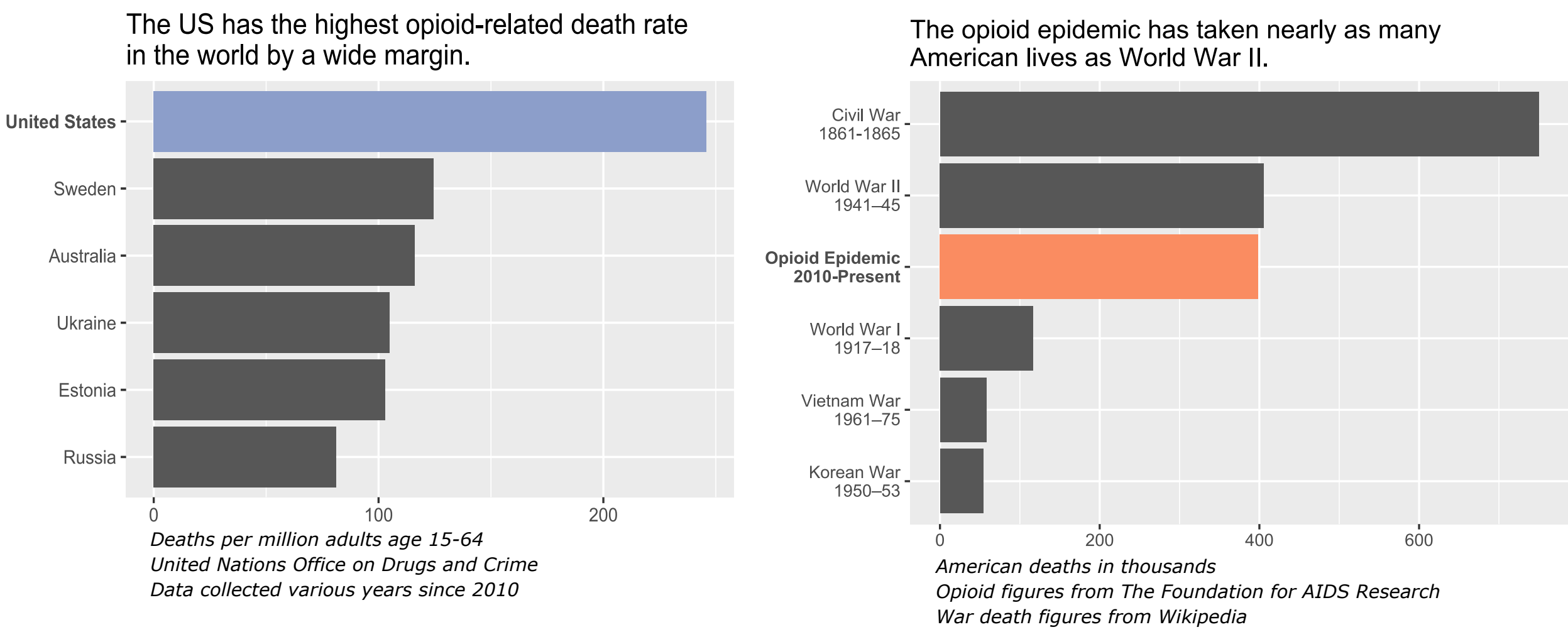


The American Opioid Epidemic

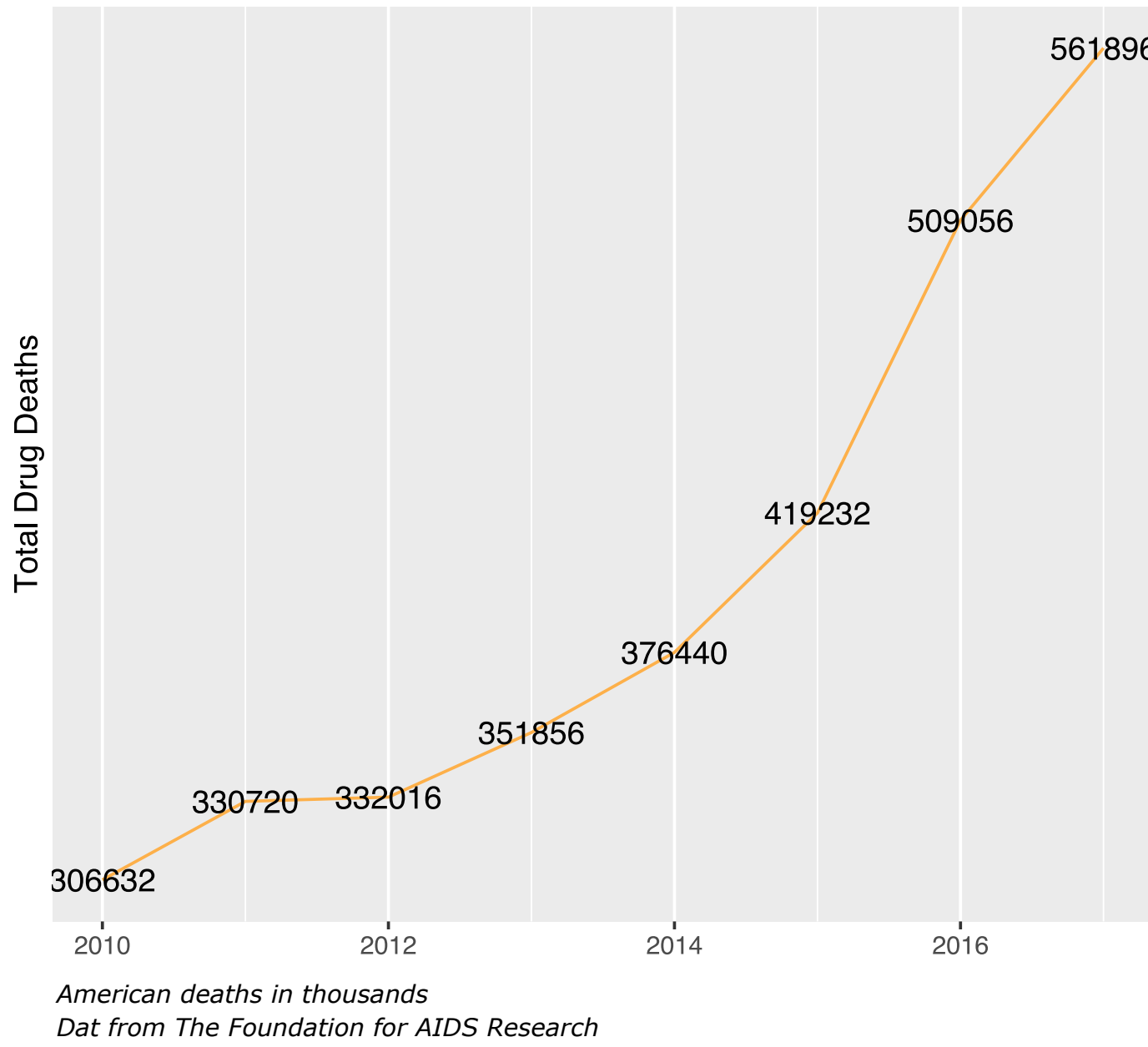
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The opioid epidemic has been an issue in the United States for many years now. Medical providers have become more hesitant on prescribing opioids, but there is still a large presence of heroin on the street. The purpose of this research is to find which opioid is the most abused. If it is found to be an opioid that was prescribed, how often is it prescribed, and in what dosage. Data from each state was analyzed to see which has the most opioid-related overdoses and deaths. Additionally, we want to see which demographic is most likely to abuse opioids. One opioid in particular, fentanyl, has recently garnered more attention due to its lethality. This data could be extremely useful to law enforcement, health care providers, and legislators. This study hopes to show the dangers of opioid abuse and trends over time.



What is an opioid? Opioids are compounds that resemble opium in a variety of effects like addictive properties or psychological effects. It originally comes from the juice of the Papaver Somniferum, commonly known as the opium or breadseed poppy. When harvested from an unripe poppy, it is a milky white fluid that is air dried to form what is known as opium. The drug itself is generally used as a pain reliever that is reddish-brown, heavily scented and very addictive. Due to its ability to affect mood or behavior, it is also used and sold for non-medical purposes. A few known opioids that will be focused on in this poster are heroin, methadone, and fentanyl.

Opioid-related death rates are increasing.



