Illinois Cannabis Regulation and Tax Act

A Practical Guide for Law Enforcement

November 2019

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PREFACE

This research focuses on arguments against the decriminalization of marijuana by opponents of the bill and determines the value of each argument. Data sources include national databases, reports from law enforcement agencies, research articles, analysis of the Illinois Cannabis Regulation and Tax Act, and media reports regarding six states that have decriminalized marijuana for at least three years, to confirm or dispel these arguments. The six states that decriminalized marijuana and used for this research are Alaska, California, Colorado, Nevada, Oregon, and Washington.

It is the intent of this research that findings will prepare law enforcement for the potential impacts of decriminalizing marijuana. Data from credible sources that identify an effect has happened in any of these states, is considered for preparation purposes of law enforcement agencies in Illinois.

This report ignores any research that has conflicting data. For example, if a study shows an increase in hospitalizations while another shows a decrease, this report will focus on the increase to help law enforcement prepare for this issue in the event that an increase does occur in Illinois. If the issue does not have an effect in Illinois, then law enforcement is still prepared for it and, therefore, this absence of contradictory data is justified.

Alternatively, this report will note if available data only shows positive effects of marijuana and no negative effects. This report attempts to be as unbiased as possible, while focusing on the negatives to prepare law enforcement for potential impacts. Any finding in this report should not be considered a prediction for Illinois.

The terms marijuana and cannabis are used interchangeably throughout this report.

EXECUTIVE SUMMARY

The decriminalization of cannabis is a challenging issue for Illinois law enforcement agencies. Agencies are struggling to write policies **a**nd procedures, train the workforce, educate public officials and the community, and more in anticipation of the January 1, 2020 start date for the Illinois Cannabis Regulation and Tax Act.

Through thorough research of national databases, reports from law enforcement agencies, research articles, analysis of the Illinois Cannabis Regulation and Tax Act, and media reports, this report has found the following potential impacts that law enforcement should prepare for in anticipation of the decriminalization of cannabis:

Increase in youth using marijuana in the initial year of decriminalization and a decline afterwards.

- Alaska, Colorado, Nevada, and Oregon saw an initial increase in marijuana use by 12-17 year olds from the year before decriminalization and the year after. However, since 2013, the United States as a whole saw a steady decrease in youth use of marijuana.
- Alaska saw a 34.2% increase the year after decriminalization and an overall 11.4% increase in youth use since 2014.
- Colorado saw an initial increase of 12.8% after decriminalization but steadily declined afterwards.
- Nevada had a steady increase of 18.9% since decriminalization.
- Oregon had an initial increase of 13.4% and an overall increase of 7.2%.

Increase in marijuana use among adults.

- All six states analyzed had a higher percentage of adults who use marijuana in the past year than the nation as a whole. All of these states had a faster increase in adult use since 2014 than the nation as well.
- Since 2014, adult use of marijuana increased 17.6% in Alaska, 15.6% in California, 24.2% in Colorado, 32.6% in Nevada, 40.5% in Oregon, and 21.5% in Washington. As a whole, the US only saw a 14% increase.
- Additionally, all six states had a higher percentage of adults who use cocaine than the rest of the nation. Therefore, marijuana may be a gateway to drug to stronger drugs.

Increase in hospitalizations and calls to poison centers.

- California saw a 586% increase in emergency department visits from 2006-2016 with any mention of cannabis mental disorders of dependence.
- California also saw a 156% increase in hospitalizations with a cannabis diagnosis from 2006 to 2014.
- Colorado saw an 81.4% increase in hospitalizations related to marijuana from 2011-2014.
- From 2011 to 2017, Colorado had a 210.3% increase in calls to poison control centers involving youth and marijuana.
- Oregon saw a 206.8% increase in calls to the Oregon Poison Center regarding marijuana from 2015 to 2018.
- The St. Charles Health System in Central Oregon saw a 1,967% increase in patients related to marijuana from 2012 to January of 2016 (21 to 434).
- One study showed that calls to poison control centers regarding marijuana have increased 30.3% per year in decriminalized states and no change in states where marijuana remained illegal.

Increase in black market presence.

- In all of 2016 in Alaska, 1,838 marijuana plants were seized. In one week in 2017, more than 4,000 marijuana plants were seized.

- In California, 8,686 pounds of processed marijuana was seized in 2017. The next year, that number was 41,465 pounds.
- California had to decrease their expected revenue from marijuana by 54.3% due to the black market presence.
- In Colorado, police seized 7,290 marijuana plants in 2013. In 2017, they seized 43,949 plants.
- In Colorado, the number of parcels containing marijuana mailed to another state increased 538.6% from 2012 to 2017.
- In Oregon from 2011-2016, illegal marijuana grow sites produced $2.1 billion worth of cannabis.
- Oregon has an overabundance of marijuana and has undercut the black market's prices, but the black market is still strong.
- Illinois is a central state with all bordering states that do not have legal marijuana. This may make Illinois a prime black market hub for the Midwest.
- Mexican cartel presence has grown stronger in Alaska and Chinese nationals having documented illegal grow operations in Washington, Colorado, and California. Since Chicago is such a large, diverse city, cartel and drug trafficking organizations may increase across Illinois.

Increase in traffic crashes.

- Marijuana use is increasing among adults in decriminalized states.
- Surveys found that almost all regular marijuana users believed marijuana does not impair their driving and some believed it improved their driving.
- About 24% of drivers who reported any marijuana use in the past month also reported that they had driven within one hour of using marijuana at least five times in the past month.
- In Colorado, marijuana-related traffic deaths increased by 66% from 2013-2016. During the same time, all traffic deaths increased 16%.
- The fraction of fatal accidents where at least one driver tested positive for THC has increased nationwide by an average of 10% from 2013-2016. In Colorado, the increase was 92% and in Washington, 28%.

Increase in drivers with THC in their system.

- In Colorado, the proportion of drivers in a fatal motor vehicle crash who were marijuana positive was 10% in 2011. In 34 states that did not have legal medical marijuana, the proportion was 4.1%.
- The prevalence of THC in weekend nighttime drivers was 8.6% in 2007 and 12.6% in 2014.
- Between 2005 and 2014, the proportion of Washington State DUI and collision cases that involved THC increased significantly from 20% to 30%.

Homicides, aggravated assaults, and motor vehicle thefts may increase, as the vast majority of these six states had increases. However, these crimes do not correlate strongly with the decriminalization of marijuana. It should be noted that there is not enough credible evidence to link homelessness to marijuana decriminalization. Therefore, homelessness will not be included in the recommendations.

Recommendations

To assist law enforcement in the preparation of the decriminalization of cannabis, this report offers the following recommendations.

Develop policy, training, and practices that consider conflicting federal and state laws for marijuana decriminalization.

- At the federal level, the drug remains a schedule I drug and is illegal to possess. This means that federal facilities and national parks will prohibit possession of marijuana regardless of which state the facility or park is located.
- Federal banking restrictions have discouraged banks from conducting business with marijuana growers as they fear they will be subject to investigation for accepting cash that narcotic detection canines can target as smelling of marijuana. This has resulted in dispensaries primarily using cash. Cash-only businesses have been shown to be targets of more burglaries and robberies as well as challenge investigations due to the lack of a paper trail to determine cash flow.
- Entrepreneurs in Colorado have developed armored car services for marijuana businesses. This may lead to an increase in money laundering operations and law enforcement should be aware.

Set standards to differentiate a legal and an illegal marijuana grow operation.

- In Illinois, medical marijuana patients are allowed to cultivate up to five plants in their residence. These residents may grow additional plants in their house illegally for family members or friends. Further, medical marijuana growers may have a license but ensuring that all of their plants are registered is difficult. These growers may grow an excess of plants to help feed the "gray" market. Recreational growers may also be able to grow off-market plants. These issues create the problem of what constitutes an illegal grow operation.

Revise and update search warrant procedures for conducting searches.

- Article 10 Section 10-5(b) of the Cannabis Regulation and Tax Act states that medical marijuana patients are allowed to grow up to five plants in their residence. In addition, Article 10 Section 10-15(b) allows medical marijuana patients that are younger than 21 years old to possess marijuana. This complicates the process of establishing probable cause.
- Another issue discussed is seizure of marijuana plants in good faith, but the defendant is later acquitted of all charges. Returning the marijuana plants to the defendant may violate federal law, but failing to return the property back to its rightful owner violates state law.

Assess whether the training and protocols of using narcotic detection canines need to be changed.

- Canines are often trained to alert on all drug scents. This means that it is not clear to an officer which drug a canine has detected. If a searched citizen has legal possession of marijuana and the canine alerts, it is unknown whether this search will be inadmissible in court. In fact, it is unknown whether a canine alert will constitute probable cause because the officer does not know if marijuana is involved or another drug.
- In Colorado, officers are advised to ask whether there is marijuana in the vehicle. If the citizen says no, then clearly the canine alert was a different drug and the search may continue.
- The decrease in the use of narcotic detection canines may result in less consent searches. Officers are known to use calling narcotic detection canines as a deterrent to persuade a citizen into consenting a search of their vehicle.

Increase cooperation with bordering states regarding the illegal transportation of marijuana across state lines.

- The black market of marijuana will not only affect Illinois, but surrounding states as well. This makes it crucial to work with neighboring states to curtail illegal trafficking. This report has shown that legal states, such as Oregon and Washington, are being used for their lax regulatory laws to grow illegal marijuana on their land. This marijuana is trafficked to different states and, in some cases, other countries.

Develop partnerships with city or county code inspectors, planners, attorneys, or any other agency that can assist in establishing ordinances or inspecting, regulating, and prosecuting safety violations.

- Methamphetamine labs are known to be dangerous. Marijuana grow operations may be just as dangerous. Homeowners in residential neighborhoods may attempt to make their own hash oil, which is extremely flammable. Colorado experienced nine hash oil explosions in a 9-month period in 2014.

Create statewide information sharing sessions to share best practices and emerging issues with other law enforcement agencies in Illinois.

- Many issues that municipalities face due to the decriminalization of marijuana are affecting towns across the state. Hosting or attending a session to share problems and solutions may assist other departments in responding to their problems. This allows efficient and intelligent sharing of information between agencies across Illinois.

Develop a standardized system that defines the criteria for physicians to write medical marijuana recommendations.

- It is possible that medical marijuana growers will produce excess product that can be sold on the black market. Since Illinois will allow medical marijuana patients to cultivate up to five plants in their house, this issue will affect Illinois law enforcement. In 2014, a doctor was convicted of forging public documents and attempting to influence a public servant by allegedly selling pre-signed approval medical marijuana forms.

Work with hospitals and emergency care centers to create a database to inform practices and policies regarding marijuana.

- Hospitals have seen an increase in patients related to marijuana. Novice users such as tourists may not understand the potency and effects of marijuana, which may lead to increased hospitalizations. Edibles and synthetic marijuana have also led to an increase in hospital visits and calls to poison control centers.

Revise public education campaigns to emphasize scientific studies that have raised health alarms of juvenile marijuana use.

- In these six states, youth use has generally increased the year of decriminalization and steadily decreased every year after. The perception of risk of using marijuana is also declining rapidly in these six states. Therefore, it is imperative to educate youth on the dangers of consuming marijuana.

Increase training and tools for school resource officers to ensure youth receive valuable information regarding the dangers of marijuana use.

- School resource officers are in a unique position to determine whether juveniles are being properly educated on the dangers of drugs. State health and research officials should study the effects of marijuana on education, health, and mental illness. School resource officers should be trained in these effects as to help determine which students may be abusing the drug and help inform students of the dangers.

Ensure that officers are trained to recognize the difference between drivers who are under the influence of marijuana as opposed to alcohol.

- In Illinois, the consumption of marijuana in any motor vehicle will remain illegal. Illinois has also established that five nanograms per milliliter of THC is the legal limit. Determining the legal limit of driving while impaired when marijuana is combined with alcohol or other drugs remains difficult. Officers may still look for bloodshot eyes, slurred speech, and abnormal responses to questions.
- The best way to perform a field sobriety test for suspected impairment from marijuana is to have a roadside assessment performed by a drug recognition expert (DRE). This DRE may perform a roadside assessment to determine possible impairment due to alcohol or other drugs. If the DRE does determine this, then a full DRE evaluation is necessary at the police department.
- Officers can obtain training on the basic Standardized Field Sobriety Test (SFTS), Advanced Roadside Impaired Driving Enforcement (ARIDE), and Drug Recognition Expert (DRE) training. ARIDE and DRE training are available from the NHTSA and the IACP. Many officers have since been certified as DREs in these six states which has allowed for better prosecution for driving under the influence of marijuana incidents.

Establish policies outlining procedures for officers using personal protective equipment when entering any grow location where there is a risk of toxic black mold.

- Growing marijuana requires high-intensity lighting for the growing and flowering season. This increases carbon dioxide levels, humidity levels, and heat. Toxic mold grows in constant wet conditions and can be dangerous even in small quantities. Officers should use gloves and surgical masks when handling marijuana plants.
- Growers have been known to disconnect ventilation systems to enhance plant growth. This may lead to a higher risk of carbon monoxide poisoning.
- Indoor growing operations risk fires from overloaded electrical circuits and bypassed electrical meters. Residents who extract their own THC have a high risk for hash oil explosions.

Create a marijuana enforcement team.

- The simplest way to handle the decriminalization of marijuana and the possible impacts is to create a marijuana enforcement team. This team may be a task force, which includes officers from various local departments. This team should primarily focus on illegal production, sale, or distribution of marijuana. This team should consider outsourcing to researchers from universities to help identify data sources that can be used to monitor trends in illegal activity related to marijuana and assess outcomes of the team's efforts.

Establish baseline measures for illegal marijuana activity and collect data.

- Data should be tracked to allow for more efficient policing and to allow for smarter allocation of limited resources. This collected data may include the number of calls for service involving marijuana, marijuana offenses and arrests, marijuana trends regarding other drugs such as heroin and methamphetamine, the characteristics of those people arrested/cited for marijuana, the number of marijuana seizures by pound and number of plants, the prosecution of marijuana offenses, and geospatial analysis of marijuana-related incidents.
- In Deschutes County, Oregon, calls to 911 related to marijuana were heavily concentrated in major population centers and along major transit corridors. This allows for a type of "hot spot" policing which can effectively reduce the black market.

Not all recommendations apply to all law enforcement agencies. In addition, partnerships created can be between any law enforcement agencies. For instance, recommendation #7 says to create statewide information sharing sessions regarding marijuana. This does not have to be statewide, but can be neighboring law enforcement agencies meeting to share policies and procedures that work and do not work.

Although not included in the recommendations, law enforcement should be wary of homicides, aggravated assaults, and motor vehicle thefts that may increase. A marijuana enforcement team can assist with and receive assistance from other investigative units that deal with these types of crimes.

This report details all these findings further and provides more in-depth justifications for each recommendation. All references include links where the data or information was accessed

INTRODUCTION

Illinois became the eleventh state in the United States of America to decriminalize the use of recreational marijuana on June 25, 2019 (Hughes, 2019). Beginning on January 1, 2020, Illinois residents may legally purchase, consume, and possess cannabis products. The Illinois Sheriff's Association and the Illinois Association of Chiefs of Police opposed the decriminalization of cannabis in Illinois. This extends to law enforcement officers, as only 32% of officers polled in 2017 stated they support the decriminalization of marijuana (Moren et al., 2017). Since law enforcement officers will be enforcing the violations of this new law and these changes will affect them, it is vital that their concerns are heard. Law enforcement directly deals with public safety issues that decriminalization of marijuana may increase or exacerbate. This paper will address these concerns in an objective analysis of states who have decriminalized recreational use of marijuana.

