,-82.9859143,15z)

(<https://www.google.com/maps/search/portsmouth+ohio+recovery/@38.7380243,-82.9859143,15z>)

Sam Quinones' book [Dreamland: The True Tale of America's Opiate Epidemic](https://www.amazon.com/Dreamland-True-Americas-Opiate-Epidemic-ebook/dp/B00U19DTS0/ref=sr_1_1?ie=UTF8&qid=1543699168&sr=8-1&keywords=sam+quinones+dreamland)

([https://www.amazon.com/Dreamland-True-Americas-Opiate-Epidemic-ebook/dp/B00U19DTS0/ref=sr\\_1\\_1?ie=UTF8&qid=1543699168&sr=8-1&keywords=sam+quinones+dreamland](https://www.amazon.com/Dreamland-True-Americas-Opiate-Epidemic-ebook/dp/B00U19DTS0/ref=sr_1_1?ie=UTF8&qid=1543699168&sr=8-1&keywords=sam+quinones+dreamland)), chronicles the decline of manufacturing jobs in the midwest and the rise of the Oxycontin economy. Although many parts of rural



Appalachia were hit hard, Portsmouth, Ohio was ground zero for the opiate epidemic. However, starting a few years ago things started to turn around. The one remaining shoe industry company, Mitchellce, which was once the country's largest shoe lace manufacturer was purchased out of bankruptcy by local businessmen and revived. The county coroner, Terry Johnson, who had seen the deaths of countless addicts, ran for state legislature and passed a bill which effectively outlawed pill mills; six local pill mills were closed. In 2010, 9.7 million pills had been prescribed in a county of 80,000, or 121 pills per resident. Fatal overdose rates started falling in 2014 as they were rising elsewhere, in part because Portsmouth launched the first naloxone distribution program to addicts in Ohio. 12 step and counselling programs grew up all over town, staffed by experienced former drug users. Addicts from all over Ohio migrated to Portsmouth to get clean; no other place in Ohio had the town's recovery infrastructure. Close to 10% of the town's residents were in recovery programs. As Quinones says, *"The town that led the country into the opiate epidemic, ground zero in the pill explosion, was now poised to lead out of it as well."*

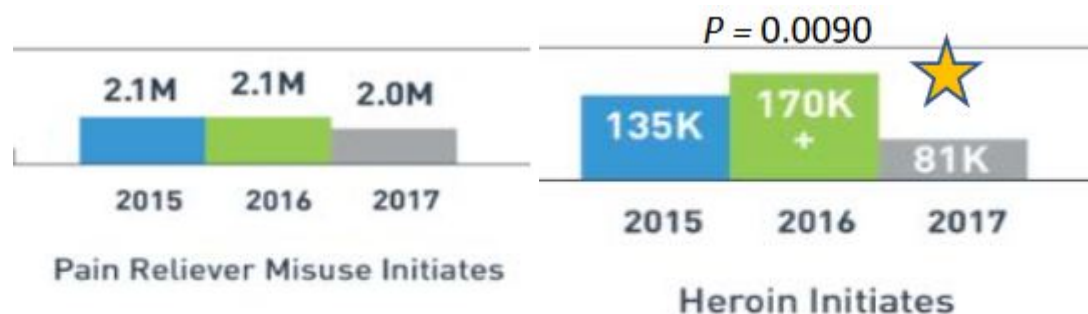
Across Ohio, prescription opioid deaths [have fallen to an eight year low](https://webcache.googleusercontent.com/search?q=cache:M0Vm6SQKZDQJ:https://www.odh.ohio.gov/en/features/2018/ODH-2017-Ohio-Drug-Overdose-Report+&cd=1&hl=en&ct=clnk&gl=us&client=firefox-b-1-ab) [\\_](https://webcache.googleusercontent.com/search?q=cache:M0Vm6SQKZDQJ:https://www.odh.ohio.gov/en/features/2018/ODH-2017-Ohio-Drug-Overdose-Report+&cd=1&hl=en&ct=clnk&gl=us&client=firefox-b-1-ab) [\\_](https://webcache.googleusercontent.com/search?q=cache:M0Vm6SQKZDQJ:https://www.odh.ohio.gov/en/features/2018/ODH-2017-Ohio-Drug-Overdose-Report+&cd=1&hl=en&ct=clnk&gl=us&client=firefox-b-1-ab) and heroin overdose deaths are at a four year low. The [New York Times visited Dayton Ohio](https://www.nytimes.com/2018/11/25/health/opioid-overdose-deaths-dayton.html) [\\_](https://www.nytimes.com/2018/11/25/health/opioid-overdose-deaths-dayton.html) [\\_](https://www.nytimes.com/2018/11/25/health/opioid-overdose-deaths-dayton.html) to understand the factors involved in the decline. In 2017 Dayton had one of the highest rates of overdose deaths in the country; this year the death rate has fallen by 50%. Perhaps the largest factor was Governor John Kasich's decision to expand Medicaid in 2015, a move that gave nearly all low-income adults access to free addiction and mental health treatment. That has led to a dozen new

treatment centers in Dayton, including several using medication assisted treatment that prescribe methadone or buprenorphine.

Another factor in Dayton's reduced death rate is the police's embrace of harm reduction measures. In contrast to many other cities, the police in Dayton have embraced the use of naloxone, needle exchanges and giving addicts fentanyl test strips. "If it's about conserving and protecting life" Chief Biehl said, "it has to be considered as an option."

## Changing attitudes toward drugs

As the opiate epidemic fills the news with tragic stories of overdoses, you might wonder why anyone would start using opiates. David Courtwright, in his book *Dark Paradise*, linked the demise of previous heroin and crack cocaine epidemics to learning about the dangers of these drugs which in turn scared new users away from starting the habit. That factor may be slowing the current opiate epidemic; the latest survey data from Samhsa show that the number of new initiates misusing prescription opiates was down slightly and the number of heroin initiates was down sharply in 2017.



<https://www.samhsa.gov/data/sites/default/files/nsduh-ppt-09-2018.pdf>

(<https://www.samhsa.gov/data/sites/default/files/nsduh-ppt-09-2018.pdf>) P 14

## Federal Initiatives

This fall Congress passed and President Trump signed into law the Substance Use Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities (SUPPORT) Act. The bill allocates \$8 billion across a [wide variety of initiatives](https://www.ama-assn.org/delivering-care/opioids/10-ways-new-opioids-law-could-help-address-epidemic) <sup>↗</sup> (<https://www.ama-assn.org/delivering-care/opioids/10-ways-new-opioids-law-could-help-address-epidemic>), including expanding Medicaid support of medication-assisted treatment such as methadone and buprenorphine, improved funding for prescription monitoring services, and a program for the Post Office to interdict fentanyl shipments.

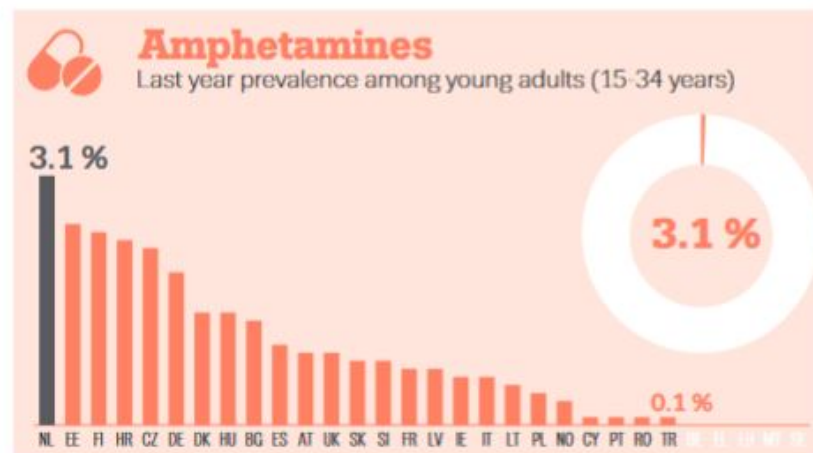
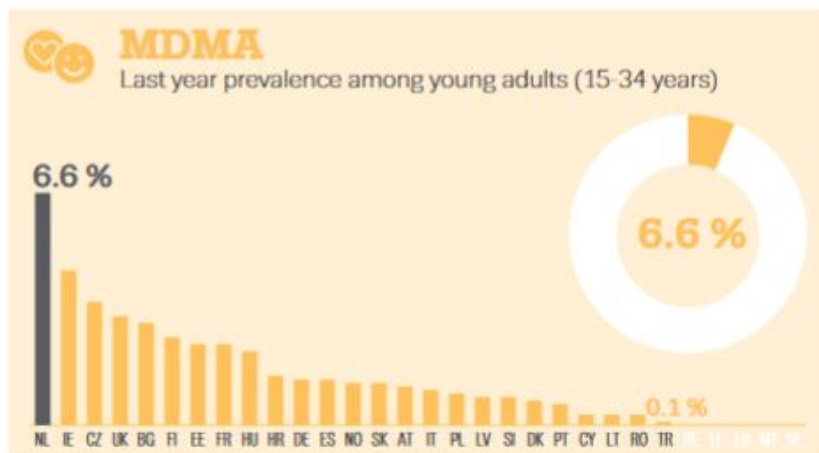
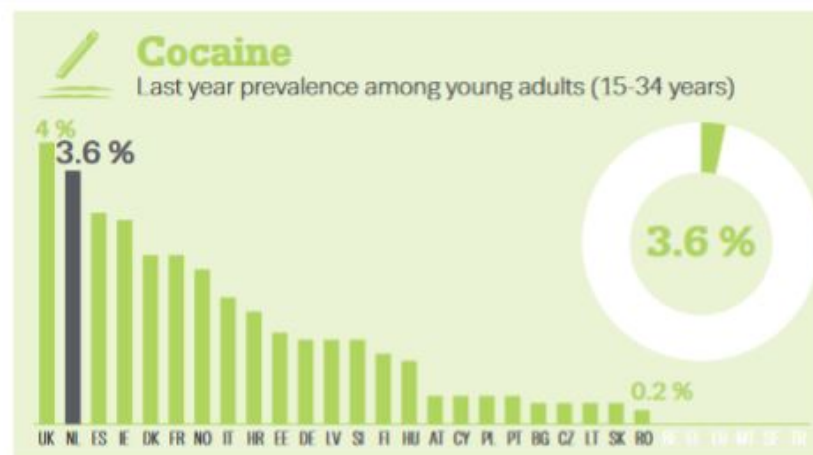
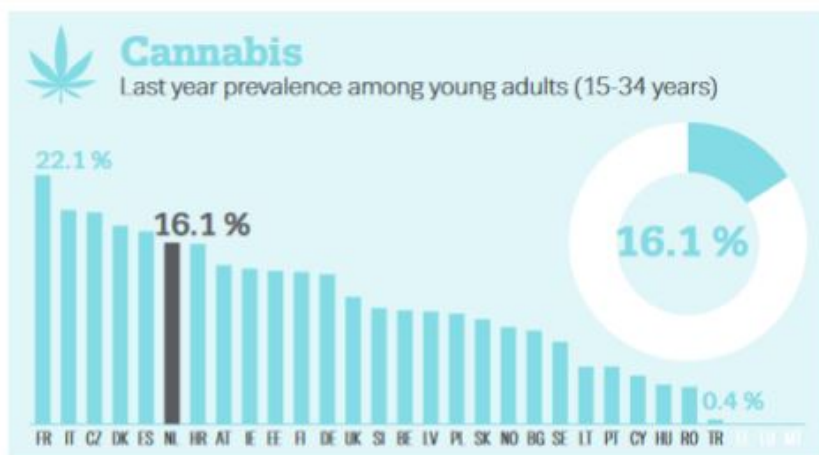
## Other Countries