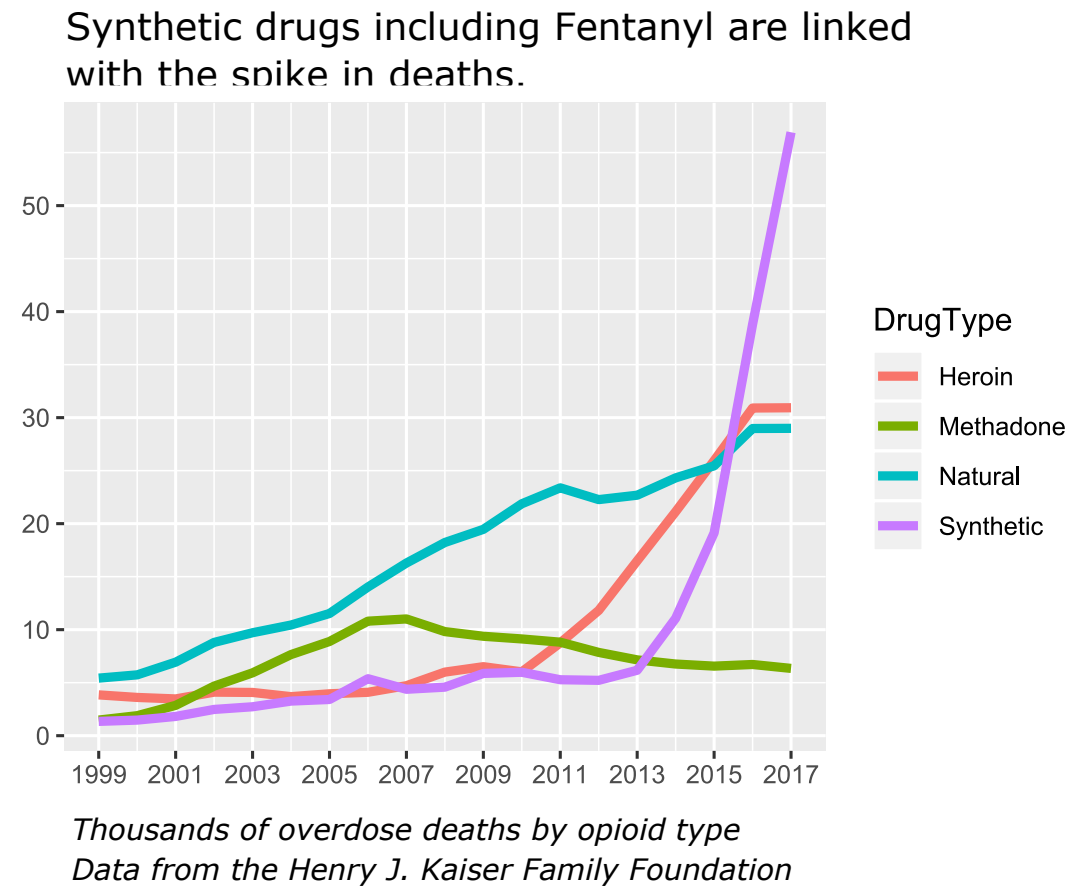
What are the side effects of opium? Like any substance, there are both good and bad side effects to using it. However, the list of positive side effects is much shorter than the list of negative side effects. For instance, opium is one of the most effective pain management drugs found. This can also be used as an efficient cough suppressant, an antidiarrhoeal, and a sleep inducer. The negative side effects, however, span across a multitude of different areas. Along with being a helpful side effect, those can also negatively impact daily functions. Along with the addition of memory loss, sexual dysfunction, hallucinations, and convulsions, the positive side effects can react negatively with the body by manifesting as drowsiness, constipation, and respiratory depression. These effects are due to the molecules binding to the chemical receptors in the brain by mimicking the natural neurotransmitters that the body typically makes.

The History of Opium: Opium has been used since 3,400 B.C. when it was cultivated in Southwest Asia. People slowly learned the power of this drug deemed the joy plant and the demand for the drug increased. This caused the drug to increase in availability and decrease in cost quite readily. However, as the addictive nature of the plant made its way to china, it quickly became a catalyst for the opium wars in the mid 1800's.