A literature review provides comprehensive information regarding public safety issues in states that have decriminalized marijuana. The ten states who have decriminalized marijuana before Illinois are Alaska, California, Colorado, Maine, Massachusetts, Michigan, Nevada, Oregon, Vermont, and Washington (Berke & Gould, 2019). However, Maine has not yet opened legal dispensaries, Massachusetts opened their first dispensaries in 2018, Michigan decriminalized marijuana last year on a ballot initiative, and Vermont's decriminalization went into effect in mid-2019 (Berke & Gould, 2019). This makes assessing the effect of decriminalizing marijuana in these states nearly impossible because not enough time has passed. Therefore, this report excludes analysis of these states.

This paper focuses on the states of Alaska, California, Colorado, Nevada, Oregon, and Washington due to the amount of time that has passed since the decriminalization of marijuana. A review of public safety issues in these states is crucial to understanding what may happen in Illinois. Public safety issues this report addresses are crime, youth use, marijuana and alcohol use, hospitalizations and emergency room (ER) visits, the black market, traffic safety, and homelessness. These issues will directly affect law enforcement agencies in Illinois and, therefore, are a focus of analysis.

After the analysis, this report gives a synopsis of Illinois P.A. 101-27 Cannabis Regulation and Tax Act. Only the key facts that affect law enforcement agencies in Illinois are addressed. A discussion regarding the differences of the Illinois bill from other states is key on how to predict what may occur based on similarities with other states and what has happened there.

Finally, there is discussion about how law enforcement agencies have been responding to the decriminalization of marijuana in the analyzed states. This section offers recommendations to Illinois law enforcement agencies to prepare for the decriminalization of marijuana.

LITERATURE REVIEW

The literature review discusses the impact of decriminalization of marijuana on public safety issues in six states. The public safety issues that this report discusses are crime, youth use, marijuana use and alcohol use, hospitalizations and ER visits, the black market, traffic safety, and homelessness. The impact of the decriminalization of marijuana on these issues in Alaska, California, Colorado, Nevada, Oregon, and Washington is discussed. This section is categorized by each public safety issue and by state.

Crime

The impact of decriminalization of marijuana on crime is difficult to conclude. This section compares violent crime rates, property crime rates, national rankings of crime, and school suspensions between pre-decriminalization years and post-decriminalization years as well as other similar states that have not decriminalized marijuana.

Alaska

Alaska decriminalized marijuana in 2015 as a ballot measure (ADHSS, 2019). Therefore, crime data from 2014 is compared to later years to attempt to identify a trend. Using Uniform Crime Reporting (UCR) data, the crime rates in Alaska for murder, rape, robbery, aggravated assault, burglary, larceny-theft, and motor vehicle-theft have all increased (ADPS, 2017). Table 1 shows the figures for these rates (offenses per 100,000 residents). Besides murder and larceny-theft, all the offenses in Table 1 shows a continual increase every year since 2014.

Table 1. Crimes Rates in Alaska (2014-2017)

Crime	2014 Rate	2015 Rate	2016 Rate	2017 Rate	% Change from 2014-2017
Murder	5.5	8.0	7.0	8.4	+52.7%
Rape	104.3	121.8	142.0	145.7	+39.6%
Robbery	85.6	103.3	114.8	128.9	+50.6%
Aggravated Assault	440.2	497.3	540.5	575.4	+30.7%
Burglary	428.2	476.0	546.5	564.1	+31.7%
Larceny-Theft	2,095.9	2,062.5	2,394.2	2,401.9	+14.6%
Motor Vehicle Theft	236.2	277.6	412.8	577.3	+144.4%

Data retrieved from https://dps.alaska.gov/getmedia/905b42bb-cd71-443c-a035-6eee5f65beb4/Crime-in-Alaska-2017

Table 2 shows the number of violent offenses and the number of property offenses per year from 2014 to 2017. Both violent crime and property crime has steadily increased throughout the years when marijuana was decriminalized (ADPS, 2017). However, a better comparison to show the true increase of these crimes is to compare these rates with the other states in the United States of America.

Table 2. Violent and Property Crime Offenses Per Year in Alaska (2014-2017)

Crime Type	2014 Offenses	2015 Offenses	2016 Offenses	2017 Offenses	% Change from 2014-2017
Violent Crime	4,655	5,367	5,941	6,320	+35.8%
Property Crime	20,361	20,876	24,912	26,225	+28.8%
All Crime	25,016	26,243	30,853	32,545	+30.1%

Data retrieved from https://dps.alaska.gov/getmedia/905b42bb-cd71-443c-a035-6eee5f65beb4/Crime-in-Alaska-2017

Table 3 shows the ranking of Alaska in crime rates compared to all 49 other states and shows some drastic changes from 2014 to 2016. Alaska had the 14th most number of index crime offenses before decriminalizing marijuana (Disaster Center, 2016). After decriminalizing marijuana, Alaska had the second most in the nation (Disaster Center, 2016). It should be noted that rankings for violent crime, murder, rape, and assault have either stayed the same or decreased from 2014-2016 (Disaster Center, 2016). This further complicates whether a conclusion can be made regarding the effect of decriminalizing marijuana on the increase of crime.

In Anchorage, Alaska, there has been a significant increase in school suspensions. According to the school district's report, there were 69 students suspended for marijuana-related offenses during the 2015-2016 school year (Verge, 2018). The next year, the school district suspended 97 students for marijuana-related offenses (Verge, 2018). Over the first half of the 2017-2018 school year, 166 students were already suspended for marijuana-related incidents (Verge, 2018). This is almost a 141% increase in marijuana-related suspensions

Table 3. Alaska Crime Ranking (1 is largest, 50 is smallest)

Crime	2014 Ranking	2015 Ranking	2016 Ranking
Index Crime	14	8	2
Property Crime	21	17	3
Robbery	23	17	11
Burglary	31	25	14
Motor Vehicle Theft	16	9	5

Data retrieved from http://www.disastercenter.com/crime/akcrime.htm

California

California decriminalized marijuana in 2016 (NCSL, 2019). Therefore, comparisons are made from years 2015 and every year afterwards to attempt to identify a trend. Table 4 shows the crime rates (offenses per 100,000 residents) for California. There is no clear trend shown in this data. In fact, crime in California has either steadily decreased or essentially stayed the same. Rape is the only crime that has steadily increased since the decriminalization of marijuana, but not at an alarming rate.

Table 4. Crime Rates in California (2015-2018)

Crime	2015 Rate	2016 Rate	2017 Rate	2018 Rate	% Change from 2015-2018
Murder	4.8	4.9	4.6	4.4	-8.3%
Rape	32.7	34.8	37.2	38.9	+19.0%
Robbery	135.1	139.2	142.9	136.4	+1.0%
Aggravated Assault	253.8	265.0	266.1	264.4	+4.2%
Burglary	504.7	478.1	445.9	413.2	-22.1%
Larceny-Theft	1,678.6	1,617.5	1,620.2	1,560.0	-7.1%
Motor Vehicle Theft	437.1	448.9	424.9	389.6	-10.9%

Data retrieved from https://data-openjustice.doj.ca.gov/sites/default/files/2019-07/Crime%20In%20CA%202018%2020190701.pdf

Table 5. Violent and Property Crime Offenses Per Year in California (2015-2018)

Crime Type	2015 Offenses	2016 Offenses	2017 Offenses	2018 Offenses	% Change from 2015-2018
Violent Crime	166,588	174,701	178,553	176,866	+6.2%
Property Crime	1,023,828	1,001,380	986,769	940,998	-8.1%
All Crime	1,190,416	1,176,081	1,165,322	1,117,864	-6.1%

Data retrieved from https://data-openjustice.doj.ca.gov/sites/default/files/2019-07/Crime%20In%20CA%202018%2020190701.pdf

Table 5 shows the number of violent crime offenses and the number of property crime offenses per year from 2015 to 2018. Although the number of violent crimes slightly increased, the number of property crimes and all crimes decreased.

Comparing California's rankings with other states regarding crime can help distinguish trends. The only crimes where California's rankings increased were rape and assault. California had the 37th most number of rapes in 2015 to the 35th most in 2016 (Disaster Center, 2016). For assault, California's rankings went from 21st to 19th (Disaster Center, 2016). This shows that California's crime rate had no significant changes since the decriminalization of marijuana.

School suspension data is similarly inconclusive as 44,938 students were suspended for illicit drug related offenses in the 2014-2015 school year (CDE, 2019). This number then declined by nearly 3,000 in the next two school years and then increased to 50,547 for the same offense in the 2017-2018 school year (CDE, 2019).

Colorado

Colorado fully decriminalized the recreational use of marijuana in 2013 (NCSL, 2019). Data from 2012 is compared to each year since. Table 6 shows the crime rates in Colorado from 2012 to 2017.

One note from Table 6 is the sudden increase in rape rates starting in 2016. This is due to a definition change of rape. After 2015, all rape counts included rapes against males as well as females. Therefore, we cannot compare the rape rate with earlier dates. However, there was still an increase in murder rates and a significant change in motor vehicle theft rates. The crime rates in Colorado seem to fluctuate and therefore the only trend that can be concluded is a gradual decrease in burglaries.

Table 6. Crime Rates in Colorado (2012-2017)

Crime	2012 Rate	2013 Rate	2014 Rate	2015 Rate	2016 Rate	2017 Rate	% Change from 2012-2017
Murder	2.9	3.3	2.8	3.2	3.4	3.9	+34.5%
Rape	40.9	41.7	41.8	44.4	65.7	68.8	+68.2%
Robbery	65.4	59.5	56.7	60.8	63.7	68.4	+4.6%
Aggravated Assault	198.2	186.4	190.7	193.3	211.2	226.9	+14.5%
Burglary	504.2	475.6	438.8	431.1	430.8	406.9	-19.3%
Larceny-Theft	1,948.0	1,941.8	1,861.4	1,918.4	1,965.2	1,904.9	-2.2%
Motor Vehicle Theft	233.2	237.6	235.2	294.0	355.2	389.9	+67.2%

Data retrieved from http://www.disastercenter.com/crime/cocrime.htm

Table 7. Violent and Property Crime Offenses Per Year in Colorado (2012-2017)

Crime Type	2012 Offenses	2013 Offenses	2014 Offenses	2015 Offenses	2016 Offenses	2017 Offenses	% Change from 2012-2017
Violent Crime	15,951	16,099	16,487	17,348	19,030	20,638	+29.4%
Property Crime	139,355	139,974	135,789	144,044	152,146	151,483	+8.7%
All Crime	155,306	156,073	152,276	161,392	171,176	172,121	+10.8%

Data retrieved from http://www.disastercenter.com/crime/cocrime.htm

Table 7 compares the number of violent crime offenses and property crime offenses from 2012 to 2017 and shows an increase in all crimes since the decriminalization of marijuana. However, the largest changes have been between 2015 and 2016. Since marijuana was decriminalized in 2013, it is hard to conclude this increase in crime is due to the decriminalization and not another factor.

Table 8. Colorado Crime Ranking (1 is largest, 50 is smallest)

Crime	2012 Ranking	2013 Ranking	2014 Ranking	2015 Ranking	2016 Ranking
Property Crime	28	26	25	23	19
Murder	36	29	35	35	31
Rape	7	7	5	5	5
Burglary	34	33	29	28	26
Larceny-Theft	25	24	26	20	20
Motor Vehicle Theft	17	16	17	6	7

Data retrieved from http://www.disastercenter.com/crime/cocrime.htm

Table 8 shows Colorado's crime rankings compared to other states, and Colorado has had increases of crime at a higher rate. However, it should be noted that Colorado's ranking for violent crime, robbery, and assault have remained unchanged (Disaster Center, 2016).

The Colorado Department of Education began tracking marijuana-related school suspensions in 2016. In 2016, there were 2,900 suspensions for marijuana violations. The following year, there was 3,400 (Konopasek, 2018). This increase may indicate concern; however, two years is not enough to confirm a trend.

Nevada

Nevada decriminalized recreational use of marijuana in 2016 (NCSL, 2019). Crime rates from 2015 to each year afterwards is compared to attempt to identify a trend. Table 9 shows the crime rates (offenses per 100,000 residents) for Nevada from 2015 to 2017 and shows that only murder and rape rates steadily increased. Robbery and aggravated assaults steadily decreased (NDPS, 2018).

Table 9. Crime Rates in Nevada (2015-2017)

Crime	2015 Rate	2016 Rate	2017 Rate	% Change from 2015-2017
Murder	6.2	7.6	9.0	+45.2%
Rape	58.0	59.0	62.0	+6.9%
Robbery	218.0	215.6	162.0	-25.7%
Aggravated Assault	414.9	395.9	322.0	-22.4%
Burglary	775.4	641.1	666.0	-14.1%
Larceny-Theft	1,505.9	1,497.1	1,502.0	-0.3%
Motor Vehicle Theft	393.6	448.3	426.0	+8.2%

Data retrieved from
http://rccd.nv.gov/uploadedFiles/gsdnvgov/content/About/UCR/Crime%20in%20Nevada%202017%20(FINAL).pdf

Table 10. Violent and Property Crime Offenses Per Year in Nevada (2015-2017)

Crime Type	2015 Offenses	2016 Offenses	2017 Offenses	% Change from 2015-2017
Violent Crime	20,057	19,801	16,626	-17.1%
Property Crime	77,212	75,874	78,125	+1.2%
All Crime	97,269	95,675	94,751	-2.6%

Data retrieved from
http://rccd.nv.gov/uploadedFiles/gsdnvgov/content/About/UCR/Crime%20in%20Nevada%202017%20(FINAL).pdf

Though Table 9 shows increases in the murder rate and rape rate, Table 10 examines the total number of violent crime and property crime offenses and shows all crime has decreased since the decriminalization of marijuana. To answer whether these crimes fell compared to other states, this report examines Nevada's crime ranking. From 2015 to 2016, murder, rape, and motor vehicle theft were the only crimes to increase Nevada's rankings. The largest increase was having the 10th most murders in the nation in 2015 to the seventh most in 2016 (Disaster Center, 2016). All other index crimes remained the same or lowered in ranking. Notably, Nevada had the third most burglaries in the United States in 2015 to the 10th most in 2016 (Disaster Center, 2016).

In Washoe County, Nevada, 514 students were suspended due to marijuana-related offenses in the 2015-2016 school year (The Source, 2018). One year later, that number decreased to 397 students (The Source, 2018).

Oregon

Oregon decriminalized recreational use of marijuana in 2014 (NCSL, 2019). Crime rates from 2013 are compared to each year afterwards to attempt to identify a trend.

Table 11 shows the crime rates (offenses per 100,000 residents) in Oregon from 2013-2016. There was a steady increase in murders, rapes, and motor vehicle thefts; and a steady decline in burglaries and larcenies.

Table 12 shows the number of violent crime and property crime offenses in Oregon from 2013-2016. From these years, there has been a steady increase in violent crime, but the total number of offenses has not significantly changed. To monitor the rate at which crime has been changing with respect to other states, this report examines Oregon's crime ranking. In 2013, Oregon had the 42nd most murders and the 12th most motor vehicle thefts. In 2016, Oregon ranks 37th in murder and 8th in motor vehicle thefts (Disaster Center, 2016). Oregon had the 8th most rapes in 2013, compared to the 25th most in 2016, a significant decrease.

The percentage of students with one or more incidents of discipline is essentially the same since pre-decriminalization of marijuana years (Pate, 2018). Oregon does not report reasons for suspensions, making this comparison difficult. It is not possible to conclude whether decriminalization affects school suspension rates in Oregon.