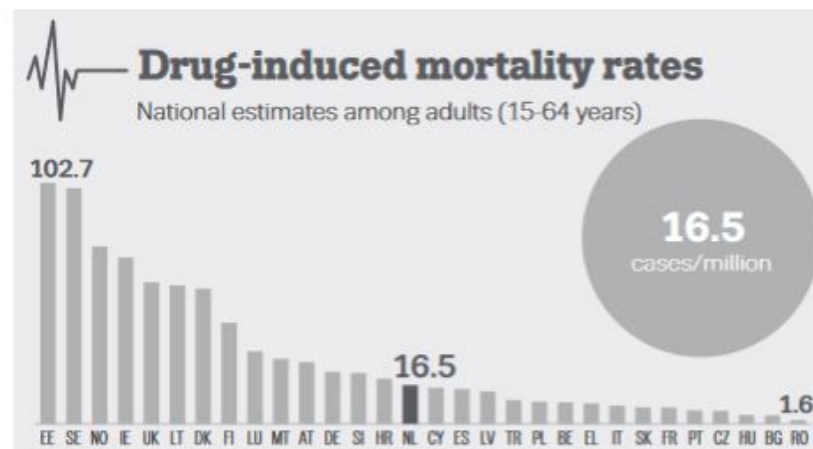
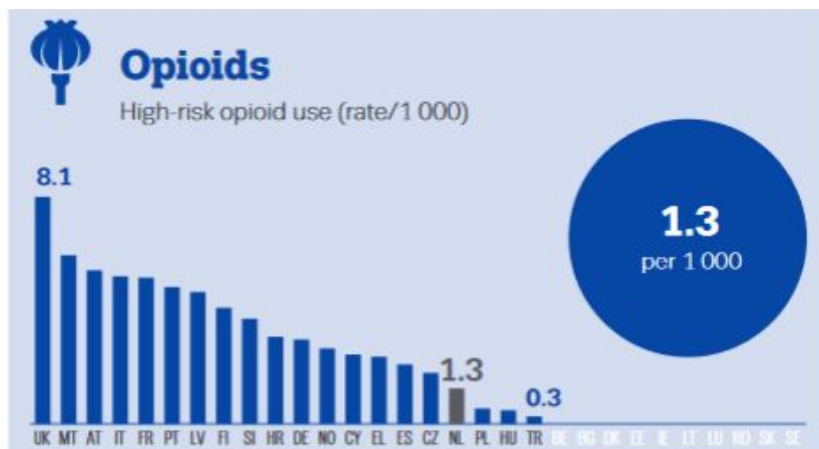
Other countries have gone much farther than the United States in trying bold new experiments to curb drug abuse. These countries may offer examples which could be applicable to the United States.

**The Philippines** has a large problem with crystal methamphetamine, with perhaps 2% of the population and [16% of youth](https://www.drugabuse.gov/international/abstracts/assessing-methamphetamine-use-among-drug-using-filipino-youth) <sup>↗</sup> (<https://www.drugabuse.gov/international/abstracts/assessing-methamphetamine-use-among-drug-using-filipino-youth>) taking the drug regularly. The drug was manufactured in industrial scale in the [Shan states of Burma/Myanmar starting in the late 1990's](https://www.unodc.org/documents/toc/Reports/TOCTA-EA-Pacific/TOCTA_EAP_c06.pdf) <sup>↗</sup> ([https://www.unodc.org/documents/toc/Reports/TOCTA-EA-Pacific/TOCTA\\_EAP\\_c06.pdf](https://www.unodc.org/documents/toc/Reports/TOCTA-EA-Pacific/TOCTA_EAP_c06.pdf)); more recently laboratories in China have augmented the supply. In 2016 Rodrigo Duterte was elected President of the Philippines in part based on a pledge to kill 100,000 criminals in Manila in his first six months of office, [vowing that fish in Manila, the capital, would grow fat from eating the bodies of drug dealers and other “do](#)

nothings.” [\\_ \(https://www.nytimes.com/2016/10/14/world/asia/methamphetamine-shabu-abuse-politics-philippines.html\)](https://www.nytimes.com/2016/10/14/world/asia/methamphetamine-shabu-abuse-politics-philippines.html) Duterte had previously been mayor of Davao City and had been linked to the [\\_ \(https://en.wikipedia.org/wiki/Davao\\_Death\\_Squad\)](https://en.wikipedia.org/wiki/Davao_Death_Squad), which killed over 1,000 drug dealers, petty criminals and street children. After being elected President Duterte said, *“Hitler massacred three million Jews ... there’s three million drug addicts. There are. I’d be happy to slaughter them.”* Perhaps because Duterte did not follow through on his promise to pay a bounty for dead drug users, the death toll since 2016 is [\\_ \(https://www.dw.com/en/investigating-dutertes-drug-war-in-philippines-facts-and-fiction/a-43695383\)](https://www.dw.com/en/investigating-dutertes-drug-war-in-philippines-facts-and-fiction/a-43695383). The killings are carried out by [\\_ \(https://www.reuters.com/investigates/special-report/philippines-drugs-surveillance/\)](https://www.reuters.com/investigates/special-report/philippines-drugs-surveillance/). Part of the economic incentive seems to be kickbacks to the police from certain funeral homes which charge many multiples of the going rate. The vigilante war against drug dealers and pushers has been very effective politically, with [\\_ \(https://www.reuters.com/article/us-philippines-drugs/philippine-survey-shows-big-support-for-dutertes-drugs-war-idUSKBN1CL0FM\)](https://www.reuters.com/article/us-philippines-drugs/philippine-survey-shows-big-support-for-dutertes-drugs-war-idUSKBN1CL0FM) of the electorate. It’s harder to estimate the effect it has had on drug usage. It has certainly made drug sales more clandestine and [\\_ \(https://www.scmp.com/week-asia/society/article/2052614/meth-manila-addicts-take-dutertes-war-drugs\)](https://www.scmp.com/week-asia/society/article/2052614/meth-manila-addicts-take-dutertes-war-drugs). Whether a similar policy would be effective in the United States is debatable. President Trump has [\\_ \(https://www.washingtonpost.com/news/fact-checker/wp/2018/04/25/president-trumps-claim-that-death-sentences-would-stop-drug-trafficking/?utm\\_term=.3983b14bca75\)](https://www.washingtonpost.com/news/fact-checker/wp/2018/04/25/president-trumps-claim-that-death-sentences-would-stop-drug-trafficking/?utm_term=.3983b14bca75) for drug dealing and [\\_ \(https://www.nytimes.com/2017/05/23/us/politics/trump-duterte-phone-transcript-philippine-drug-crackdown.html\)](https://www.nytimes.com/2017/05/23/us/politics/trump-duterte-phone-transcript-philippine-drug-crackdown.html) praised President Duterte for his government’s sanctioned extrajudicial killings. But killing the 45 million Americans who use illegal drugs might prove logistically difficult. Perhaps we should look to another country for inspiration.