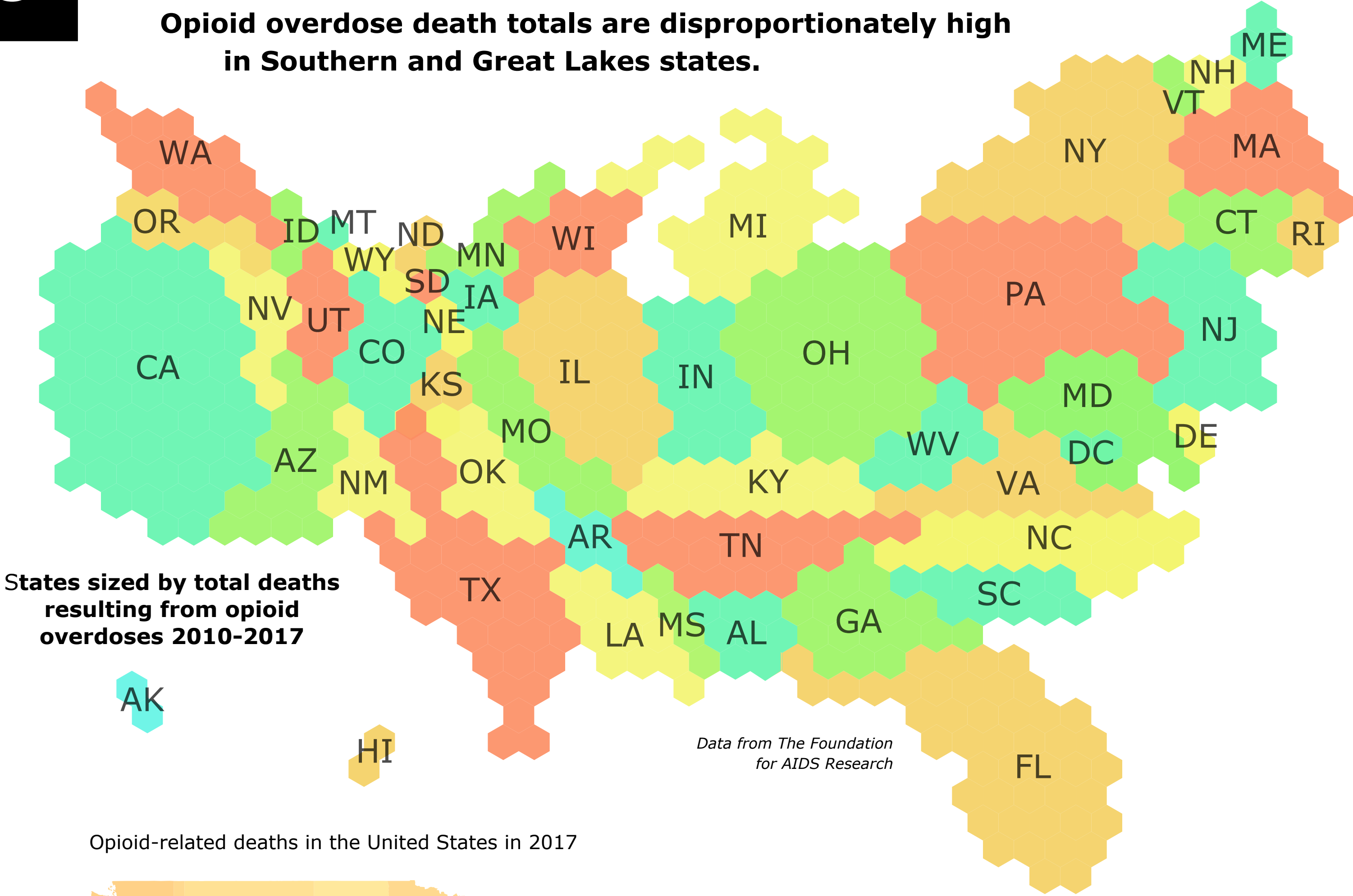
This plant thrives in warm, dry climates and is generally grown by the lower classed or impoverished farmers. Thus, those in Central Asia, Turkey, Pakistan and Burma generally have the best climates to grow the opium poppy but it has spread to being grown in Latin America, Colombia and Mexico recently.

The Silk Road in the 1800's made the trade of opium far easier to do since it connected many of the empires that were along the Mediterranean coast and the Indian kingdoms. The middle ages brought the drug into Italy, China, and Scandinavia. The opium wars started when Britain smuggled Indian opium to the Chinese in exchange for their tea. This led to a very high addiction rate in the Chinese and brought about the development of Opium Dens. These were established places to buy and sell this substance.

