

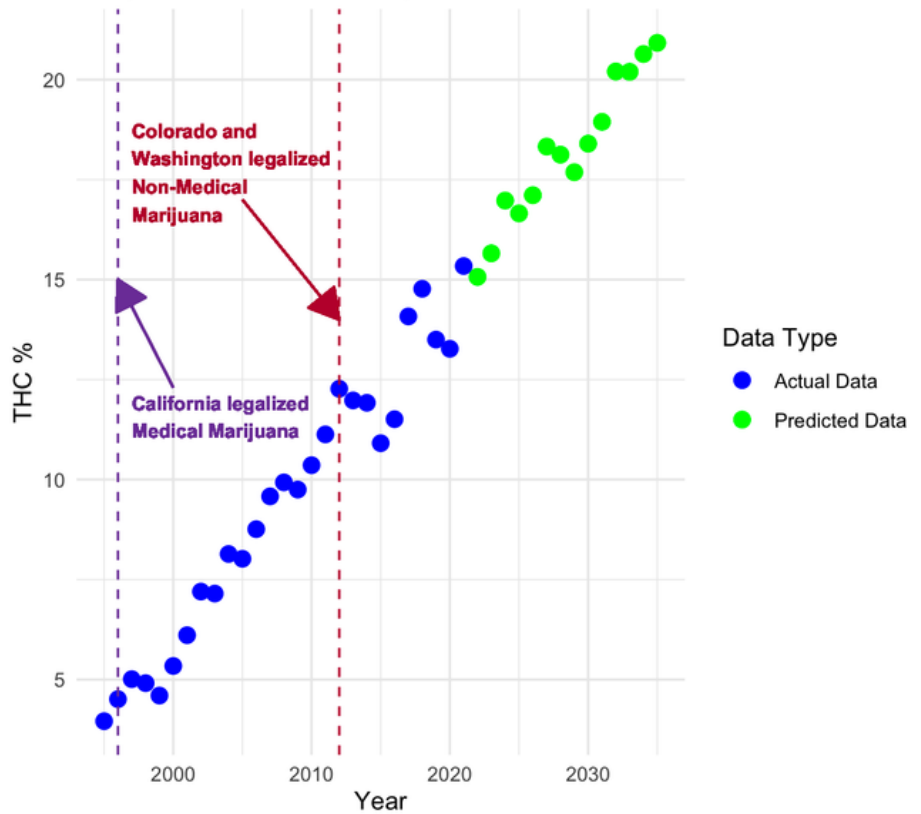
The Unforeseen Consequences of Rising THC Levels in Marijuana: A Growing Public Health Concern

a resource produced by: Smart Approaches to Marijuana

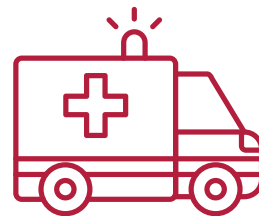
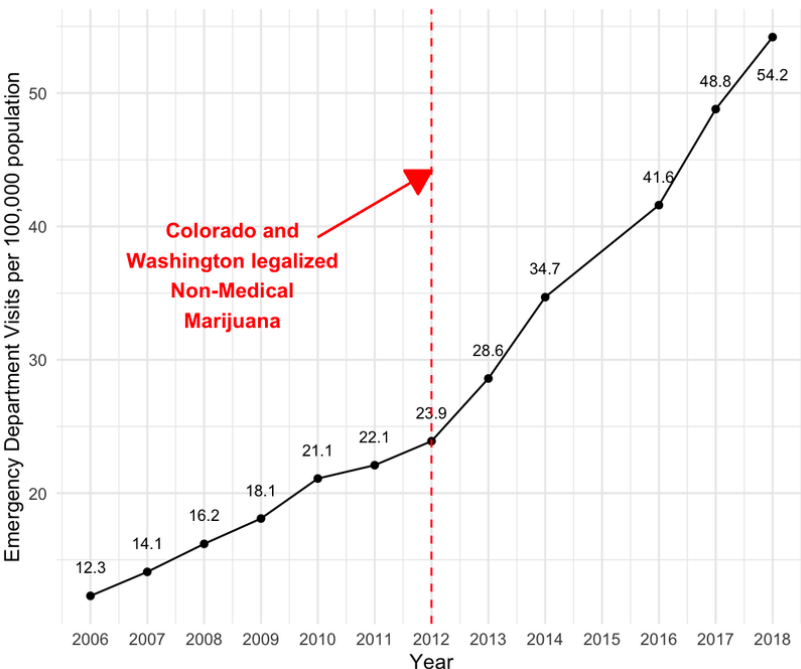
3.96%
was the average THC Flower Potency percentage in 1995