Table 11. Crime Rates in Oregon (2013-2016)

Crime	2013 Rate	2014 Rate	2015 Rate	2016 Rate	% Change from 2013-2016
Murder	2.1	2.1	2.7	2.8	+33.3%
Rape	25.5	29.3	29.6	30.8	+20.8%
Robbery	60.9	57.2	53.7	55.6	-8.7%
Aggravated Assault	142.5	159.1	167.9	164.1	+15.2%
Burglary	529.7	470.6	460.7	412.0	-22.2%
Larceny-Theft	2,402.3	2,371.5	2,249.0	2,230.0	-7.2%
Motor Vehicle Theft	252.3	258.7	265.8	322.3	+27.7%

Data retrieved from http://www.disastercenter.com/crime/orcrime.htm

Table 12. Violent and Property Crime Offenses Per Year in Oregon (2013-2016)

Crime Type	2013 Offenses	2014 Offenses	2015 Offenses	2016 Offenses	% Change from 2013-2016
Violent Crime	9,536	10,294	10,680	10,830	+13.6%
Property Crime	125,083	123,142	119,752	121,345	-3.0%
All Crime	134,619	133,436	130,432	132,175	-1.8%

Data retrieved from http://www.disastercenter.com/crime/orcrime.htm

Washington

Washington decriminalized the recreational use of marijuana in 2012 (NCSL, 2019). Crime rates from the year 2011 are compared to later years to attempt to identify a trend.

Table 13 shows the crime rate (offenses per 100,000 residents) for Washington from 2011-2016.

In these years, there was an immediate increase in all these crimes except rape when marijuana was decriminalized. However, all crimes decreased at some point. There was a significant decrease in burglaries while motor vehicle thefts were increasing.

Table 13. Crime Rates in Washington (2011-2016)

Crime	2011 Rate	2012 Rate	2013 Rate	2014 Rate	2015 Rate	2016 Rate	% Change from 2011-2016
Murder	2.4	3.1	2.4	2.5	3.0	2.7	+12.5%
Rape	34.0	32.6	29.7	28.3	28.0	31.0	-8.8%
Robbery	82.5	84.1	83.6	79.9	76.1	77.5	-6.1%
Aggravated Assault	176.5	178.2	166.7	164.0	168.4	179.7	+1.8%
Burglary	828.9	890.1	838.7	784.1	713.9	674.8	-18.6%
Larceny-Theft	2,386.4	2,412.3	2,469.6	2,482.1	2,393.7	2,376.3	-0.4%
Motor Vehicle Theft	363.8	386.7	407.6	432.7	376.6	443.0	+21.8%

Data retrieved from http://www.disastercenter.com/crime/wacrime.htm

Table 14. Violent and Property Crime Offenses Per Year in Washington (2011-2016)

Crime Type	2011 Offenses	2012 Offenses	2013 Offenses	2014 Offenses	2015 Offenses	2016 Offenses	% Change from 2011-2016
Violent Crime	20,152	20,553	20,223	20,185	20,505	22,023	+7.2%
Property Crime	244,209	254,377	259,139	261,257	249,474	254,653	+4.3%
All Crime	264,361	274,930	279,362	281,442	269,979	276,676	+4.7%

Data retrieved from http://www.disastercenter.com/crime/wacrime.htm

Although Table 14 shows an increase in all crime, the number of offenses fluctuates, which makes it difficult to conclude the decriminalization of marijuana greatly affected crime. To determine whether crime increased at a higher rate than other states,

Table 15 shows Washington's crime ranking. Property crime and larceny rates in

Washington were both in the top three highest rates among all states in 2016. Washington had the 16th most burglaries per capita in 2011 and 8th most in 2016 (Disaster Center, 2016). It should be noted that violent crimes, murder, aggravated assaults, and rape rates either remained the same or decreased in relation to other states.

Table 15. Washington Crime Ranking (1 is largest, 50 is smallest)

Crime	2011 Rank	2012 Rank	2013 Rank	2014 Rank	2015 Rank	2016 Rank
Property Crime	7	3	1	1	3	2
Robbery	29	27	26	28	30	27
Burglary	16	10	8	7	9	8
Larceny	8	5	3	1	4	3
Motor Vehicle Theft	2	2	2	1	5	4

United States

To compare the above information accurately, this report examines the United States total crime figures to determine if any of these six states are above the national rate. Table 16 holds the national crime rates (offenses per 100,000 residents) for the years 2012 to 2016.

Table 16. Crime Rates in United States (2012-2017)

Crime	2012 Rate	2013 Rate	2014 Rate	2015 Rate	2016 Rate	2017 Rate	% Change from 2012-2017
Murder	4.7	4.5	4.4	4.9	5.4	5.3	+12.8%
Rape	27.1	25.9	26.6	28.4	40.9	41.7	+53.9%
Robbery	113.1	109.0	101.3	102.2	102.9	98.0	-13.4%
Aggravated Assault	242.8	229.6	229.2	238.1	248.3	248.9	+2.5%
Burglary	672.2	610.4	537.2	494.7	468.9	430.4	-36.0%
Larceny-Theft	1,965.4	1,901.6	1,821.5	1,783.6	1,745.4	1,694.4	-13.8%
Motor Vehicle Theft	230.4	221.3	215.4	222.2	237.3	237.4	+3.0%

Data retrieved from https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-1

Table 16 shows a steady decline in burglaries and larceny-thefts. It should be noted that the dramatic increase in the rape rate is due to a definition change of rape in 2016 (FBI, 2018). Motor vehicle thefts decreased initially only to increase again in 2016 (FBI, 2018). All the other index crimes have fluctuated and, for the most part, did not significantly increase or decrease. Alaska (+52.7%), Colorado (+34.5%), Nevada (+45.2%), and Oregon (+33.3%) all had murder rates that increased much faster than the national average (+12.8%) (FBI, 2018). Five states (all but Nevada) had a slower decline of robberies than the national average with Alaska, California, and Colorado actually seeing those rates increasing (FBI, 2018).

Alaska, California, Colorado, and Oregon's rate increase for aggravated assault were all higher than the United States increase as a whole (FBI, 2018). The United States saw a significant decrease in burglaries during this period (FBI, 2018). All states had a decreased rate of burglaries at a lower rate than the United States. Alaska even had a significant increase in burglaries (+31.7%) (FBI, 2018).

Motor vehicle theft increased by 3% from 2012 to 2017 in the United States (FBI, 2018). Five states (all but California) saw an increase in the rate of motor vehicle thefts at an alarming pace (FBI, 2018). Alaska had the highest increase at +144.4% (FBI, 2018). The lowest increase of these five states was Nevada with +8.2% (FBI, 2018). Many factors affect crime rates and there are many issues with using the Uniform Crime Report to compare crime rates between states. However, these six states appear to be experiencing crime at higher rates per capita than the country. Since the national data already includes these six states, the difference can be larger when these states are not included in the data. Whether the decriminalization of marijuana has affected the crime rates in these states cannot be concluded. However, the crime rates in these states are increasing at much faster paces. This implies that these six states have common factors that the nation does not have, which does include the decriminalization of marijuana among other factors.

Youth Use

Opponents of decriminalization have argued that legalizing marijuana will increase use by people under the age of 21. This section reviews whether this argument has merit.

Alaska

Data from 2014 to 2017 in Alaska is presented from the National Survey on Drug Use and Health (NSDUH). For this survey, over one hundred thousand respondents answer questions regarding drug use in the past year and past month. Percentages are estimated based on population estimates for each age group. Table 17 shows that in 2015, the year marijuana was decriminalized, the percentage of 12 to 17-year olds who used marijuana in the past month and past year increased. Over time, this percentage has decreased. Annual average prevalence of past month marijuana use from 2014-2017 was 10.6% for youth aged 12 to 17 (SAMHSA, 2018). This is almost four percentage points higher than the national average of 6.8% (SAMHSA, 2018)

Table 17. Percentage of Marijuana Use in Alaska for 12-17-Year Olds

Time Frame	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Past month	7.9	10.6	10.4	8.8	+11.4%
Past year	17.2	18.4	18.9	16.5	-4.1%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

California

Table 18 shows the data from the NSDUH from years 2015 to 2017. This table shows a decline in marijuana use for youth aged 12 to 17 every year since decriminalization in 2016. Annual averages in past month marijuana use among ages 12 to 17 in California from 2014 to 2017 was 7.5% (SAMHSA, 2018). This is slightly higher than the national average of 6.8% (SAMHSA, 2018).

Table 18. Percentage of Marijuana Use in California for 12-17-Year Olds

Time Frame	2014-2015	2015-2016	2016-2017	% Change from 2015-2017
Past Month	8.3	7.3	6.9	-16.9%
Past Year	14.1	13.2	13.3	-5.7%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Colorado

Data from 2012 to 2017 for marijuana use among youth aged 12 to 17 is shown in Table 19. This table shows an immediate increase of marijuana use among youth after decriminalization in 2013, followed by a decrease. Annual averages of marijuana use by youth in Colorado was 9.0% from 2014 to 2017 (SAMHSA, 2018). The national rate was 6.8% (SAMHSA, 2018).

Table 19. Percentage of Marijuana Use in Colorado for 12-17-Year Olds

Time Frame	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2012-2017
Past Month	10.9	12.3	14.9	11.1	9.1	9.0	-17.4%
Past Year	17.1	18.4	22.8	18.4	16.2	17.0	-0.6%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Nevada

Table 20 shows the data from 2015 to 2017 of marijuana use among youth aged 12 to 17. This table shows a slight increase in youth use of marijuana since decriminalization in 2016. The increase during the year marijuana was decriminalized adds to the theory that youth use will immediately increase and slowly decrease in the following years. Annual averages of youth marijuana use from 2014 to 2017 was 9.2% (SAMHSA, 2018). The national rate was 6.8% (SAMHSA, 2018).

Table 20. Percentage of Marijuana Use in Nevada for 12-17-Year Olds

Time Frame	2014-2015	2015-2016	2016-2017	% Change from 2015-2017
Past Month	7.4	8.7	8.8	+18.9%
Past Year	13.5	14.7	14.4	+6.7%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Oregon

Table 21 presents the data from 2013 to 2017 of marijuana use among youth aged 12 to 17 in Oregon. This table shows an immediate increase in youth marijuana use in 2014, the year marijuana was decriminalized. After this year, youth use steadily decreased. Annual averages of youth marijuana use from 2014 to 2017 was 9.9% (SAMHSA, 2018). The national rate was 6.8% (SAMHSA, 2018).

Table 21. Percentage of Marijuana Use in Oregon for 12-17-Year Olds

Time Frame	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2013-2017
Past Month	9.7	11.0	9.4	9.8	10.4	+7.2%
Past Year	16.4	18.3	17.6	17.4	17.0	+3.7%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Washington

Table 22 presents the data from 2011 to 2017 of marijuana use among youth aged 12 to 17. This table shows an increase in youth marijuana use in 2013 and then fluctuates afterwards. Marijuana was decriminalized in 2012 in Washington. The average annual percentage of youth marijuana use was 9.6% from 2014 to 2017 (SAMHSA, 2018). The national rate was 6.8% (SAMHSA, 2018).

Table 22. Percentage of Marijuana Use in Washington for 12-17-Year Olds

Time Frame	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2011-2017
Past Month	9.6	9.4	8.9	10.2	9.2	7.9	9.0	-6.2%
Past Year	16.9	16.0	15.5	17.4	15.6	13.5	15.0	-11.2%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

United States

Table 23 presents the data from 2013 to 2017 for marijuana use among youth aged 12 to 17 for the United States. This table shows a slight increase in 2014 with a steady decline in youth marijuana use since then.

All six states analyzed have a higher percentage of youth aged 12 to 17 who used marijuana in the past month than the national rate. Also note the slight increase of percentage of youth who used marijuana when the drug was decriminalized in their respective state. Alaska, Colorado, Nevada, and Oregon showed an increase from the year before decriminalization and the year after. This may suggest the decriminalization of marijuana will lead to an immediate increase in youth use of marijuana. However, after a few years, the percentage drops to the level it was before decriminalization.

Table 23. Percentage of Marijuana Use in United States for 12-17-Year Olds

Time Frame	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2013-2017
Past Month	7.1	7.4	7.0	6.5	6.5	-8.5%

Data retrieved from https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHFFR2017/NSDUHFFR2017.pdf

Illicit Drug and Alcohol Use

Opponents of decriminalization of marijuana argue that decriminalized marijuana will increase the amount of marijuana and alcohol consumed, and that this will lead to multiple health and public safety issues. This section reviews the data to determine whether this argument has merit.

Alaska

Data from 2014 to 2017 is presented for drug use and alcohol use in Alaska. Table 24 shows data for marijuana use in the past year, cocaine use in the past year, heroin use in the past year, methamphetamine use in the past year, and pain reliever misuse in the past year for individuals 18 or older. This table shows that in 2015, the year that marijuana was decriminalized, marijuana and cocaine use both increased among Alaskans aged 18 or older.

Unfortunately, before 2015, the NSDUH does not ask respondents about heroin use or methamphetamine use consistently. The gaps in surveys are represented by dashes in the table. This does not allow comparisons from pre-decriminalization years to present for heroin or methamphetamine drug use. The NSDUH asks respondents about their perceived risk of using these drugs. From 2016 to 2017, 17.4% of Alaskans aged 18 or older perceived a great risk from smoking marijuana once a month (SAMHSA, 2018). This is compared to 27% of all Americans aged 18 or older for the same period (SAMHSA, 2018). In addition, 67.7% of Alaskans aged 18 or older perceive great risk from using cocaine once a month compared to 73% of all Americans (SAMHSA, 2018).

Table 25 shows an increase in marijuana, tobacco, and alcohol use in the first year of decriminalization. Afterwards, there is a steady decline in tobacco and alcohol use among ages 18 and older.

Table 24. Percentage of 18+ Year Olds Who Used Drugs in Past Year in Alaska (2014-2017)

Drug Use in Past Year	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	19.9	22.3	23.5	23.4	+17.6%
Cocaine	1.7	2.2	2.3	2.5	+47.1%
Heroin	-	1.4	0.8	0.5	-
Methamphetamine	-	-	1.3	0.9	-
Pain Reliever Misuse	4.4	-	5.1	4.6	+4.5%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Table 25. Percentages of Legal Drug Use in Past Month in Alaska for ages 18+ (2014-2017)

Drug Use in Past Month	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	12.2	14.8	16.7	16.6	+36.1%
Tobacco	31.4	34.0	31.9	28.7	-8.6%
Alcohol	59.2	60.0	57.5	56.3	-4.9%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

California

Data from 2015 to 2017 is shown for drug use of Californians aged 18 or older. Table 26 shows a steady increase in marijuana and cocaine use among Californians since the decriminalization of marijuana in 2016. Due to methodological complications in the NSDUH, no trend can be concluded for methamphetamine use or pain reliever misuse. However, Californians are more likely than Americans are, in general, to perceive great risk from smoking marijuana once per month (28.3% of Californians compared to 27.0% of Americans) (SAMHSA, 2018). They are slightly less cautious about their perception of risk from using cocaine once a month though (68.8% of Californians compared to 73.1% of Americans) (SAMHSA, 2018).

Table 27 shows legal drug use by Californians aged 18 or older. This table shows a steady increase in marijuana use since decriminalization, but a steady decline in tobacco use. Alcohol use fluctuates and therefore a trend cannot be concluded.

Table 26. Percentage of 18+ Year Olds Who Used Drugs in Past Year in California (2015-2017)

Drug Use in Past Year	2014-2015	2015-2016	2016-2017	% Change from 2015-2017
Marijuana	15.4	16.5	17.8	+15.6%
Cocaine	2.3	2.6	2.9	+26.1%
Heroin	0.2	0.3	0.2	0.0%
Methamphetamine	-	1.1	0.9	-
Pain Reliever Misuse	-	4.8	4.4	-

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Table 27. Percentages of Legal Drug Use in Past Month in California for Ages 18+ (2015-2017)

Drug Use in Past Month	2014-2015	2015-2016	2016-2017	% Change from 2015-2017
Marijuana	9.8	10.8	11.8	+20.4%
Tobacco	19.4	18.3	17.5	-9.8%
Alcohol	55.8	53.9	54.7	-2.0%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Colorado

Table 28 shows data from 2014 to 2017 on Coloradans aged 18 or older who use drugs since the decriminalization of marijuana in 2013. Unfortunately, the NSDUH did not ask questions about illicit drug use other than marijuana before 2014. Therefore, data from 2012 and 2013 are missing and will not be included in the table. This table shows an increase in both marijuana use and cocaine use. However, since this data is from after decriminalization, it is difficult to determine whether there was a dramatic increase as a cause of decriminalization.