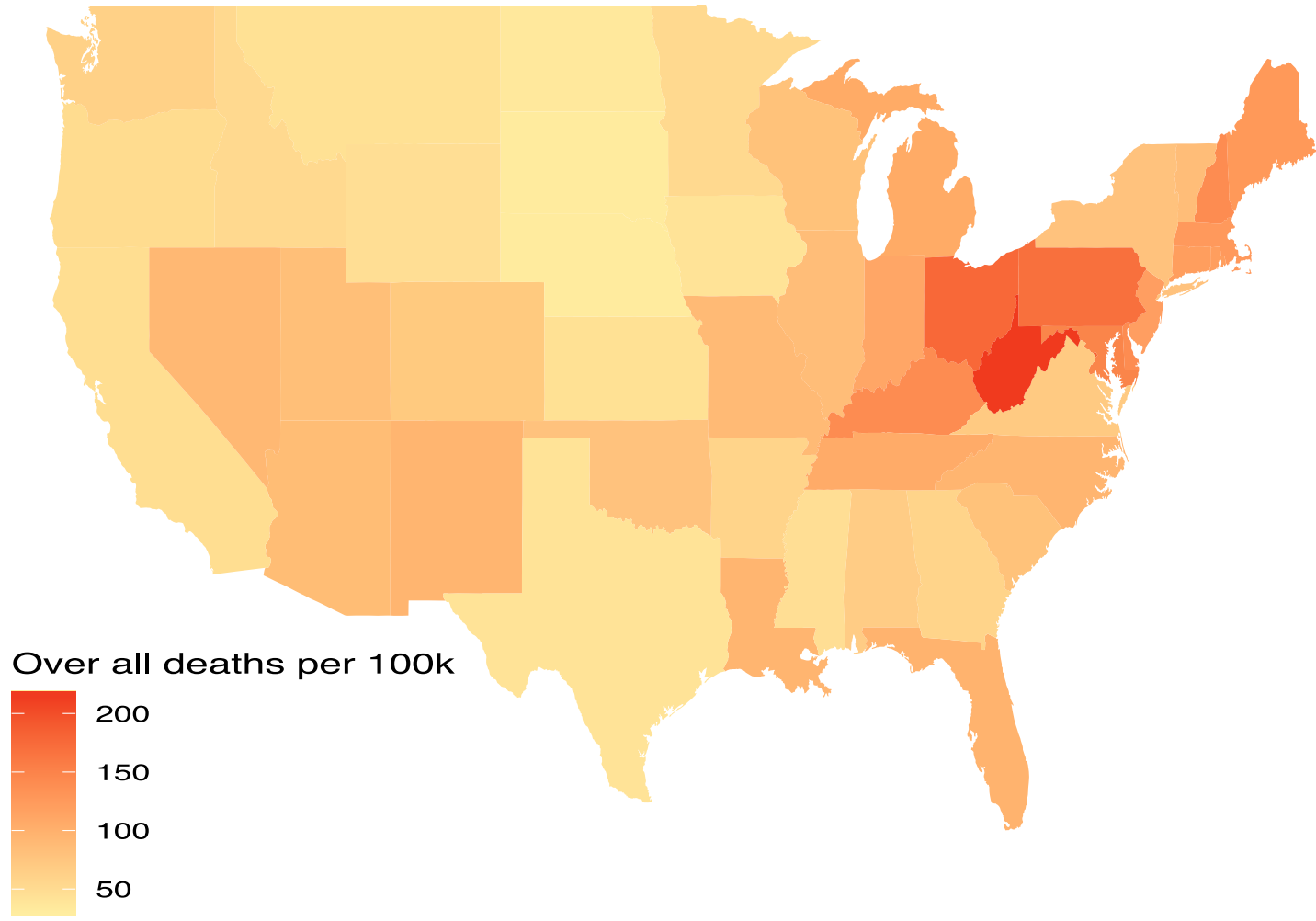
However, this is not the only use that opium had back then. Many physicians in ancient Rome and Greek knew this to be a powerful pain reliever and even used it to induce sleep in its patients. When the pleasurable effects were noted, it started the development of its derivatives like morphine, oxycodone and heroin.



Opioid overdose death totals are disproportionately high in Southern and Great Lakes states.