**The Netherlands, aka Holland**, undertook a bold experiment in 1976 when they decriminalized soft drugs such as marijuana and hashish, while keeping strong penalties against harder drugs. Small quantities of marijuana and hashish are sold in coffee shops in larger cities, accessible to tourists or citizens 18 and older. A [2004 study](https://laulima.hawaii.edu/access/content/user/hallston/website/reinarman_sf.pdf) <sup>↗</sup> ([https://laulima.hawaii.edu/access/content/user/hallston/website/reinarman\\_sf.pdf](https://laulima.hawaii.edu/access/content/user/hallston/website/reinarman_sf.pdf)) showed almost identical use patterns between San Francisco and Amsterdam, suggesting perhaps that criminalization had little effect on drug usage patterns. However, comparing the Netherlands with the rest of Europe, we see some interesting trends:





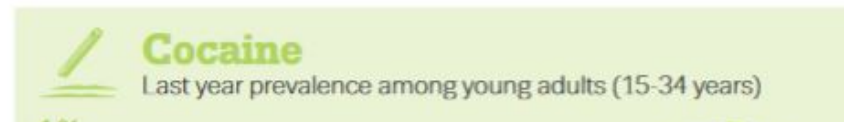
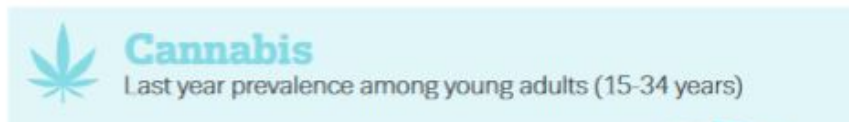
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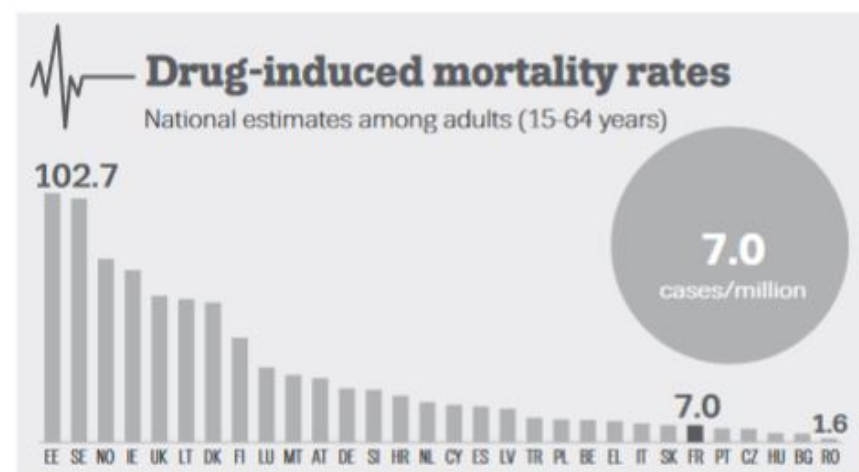
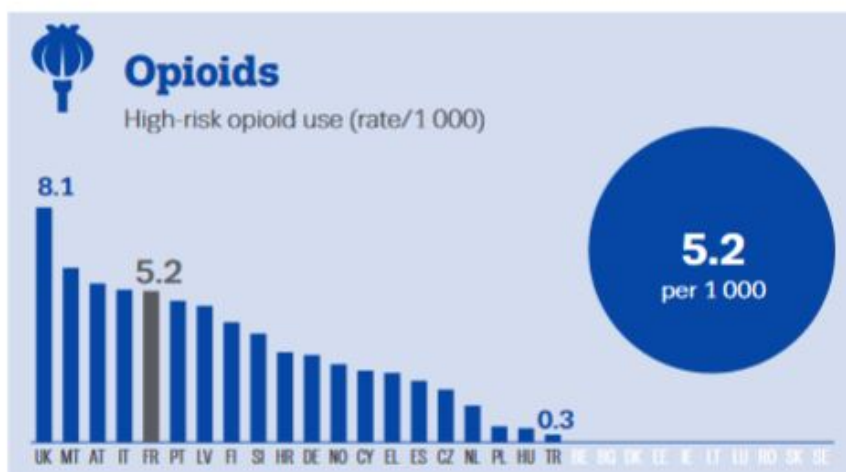
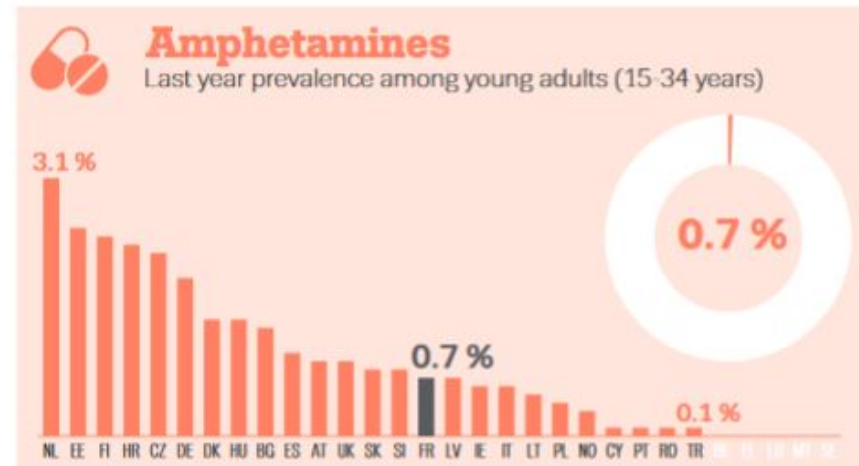
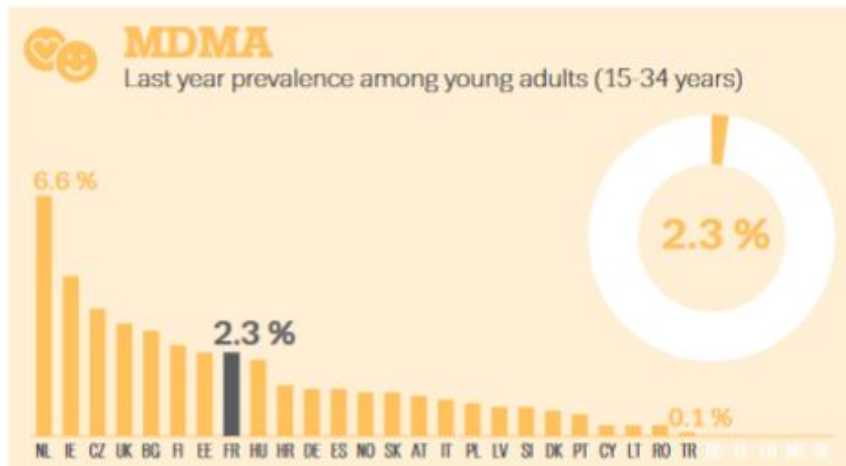
The rates of use of cocaine, MDMA (ecstasy) and amphetamines in the Netherlands are close to the highest in Europe which may suggest that permissiveness with soft drugs encourages the use of harder drugs. Opioid use and drug mortality however are low, which may reflect the use of harm reduction policies such as needle exchanges, safe injection sites and medication-assisted treatment. In contrast to the Netherlands drug induced mortality rate of 16.5 per million, America's rate in 2017 was 185 per million.

In France, drugs are criminalized, however the country made a big push to distribute medication-assisted treatment in the form of buprenorphine through general practitioners and pharmacies in the mid 1990's. As a result, [overdose deaths fell by 79% between 1994 and 2002](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949694/)

(<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949694/>). The rate of opiate consumption in France today however is relatively high, although the overdose death rate is low:









<http://www.emcdda.europa.eu/system/files/publications/4523/TD0416916ENN.pdf> ↗  
(<http://www.emcdda.europa.eu/system/files/publications/4523/TD0416916ENN.pdf>)

It's not clear why France's drug mortality is so low, given high rates of opioid use. Europe's heroin is sourced from Afghanistan and comes through the Balkans. Fentanyl adulteration appears not yet to be widespread in Europe, except in Estonia. France does have widespread naloxone (Narcan) distribution but only two safe injection sites. It may be that many of France's opioid addicts are on buprenorphine and only use heroin occasionally.

**Switzerland** in the 1990's rolled out [treatment on demand for opiate users](#) ↗ (<http://www.citizensopposingprohibition.org/resources/swiss-heroin-assisted-treatment-1994-2009-summary/>), through medication-assisted treatment as well as safe injection sites. 75% of Switzerland's addicts are on methadone, and many of the rest utilize [safe injection sites](#) ↗ (<http://brugerforeningen.dk/2013/04/final-report-on-injecting-rooms-in-switzerland/?lang=en>), which are supervised by nurses and at which there have been no fatal overdoses to date. Studies found that Switzerland's medication-assisted treatment and other harm reduction measures have led to a [60% decrease in felony crimes by patients, an 82% decrease in patients selling heroin, and reduced HIV rates and overdose deaths among IV users](#) ↗ (<https://heroin.net/types-of-heroin/by-area-of-origin/the-swiss-heroin-experiment/>). Another study found that the country saves about \$38 per addict in reduced costs for court and police work. Switzerland estimated that there was a yearly decline in the number of heroin users by about 1% between 1992 and 2002. Heroin users have declined from 30,000 in the mid-1990's to about 22,000 today.