Table 28. Percentage of 18+ Year Olds Who Used Drugs in Past Year in Colorado (2014-2017)

Drug Use in Past Year	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	20.7	23.6	23.8	25.7	+24.2%
Cocaine	2.7	2.9	2.6	2.9	+7.4%
Heroin	-	0.4	0.4	0.3	-
Methamphetamine	-	-	0.7	0.9	-
Pain Reliever Misuse	4.9	-	5.3	5.0	+2.0%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

From 2016 to 2017, 16.6% of Coloradans aged 18 or older perceive great risk in smoking marijuana once a month (SAMHSA, 2018). This is much smaller than the 27% of Americans overall who believe the same thing (SAMHSA, 2018). Similarly, 66% of Coloradans perceive great risk from using cocaine once a month compared to 73% of Americans overall (SAMHSA, 2018). Table 29 shows a sporadic increase in marijuana use since 2014. Colorado decriminalized marijuana in 2013. Tobacco use has steadily decreased over time and alcohol use decreased overall with a slight increase in 2017.

Table 29. Percentages of Legal Drug Use in Past Month in Colorado for Ages 18+ (2014-2017)

Drug Use in Past Month	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	15.2	17.1	16.6	17.2	+13.2%
Tobacco	27.5	26.8	22.8	21.7	-21.1%
Alcohol	66.4	64.0	62.3	64.5	-2.9%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Nevada

Table 30 shows data from 2015 to 2017 for drug use of Nevadans aged 18 or older. This table shows a significant increase in cocaine use. Marijuana use significantly increased from 2016 to 2017. Heroin use remained somewhat constant.

From 2016 to 2017, 23.8% of Nevadans believe that there is a great risk from smoking marijuana once a month (SAMHSA, 2018). This is slightly less than Americans overall (27%) (SAMHSA, 2018).

Table 31 shows the percentage of Nevadans aged 18 or older who use legal drugs from 2015 to 2017 and identifies a steady increase in marijuana use. There was a dramatic increase from 2016 to 2017 for marijuana use. Tobacco use decreased slightly and then increased slightly. Alcohol use has steadily declined since decriminalization of marijuana in 2016.

Table 30. Percentage of 18+ Year Olds Who Used Drugs in Past Year in Nevada (2015-2017)

Drug Use in Past Year	2014-2015	2015-2016	2016-2017	% Change from 2015-2017
Marijuana	12.9	13.0	17.1	+32.6%
Cocaine	1.5	2.0	2.5	+66.7%
Heroin	0.4	0.4	0.5	+25.0%
Methamphetamine	-	1.2	1.0	-
Pain Reliever Misuse	-	5.1	5.1	-

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Table 31. Percentages of Legal Drug Use in Past Month in Nevada for Ages 18+ (2015-2017)

Drug Use in Past Month	2014-2015	2015-2016	2016-2017	% Change from 2015-2017
Marijuana	7.9	8.2	12.1	+53.2%
Tobacco	26.6	25.3	26.1	-1.9%
Alcohol	56.8	54.9	52.1	-8.3%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Oregon

Table 32 shows data from 2014 to 2017 on Oregonians aged 18 or older who use drugs. Unfortunately, the NSDUH did not ask questions about illicit drug use other than marijuana before 2014. Therefore, data from 2013 is missing and not included in the table.

Findings show an increase in all drug use since decriminalization of marijuana in 2014. Cocaine use increased the fastest, but marijuana use also increased significantly. Heroin and methamphetamine use remained unchanged. From 2016 to 2017, 17% of Oregonians believe there is a great risk from smoking marijuana once a month (SAMHSA, 2018). This is much less than Americans overall (27%) (SAMHSA, 2018). In addition, 63.6% of Oregonians perceive a great risk from using cocaine once a month compared to 73% of Americans overall (SAMHSA, 2018).

Table 33 shows the percentage of legal drug use among Oregonians aged 18 or older. Findings indicate a significant increase in marijuana use after decriminalization. Tobacco use decreased during the year of decriminalization and slowly increased every year since. Alcohol use increased during the year of decriminalization and decreased slightly every year afterwards.

Table 32. Percentage of 18+ Year Olds Who Used Drugs in Past Year in Oregon (2014-2017)

Drug Use in Past Year	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	19.5	19.6	23.2	27.4	+40.5%
Cocaine	2.1	2.3	2.6	3.2	+52.4%
Heroin	-	0.4	0.5	0.4	-
Methamphetamine	-	-	1.1	1.1	-
Pain Reliever Misuse	4.7	-	5.6	5.5	+17.0%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Table 33. Percentages of Legal Drug Use in Past Month in Oregon for Ages 18+ (2014-2017)

Drug Use in Past Month	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	12.6	13.0	16.3	20.0	+58.7%
Tobacco	27.1	24.0	24.3	24.7	-8.9%
Alcohol	61.4	63.3	63.2	62.9	+2.4%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Washington

Table 34 shows data from 2014 to 2017 on Washingtonians aged 18 or older who use drugs since marijuana decriminalization in 2012. Unfortunately, the NSDUH did not ask questions about illicit drug use other than marijuana before 2014. Therefore, data from 2011 through 2013 are missing and will not be included in the table. There was an overall increase in marijuana use but the increase has not been consistent over the years. Cocaine and heroin use both increased as well. From 2016 to 2017, 18.8% of Washingtonians aged 18 or older perceive great risk in smoking marijuana once a month (SAMHSA, 2018). This is much lower than Americans overall (27%) (SAMHSA, 2018).

Table 35 shows the percentage of Washingtonians aged 18 or older who used legal drugs since 2014. Overall, there was an increase in marijuana use since 2014. This is due to a drastic increase from 2016 to 2017. Tobacco use decreased since 2014 while alcohol use increased, and then decreased slightly.

Table 34. Percentage of 18+ Year Olds Who Used Drugs in Past Year in Washington (2014-2017)

Drug Use in Past Year	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	19.1	17.7	19.5	23.2	+21.5%
Cocaine	2.0	2.0	2.1	2.5	+25%
Heroin	-	0.4	0.5	0.5	-
Methamphetamine	-	-	0.9	0.8	-
Pain Reliever Misuse	4.4	-	5.5	5.1	+15.9%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Table 35. Percentages of Legal Drug Use in Past Month in Washington for Ages 18+ (2014-2017)

Drug Use in Past Month	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	13.1	11.4	12.4	15.9	+21.4%
Tobacco	25.8	23.7	21.4	22.0	-14.7%
Alcohol	58.0	61.8	60.3	59.6	+2.8%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

United States

To compare these six states to the rest of the country, it is important to show the percentage of Americans who use drugs from 2014 to 2017, which is shown in Table 36. This table shows a gradual increase in marijuana use, cocaine use, and pain reliever misuse since 2014. Heroin and methamphetamine use has remained constant.

In all six states examined, the percentage of individuals aged 18 or older who used marijuana and cocaine in the past year is higher than the percentage of Americans who did the same. Oregonians had nearly twice the percentage of marijuana users than the rest of the country. They also had the highest rate of cocaine users among the six states examined.

Since the NSDUH did not include all relevant data to this section, we cannot conclude that the decriminalization of marijuana has led to more cocaine use. However, we do see a trend in the country of increased marijuana use and increased cocaine use. The percentage of individuals who use marijuana and cocaine in these six states has increased at a much faster pace than the rest of the nation.

Table 36. Percentage of 18+ Year Olds Who Used Drugs in Past Year in the United States (2014-2017)

Drug Use in Past Year	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
Marijuana	12.9	13.4	13.9	14.7	+14.0%
Cocaine	1.8	1.9	2.0	2.2	+22.2%
Heroin	-	0.4	0.4	0.4	-
Methamphetamine	-	-	0.6	0.6	-
Pain Reliever Misuse	4.0	-	4.5	4.3	+7.5%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Hospitalizations/Emergency Department Visits

Opponents of decriminalization argue that an increase in cannabis use will lead to more serious health effects. These effects may include an increase in hospitalizations, cannabis dependency, alcohol use disorders, rates of suicide, and symptoms of psychosis and schizophrenia (RMHIDTA, 2018). To determine whether these arguments have merit, this section reviews hospitalization data for each of the six states. The NSDUH is used to collect data regarding serious suicidal thoughts, marijuana use disorders, and alcohol use disorders.

Alaska

Hospitalization data for Alaska is minimal. In 2016, about 5% of hospitalizations for men cited marijuana abuse or dependence as a factor. The percentage of women who cited marijuana abuse or dependence was 4% (ADHSS, 2016). This is similar to 2015 data, which suggests no increase in recent years. However, further research should be conducted on hospitalizations in Alaska to confirm or dispel notions.

The annual average prevalence of past year marijuana use disorder among people aged 12 or older was 2.6% from 2014 to 2017 (SAMHSA, 2019). This is almost twice as high

as the national rate of 1.5% (SAMHSA, 2019). Alcohol use disorder for the same demographic was 7.6%, which is higher than the national rate of 5.8% (SAMHSA, 2019). It should be noted that both marijuana use and alcohol use disorders have decreased since 2005 (SAMHSA, 2019).

From 2007 to 2014, Alaska's suicide rate has increased from 21.8 suicides per 100,000 residents to 22.3 (ADHSS, 2015). Although this rate follows the national trend of a slight increase in suicide rates over these years, Alaska's suicide rate is much higher than the national rate of 12.6 (ADHSS, 2015). Table 37 shows data from the NSDUH regarding suicidal thoughts and major depressive episodes in the past year for people aged 18 or older.

This table shows an increase in both suicidal thoughts and major depressive episodes since decriminalization. Since the suicide rate was high in Alaska before decriminalization, it is difficult to show that marijuana increases suicidal thoughts or major depressive episodes.

Table 37. NSDUH Mental Health Data in Alaska (2014-2017)

Type	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
% Had Serious Suicidal Thoughts in Past Year	4.2	4.7	5.2	5.3	+26.2%
% Had Major Depressive Episode in Past Year	6.6	6.7	7.4	7.7	+16.7%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

California

In 2014, there were over 91,000 emergency department visits with any mention of cannabis mental disorders of dependence in the patient's record in California. This is a 586% increase since 2006 (CDPH, 2015). In the same year, there were over 81,000 hospitalizations with a cannabis diagnosis. This is a 156% increase from 2006 (CDPH, 2015). One fact to note is that this information is all before the decriminalization of marijuana in 2016. However, marijuana has been socially accepted and widely used since 2010 in California (CDPH, 2015). This makes these statistics relevant in addressing whether hospitalizations increase with cannabis use.

From 2014 to 2017, the annual average prevalence of past year marijuana use disorder was 2.0% for California. This is slightly higher than the national average (1.5%) (SAMHSA, 2019). Although there was not a significant change, it should be noted that the national rate has steadily declined since 2005 while California's rate has slightly increased. The annual average of prevalence for alcohol use disorder was 6.1% in California for the same years. The national rate was similar at 5.8% (SAMHSA, 2019). For both California and the nation, alcohol use disorder has decreased since 2005.

In 2017, the suicide rate for California was 10.5 suicides per 100,000 residents (CDC, 2019). This is less prevalent than the nation's suicide rate of 14.0 per 100,000 people (CDC, 2019). In 2005, the California suicide rate was 9.1 and the nation's suicide rate was 10.9 (CDC, 2019). This shows that the nation as a whole had a suicide rate that increased faster than California's over 12 years. Table 38 shows data from the NSDUH regarding suicidal thoughts and major depressive episodes in the past year for people aged 18 or older.

Table 38 shows a slight increase in suicidal thoughts and major depressive episodes. This data is not convincing that marijuana leads to

suicidal thoughts. Further research should be conducted on hospitalization rates that specifically compares pre-decriminalization years and post-decriminalization years. Without this data readily available, conclusions cannot be made about the effect of marijuana on hospitalizations and use disorders.

Table 38. NSDUH Mental Health Data in California (2014-2017)

Type	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
% Had Serious Suicidal Thoughts in Past Year	3.8	3.8	4.0	4.0	+5.3%
% Had Major Depressive Episode in Past Year	6.3	5.9	6.0	6.5	+3.2%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Colorado

There have been many research studies on the impact of decriminalization in Colorado. This increases the chance of being able to identify possible connections between marijuana and hospitalizations. Colorado decriminalized marijuana in 2013. From 2011 to 2014, hospitalizations related to marijuana increased from 6,305 to 11,439 (RMHIDTA, 2018). This is an 81.4% increase in hospitalizations. The number of poison control center calls has dramatically increased in this same period. In 2011, there were 86 phone calls involving marijuana, 39 of them involved individuals under the age of 18 (RMHIDTA, 2018). In 2017, there were 223 calls involving marijuana with 121 of them involving people aged under 18 (RMHIDTA, 2018). This is a 210.3% increase in calls to the poison center by youth involving marijuana. In 2018, almost half of the marijuana related phone calls (43%) involved an "edible" product, an increase of 34% since 2016 (RMPDC, 2019).

Further research found that from 2000 to 2015, hospitalization rates with marijuana-related billing codes increased from a rate of 274 per 100,000 hospitalizations to 593 (Wang et al., 2017). Interestingly, they found that the prevalence of mental illness among emergency department visits with marijuana-related codes were five times higher than the prevalence of mental illness without marijuana-related codes (Wang et al., 2017). This implies that increased cannabis use may lead to increased mental disorders. This may lead to more hospitalizations. With limited research and constricted time frames, it is not possible to say definitively that marijuana use causes increased hospitalizations. The possibility exists that marijuana use can have negative effects on mental health, however, and further research should be conducted to determine this. For now, this paper focuses on law enforcement-related topics and a possible increase in mental disorders, which affects law enforcement directly.

From 2014 to 2017, the annual average prevalence of past year marijuana use disorder was 2.3% in Colorado (SAMHSA, 2019). This is higher than the national average of 1.5% (SAMHSA, 2019). Since 2005, the prevalence of marijuana use disorder increased slightly in Colorado but declined slightly in the nation. During the same years, prevalence of alcohol use disorder was 7.4% in Colorado, which is much higher than the national average of 5.8% (SAMHSA, 2019). These numbers have heavily declined for both Colorado and the nation since 2005 (SAMHSA, 2019).

In 2017, the suicide rate in Colorado was 20.3 suicides per 100,000 residents (CDC, 2019).

This is much higher than the national rate of 14.0 suicides per 100,000 people (CDC, 2019). The suicide rate for Colorado has increased by 18% since 2005 (CDC, 2019). This is a slower increase than the nation, though Colorado has a higher suicide rate (CDC, 2019). It should be noted that in toxicology reports for suicides in Colorado between 2012 and 2016 for ages 10-24, 25.7% of these reports found marijuana present and 26.5% found alcohol present (CDPHE, 2017). This rate of marijuana present is much higher than the average for all ages (16.5%), while the level of alcohol is much lower (36.1%) (CDPHE, 2017). Table 39 shows data from the NSDUH regarding suicidal thoughts and major depressive episodes in the past year for people aged 18 or older.

Table 39 shows an increase in both serious suicidal thoughts and major depressive episodes. This should not be surprising considering Colorado's high suicide rate. Since their suicide rate has been higher than the national average since 2005, it is difficult to conclude whether decriminalization increases suicidal thoughts or depressive episodes.

Table 39. NSDUH Mental Health Data in Colorado (2014-2017)

Type	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
% Had Serious Suicidal Thoughts in Past Year	4.0	4.5	4.9	5.4	+35.0%
% Had Major Depressive Episode in Past Year	6.3	7.3	7.6	7.7	+22.2%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Nevada

Data on hospitalization rates due to marijuana in Nevada is limited. From 2016 to 2017, there was a 67% increase in marijuana poisoning symptoms for individuals under the age of 14, while adults showed an increase of 125% in marijuana poisoning symptoms (Kane, 2018). Further research should be conducted to determine whether decriminalization leads to higher hospitalization rates. However, it is likely to assume Nevada has seen increases in hospital visits due to marijuana.