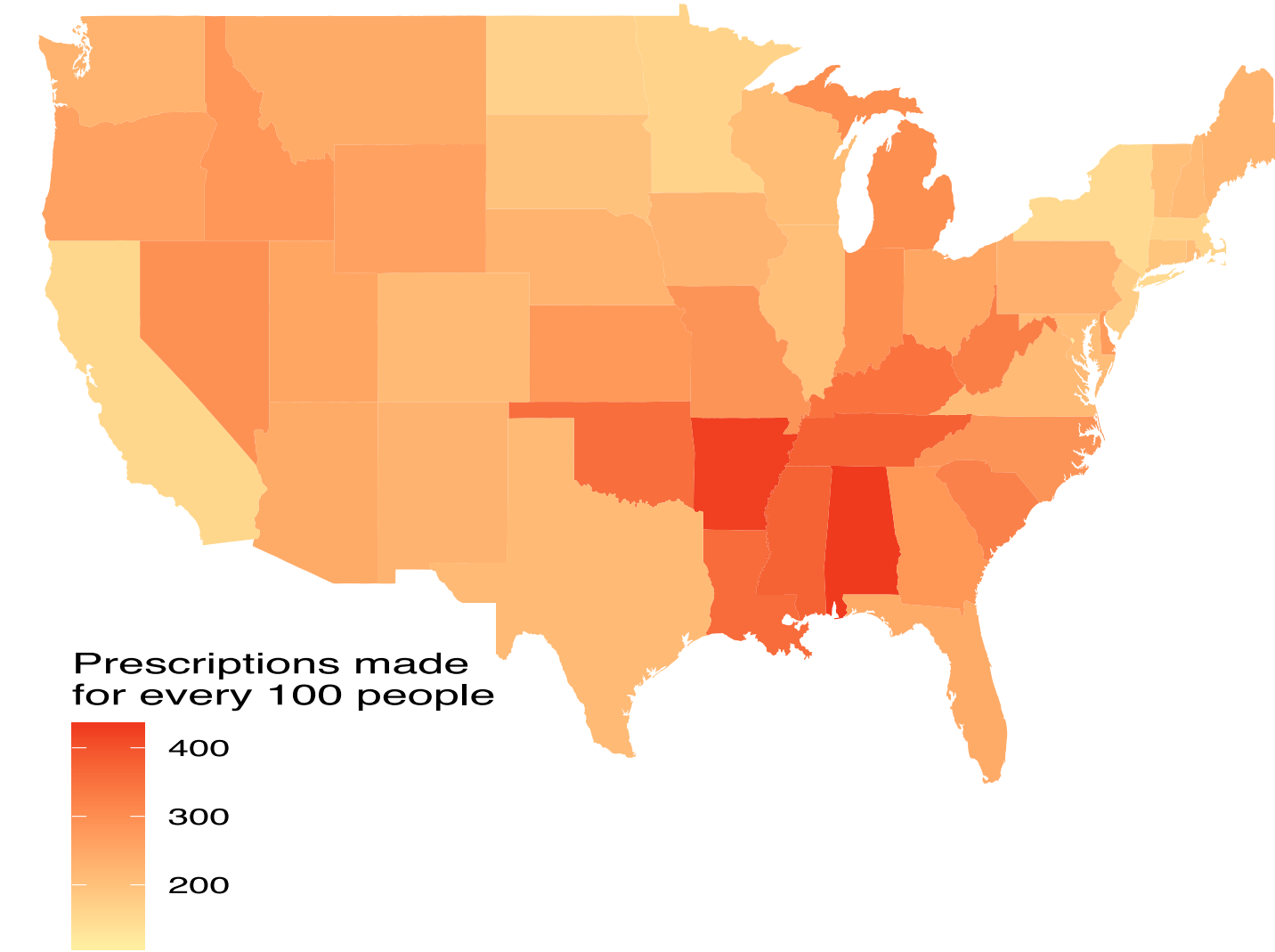


Opioid-related deaths in the United States in 2017



How are opioids taken? There are a multitude of different ways that the opioids can be taken into the body. For instance, there are the more commonly known ways like orally or injected into various attributes of the anatomy such as the veins and muscles or the lesser known nasal spray, patch, suppository, or implanted pump.

Opioid prescription rate in the United States in 2017



Alabama and Arkansas have the highest rates of opioid prescriptions in the United States in 2017