**Portugal** has embarked on the boldest experiment in drug policy among any nation, fully decriminalizing personal use of all drugs. In the 1990s drug use in Portugal was perceived as out of control, with widespread use across all strata of society and increasing numbers of overdose deaths. In 2001, the country effectively decriminalized personal use of all drugs, including hard drugs such as heroin and cocaine. The country took the money previously spent on criminal justice enforcement and put it into social programs. Social workers visit drug users in their homes and offer clean needles, medication-assisted treatment, and jobs and housing for the unemployed and homeless. Perhaps surprisingly, decriminalization did not lead to an increase in drug use, but a decrease. Among high school students, use of most drugs was down sharply:

## National Investigation in School Environment, 2001 and 2006, Secondary (10th, 11th, and 12th years), Portugal, Prevalence Over Entire Life

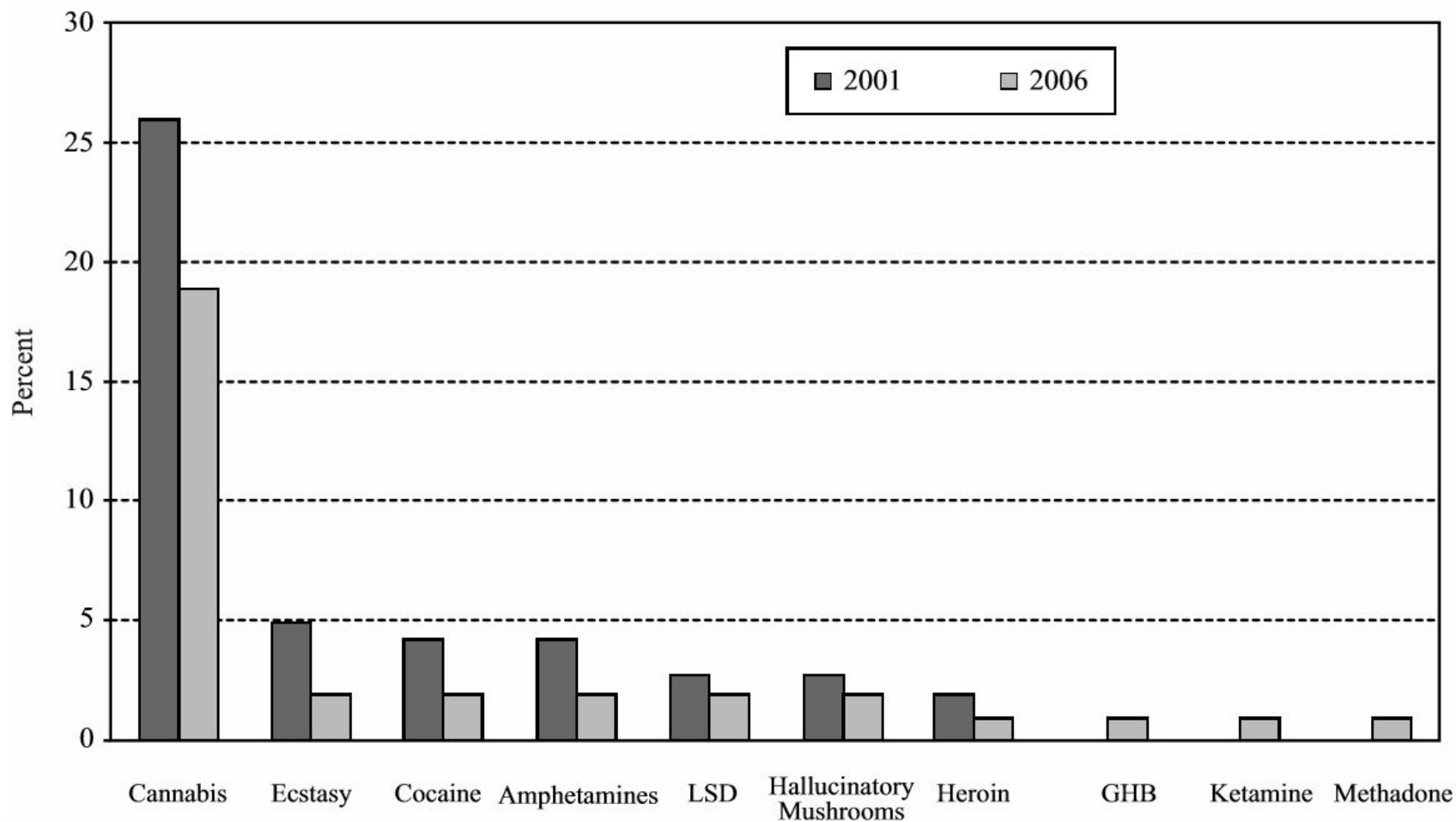


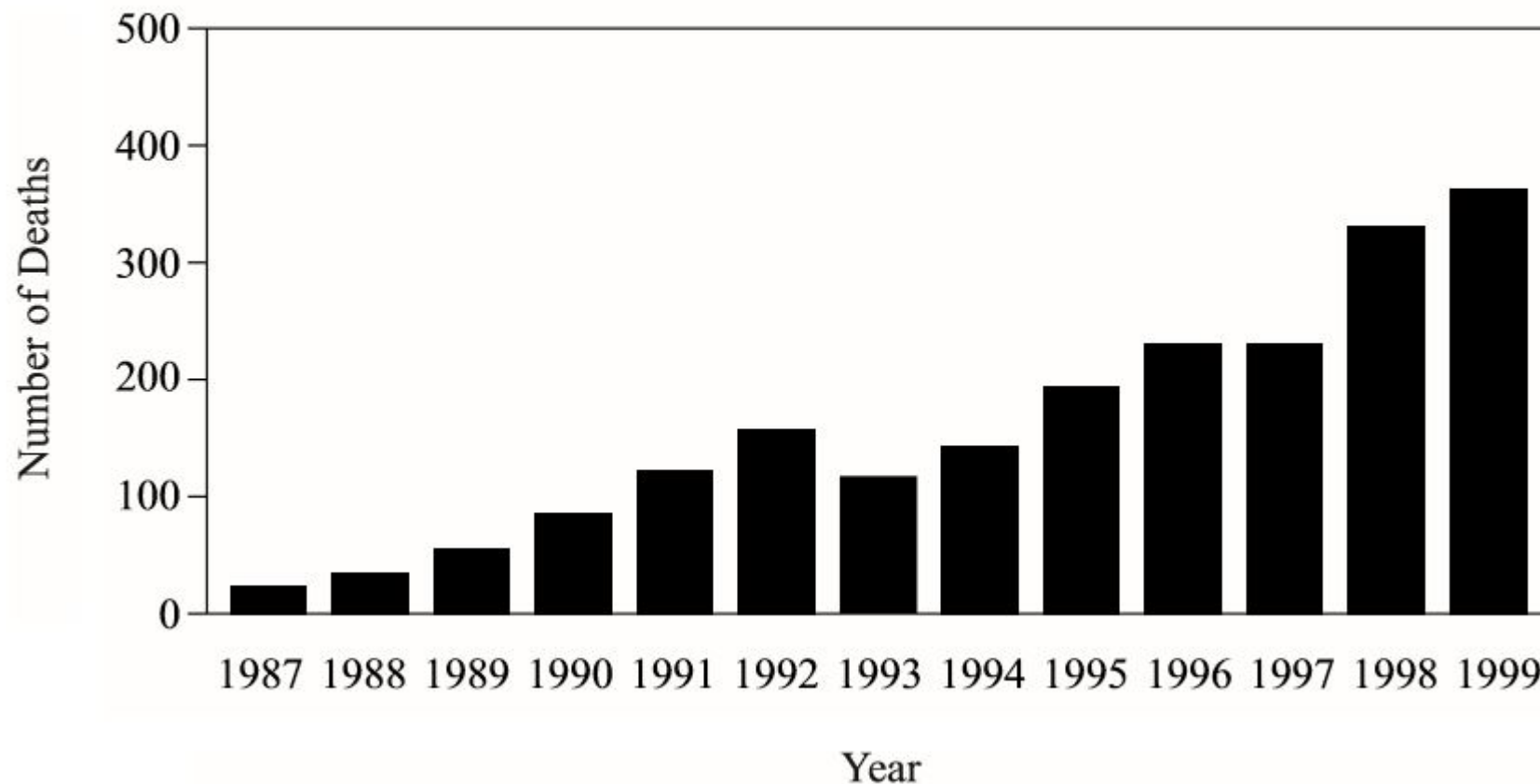
FIGURE 1.1

[http://www.midcoastforum.org/wp-content/uploads/greenwald\\_whitepaper.pdf](http://www.midcoastforum.org/wp-content/uploads/greenwald_whitepaper.pdf)

([http://www.midcoastforum.org/wp-content/uploads/greenwald\\_whitepaper.pdf](http://www.midcoastforum.org/wp-content/uploads/greenwald_whitepaper.pdf))

After climbing for years, overdose deaths fell sharply:

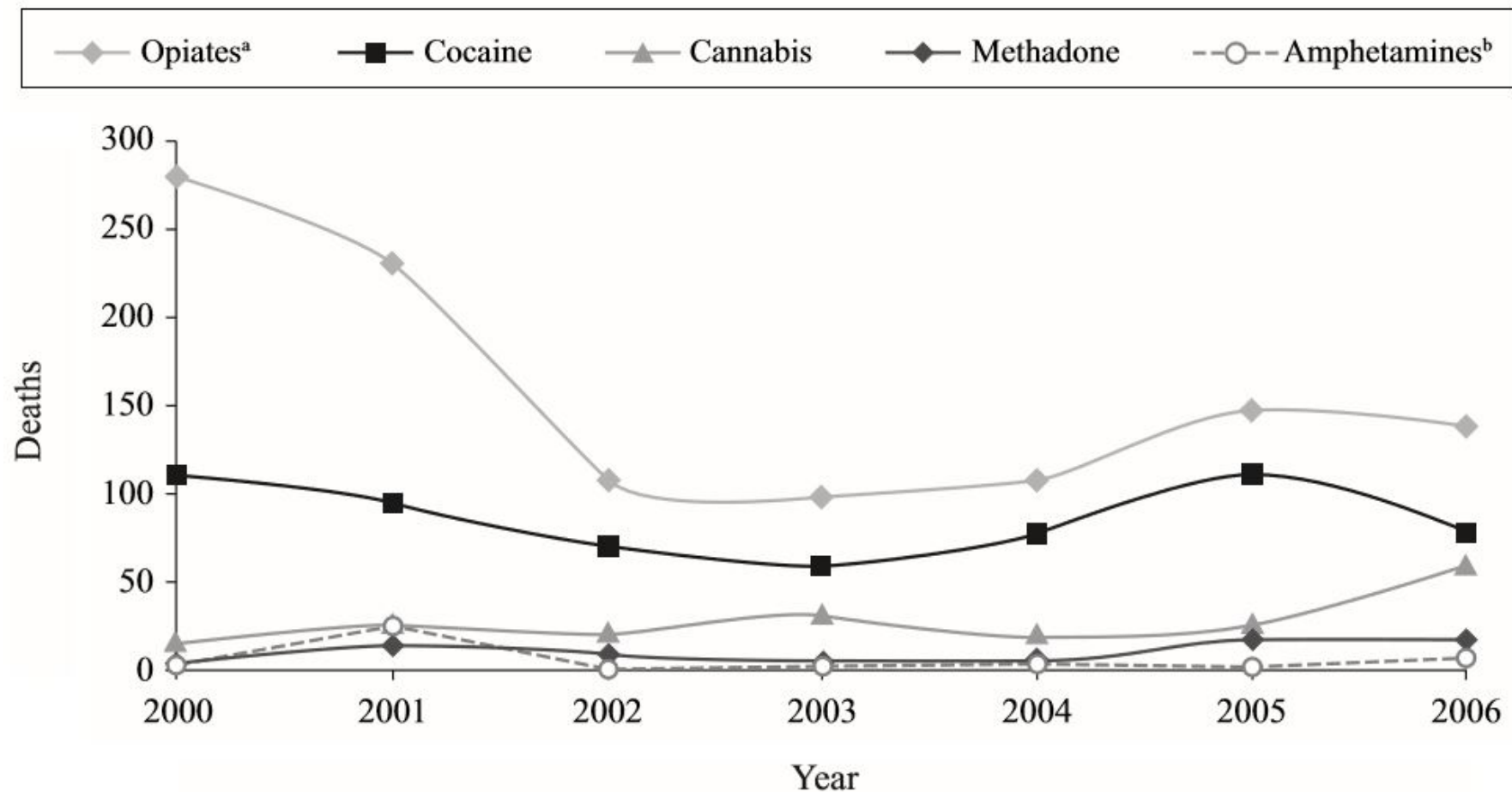
### Number of Acute Drug-Related Deaths, 1987–1999



[http://www.midcoastforum.org/wp-content/uploads/greenwald\\_whitepaper.pdf](http://www.midcoastforum.org/wp-content/uploads/greenwald_whitepaper.pdf)

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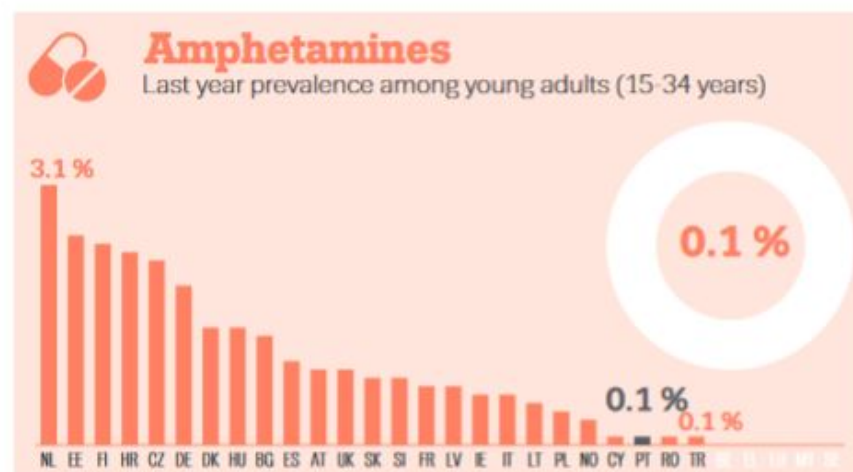
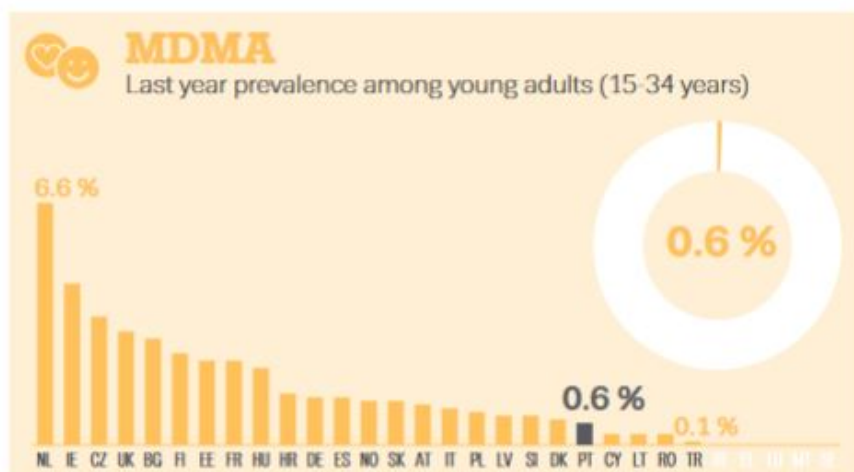
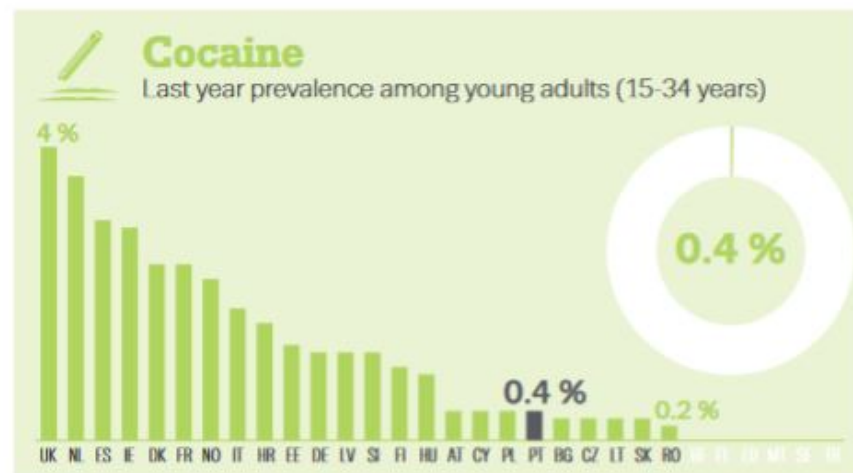
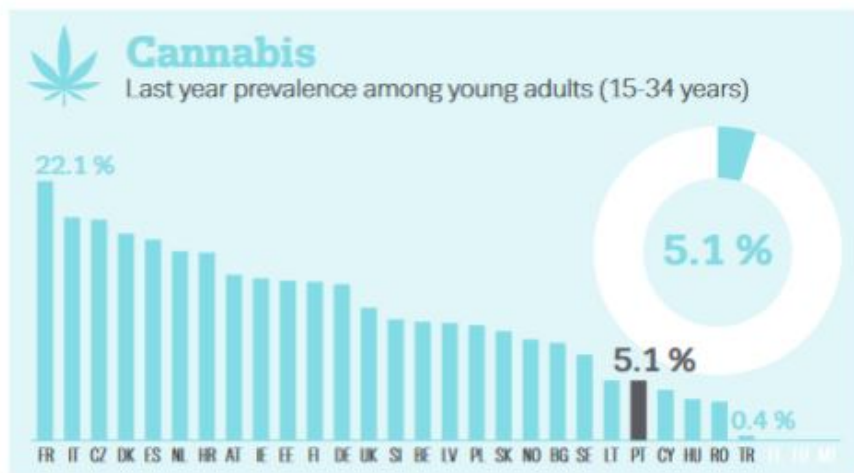
## Deaths,\* by Year, by Substance



[http://www.midcoastforum.org/wp-content/uploads/greenwald\\_whitepaper.pdf](http://www.midcoastforum.org/wp-content/uploads/greenwald_whitepaper.pdf)

([http://www.midcoastforum.org/wp-content/uploads/greenwald\\_whitepaper.pdf](http://www.midcoastforum.org/wp-content/uploads/greenwald_whitepaper.pdf))

Today, Portugal has very low usage rates of cannabis, cocaine, MDMA and amphetamines compared to other European countries. While its opiate use rate is moderately high, it's overdose death rate is very low:





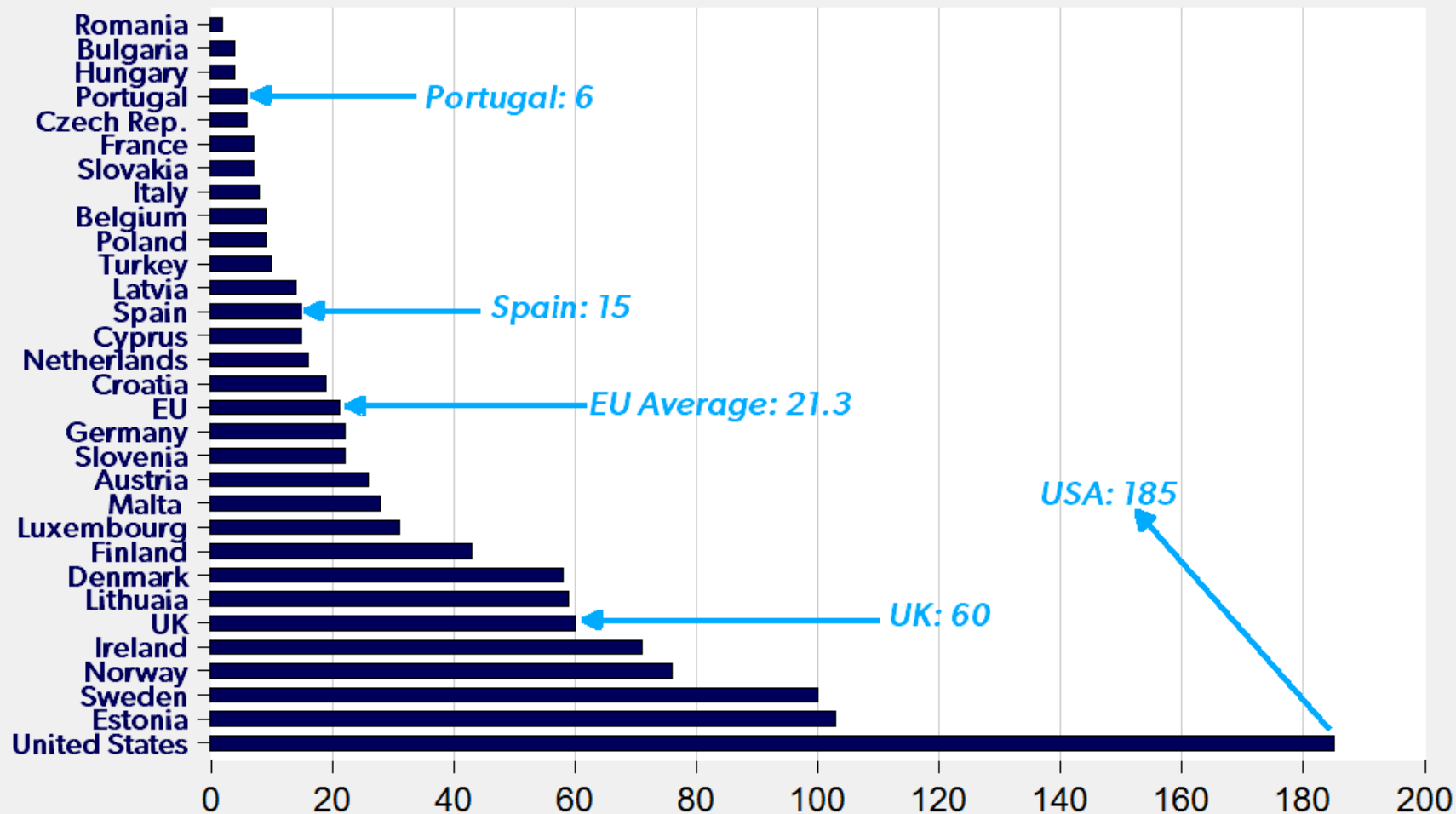
<http://www.emcdda.europa.eu/system/files/publications/4508/TD0116918ENN.pdf> <sup>27</sup>

(<http://www.emcdda.europa.eu/system/files/publications/4508/TD0116918ENN.pdf>)

It is difficult to make cross cultural comparisons; there may be something unique to the Portuguese culture which explains its success. Nevertheless, in the United States it may be time to consider shifting the pendulum back toward the Great Society programs and implementing programs which offer drug treatment, jobs and housing to those who need them if we are to make great progress in curbing drug abuse.



## Drug Induced Deaths per Million Population, Ages 15-64



Sources: European Drug Report 2017 and New York Times

Carpe Diem **AEI**

<https://www.aei.org/publication/chart-of-the-day-5/> (https://www.aei.org/publication/chart-of-the-day-5/)

## Radical Drug Treatment Approaches

Let us now turn from radical public policy approaches to radical addiction treatment approaches. We've seen how Narcan/naloxone can save people from dying from an overdose and medication assisted treatment can help addicts rebuild their lives. But what kind of addiction treatment might promise to turn addicts' life around? There is currently an ongoing revival of old research which may prove transformative to addicts as well as people with depression, anxiety, and other difficult to treat conditions. Michael Pollan has written a new book titled [How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression and Transcendence](https://www.amazon.com/Change-Your-Mind-Consciousness-Transcendence-ebook/dp/B076GPJXWZ/ref=sr_1_4?s=books&ie=UTF8&qid=1543874390&sr=1-4&keywords=how+to+change+your+mind)  [\(https://www.amazon.com/Change-Your-Mind-Consciousness-Transcendence-ebook/dp/B076GPJXWZ/ref=sr\\_1\\_4?s=books&ie=UTF8&qid=1543874390&sr=1-4&keywords=how+to+change+your+mind\)](https://www.amazon.com/Change-Your-Mind-Consciousness-Transcendence-ebook/dp/B076GPJXWZ/ref=sr_1_4?s=books&ie=UTF8&qid=1543874390&sr=1-4&keywords=how+to+change+your+mind), from which most of this section was taken.

The use of psychedelics, such as LSD, psilocybin from magic mushrooms or mescaline from the peyote plant, to treat psychiatric conditions was studied extensively in the 1950's, with more than a thousand clinical papers studying psychedelics for addiction, depression, obsessive-compulsive disorder, schizophrenia, autism and end-of-life anxiety. Some of the results were surprisingly good. Two researchers in Saskatchewan, [Osmond and Hoffer](http://www.maps.org/research-archive/w3pb/2005/2005_Dyck_22866_1.pdf)  [\(http://www.maps.org/research-archive/w3pb/2005/2005\\_Dyck\\_22866\\_1.pdf\)](http://www.maps.org/research-archive/w3pb/2005/2005_Dyck_22866_1.pdf) gave LSD to over seven hundred alcoholics, and in roughly half the cases, they reported, the treatment worked: the volunteers got sober and remained so for at least several months. When other researchers couldn't replicate the results it became clear that it wasn't the drug that was inducing sobriety, but the hallucinatory experience itself, and that the psychological setting and expectations were key. Placebos can be powerful drugs, and in some sense the psychedelics were

acting as supercharged placebos. “From the first,” Hoffer wrote, “we considered not the chemical, but the experience as a key factor in therapy.”

In the 1960's psychedelics escaped from the lab and were used as street drugs, championed by former Harvard researcher Timothy Leary who encouraged youth to “Turn on, tune in, and drop out.” President Nixon called Leary, “the most dangerous man in America.” Soon after, the interest in using psychedelics for clinical research came to a stop and all the research that had been done was forgotten.

Interest in psychedelics for clinical applications was revived in 2006 when [Roland Griffiths](https://www.hopkinsmedicine.org/profiles/results/directory/profile/1311852/roland-griffiths) <sup>↗</sup> (<https://www.hopkinsmedicine.org/profiles/results/directory/profile/1311852/roland-griffiths>), a well respected neuroscience researcher at the Johns Hopkins School of Medicine, published a paper with the title: [“Psilocybin Can Occasion Mystical-Type Experiences Having Substantial and Sustained Personal Meaning and Spiritual Significance.”](https://www.hopkinsmedicine.org/Press_releases/2006/GriffithsPsilocybin.pdf) <sup>↗</sup> ([https://www.hopkinsmedicine.org/Press\\_releases/2006/GriffithsPsilocybin.pdf](https://www.hopkinsmedicine.org/Press_releases/2006/GriffithsPsilocybin.pdf))