From 2014 to 2017, the annual average prevalence of past year marijuana use disorder was 1.6% in Nevada, which is essentially identical to the national prevalence of 1.5% (SAMHSA, 2019). Both Nevada and the nation have seen a decline in prevalence of marijuana use disorder since 2005. During the same years, the annual average prevalence of alcohol use disorder was 5.7% for Nevada and 5.8% for the nation (SAMHSA, 2019). Since 2005, Nevada's average alcohol use disorder prevalence has decreased at a faster rate than the nation.

In 2017, Nevada had a suicide rate of 20.3 suicides per 100,000 residents (CDC, 2018). This is much higher than the national rate of 14.0 suicides per 100,000 people (CDC, 2018). In 2005, the suicide rate for Nevada was 19.8, showing a 2.5% increase in 12 years (CDC, 2018). This is a much slower increase than the nation. Table 40 shows that serious suicidal thoughts and major depressive episodes have remained relatively unchanged since before decriminalization of marijuana in 2016. This is consistent with the stable suicide rate that Nevada maintains. Although Nevada's suicide rate is high, there is not enough conclusive evidence to show that marijuana decriminalization has led to more suicides or depressive episodes.

Table 40. NSDUH Mental Health Data in Nevada (2014-2017)

Type	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
% Had Serious Suicidal Thoughts in Past Year	4.4	4.5	4.3	4.6	+4.5%
% Had Major Depressive Episode in Past Year	6.3	6.9	7.4	6.7	+6.3%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Oregon

The rate of marijuana-related emergency department visits increased from 3.4 per 1,000 visits in 2015 to 6.3 in 2016 (OHA, 2016). This rate leveled off and remained constant until 2018 at a rate of 6.3 per 1,000 visits (OHA, 2019). The number of marijuana-related calls to the Oregon Poison Center increased from 103 in 2015 to 316 in 2018 (OHA, 2019). This is a 206.8% increase in only three years (OHA, 2019). St. Charles Health System, located in central Oregon, saw a dramatic increase in marijuana-related emergency room visits after decriminalization. In 2012, this hospital averaged 21 patients a month related to marijuana (Kent, 2016). This number increased to 196 patients a month in 2015 (Kent, 2016). However, in January of 2016 alone, this hospital saw 434 patients related to marijuana (Kent, 2016). This is a 1,967% increase in marijuana-related emergency department visits (Kent, 2016).

From 2014 to 2017, the annual average prevalence of past year marijuana use disorder was 2.4% in Oregon (SAMHSA, 2019). This is higher than the national average of 1.5% (SAMHSA, 2019). The national average prevalence of marijuana use disorder has decreased since 2005, but increased slightly in Oregon. During these same years, the annual average prevalence of alcohol use disorder was 7.8% compared to the national average of 5.8% (SAMHSA, 2019). It should be noted that the average prevalence of alcohol use disorder for the nation has significantly decreased since 2005, but has increased for Oregon.

In 2017, the suicide rate in Oregon was 19.0 per 100,000 residents (CDC, 2018). This is higher than the national rate of 14.0 suicides per 100,000 people (CDC, 2018). In 2005, the suicide rate was 14.9 in Oregon and 10.9 in the nation (CDC, 2018). Suicides have increased at nearly the same rate as the nation. This makes it difficult to conclude that decriminalization has led to more suicides. Table 41 shows data from the NSDUH regarding suicidal thoughts and major depressive episodes in the past year for people aged 18 or older.

Table 41 shows a slight increase in serious suicidal thoughts. The percentage of individuals having a major depressive episode initially decreased and has slowly increased since decriminalization. Since suicide rates have been higher than the national average before decriminalization, it is difficult to conclude marijuana use has led to an increase in either suicidal thoughts or depressive episodes.

Table 41. NSDUH Mental Health Data in Oregon (2014-2017)

Type	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
% Had Serious Suicidal Thoughts in Past Year	4.5	4.4	5.1	5.2	+15.6%
% Had Major Depressive Episode in Past Year	8.3	7.5	7.9	8.5	+2.4%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Washington

Hospitalization data in Washington is limited and further research is needed to determine the impact of marijuana on health. According to poison control center calls, the average number of marijuana related calls from 2011 to 2013 was 155 per year (WSOFM, 2016). From 2014 to 2016, this number increased to 268 a year (WSOFM, 2016). In 2017, the number of marijuana related calls to the Washington Poison Center was 357 (WAPC, 2017).

From 2014 to 2017, the annual average prevalence of past year marijuana use disorder was 2.2% in Washington (SAMHSA, 2019). This is greater than the national average prevalence of 1.5% (SAMHSA, 2019). Both the average prevalence of marijuana use disorder in Washington and in the nation has decreased since 2005. During these years, the average prevalence of alcohol use disorder was 5.5%, which is lower than the national average of 5.8% (SAMHSA, 2019). Interestingly, the average prevalence of alcohol use disorder in Washington has decreased at a much faster rate than the national average since 2005. This shows that in Washington, marijuana has not led to an increase in alcohol use disorders.

In 2017, the suicide rate in Washington was 16.9 suicides per 100,000 residents (CDC, 2018). This is higher than the national rate of 14.0 suicides per 100,000 people (CDC, 2018). In 2005, the suicide rate in Washington was 12.8 (CDC, 2018). This shows a 32% increase in the suicide rates in 12 years in Washington (CDC, 2018). This is a slower increase than the national average. This implies that marijuana decriminalization has not led to an increase in suicides in Washington. Table 42 shows data from the NSDUH regarding suicidal thoughts and major depressive episodes in the past year for people aged 18 or older.

Table 42 shows a steady increase in suicidal thoughts and major depressive episodes since decriminalization in Washington. However, it cannot be concluded that marijuana use has caused this increase.

Table 42. NSDUH Mental Health Data in Washington (2014-2017)

Type	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
% Had Serious Suicidal Thoughts in Past Year	4.3	4.5	4.7	5.1	+18.6%
% Had Major Depressive Episode in Past Year	7.3	7.5	7.7	8.5	+16.4%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

United States

This report compares the six states analyzed above with the nation. The United States had 985 unintentional marijuana exposures from 2005 to 2011 (Wang et al., 2014). The call to poison centers rate has increased by 30.3% per year in decriminalized states and has increased by 11.5% per year in transitional states (Wang et al., 2014). The call rate to poison centers did not change for states where marijuana remained illegal (Wang et al., 2014). This shows that we should expect an increase in poison center calls and hospitalizations in Illinois.

For the states that had comprehensive information on hospitalizations, there was an increase in hospitalizations and poison center calls. However, edible use and synthetic marijuana causes this increase more than marijuana that is smoked. Young children accidentally consuming edibles may lead to poison center calls and emergency department visits. Synthetic marijuana has shown to be dangerous to individuals' health and can be toxic (CDC, 2018). Decriminalizing marijuana may lead to increased use by the small percentage of individuals who already use the drug. This increased use may exacerbate some mental health disorders including schizophrenia, personality, mood, and anxiety disorders (Hall et al., 2018).

For suicides, five of these six states have suicide rates higher than the national average of 14.0 per 100,000 residents in 2017 (CDC, 2019). California was the only state to have a lower suicide rate than the nation overall. However, California had the highest number of suicides than any other state (4,312) (CDC, 2019). These five states had higher suicide rates than the nation before the decriminalization of marijuana. Therefore, it cannot be concluded that marijuana use increases suicide rates. Table 43 shows data from the NSDUH regarding suicidal thoughts and major depressive episodes in the past year for people aged 18 or older.

This table shows that serious suicidal thoughts and major depressive episodes have increased slowly. Only California has a smaller percentage of individuals aged 18 or older who had serious suicidal thoughts or major depressive episodes compared to the nation. In fact, Colorado had a lower percentage of adults having major depressive episodes and had a similar percentage of those with serious suicidal thoughts in 2014. However, in 2017, Colorado had a much higher percentage in both categories than the nation. This suggests that suicidal thoughts and major depressive episodes in Colorado are increasing at a faster rate than the nation. However, it cannot be concluded that marijuana is the cause, as many factors lead to suicide.

Table 43. NSDUH Mental Health Data in United States (2014-2017)

Type	2013-2014	2014-2015	2015-2016	2016-2017	% Change from 2014-2017
% Had Serious Suicidal Thoughts in Past Year	3.9	4.0	4.0	4.2	+7.7%
% Had Major Depressive Episode in Past Year	6.6	6.6	6.7	6.9	+4.5%

Data retrieved from https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017

Black Market

Opponents of decriminalization argue that the illegal selling and distributing of marijuana will continue, if not increase, after decriminalization. This issue is discussed for each state.

Alaska

Alaska's Marijuana Control Board discussed the differences of illegal and legal marijuana industries, specifically taxes. Carry Carrigan, the executive director of the Alaska Marijuana Industry Alliance, said:

> "Licensed cultivators are competing with people who aren't paying for cameras for security purposes, for the people who are working for them, they aren't paying unemployment taxes, they aren't paying all that stuff that goes along with being a business" (Palsha, 2018).

Opponents of marijuana decriminalization have echoed this quote saying that the prices of illegal marijuana will incentivize a black market. Street prices of marijuana forces the competitive price of marijuana to decrease in dispensaries. However, the excise tax and other fees on growing marijuana force dispensaries to keep prices high (Palsha, 2018).

Alaska's Statewide Drug Enforcement Unit (SDEU) has continued to discover sophisticated indoor illegal growing operations (ADPS, 2016). From 2014-2016, the amount of processed marijuana seized by police in pounds increased from 169.7 to 235.8 (ADPS, 2016). The number of illegal marijuana grows eradicated significantly decreased in the same period from 38 to 11 (ADPS, 2016). However, it should be noted that during one week in 2017, police seized about 4,000 marijuana plants in an illegal commercial grow operation. This is compared to 1,838 marijuana plants seized in total in 2016 (ADPS, 2016). Drug trafficking organizations such as Mexican cartels and gangs have infiltrated both urban and rural Alaskan communities. This may be due to Alaska's diminished enforcement resources and leads to an increased use of new, unregulated, unscheduled, synthetic drugs, which includes synthetic marijuana and fentanyl (ADPS, 2016).

California

California has many issues with unlicensed growers and illegal marijuana distribution. In fact, the illegal market is so rampant that the Legislative Analyst's Office had to lower their expected revenue from cannabis several times (Kerstein, 2019). In June of 2018, the projection for cannabis revenue for 2018-2019 was $630 million (Kerstein, 2019). After the first quarter, the expected revenue reduced to $410 million (Kerstein, 2019). In May of 2019, the estimate was $288 million (Kerstein, 2019). This is a 54.3% decrease in expected revenue due to the illegal market (Kerstein, 2019).

A study performed by Eaze Insights found that 18% of Californians who purchased marijuana in the past three months bought marijuana from an unlicensed source (Eaze Insights, 2018). Of those who purchased marijuana from an unlicensed source, 85% said that they were completely or very satisfied with their purchase experience and were highly likely to purchase from the same source again (Eaze Insights, 2018). This shows that individuals who buy from the black market are likely to continue as nothing incentivizes them to buy from a legal source. This is because consumers are overwhelmingly satisfied with low prices and lack of taxes (Eaze Insights, 2018). The Bureau of Cannabis Control emphasized that point by stating in their annual report:

> "The overarching reality after one year of legal cannabis sales is that the regulatory process to licensure insufficiently incentivizes unlicensed businesses to seek

> licensure and insufficiently de-incentivizes the illegal unlicensed underground market in order to effectively 'protect public health and safety while ensuring a regulated environment for commercial cannabis activity'" (BCC, 2018).

The amount of processed marijuana seized in pounds has increased from 8,696 in 2017 to 41,465 in 2018 (McGreevy, 2019). Overall, the California Department of Justice has eradicated 1.5 million plants in 2018, which is more than double the amount in the previous year (McGreevy, 2019). Illegal grow operations have become so prevalent that the governor, Gavin Newsom, has proposed that at least 150 California National Guard troops be redeployed from the U.S./Mexico border to join a Counterdrug Task Force (McGreevy, 2019). This task force would focus on illegal cannabis activity in Northern California.

Colorado

In 2016, police seized 7,116 pounds of marijuana (RMHIDTA, 2018). The following year, 14,692 pounds of marijuana was seized (RMHIDTA, 2018). This is an 886% increase in pounds of marijuana seized since 2013. In 2017, police seized 6,462 edibles (RMHIDTA, 2018). These increases suggest the black market is flourishing in Colorado. The number of marijuana plants seized increased from 7,290 in 2013 to 43,949 in 2017, a substantial increase (RMHIDTA, 2018).

After marijuana decriminalization, Colorado experienced a dramatic increase in the number of parcels containing marijuana mailed to another state. In 2012, Coloradans mailed 158 parcels containing marijuana to another state (RMHIDTA, 2018). This number rose over the years to 1,009 in 2017 (RMHIDTA, 2018). This is a 538.6% increase in only five years (RMHIDTA, 2018). The number of pounds of marijuana mailed from Colorado was 262 in 2012 but 2,001 in 2017 (RMHIDTA, 2018). This implies that illegal marijuana trafficking to other states may originate from Colorado. This is confirmed when, in 2017, 43 states were destined to receive marijuana that was mailed from Colorado (RMHIDTA, 2018). With the large increase in marijuana seized and the increase in marijuana being mailed to other states, it is evident that a black market exists in Colorado and continues to grow. Not only does this increase the black market in decriminalized states, it may also increase the black market for marijuana in all states.

Nevada

Nevada is the most recent of these six states to decriminalize marijuana. Therefore, effects of a black market is harder to examine. This does not mean there is no black market in Nevada, however. The deputy police chief of the Reno Police Department, Mac Venzon, said:

> "The black market, of course, is going to undercut that (legal pot prices). We expected to see a little bit of that but we also expected to see some reduction in the black market and thus far we have not seen that" (Hagar, 2018).

Venzon advises sting operations on narcotics and marijuana have not decreased since the decriminalization of marijuana (Hagar, 2018). In July 2018, the National Park Service raided an illegal marijuana grow site in Death Valley National Park. This led to more than 4,000 marijuana plants being seized (Associated Press, 2018).

The Las Vegas Metropolitan Police Department seized 457 pounds of THC oil in 2017 and 300 pounds of marijuana wax in the same year; a more than 60% increase in both of these items compared to the previous year (Theodros, 2018). This data suggests the black-market sales of marijuana increased since the decriminalization of marijuana in Nevada.

Oregon

Oregon is in a unique position to undermine the black market. This is due to the large amount of licensed growers. In fact, Oregon has about 2,100 licensees who have grown so much marijuana, that it would take an estimated 6.5 years to sell it all within Oregon without any more production (OLCC, 2019). About one million pounds of usable cannabis flower is available to sell, but only 31% was sold to Oregon consumers (OLCC, 2018). Due to this, Oregon has decreased the price of marijuana per gram to less than $5 in December 2018 (Associated Press, 2019).

Knowing that they have a surplus of marijuana to sell, plenty of land and licensed growers to sell it, and a reduced price, Oregon reasonably believed the black market sales of marijuana would decrease. However, the United States Attorney for the District of Oregon, Billy J. Williams, cited the following statistics provided by the U.S. Postal Service, "Oregon seized 2,644 pounds of marijuana in outbound parcels and over $1.2 million in cash in 2017 alone" (Williams, 2018).