15.34%
was the average THC Flower Potency percentage in 2021

Marijuana Flower Potency Forecast in the U.S.



Marijuana-Associated Emergency Department Visits Over Time in the U.S.



1,732,605 Marijuana-Associated Emergency Department Visits in 2018



341% increase
in the rate of marijuana-associated emergency department visits between 2006 and 2018

Background

In recent years, the United States has witnessed a significant shift in marijuana consumption patterns due to the increasing THC (tetrahydrocannabinol) percentage in marijuana products. While this may seem like a minor detail, it has far-reaching implications for public health. In this report, we dive into the data, trends, and a real-life case that underscore the critical need for policymakers to address this pressing issue, particularly as it pertains to the surge in hospitalizations.

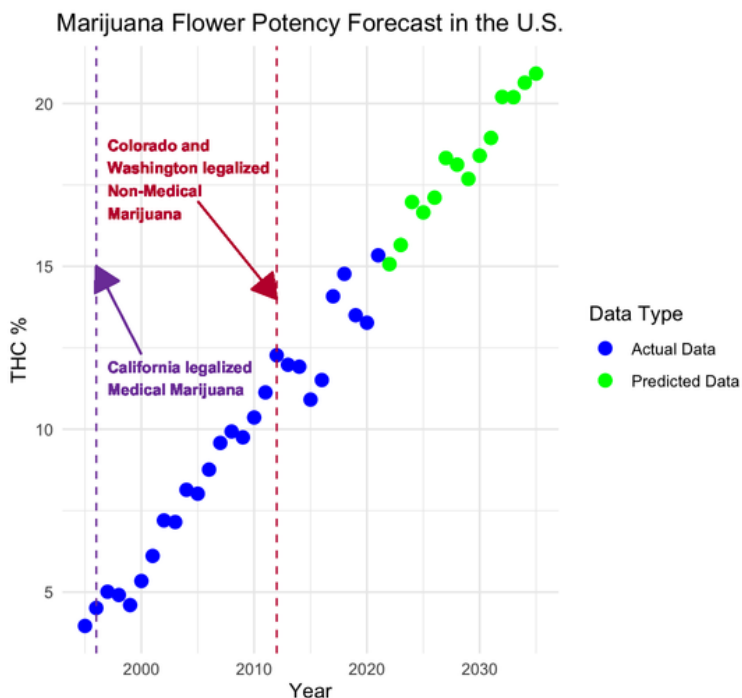
The THC Percentage Trend

To comprehend the issue, we first examine data tracking the THC percentage in marijuana flower. Between 1995 and 2021, the average THC percentage of marijuana flower more than quadrupled from 3.96% to 15.34%. This increase in potency over a couple of decades is a matter of concern.

Machine Learning Predictions

To gain insights into the potential future consequences of this THC potency surge, we employed machine learning techniques. Using historical data as our foundation, we developed a predictive model to estimate THC percentages in marijuana flowers for the next 14 years, to 2035.

The model's predictions reveal a concerning trend. It forecasts a continued increase in THC levels, painting a picture where the potency of marijuana flower surpasses the level observed in 2021. The model projects that marijuana flower will further increase to an average THC of 18.40% in 2030 and 20.92% in 2035. This projection serves as a stark reminder of the urgency in addressing this issue.