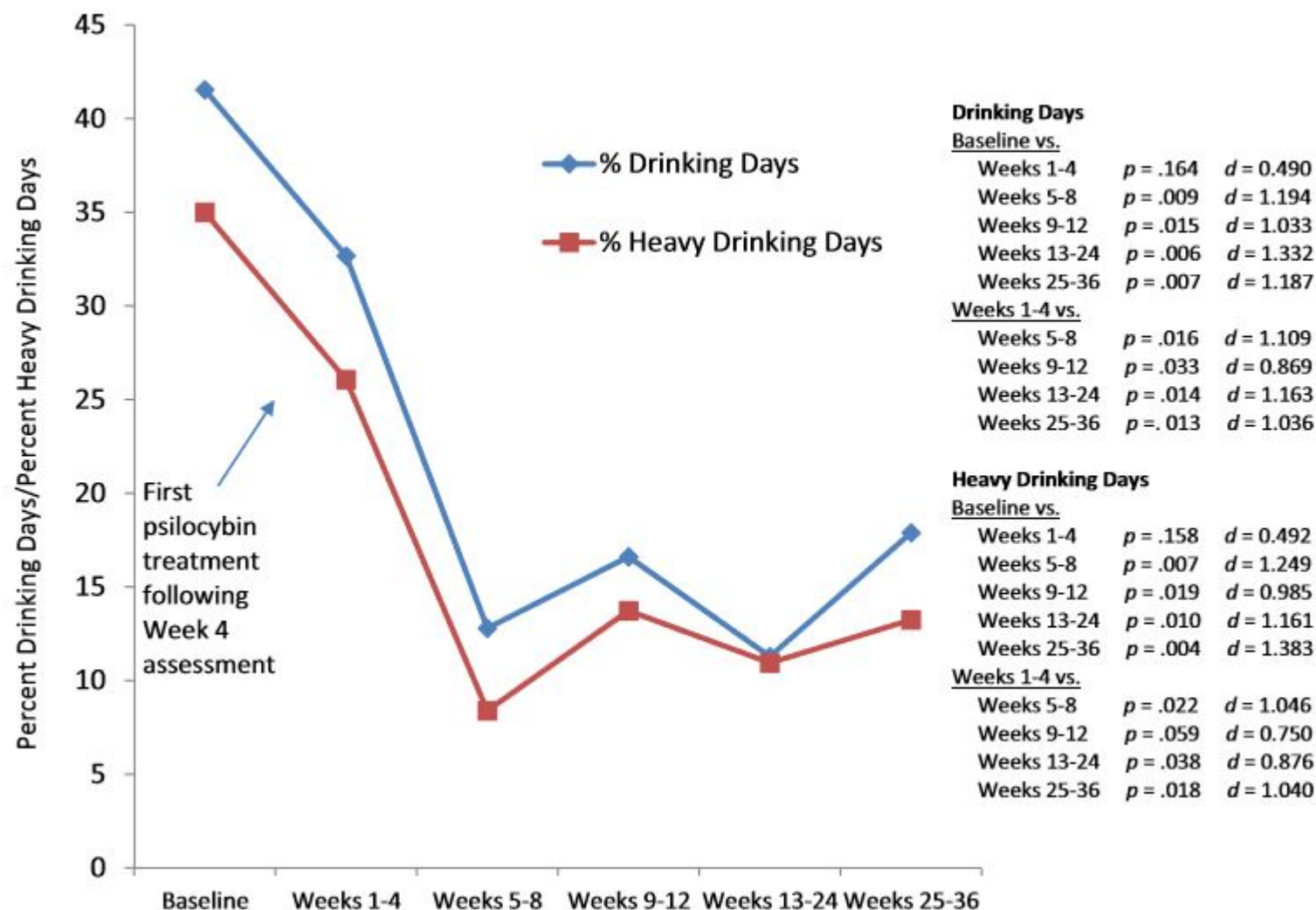
Griffiths gave high dose psilocybin to 36 healthy volunteers. Twenty-two of the volunteers had a “complete mystical experience” and 67% of the volunteers rated the experience with psilocybin to be either the single most meaningful experience of his or her life or among the top five most meaningful experiences of his or her life. This feeling was long lasting; at a [14 month follow up](https://files.csp.org/Psilocybin/Hopkins-CSP-Psilocybin2008.pdf) <sup>↗</sup> (<https://files.csp.org/Psilocybin/Hopkins-CSP-Psilocybin2008.pdf>), 58% and 67%, respectively, of volunteers rated the psilocybin-occasioned experience as being among the five most personally meaningful and among the five most spiritually significant experiences of their lives; 64% indicated that the experience increased well-being or life satisfaction. The New York Times was excited, publishing an article called [Hallucinogens Have Doctors Turning In Again](https://www.nytimes.com/2010/04/12/science/12psychedelics.html) <sup>↗</sup> (<https://www.nytimes.com/2010/04/12/science/12psychedelics.html>).

Griffiths next looked at the use of the psilocybin experience as therapy by giving low and high dose psilocybin to 56 cancer patients with a terminal diagnosis who were suffering anxiety and depression. The 2016 paper is titled [Psilocybin produces substantial and sustained decreases in depression and anxiety in](#)

[patients with life-threatening cancer: A randomized double-blind trial](https://files.csp.org/Psilocybin/Griffiths2016CancerDistress.pdf) 

[\(https://files.csp.org/Psilocybin/Griffiths2016CancerDistress.pdf\)](https://files.csp.org/Psilocybin/Griffiths2016CancerDistress.pdf). The results in the high dose arm were impressive: *The data show that psilocybin produced large and significant decreases in clinician-rated and self-rated measures of depression, anxiety or mood disturbance, and increases in measures of quality of life, life meaning, death acceptance, and optimism. These effects were sustained at 6 months. For the clinician-rated measures of depression and anxiety, respectively, the overall rate of clinical response at 6 months was 78% and 83% and the overall rate of symptom remission was 65% and 57%. Participants attributed to the high-dose experience positive changes in attitudes about life, self, mood, relationships and spirituality, with over 80% endorsing moderately or higher increased well-being or life satisfaction. These positive effects were reflected in significant corresponding changes in ratings by community observers (friends, family, work colleagues) of participant attitudes and behavior.*

Griffiths looked at addiction in a very small 10 person trial of alcohol dependent patients. The results were encouraging; the average number of drinking days plummeted following the psilocybin experience and stayed low for twenty weeks of follow up. As with the anxiety/depression study, the degree of effect was correlated with the mystical quality of the experience.



<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.903.2426&rep=rep1&type=pdf>

(<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.903.2426&rep=rep1&type=pdf>)

Another researcher, Matt Johnson, published a small study titled [Pilot study of the 5-HT<sub>2A</sub>R agonist psilocybin in the treatment of tobacco addiction](#)

<https://journals.sagepub.com/doi/abs/10.1177/0269881114548296>). As you may recall, nicotine addiction is the most difficult addiction to quit, when measured by average number of years before voluntary cessation. Six months after the psilocybin experience, 12 of the 15 subjects had been abstinent for the previous week, an extraordinarily high cure rate.

How can a one time experience, lasting a few hours, have such long lasting effects? Part of the explanation lies in the importance of the experience. Although subjects knew their experience was due to a hallucinogenic drug, they didn't explain it as a drug induced fantasy; instead, they felt that a profound objective truth had been revealed to them. Subjects often report feelings of being one with the universe, being flooded with a feeling of love, and seeing themselves in a new light. Michael Pollan spoke to several subjects who had quit smoking: *It sounded as though the psychedelic experience had given many of them an overview effect on the scenes of their own lives, making possible a shift in worldview and priorities that allowed them to let go of old habits, sometimes with remarkable ease. As one lifetime smoker put it to me in terms so simple I found it hard to believe, "Smoking became irrelevant, so I stopped."* Another subject said, *"Instead of being so narrowly focused, moving through this little tunnel of adult life," she found that the journey "returned me to the child's wider sense of wonder—to the world of Wordsworth. A part of my brain that had gone to sleep was awakened. "The universe was so great and there were so many things you could do and see in it that killing yourself seemed like a dumb idea. It put smoking in a whole new context. Smoking seemed very unimportant; it seemed kind of stupid, to be honest."*

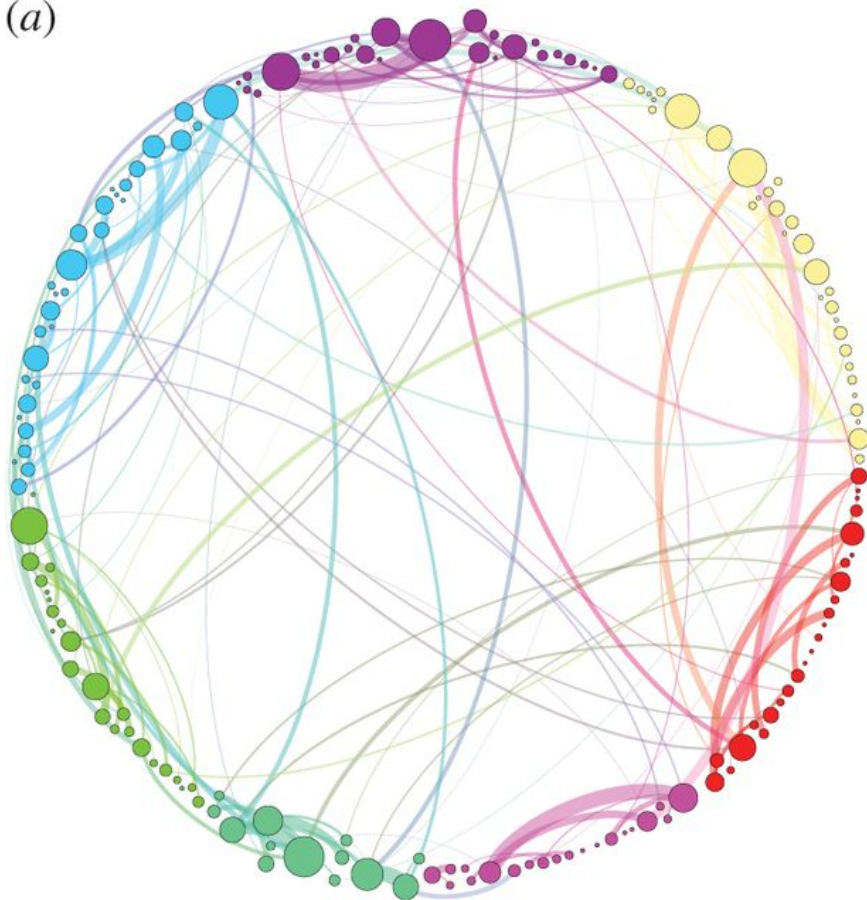
Researchers have been delving into neuroscience to understand this and have made good progress. If you look at the chemical structure of many hallucinogens, they are similar to the neurotransmitter serotonin. And in fact, LSD and psilocybin act in the brain by activating the 5-HT<sub>2A</sub> serotonin receptor. This is the