From 2011 to 2016, 84% of illegal marijuana grow sites were on U.S. Forest Service lands (ORIDHIDTA, 2018). In 2016 alone, police removed more than 26,500 plants worth $362 million from public lands across Oregon (ORIDHIDTA, 2018). From 2011 to 2016, statewide illegal marijuana grow sites produced $2.1 billion worth of cannabis (ORIDHIDTA, 2018). The Oregon – Idaho High Intensity Drug Trafficking Area reported that illicit distribution of cannabis has persisted after the emergence of the state-sanctioned market (ORIDHIDTA, 2018).

Cannabis from Oregon has been exported illegally to 37 states from July 2015 to January 2018 (ORIDHIDTA, 2018). This shows that the black market is alive and well in Oregon despite the measures they have used to curtail it. This is disconcerting, as the case study of Oregon shows that the black market may be impossible to eliminate through the decriminalization of marijuana.

Washington

Washington is similar to Oregon in the respect of overproduction. This allows lowered prices of legal marijuana to help discourage individuals from buying marijuana from the black market (Kaste, 2018). There is limited research to analyze the effect of the black market in Washington. Similar to Oregon, there is a possibility that people are illegally growing marijuana in Washington to exploit the lax regulative oversight and are selling the marijuana in other states where marijuana is illegal to maximize profits.

Okanogan County Chief Criminal Deputy Steve Brown raided an illegal marijuana grow site located a few hundred feet from a legal marijuana farm (Kaste, 2018). The owners of the illegal farm filed to pay agricultural taxes to deceive the tax assessor (Kaste, 2018). Legal farmers are also incentivized to sell their marijuana illegally. Since the prices are low in Washington, they can sell marijuana in other states off the books for much more money (Kaste, 2018).

In late 2017, law enforcement confiscated 32,000 marijuana plants and $400,000 in cash and gold (Kaste, 2018). This massive network of illegal farming was run by Chinese nationals (Kaste, 2018). The black market may include international trafficking operations using Washington's lax marijuana laws to grow in bulk (Kaste, 2018). In fact, there have also been marijuana raids in California and Colorado involving Chinese nationals. These Chinese nationals may be a part of an organized crime ring, where they purchase homes in these

states specifically to begin illegal marijuana farms (Banse, 2017).

Overall, it is obvious to see that the black market for marijuana has not decreased in any of these six states. In fact, there is evidence to suggest illegal marijuana grow operations have increased as raids continue to seize more pounds and plants of marijuana. An interesting trend from Oregon and Colorado arose where more marijuana is mailed to other states in parcels. This bolsters illegal marijuana trafficking in other states. Finally, Mexican cartels have increased illegal activity in Alaska, while Chinese nationals have been found operating large illegal marijuana networks in Colorado, California, and Oregon. Knowing this information, decriminalization of marijuana will likely increase black market sales, not decrease.

Traffic Safety

Opponents of decriminalization argue that increased marijuana use and decreased perceptions of risk will lead to more impaired driving events. This increase of impaired driving will then lead to more crashes and will lower overall traffic safety. Unfortunately, there is limited research on this topic. For example, the National Highway Traffic Safety Administration researched drivers with THC in their system in 2014. At the time of this study, only two states had decriminalized marijuana. This makes analysis difficult. Instead of analyzing each state separately, this section will analyze and discuss different research findings.

Trends in Fatal Motor Vehicle Crashes, 2014 Study

A 2014 study analyzed fatalities from 1994 to 2011 using the Fatality Analysis Reporting System (FARS). This study aimed to determine whether there was a trend in fatal motor vehicle crashes before and after Colorado decriminalized marijuana. This study used July 2009 as the start date for decriminalizing marijuana in Colorado. This is because there were few medical marijuana dispensaries before 2009 due to frequent raids by the federal government. In 2009, the federal government declared they would no longer actively enforce medical marijuana laws in the states who allow medical marijuana. This led to a large increase in medical marijuana licenses (Salomonsen-Sautel et al., 2014).

This study completed analyses for Colorado and all 34 states that did not have medical marijuana laws through 2011. The study defined their variables as 1) the proportion of drivers in a fatal motor vehicle crash who were marijuana-positive, and 2) the proportion of drivers in a fatal motor vehicle crash who were alcohol-impaired (BAC ≥ 0.08%) (Salomonsen-Sautel et al., 2014). The years 1994-2011 were divided into 36 six-month intervals to determine trends.

Findings indicate in Colorado, the proportion of drivers in a fatal motor vehicle crash who were marijuana-positive was 4.5% in the first six months of 1994, 5.9% in the first six months of 2009, and 10% at the end of 2011 (Salomonsen-Sautel et al., 2014). For the 34 non-medical marijuana states, those percentages were 1.1%, 4.2%, and 4.1%, respectively (Salomonsen-Sautel et al., 2014). The study also concluded that after July 1, 2009, Colorado had a significantly greater positive change in trends compared with non-medical marijuana states (Salomonsen-Sautel et al., 2014). This shows that decriminalizing marijuana increased fatal motor vehicle crashes where the drivers were marijuana-positive. This study also found no significant differences in the trend for alcohol-impaired fatal crashes (Salomonsen-Sautel et al., 2014).

Results of the 2013-2014 National Roadside Survey, 2015 Study

A 2015 study analyzed the results from a 2013-2014 National Roadside Survey (NRS). This survey was voluntary, anonymous, and the second study to collect data on drug use, which allows an examination of drug use trends on a national scale (Berning et al., 2015). The study found there was an 80% reduction in the

percentage of alcohol-impaired drivers on the road on weekend nights from 1973 to 2014 (Berning et al., 2015). This compared breath alcohol concentration (BrAC) from the years 1973 and 2014.

To test for drugs, researchers asked participants to provide an oral fluid and blood sample in addition to a breath sample. The oral fluid and blood samples were tested for impairing drugs such as cannabinoids, stimulants, sedatives, antidepressants, and narcotic analgesics (Berning et al., 2015). Not all drivers provided both samples. In addition, it should be noted that the presence of a drug does not necessarily imply that the driver was impaired. This study found that in weekend nighttime drivers, the prevalence of THC in oral fluid and/or blood test was 8.6% in 2007 and 12.6% in 2014 (Berning et al., 2015). This shows a 48% increase in participants who tested positive for THC.

Cannabis Use Among Drivers Suspected of Driving Under the Influence or Involved in Collisions, 2016 Study

A 2016 study by the AAA Foundation for Traffic Safety analyzed Washington State Patrol data to determine trends in cannabis use (Banta-Green et al., 2016). This study used semi-structured interviews with law enforcement, prosecutors, and toxicology laboratory staff. Secondary data was collected for Driving Under the Influence (DUI) arrests, law enforcement staffing and training, Washington State Patrol's toxicology laboratory, dispatch, and officer activity logs (Banta-Green et al., 2016).

This study found that between 2005 and 2014, the proportion of Washington State DUI and collision cases tested by toxicology, excluding those positive for alcohol, that involved THC increased significantly from 20% to 30% (Banta-Green et al., 2016). Among drivers for whom blood evidence was submitted after a collision, 11% tested positive for THC and another impairing substance. Another 4% tested positive for only THC (Banta-Green et al., 2016). Over half of collision-involved drivers were under the influence of alcohol at a level of 0.08 g/dL or higher while 7% met or exceeded the level of THC (5ng/mL) (Banta-Green et al., 2016).

For drivers who were not involved in a collision but were suspected of DUI, 11% tested positive for THC in addition with another substance while another 26% tested positive for THC alone (Banta-Green et al., 2016). Non-collision drivers who were arrested for DUI were most commonly (30%) under the influence of alcohol above 0.08 g/dL. Among those drivers, 20% had a THC level higher than 5ng/mL (Banta-Green et al., 2016). This study implies that the prevalence of THC in drivers involved in collisions or suspected of DUI has increased. It should be noted that the median estimated time to blood draw for THC-positive drivers was 139 minutes. The measured THC blood level for the drivers in this study declined 5ng/mL on average during the first 120 minutes from contact with the police. This means that without prompt testing for THC, the level may quickly decrease, making DUI cases with marijuana difficult to prosecute.

Marijuana-Impaired Driving – A Report to Congress, 2017 Study

In 2017, the National Highway Traffic Safety Administration wrote a report to Congress about marijuana-impaired driving. This report discusses implications of drivers with THC in their system (Compton, 2017). This report details meta-analyses that used nine studies, each regarding crash risk and marijuana use. Li (2012) used five studies that were based on one self-report study, two urine test studies, and two blood analysis studies (Compton, 2017). The overall pooled crash risk estimate of using marijuana and driving was 2.66 times higher than drivers who had no marijuana in their system (Compton, 2017).

Another meta-analysis by Asbridge (2012) used six culpability studies and three case-control studies (Compton, 2017). Two of these studies showed a reduced risk of crash involvement while seven showed an increased risk (Compton, 2017). The overall pooled crash estimate was 1.92 times higher than drivers who had no marijuana in their system (Compton, 2017). This implies that drivers

with THC in their system increase the risk of crashing, suggesting THC impairs driving.

Early Evidence on Recreational Marijuana Decriminalization and Traffic Fatalities, 2018 Study

A 2018 study examined recreational marijuana decriminalization and traffic fatalities. This study found that the fraction of fatal accidents where at least one driver tested positive for THC has increased nationwide by an average of 10% from 2013 to 2016 (Hansen et al., 2018). However, in Colorado, the increase was 92% and in Washington, the increase was 28% (Hansen et al., 2018). This study used a synthetic control group to compare states that have decriminalized recreational marijuana and those who have not. However, these synthetic control states match moments of key variables in the pre-decriminalization period including testing rates for drug and alcohol, trends in vehicle miles traveled (VMT), urbanicity, macroeconomic conditions, and pre-treatment trends of our outcome variables (Hansen et al., 2018).

This study found that this synthetic group, Colorado, and Washington all had similar increases in fatalities. This implies that decriminalizing recreational marijuana is not a causal factor to increased fatalities (Hansen et al., 2018). However, the decriminalization of marijuana is a factor to be considered in the steep increases in traffic-related fatalities.

Traffic Safety Impacts of Marijuana Decriminalization, 2018 Study

A 2018 report from the Governors Highway Safety Association compiled relevant research regarding traffic safety and marijuana use. This report found that in roadside surveys in Washington conducted immediately before, and 6 and 12 months after legal sales began in July 2014 found that the proportion of THC-positive drivers increased from 14.6% to 19.4%, and then to 21.4% (GHSA, 2018). It should be noted that these increases are not statistically significant. Also, in Washington, the proportion of suspected impaired driving cases that tested positive for THC averaged 19.1% from 2009-2012 and then steadily increased to 33% in the first four months of 2015 (GHSA, 2018). Marijuana-related traffic deaths increased by 66% in the four year average from 2013-2016 in Colorado (GHSA, 2018). During the same time, all traffic deaths increased 16% (GHSA, 2018). The number of traffic fatalities that involved drivers who tested positive for marijuana more than doubled from 9% in 2009 to 21% in 2016 (GHSA, 2018). The estimated number and proportion of drivers involved in fatal crashes with THC in their blood in Washington from 2010-2013 ranged from 48 to 53 (7.9% to 8.5%) (GHSA, 2018). In 2014, this number and proportion was 106 (17.0%) (GHSA, 2018).

Surveys and focus groups conducted in Colorado and Washington after decriminalization found that almost all regular marijuana users believed that marijuana does not impair their driving and some believed that marijuana improves their driving (GHSA, 2018). Most of the regular marijuana users in these surveys drove under the influence of marijuana on a regular basis (GHSA, 2018). In a survey performed in September 2014, 43.6% of drivers in Colorado and Washington who reported any marijuana use in the past month reported driving under the influence of marijuana in the past year (GHSA, 2018). About 24% had driven within one hour of using marijuana at least five times in the past month (GHSA, 2018).

Status Report Legal Pot, 2018 Study

Finally, a 2018 report by the Insurance Institute of Highway Safety detailed the number of crash claims in Colorado, Nevada, Oregon, and Washington. This report estimates the frequency of collision claims rose a combined 6% following the start of retail sales of recreational marijuana in legal states compared to control states of Idaho, Montana, Utah, and Wyoming (IIHS, 2018). Another examination of 2012-2016 police-reported crashes before and after retail sales began in Colorado, Oregon, and Washington found a combined 5.2% increase in the rate of crashes per million vehicle registrations, compared with neighboring states where marijuana is illegal (IIHS, 2018).

In summary, based on these studies, this report assumes a few things. First, marijuana use is increasing across the nation, but marijuana use is more frequent in states where it is legal. Second, decriminalization of marijuana leads to a lower perceived risk of driving while under the influence of marijuana. Third, driving while under the influence of marijuana is proven to impair a driver's ability to operate a vehicle safely. Fourth, due to increased marijuana use and a lower perceived risk of driving while under the influence of marijuana, more marijuana users will drive under the influence of marijuana. Fifth, this increase in marijuana-impaired drivers will lead to more crashes. Sixth, studies have shown an increase in crashes since the decriminalization of marijuana regardless of whether marijuana decriminalization was a causal factor. Therefore, these assumptions based on research imply traffic safety will decline.

Homelessness

Opponents of decriminalizing marijuana argue that legal marijuana will attract homeless populations and/or increase homelessness. There is little research discussing this topic. A 2018 study in the *Berkeley Journal of Criminal Law* found that the national rate of homelessness declined from 2013 to 2014 as the country moved out of the recession. However, Colorado saw homeless numbers increase during that time (Sabet, 2018). It should be noted that seventeen other states also saw an increase in homelessness. From 2015 to 2016, the U.S. Department of Housing and Urban Development reported a 13% increase in Colorado's homeless population while the rest of the country saw a 3% decrease (Sabet, 2018).

A 2018 survey was administered in seven Colorado jails examining homeless inmates. This survey found that 61.5% of the 481 homeless inmates who responded indicated that they relocated to Colorado from other states (Harman et al., 2018). Among those respondents, 41.3% of them relocated to Colorado after marijuana decriminalization (Harman et al., 2018). Among respondents who were homeless in the past 30 days and moved to Colorado after decriminalization of recreational marijuana, 35.1% said they moved to Colorado because of medical and/or recreational marijuana (Harman et al., 2018). This was the third most frequent reason following, to get away from a problem (44.2%) and family (38.9%) (Harman et al., 2018). However, when asked why these homeless inmates stayed in Colorado, marijuana dropped to the sixth most frequent response at 16.8% (Harman et al., 2018).

A 2018 report written by The Reason Foundation found no link between homelessness and marijuana decriminalization (Moore, 2018). This report found that homelessness in Idaho and Wyoming also increased dramatically between 2013 and 2017 with 14.4% and 15.3% increases, respectively (Moore, 2018). This report also cites other factors that may be responsible for an increase in homeless populations, such as the cost of living, increase in job opportunities, and economic growth (Moore, 2018). From 2010 to 2015, the net migration into Colorado (38,930 to 60,773), Washington (35,407 to 91,981), and Oregon (19,221 to 56,972) has increased dramatically (Moore, 2018). With this mass influx of people coming into these states, limited housing and the cost of living can force people to live on the streets (Moore, 2018).

In summary, there is not strong evidence that marijuana decriminalization is linked to homelessness. Other factors are more likely to be the cause of homelessness, such as cost of living and job opportunities. This may explain the increase in homelessness in Colorado, although there are many states that have not decriminalized marijuana where homelessness has increased as well.

Implications

Utilizing all of the research found in this literature review, this report assumes potential impacts on decriminalizing marijuana. The majority of these six states showed a faster increase in murder rates than the nation, a slower rate of decline for the robbery rate (with half of these states having an increasing robbery rate), a higher rate of aggravated assaults, a decrease in burglaries at a slower rate than the nation, and a much higher rate of motor vehicle thefts than the nation as a whole. However, marijuana decriminalization cannot be concluded as the causal factor for a higher crime rate.