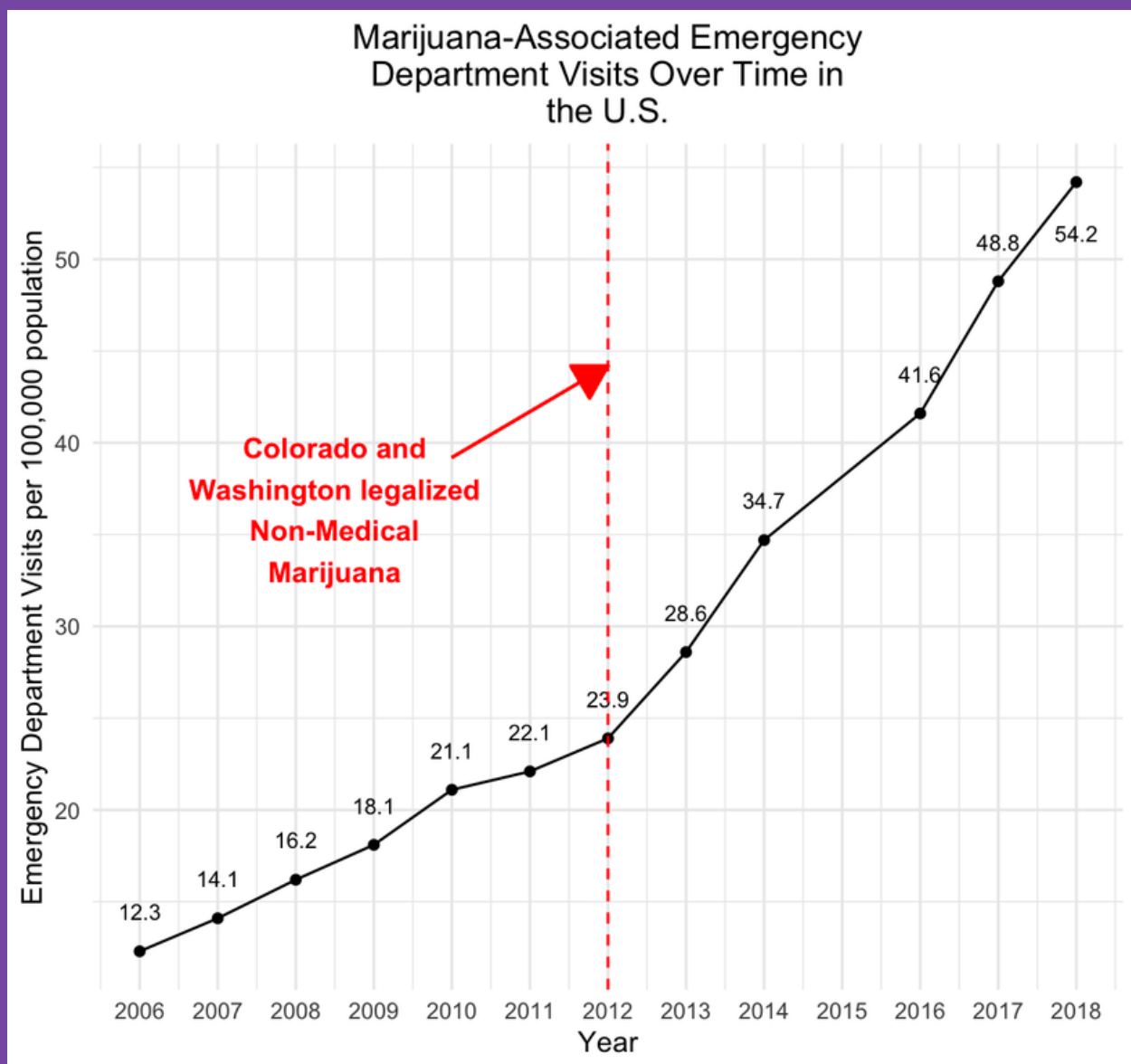


Year	THC Predicted Data Percentage
2022	15.07
2023	15.66
2024	16.98
2025	16.66
2026	17.11
2027	18.33
2028	18.12
2029	17.69
2030	18.40
2031	18.94
2032	20.20
2033	20.20
2034	20.64
2035	20.92