same receptor that MDMA (Ecstasy) activates, and MDMA seems to be a [promising therapeutic for post-traumatic stress disorder](https://www.sciencedirect.com/science/article/abs/pii/S0304394016304906) <sup>↗</sup> [\\_ \(https://www.sciencedirect.com/science/article/abs/pii/S0304394016304906\)](https://www.sciencedirect.com/science/article/abs/pii/S0304394016304906)\_. An English researcher, [Robin Carhart-Harris](https://www.frontiersin.org/articles/10.3389/fnhum.2014.00020/full) <sup>↗</sup> [\\_ \(https://www.frontiersin.org/articles/10.3389/fnhum.2014.00020/full\)](https://www.frontiersin.org/articles/10.3389/fnhum.2014.00020/full) has studied what happens to the brain under the influence of hallucinogens using blood flow and EEG studies. In the human adult brain, there appears to be a network called the [Default Mode Network](https://en.wikipedia.org/wiki/Default_mode_network) <sup>↗</sup> [\\_ \(https://en.wikipedia.org/wiki/Default\\_mode\\_network\)](https://en.wikipedia.org/wiki/Default_mode_network)\_. This seems to be a controller in the brain which correlates with people's ego: it is activated when people think about themselves and others. The Default Mode Network lights up when people are daydreaming and goes away when their mind takes on a task. From a Freudian point of view the Default Mode Network, acting as the ego, acts as a controller for the brain, keeping emotions under cortical control and constraining the variety of thoughts in the mind. Many people find the experience of the Default Mode Network to be unpleasant; they do not like to be alone with their thoughts. This was emphasized in an article in Science Magazine titled [A Wandering Mind is an Unhappy Mind](http://www.danielgilbert.com/KILLINGSWORTH%20&%20GILBERT%20(2010).pdf) <sup>↗</sup> [\\_ \(http://www.danielgilbert.com/KILLINGSWORTH%20&%20GILBERT%20\(2010\).pdf\)](http://www.danielgilbert.com/KILLINGSWORTH%20&%20GILBERT%20(2010).pdf)\_. This may be because during daydreaming moments, some people replay thoughts of self-recrimination; Alcoholics Anonymous advises its members to ignore the WSHIT radio station playing in your head.

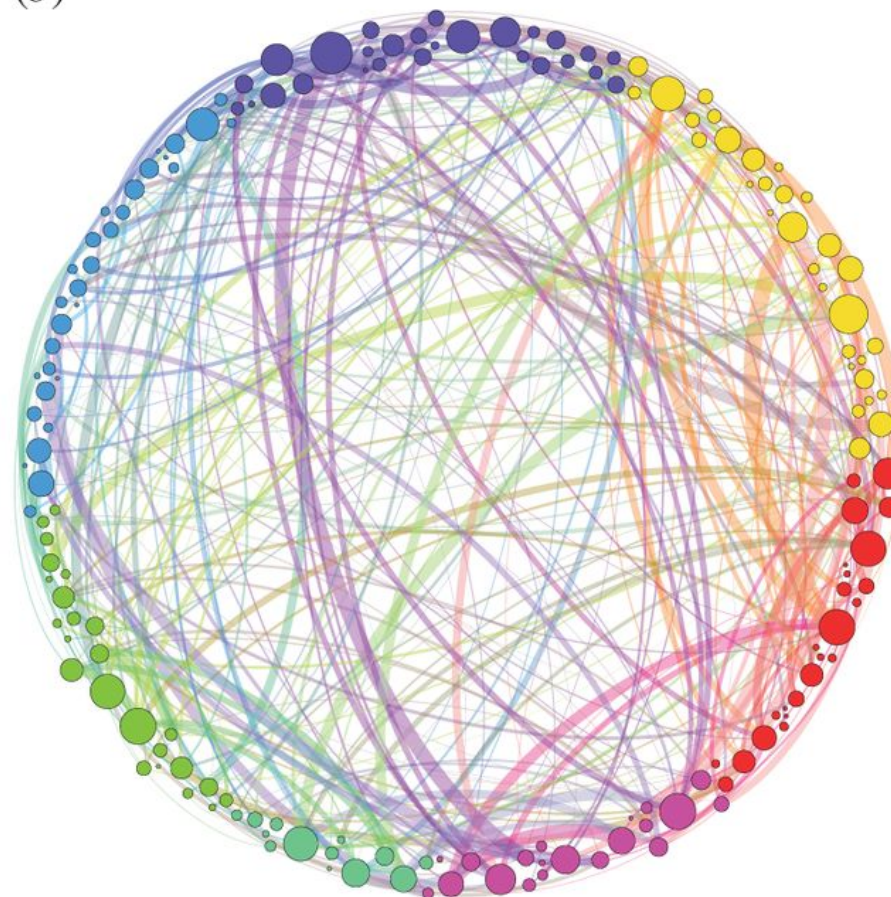
Carhart-Harris' imaging studies of the brain show a dramatic difference between activity under the Default Mode Network and activity under the influence of Psilocybin;



(a)



(b)



Brain Map during Default Mode

Brain map on Psilocybin

<http://rsif.royalsocietypublishing.org/content/11/101/20140873>

(<http://rsif.royalsocietypublishing.org/content/11/101/20140873>)

When the brain is in the default mode, activity in most areas of the brain are constrained to local areas and brain activity is low. Hallucinogens such as psilocybin block the Default Mode Network and allow high rates of activity throughout the brain but more importantly, between areas of the brain, such as the cortex and

emotional midbrain centers. Instead of being constrained by the Default Mode Network into a narrow world view, hallucinating brains are flooded with information and patients describe overpowering feelings of awe and wonderment about the beauty of the world. Following the experience it seems that some of the insights gained during the experience persist for a long time. Carhart Harris says, *“A high dose psychedelic experience has the power to “shake the snow globe, disrupting unhealthy patterns of thought and creating a space of flexibility— entropy— in which more salubrious patterns and narratives have an opportunity to coalesce as the snow slowly resettles.”*

An analogous process might take place in people who meditate. Meditation involves practicing turning off the nattering thoughts while in the Default Mode Network. Meditation aficionados report [reductions in stress and anxiety, more kindness and emotional health, and help in overcoming addictions](https://www.healthline.com/nutrition/12-benefits-of-meditation#section8) <sup>↗</sup> (<https://www.healthline.com/nutrition/12-benefits-of-meditation#section8>). And as you might expect, a recent study reported that [meditating reduces Default Mode Network activity](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4529365/) <sup>↗</sup> (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4529365/>), and frequent meditators had lower levels of Default Mode Network activity than those who didn't meditate.

The science behind therapeutic use of hallucinogens is still at a very early stage and as with all new drugs (recall Bayer's heroin), the drugs may not live up to their early hype. That's not stopping some people in Oregon who are [proposing a ballot initiative to legalize magic mushrooms](https://amp.cnn.com/cnn/2018/11/30/us/oregon-magic-mushrooms-psilocybins-trnd/index.html) <sup>↗</sup> (<https://amp.cnn.com/cnn/2018/11/30/us/oregon-magic-mushrooms-psilocybins-trnd/index.html>). Such a move would be unfortunate, as recreational use of hallucinogens has led to many [accidental deaths](https://www.dailymail.co.uk/news/article-5108655/Cambridge-student-took-LSD-died-accidentally.html) <sup>↗</sup> (<https://www.dailymail.co.uk/news/article-5108655/Cambridge-student-took-LSD-died-accidentally.html>).

However, the possibility of people suffering from addiction or depression being able to throw off their mental

illness and become inspired to lead a new life through hallucinogenic treatment by trained professionals is a potentially huge step forward. Perhaps we should have hope for the future after all.

## Preparation

Please feel free to send me any questions or discussion topics ahead of time: [ocurme@gmail.com](mailto:ocurme@gmail.com)  
(<mailto:ocurme@gmail.com>)

Please consider the following:

1) Please read this article: [How to Solve the Opiate Crisis](https://canvas.harvard.edu/courses/41939/files/6976089/download?wrap=1)

(<https://canvas.harvard.edu/courses/41939/files/6976089/download?wrap=1>) 

(<https://canvas.harvard.edu/courses/41939/files/6976089/download?wrap=1>)

If you were President Trump's drug czar, where would you place the most emphasis: Treatment, Demand, Harm Reduction or Supply?

2) There seems to be the start of a trend in criminal justice reform through less punitive drug courts, restoration of former criminals' voting rights, and legalization of some formerly illicit drugs. Is this a good thing or a bad thing? Why is this trend starting now? Do you expect it to continue?

3) Compare the drug policies of the Netherlands, Switzerland, France, Portugal, and the U.S. Which policies work the best and why?

- 4) What are some of the factors which explain the decrease in drug use among Portuguese youth?
- 5) Do you think that hallucinogenic treatment for addiction or depression is a good thing or a bad thing for clinicians to pursue? Why?

## **Additional Resources**

List resources