All six states have a higher percentage of individuals aged 12-17 who use marijuana than the nation. Most of these states saw a spike in youth use the year of decriminalization, with that rate slowly decreasing towards the pre-decriminalization numbers. In all six states, marijuana use and cocaine use for individuals aged 18 or older was higher than the percentage of adults who use these drugs in the nation. It should be noted that the country is using marijuana and cocaine more than previous years as well.

From available research, hospitalizations and calls to poison control centers have increased in these states. This increase is largely due to synthetic marijuana (which is still illegal) and edibles. Decriminalization of marijuana may increase the amount consumed by those who already use marijuana. This may lead to hospitalizations due to an increase in consumption. The majority of these states had a higher suicide rate than the nation as a whole. However, these states had a suicide rate higher than the nation before decriminalization and, therefore, cannot be linked to marijuana decriminalization. Suicidal thoughts and major depressive episodes are increasing in these states at a faster rate than the nation.

The black market has not declined in any of the six states analyzed. In fact, the black market may be increasing in these states, which is suggested by the increase in illegal marijuana grow operations and pounds of marijuana seized. Traffic safety may decline due to research suggesting an increase in marijuana use, decrease in perception of risk while driving under the influence of marijuana, and increase in crashes in these states. Finally, there does not seem to be a link between decriminalization and homelessness.

In conclusion, potential impacts in Illinois may include the following: an increase in youth using marijuana in the initial year of decriminalization and a decline afterwards, an increase in marijuana use among adults, an increase in hospitalizations and calls to poison centers due to edibles and synthetic marijuana, an increase in the black market, an increase in traffic crashes, and an increase in drivers who have THC in their system. It is also possible there may be an increase in homicides, aggravated assaults, and motor vehicle thefts as the vast majority of these six states had increases. However, decriminalization of marijuana is not strongly correlated with these crimes.

ILLINOIS CANNABIS REGULATION AND TAX ACT

To compare whether potential impacts noted in the literature review may also apply to Illinois, the bill should be analyzed. This section provides a synopsis of bill components relevant to law enforcement and compares those components with legislation from the six states analyzed in this report. All of the following information regarding Illinois will be effective January 1, 2020.

It is important to understand that the Cannabis Regulation and Tax Act is an immunity amendment to the Cannabis Control Act. This means that if Illinois residents follow the guidelines of the new act, they are immune from being arrested or otherwise punished under the Cannabis Control Act. However, if a resident violates a part of the Cannabis Regulation and Tax Act, they are no longer immune. The penalties for all offenses are found in the Cannabis Control Act (Cannabis Regulation and Tax Act, 2019).

Cannabis Possession and Sales

In Illinois, adults aged 21 or older may possess cannabis and purchase cannabis products in licensed stores (Cannabis Regulation and Tax Act, 2019). Adults may possess 30 grams of raw cannabis, cannabis-infused product or products containing no more than 500 mg of THC, and 5 grams of cannabis product in concentrated form (Cannabis Regulation and Tax Act, 2019). Adults who do not reside in Illinois may purchase half of those amounts (Cannabis Regulation and Tax Act, 2019). In addition, medical cannabis patients may purchase cannabis seeds and grow up to five plants over five inches tall at their residence (Cannabis Regulation and Tax Act, 2019). These plants must be secured and out of view by the public (Cannabis Regulation and Tax Act, 2019).

All six states discussed in this report allow possession up to one ounce of cannabis by an adult aged 21 or older (ACLU Washington, 2019; CA POST, 2019; CGA, 2019; Cegavske, 2016; OLCC, 2017; WALCB, 2019). Illinois allows up to 30 grams, which is approximately 1.65 grams more than these six states.

Cultivation of marijuana plants varies from state to state. In Alaska and Colorado, adults can grow up to six marijuana plants, three of which may be flowering (ACLU Washington, 2019; CGA, 2019). California allows six live plants to be planted at any one residence at a time (CA POST, 2019). Nevada allows adults who live at least 25 miles away from a retail marijuana store to grow up to six plants in an enclosed, locked area (Cegavske, 2016). In Oregon, adults can grow four total marijuana plants (OLCC, 2017). In Washington, only those with a valid prescription for medical marijuana can grow up to 15 marijuana plants in their home (WALCB, 2019). Illinois allows medical cannabis patients to grow up to five plants per household (Cannabis Regulation and Tax, 2019).

Expungement

The next relevant section of this bill is the expungement of criminal records. In Illinois, for arrests for possession of less than 30 grams of cannabis, the Illinois State Police and local police agencies have six months to find those records and destroy them (Cannabis Regulation and Tax Act, 2019). For convictions, state and local police must forward those records within six months to the Prisoner Review Board (Cannabis Regulation and Tax Act, 2019). The Prison Review Board will review each case to determine if the case matches the person, the record is correct, and no violence was involved (Cannabis Regulation and Tax Act, 2019). Cleared records go to the governor who will pardon these records (Cannabis Regulation and Tax Act, 2019).

For cases involving manufacturing, possessing, or delivering 30 to 500 grams of cannabis, the person must ask a judge to vacate the conviction and expunge the record (Cannabis Regulation and Tax Act, 2019). The judge will consider police agencies' objections, the person's age at the time of offense and current

age, and any "adverse consequences" that would accompany denial of the request (Cannabis Regulation and Tax, 2019).

Alaska has no expungement process (ACLU Washington, 2019). California's decriminalization downgraded most cannabis offenses from felonies or misdemeanors to misdemeanors or infractions. Individuals who have a prior conviction for an offense that would have received a lesser or no penalty had Proposition 64 been in effect may petition the court for resentencing or dismissal and have their records changed (CA POST, 2019).

In Nevada, individuals convicted of marijuana-specific activities, which have since been decriminalized, can submit a written request to the court to have those records sealed (Cegavske, 2016). In Oregon, individuals who were found guilty of possessing under an ounce of marijuana may file a motion with the court to have their convictions set aside (OLCC, 2017). Washington allows every person convicted of a misdemeanor marijuana offense, who was over 21 years old at the time of the offense to apply to the sentencing court for a vacation of the conviction record (WALCB, 2019).

The main difference between Illinois and other states is that the state is responsible for the expungements, not the individual. This will allow for more expungements than other states.

Taxes

The last relevant section of this bill is the amount of tax placed on legal marijuana because higher taxes will make legal marijuana will be more expensive. This may make the legal market less competitive with the black market, which may increase marijuana arrests.

Illinois has the most comprehensive tax plan for marijuana compared to other states. At the retail level, Illinois charges a tax rate relative to the potency of the cannabis and the type of product (Cannabis Regulation and Tax Act, 2019). For cannabis flowers or products with less than 35% THC, a 10% tax will be levied (Cannabis Regulation and Tax Act, 2019). A 20% tax will apply to products infused with cannabis, such as edible products (Cannabis Regulation and Tax Act, 2019). Any product with a THC concentration over more than 35% will have a tax of 25% (Cannabis Regulation and Tax Act, 2019). In addition to these taxes, the state's regular sales tax and local taxes will apply. Consumers may be paying between a 19.55% to 34.75% tax on cannabis depending on where they are purchasing the cannabis and what potency the product has. This does not include the 7% tax subjected to cultivation centers and craft grows at the wholesale level (Cannabis Regulation and Tax Act, 2019).

Alaska taxes $50 per ounce on all marijuana sold by marijuana cultivation facilities at wholesale (ACLU Washington, 2019). In California, all retail sales of cannabis are subject to a 15% excise tax (CA POST, 2019). These sales are also subject to state sales and use taxes of 7.5% and 9.25% (CA POST, 2019). Many local governments also place additional taxes on cannabis businesses ranging as high as 10-20% of total revenues (CA POST, 2019). Individuals with a state medical cannabis ID card are exempt from the sales tax for medical cannabis (CA POST, 2019). Licensed commercial growers must pay a cultivation tax of $9.25 per ounce on cannabis flowers or $2.75 per leaf (CA POST, 2019).

Colorado levies a 15% excise tax on retail marijuana and a 15% sales tax on all retail sales (CGA, 2019). In addition, the state sales tax rate of 2.9% also applies (CGA, 2019). This tax may be as high as 32.9% in total (CGA, 2019). Medical marijuana is exempt from the 15% sales tax, but will pay the 2.9% state sales tax (CGA, 2019). It should be noted that the 15% excise tax is included in the price of marijuana, similar to alcohol and tobacco (CGA, 2019). Nevada has a 15% excise tax on wholesale marijuana sales, which licensed cultivator pay (Cegavske, 2016). Retail marijuana sales are subject to standard state and local sales taxes (Cegavske, 2016). Oregon places a 17% excise tax on the sale of marijuana and marijuana infused products for adult use (OLCC, 2017). Local governments

may impose an additional local sales tax, which cannot exceed 3% (OLCC, 2017). Washington has the highest excise tax, which is 37% on retail sales (WALCB, 2019).

Due to similar tax rates as other states, it is fair to assume that the price of legal marijuana in Illinois will not be competitive to the illegal marijuana price. Therefore, the black market should be expected to increase in illegal grow operations and illegal distributing of marijuana.

Opt Out

Illinois Cannabis Regulation and Tax Act allows municipalities to opt out of parts of this legislation. Specifically, a unit of local government, including a home rule unit or any non-home rule county within the unincorporated territory of the county, may: enact reasonable zoning ordinances or resolutions regulating cannabis business establishments; govern the time, place, manner, and number of cannabis business establishment operations; regulate the on-premises consumption of cannabis at or in a cannabis business establishment within its jurisdiction; and enact ordinances to prohibit or significantly limit a cannabis business establishment's location (Cannabis Regulation and Tax Act, 2019). This opt out allows municipalities to ban retailers from selling recreational marijuana within their cities' borders or otherwise regulate how these retailers conduct business. The number of communities that have opted out is unknown at the time of this writing. However, Naperville, Libertyville, and Bloomingdale have taken steps to ban recreational marijuana in their towns (Pletz, 2019).

Oregon has also allowed opt outs for marijuana decriminalization. A total of 80 cities and 16 counties have opted out of Oregon's decriminalization of marijuana (OLCC, 2019). Most of the communities that prohibited marijuana retail stores in their communities were in the eastern part of Oregon (OPB, 2019). However, no data that compares marijuana's impact from these cities and cities that have dispensaries exists. Due to this lack of data, it cannot be concluded that problems are worse or better in these communities. Therefore, the impact of decriminalization of marijuana on communities that opt out is unknown for Illinois.

Prohibitions

It is relevant to understand what this bill does not allow. This section will help law enforcement agencies understand what is still illegal under this new act. Any person under the age of 21 who is not a medical cannabis cardholder is not allowed to purchase, possess, use, process, transport, grow, or consume cannabis (Cannabis Regulation and Tax Act, 2019). Individuals suspected of possessing cannabis should be questioned about their age. The penalty for this offense is a civil violation. If the person under 21 years of age was in a motor vehicle at the time of the offense, their driving privileges may be suspended or revoked. It is also unlawful for any parent or guardian to knowingly permit their private property to be used for the consumption of cannabis by an invitee of the parent's child or the guardian's ward, if the invitee is under 21. This means a parent cannot let their child's friend consume cannabis in their residence. The penalty for this is a Class A misdemeanor (Cannabis Regulation and Tax, 2019).

There are many limitations for cannabis possession and use. Residents may not *possess* cannabis: in a school bus; on the grounds of any preschool, primary, or secondary school; in any correctional facility; in a vehicle not open to the public (unless reasonably secured); or in a private residence that is used at any time to provide licensed child care (Cannabis Regulation and Tax Act, 2019). Residents of Illinois may not *use* cannabis: in a school bus; on the grounds of any preschool, primary, or secondary school; in any correctional facility; in any motor vehicle; in a private residence that is used at any time to provide licensed child care; in any public place; or knowingly in close physical proximity to anyone under 21 years of age (Cannabis Regulation and Tax Act, 2019).

Possessing cannabis in a motor vehicle has specific requirements. No driver may use cannabis within the passenger area of any motor vehicle upon a highway in Illinois or possess cannabis within any area of any motor vehicle unless the cannabis is in a sealed, odor-proof, child-resistant cannabis container (Cannabis Regulation and Tax Act, 2019). No passenger may possess cannabis within any passenger area of any more vehicle unless sealed in the aforementioned container. Any person who knowingly violates these rules commits a Class A misdemeanor. These rules also apply to medical cannabis patients. In fact, if a medical cannabis patient violates these rules, then they shall be subject to revocation of their medical cannabis card for two years (Public Act 101-27, 2019).

Other circumstances that are still illegal under the Cannabis Regulation and Tax Act include: smoking cannabis in any place where smoking is prohibited under the Smoke Free Illinois Act; operating, navigating, or being in actual physical control of any motor vehicle while under the influence of cannabis; facilitating the use of or transferring cannabis by any person not allowed to use cannabis; the use of cannabis by a law enforcement officer, corrections officer, probation officer, or firefighter while on duty; or the use of cannabis by a person who has a school bus permit or a Commercial Driver's License while on duty (Cannabis Regulation and Tax Act, 2019). Private businesses can restrict or prohibit the use of cannabis on its property, including parking lots (Cannabis Regulation and Tax Act, 2019). Also, any federal land or facility prohibits the use or possession of cannabis (Cannabis Regulation and Tax Act, 2019).

There are different limitations for individuals who are medical cannabis patients. These patients are allowed to possess and use medical cannabis in a school bus and on the grounds of any preschool, primary, or secondary school under certain circumstances (Cannabis Regulation and Tax Act, 2019). These circumstances can be seen in the Compassionate Use of Medical Cannabis Pilot Program Article 5 Section 22-33. These patients are allowed to possess up to 2.5 ounces every fourteen days (Cannabis Regulation and Tax Act, 2019). Medical patients are also allowed to cultivate up to five plants in their residence that are over five inches tall (Cannabis Regulation and Tax Act, 2019). It should be noted that a caregiver for a medical patient is also allowed to possess up to 2.5 ounces every fourteen days for instances where the patient is not able to retrieve the medical cannabis (Cannabis Regulation and Tax Act, 2019).

This is significant because medical marijuana patients may initially seem as if they are breaking the law. They may have a large amount of marijuana on them or they may be growing their own plants in their residence. This suspicious behavior has a legal justification and lawsuits may arise from searches of medical marijuana patients. This report advises that law enforcement agencies get to know medical marijuana patients so this confusion does not lead to lawsuits. The Department of Public Health contains the list of persons that are issued registry identification cards with their addresses, phone numbers, and registry identification numbers. This is a great resource to learn who is a medical cardholder in a certain jurisdiction. Any person who is not a medical cannabis patient cannot grow plants in their residence (Cannabis Regulation and Tax Act, 2019).

Changes to Cannabis Control Act

Since the Cannabis Regulation and Tax Act is an immunity amendment to the Cannabis Control Act, changes of the original act should be mentioned. If a person violates the Cannabis Regulation and Tax Act, the penalties for the crime are stated in the Cannabis Control Act. This section briefly comments on a few important details of the Cannabis Control Act.

Possession of less than 10 grams of any substance containing cannabis is guilty of a civil violation with a maximum fine of $200. This is increased from 2.5 grams to 10 and reduced from a Class A misdemeanor to a fine

(Cannabis Control Act, 2019). Possession of more than 10 grams but less than 30 grams is a Class B misdemeanor, 30 to 100 grams is a Class A misdemeanor, and 100 to 500 grams is a Class 4 felony. The rest of this section remains the same (Cannabis Control Act, 2019).

The delivery of cannabis must be at least 500 feet away from real property comprising any school or in any conveyance owned, leased, or contracted by a school. This is reduced from 1,000 feet (Cannabis Control Act, 2019). Also added to this section is the requirement of the persons under the age of 18 are present at the time of the violation, the offense is committed during school hours, or the offense is committed at times when persons under the age of 18 are reasonably expected to be present in the school.

Any person who is not a licensed craft grower, cultivation center, or infuser who knowingly engages in the possession, procurement, transportation, storage, or delivery of any equipment used in the manufacturing of any cannabis-based product using volatile or explosive gas is committing a Class 2 felony (Cannabis Control Act, 2019).