The Role of Legalization in Escalating Potency and Hospitalizations

It is crucial to understand that the surge in THC potency and hospitalizations did not occur in isolation. Instead, it coincided with a significant event in 2012 – the legalization of non-medical marijuana in Washington and Colorado, which followed the legalization of medical marijuana in California in 1996. This momentous change in legislation played a pivotal role in reshaping the marijuana landscape.

The legalization of marijuana has led to a rapid increase in usage rates. With greater accessibility and a growing market, as well as the normalization of its use, the demand for higher-potency marijuana products has surged. A 2022 study from the CDC warned, “current research suggests that increases in availability, use, THC concentration, and changing modes of use (e.g., edibles, vapes, dabs) may lead to further increases in emergency department visits.” As a result, the THC percentage in marijuana flowers continues to climb, contributing to the rise in marijuana-associated hospitalizations.



A Harrowing Personal Experience

In 2018, a young man named Bo Gribbon began experiencing a distressing ordeal that would persist for months. He was afflicted with bouts of severe vomiting and simultaneous screaming that would last for hours. Gribbon said it was like "Edward Scissorhands was trying to grab my intestines and pull them out." Over the next nine months, Gribbon found himself in the emergency room 11 times. Each time, he experienced nonstop vomiting and screaming, leaving medical professionals perplexed. ⁱⁱⁱ

During one of his hospital visits, a physician assistant suggested a potential cause that left Gribbon astonished. He was informed that his condition might be linked to his chronic marijuana use. At first, he found it hard to believe that marijuana, a substance considered safe by many, could produce such a side effect. Gribbon had never heard of marijuana having this kind of impact.

"The only thing that convinced me was that it stopped when I stopped smoking," said Gribbon, now 20. The cessation of marijuana use remarkably led to the cessation of his debilitating symptoms, ultimately confirming the link between his condition and marijuana consumption.

The Surge in Hospitalizations

Bo Gribbon's story is not an isolated case. It is emblematic of a growing trend in the United States – an increase in hospitalizations related to marijuana use, particularly with the rising THC potency. The higher the THC percentage in marijuana, the greater the likelihood of adverse reactions that may lead individuals to seek medical attention.

This surge in hospitalizations places a strain on healthcare resources and raises concerns about the long-term consequences of marijuana consumption, especially among young adults.

Implications and Call to Action

The case of Bo Gribbon and the broader trend of increasing hospitalizations underscore the need for a comprehensive approach to drug policy and regulations. Policymakers must consider the evolving landscape of marijuana consumption, including the rising potency of THC.

In conclusion, the impact of rising THC percentage in marijuana flowers on public health, specifically the surge in hospitalizations, is a pressing concern. Bo Gribbon's story serves as a stark reminder that we must prioritize the well-being of our citizens by conducting thorough research, raising awareness, and implementing policies that balance personal freedoms with the protection of public health. The time to act is now, as we strive for a safer and healthier future for all Americans.

Endnotes

i. "Cannabis Potency Data." National Institutes of Health, U.S. Department of Health and Human Services, 6 June 2023, nida.nih.gov/research/research-data-measures-resources/cannabis-potency-data.

ii. Roehler, Douglas R, et al. "Trends and Characteristics of Cannabis-Associated Emergency Department Visits in the United States, 2006–2018." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 1 Mar. 2022, stacks.cdc.gov/view/cdc/124150.

iii. Strickler, Laura, and Steve Patterson. "A Mysterious Vomiting Illness Afflicts Some Users of High Potency Pot." NBCNews.Com, NBCUniversal News Group, 11 July 2021, www.nbcnews.com/health/health-news/high-potency-weed-linked-psychotic-episodes-mysterious-vomiting-illness-young-n1273463.