Any person who is not a medical cannabis cardholder and produces or possesses up to five plants is guilty of a civil violation with a maximum fine of $200. This is reduced from a Class A misdemeanor (Cannabis Control Act, 2019). The rest of the penalties remain the same for more than five plants.

The possession of drug paraphernalia is a civil violation with a maximum fine of $200 only if they also possess less than 10 grams of cannabis. If the citizen only possesses drug paraphernalia, it is a Class A misdemeanor (Drug Paraphernalia Control Act, 2019).

All these changes are significant because law enforcement will create policies that affect which section will apply to their circumstances. For instance, if a non-medical cannabis patient has five plants in their residence that are six feet tall, they may be cited with a $200 civil fine. If these plants were stripped down and weighed for cannabis, they may exceed 5,000 grams, which is a Class 1 felony. These issues should be discussed with a state's attorney to discuss possible policies and procedures for dealing with these situations.

All craft growers (those licensed to grow recreational cannabis), infusers (those licensed to directly incorporate cannabis into a product to create a cannabis-infused product), transporters (those licensed to transport cannabis on behalf of a cannabis business establishment), and cultivators (those licensed to cultivate, process, and provide cannabis to cannabis business establishments) are required to have their identification card on them to prove they are licensed. The Department of Agriculture is responsible for licensing all of these individuals. Therefore, this department should contain a database that law enforcement can use to identify these individuals (Cannabis Regulation and Tax Act, 2019). This report advises that these databases be reviewed by law enforcement agencies to assist in identifying whether an individual is licensed to perform cannabis-related duties.

RECOMMENDATIONS FOR LAW ENFORCEMENT

This section recommends future tactics and strategies to prepare for the decriminalization of marijuana. The recommendations are based on analyses of what law enforcement agencies have done in the six states analyzed to respond to the decriminalization of marijuana. Lessons from the literature review, knowledge about the Illinois Cannabis Regulation and Tax Act, and the Police Foundation's publication on Colorado's Legalization of Marijuana and the Impact on Public Safety will also be taken into consideration.

The report offers fifteen recommendations for law enforcement agencies, which are not listed in any specific order. Each recommendation will contain a brief summary which justifies the reasoning behind including the recommendation in this report. It should be noted that not all of the following recommendations might apply to every law enforcement agency.

#1: Develop policy, training, and practices that consider conflicting federal and state laws in relation to marijuana decriminalization.

Although marijuana will now be legal at the state-level, Article 10, Section 10-35 of the Cannabis Regulation and Tax Act states that marijuana possession is not allowed: in a school bus; on the grounds of any preschool, primary, or secondary school; in any correctional facility; in a vehicle not open to the public unless the cannabis is secured and inaccessible while the vehicle is moving; or in a private residence that is used at any time to provide licensed child care or similar social service care (Cannabis Regulation and Tax Act, 2019). However, at the federal level, the drug remains a schedule I drug and is illegal to possess. This means that federal facilities and national parks will prohibit possession of marijuana regardless of which state the facility or park is located.

Federal banking restrictions have discouraged banks from conducting business with marijuana growers as they fear they will be subject to investigation for accepting cash that narcotic detection canines can target as smelling of marijuana (Police Foundation, 2015). This has resulted in dispensaries primarily using cash. Cash-only businesses have been shown to be targets of more burglaries and robberies as well as challenge investigations due to the lack of a paper trail to determine cash flow (Police Foundation, 2015).

Law enforcement should create policies and training that focuses on reducing the potential issues with these conflicting laws. For example, entrepreneurs in Colorado have developed armored car services for marijuana businesses. This may lead to an increase in money laundering operations and law enforcement should be aware (Police Foundation, 2015). To assist law enforcement policy and training, see the memorandum issued for all United States attorneys in 2013 entitled, "Guidance Regarding Marijuana Enforcement" (Cole, 2013).

Meetings with state's attorneys should occur to discuss possible problem areas. These areas can include discretion on whether to seize evidence depending on the circumstances, how to handle possession of paraphernalia cases, and what policies should be considered for handling a cannabis smoker in a private residence where the homeowner prohibits smoking. Law enforcement agencies should be proactive about these issues as they bring up possible lawsuits.

#2: Set standards to determine the difference between a legal and an illegal marijuana grow operation.

In Illinois, medical marijuana patients are allowed to cultivate up to five plants in their residence (Cannabis Regulation and Tax Act, 2019). These residents may grow additional plants in their house illegally for family members or friends. Further, medical marijuana growers may have a license but ensuring that all of their plants are registered is difficult. These growers may grow an excess of plants to help feed the "gray" market.

Recreational growers may also be able to grow off-market plants (Police Foundation, 2015). These issues create the problem of what constitutes an illegal grow operation. Standards should be set with the assistance of legal counsel and city attorneys that clarifies the criteria for determining if a marijuana grow operation is illegal or not.

Using the Department of Public Health's list of all individuals who are medical cannabis cardholders, law enforcement agencies should verify who, in their jurisdiction, is a medical cannabis patient. This allows law enforcement to know who to expect to possess large amounts of marijuana (up to 2.5 ounces) and who can grow up to five plants in their residence.

#3: Revise and update search warrant procedures for conducting searches.

An issue that law enforcement is facing regarding decriminalization of marijuana is the difference in regulation between medical and recreational marijuana. For example, Article 10 Section 10-5(b) of the Cannabis Regulation and Tax Act states that medical marijuana patients are allowed to grow up to five plants in their residence. In addition, Article 10 Section 10-15(b) allows medical marijuana patients that are younger than 21 years old to possess marijuana. This complicates the process of establishing probable cause.

District attorneys have noted that juries are often in favor of defendants who are medical marijuana users (Police Foundation, 2015). This makes judges more cautious about issuing warrants regarding possession of marijuana due to the lack of clarity in the law. Another issue discussed is seizure of marijuana plants in good faith, but the defendant is later acquitted of all charges. Returning the marijuana plants to the defendant may violate federal law, but failing to return the property back to its rightful owner violates state law. These issues should be discussed with city attorneys and search warrant procedures should be updated as well.

#4: Assess whether the training and protocols of using narcotic detection canines need to be changed.

Many issues arise from using narcotic detection canines now that marijuana will be decriminalized in Illinois. These canines are often trained to alert on all drug scents (Police Foundation, 2015). This means that it is not clear to an officer which drug a canine has detected (Police Foundation, 2015). If a searched citizen has legal possession of marijuana and the canine alerts, it is unknown whether this search will be inadmissible in court (Police Foundation, 2015). In fact, it is unknown whether a canine alert will constitute probable cause because the officer does not know if marijuana is involved or another drug.

In Colorado, officers are advised to ask whether there is marijuana in the vehicle (Police Foundation, 2015). If the citizen says no, then clearly the canine alert was a different drug and the search may continue. However, further training will be necessary for both officers and canines. Departments should assess whether to replace canines with newly trained canines that are not trained on marijuana. Illinois now allows departments to choose whether the department wants to train a narcotic detection canine in marijuana.

The decrease in the use of narcotic detection canines may result in less consent searches. Officers are known to use calling narcotic detection canines as a deterrent to persuade a citizen into consenting a search of their vehicle. This will no longer be the case if the courts decide that alerts from marijuana-trained canines no longer establish probable cause.

#5: Increase cooperation with bordering states regarding the illegal transportation of marijuana across state lines.

The black market of marijuana will not only affect Illinois, but surrounding states as well. This makes it crucial to work with neighboring states to curtail illegal trafficking. This report has shown that legal states, such as Oregon and Washington, are being used for their lax regulatory laws to grow illegal marijuana on their land. This marijuana is trafficked to different states and, in some cases, other

countries. This partnership can be used to follow up on any diversions of marijuana to other states with the purpose of discovering the source of the marijuana. This can help disrupt future illegal transportation.

This can also mean establishing a partnership with the United States Postal Service. Many marijuana plants and pounds of cannabis have been seized in parcels being mailed to other states from Colorado and Oregon (RMHIDTA, 2018).

#6: Develop partnerships with city or county code inspectors, planners, attorneys, or any other agency that can play a role in establishing ordinances or inspecting, regulating, and prosecuting safety violations.

Methamphetamine labs are known to be dangerous. Marijuana grow operations may be just as dangerous. Homeowners in residential neighborhoods may attempt to make their own hash oil, which is extremely flammable. Colorado experienced nine hash oil explosions in a 9-month period in 2014 (Police Foundation, 2015). To prevent this, law enforcement agencies can work with inspectors and planners to prosecute safety violations more effectively.

#7: Create statewide information sharing sessions to share best practices and emerging issues with other law enforcement agencies in Illinois.

Many issues that municipalities face due to the decriminalization of marijuana are affecting towns across the state. Hosting or attending a session to share problems and solutions may assist other departments in responding to their problems. This allows efficient and intelligent sharing of information between agencies across Illinois. Agencies can use this knowledge and networking to build effective policies and procedures to reduce the impact of marijuana decriminalization.

#8: Develop a standardized system that defines the criteria for physicians to write medical marijuana recommendations.

It is possible that medical marijuana growers will produce excess product that can be sold on the black market (Police Foundation, 2015). Since Illinois will allow medical marijuana patients to cultivate up to five plants in their house, this issue will affect Illinois law enforcement. A doctor was convicted of forging public documents and attempting to influence a public servant by allegedly selling pre-signed approval medical marijuana forms (Associated Press, 2014). This can be avoided if standardized criteria for physicians to write medical marijuana recommendations exists. This will help limit the amount of people who may abuse the cultivation of marijuana plants.

#9: Work with hospitals and emergency care centers to create a database to inform practices and policies regarding marijuana.

Hospitals have seen an increase in patients related to marijuana. Novice users such as tourists may not understand the potency and effects of marijuana, which may lead to increased hospitalizations (Police Foundation, 2015). Edibles and synthetic marijuana have also led to an increase in hospital visits and calls to poison control centers. Hospitals will be the best place to learn how to manage these calls and can help form policies to assist law enforcement.

#10: Revise public education campaigns to emphasize scientific studies that have raised health alarms over juvenile marijuana use.

Illinois should be prepared to see an increase in youth use in marijuana. In these six states, youth use has generally increased the year of decriminalization and steadily decreased every year after. The perception of risk of using marijuana is also declining rapidly in these six states. Therefore, it is imperative to educate youth on the dangers of consuming marijuana. This education campaign should focus on scientific studies that have shown that regular use of marijuana by youth can be detrimental to development among other health issues.

#11: Increase training and tools for school resource officers to ensure youth receive valuable information regarding the dangers of marijuana use.

School resource officers are in a unique position to determine whether juveniles are being properly educated on the dangers of drugs. State health and research officials should study the effects of marijuana on education, health, and mental illness. School resource officers should be trained in these effects as to help determine which students may be abusing the drug and help inform students of the dangers.

#12: Ensure that officers are trained to recognize the difference between drivers who are under the influence of marijuana versus alcohol.

Arguably, the most challenging issue for law enforcement is the procedure and prosecution of driving while under the influence of marijuana incidents. In Illinois, the consumption of marijuana in any motor vehicle will remain illegal (Cannabis Regulation and Tax Act, 2019). Illinois has also established that five nanograms per milliliter of THC is the legal limit. Determining the legal limit of driving while impaired when marijuana is combined with alcohol or other drugs remains difficult (Police Foundation, 2015). Officers may still look for bloodshot eyes, slurred speech, and abnormal responses to questions.

The best way to perform a field sobriety test for suspected impairment from marijuana is to have a roadside assessment performed by a drug recognition expert (DRE). This DRE may perform a roadside assessment to determine possible impairment due to alcohol or other drugs. If the DRE does determine this, then a full DRE evaluation is necessary at the police department. DREs are extremely accurate in their ability to determine impairment for various drugs (Moore, 2018).

This report recommends obtaining training for more officers to become DREs. Officers can obtain training on the basic Standardized Field Sobriety Test (SFTS), Advanced Roadside Impaired Driving Enforcement (ARIDE), and Drug Recognition Expert (DRE) training. ARIDE and DRE training are available from the NHTSA and the IACP (Police Foundation, 2015). Many officers have since been certified as DREs in these six states which has allowed for better prosecution for driving under the influence of marijuana incidents.

#13: Establish policies outlining procedures for officers using personal protective equipment when entering any grow location where there is a risk of toxic black mold.

Growing marijuana requires high-intensity lighting for the growing and flowering season (Police Foundation, 2015). This increases carbon dioxide levels, humidity levels, and heat (Police Foundation, 2015). Toxic mold grows in constant wet conditions and can be dangerous even in small quantities. Officers should use gloves and surgical masks when handling marijuana plants (Police Foundation, 2015). In addition, growers have been known to disconnect ventilation systems to enhance plant growth (Police Foundation, 2015). This may lead to a higher risk of carbon monoxide poisoning (Police Foundation, 2015).

Indoor growing operations risk fires from overloaded electrical circuits and bypassed electrical meters (Police Foundation, 2015). Residents who extract their own THC have a high risk for hash oil explosions (Police Foundation, 2015). This report recommends officers take precautions similar to those for entering methamphetamine laboratories.

#14: Create a marijuana enforcement team.

The simplest way to handle the decriminalization of marijuana and the possible impacts is to create a marijuana enforcement team. This team may be a task force, which includes officers from various local departments. This team should primarily focus on illegal production, sale, or distribution of marijuana. This team should consider outsourcing to researchers from universities to help identify data sources that can be used to monitor trends in illegal activity related to marijuana and assess outcomes of the team's efforts. This will help local law enforcement agencies deal with enforcing the

decriminalization of marijuana more efficiently and will allow the rest of the department to focus on other priorities (Henning, 2019).

#15: Establish baseline measures for illegal marijuana activity and collect data.

Studying the effects of the decriminalization of marijuana will help to combat evolving issues. Data should be tracked to allow for more efficient policing and to allow for smarter allocation of limited resources. This collected data may include the number of calls for service involving marijuana, marijuana offenses and arrests, marijuana trends regarding other drugs such as heroin and methamphetamine, the characteristics of those people arrested/cited for marijuana, the number of marijuana seizures by pound and number of plants, the prosecution of marijuana offenses, and geospatial analysis of marijuana-related incidents. For example, in Deschutes County, Oregon, calls to 911 related to marijuana were heavily concentrated in major population centers and along major transit corridors (Henning, 2019). This allows for a type of "hot spot" policing which can effectively reduce the black market.

CONCLUSION

This research addressed the main points used by the opposition of marijuana decriminalization. Although the facts show an increase in crime in some decriminalized states, an increase in youth marijuana use for the year of decriminalization, increased hospitalizations, and a black market that has been resilient, it remains unknown whether Illinois will experience these same issues. Many factors may suggest Illinois will not experience the same issues.

For example, Illinois is the only non-Western state that this report mentions. No neighboring states of Illinois allow recreational marijuana while many western states have neighboring states that do. This may mean that the black market could be stronger in Illinois than other states. Since Illinois is centrally located, away from borders, it is possible that Mexican cartels and international drug smugglers will not be as involved in Illinois than states with easier access, such as California and Washington. There are also many other factors such as economic factors, culture differences, and the high concentration of Illinois' population in the northeastern corner of the state. This may mean issues that affect Illinois may be disproportionally placed within the state.

Knowing this, predicting the impact of the decriminalization of marijuana in Illinois is difficult. However, this paper has considered data from national databases, media reports, law enforcement agencies, and other research papers to help identify what may occur. This paper included this research so law enforcement will not be "blind-sided" if an impact were to happen that is not discussed here. Essentially, not all the facts shown in this paper may be linked to marijuana directly, but they are still relevant nonetheless. Careful reading of this research shows that the purpose of the recommendations is to better assist law enforcement agencies in reacting to this legislation. This report offers no predictions on what will happen, but prepares law enforcement for these potential impacts.

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