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ASSESSMENT OF THE IMPACTS OF MARIJUANA LEGALIZATION IN
SIOUX FALLS, SOUTH DAKOTA

BY
MICHAEL LYNCH

A dissertation submitted in partial fulfillment of the requirements for the

Doctor of Philosophy

Major in Sociology

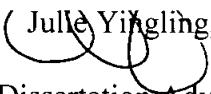
South Dakota State University

2018

ASSESSMENT OF THE IMPACTS OF MARIJUANA LEGALIZATION IN
SIOUX FALLS, SOUTH DAKOTA

MICHAEL LYNCH

This dissertation is approved as a creditable and independent investigation by a candidate for the Doctor of Philosophy in Sociology and Rural Studies degree and is acceptable for meeting the dissertation requirements for this degree. Acceptance of this does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.


(Julie Yingling, PhD
Dissertation Advisor

Date

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Dean, Graduate School

Date

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TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES.....	ix
ABSTRACT.....	x
CHAPTER ONE: INTRODUCTION.....	1
Statement of the Problem.....	1
Nationwide Efforts.....	1
Criminology of Marijuana Legalization.....	4
Economics of Marijuana Legalization.....	6
Medical Uses of Marijuana.....	6
Politics of Marijuana.....	7
Marijuana and Panic Theory	8
Marijuana Assessment.....	9
Purpose of the Study	9
Theoretical Significance of This Study.....	11
Brief Description of Research Design.....	11
CHAPTER 2: LITERATURE REVIEW	13
Social Impact Assessment and Marijuana Policy.....	13
Marijuana’s Measured Impacts	15
Criminological Impacts	15
Economic Impacts	18
Medical Impacts	19
Political Impacts.....	23
Marijuana’s Context in South Dakota.....	24
CHAPTER 3: METHODOLOGY	28
Research Design	28
Social Impact Assessment.....	28
Triangulation.....	29
Media Analysis.....	29
Impact Report Analysis.....	30
Interview Sampling.....	32
Data Collection Instrument and Procedure	36
Analysis.....	37
CHAPTER 4: MEDIA ANALYSIS	39
MARIJUANA FRAMING: MORAL PANIC	39
Marijuana Moral Panic	39
Categories of a Panic	40
Media Framing	41
Economic Benefits.....	41
Marijuana Cultivation	43

Marijuana Possession	44
Marijuana Distribution.....	45
Offender Typification.....	46
Concern.....	47
Hostility	49
Consensus.....	50
Official Response	51
Nonmedical Marijuana Legislation	51
Medical Marijuana Legislation.....	54
Marijuana Reporting Trends.....	56
Sioux Falls Marijuana Reporting Volatility.....	57
Local Tribal Marijuana Initiatives	58
Recent and Current Social Action.....	58
Conclusion	59
CHAPTER 5: IMPACT REPORT ANALYSIS	63
Impact Analysis.....	63
Cumulative Impacts.....	63
Recommendations in SIA	64
Marijuana Impact Assessments.....	65
Medical Impacts of Marijuana Legalization	68
Medical Marijuana Recommendations.....	71
Nonmedical Marijuana Assessments.....	73
Nonmedical Impact of Marijuana in America.....	74
Nonmedical Impacts of Marijuana in Canada.....	78
Nonmedical Recommendations in US.....	81
Nonmedical Recommendations in Canada.....	83
Medical and Nonmedical Reports.....	85
Medical and Nonmedical Impacts of Marijuana in America	87
Medical and Nonmedical Impacts of Marijuana in Canada	92
Medical and Nonmedical Recommendations in America.....	95
Medical and Nonmedical Recommendations in Canada.....	98
Conclusion	102
CHAPTER 6: INTERVIEW RESULTS	105
Criminological Impacts	106
Structural Implications	107
Impacted Population.....	108
Economic Impacts	110
Structural Implications	111
Impacted Population.....	112
Medical Impacts.....	113
Structural Implications	114
Impacted Population.....	116
Political Impacts	121
Structural Implications	123
Impacted Population.....	125
Perceptions of Marijuana Legalization in Sioux Falls.....	127
Conclusion	129
CHAPTER 7: CONCLUSION	132

Summary of Findings	132
Policy Implications	137
Limitations	138
Future Research.....	140
Conclusion and Recommendations	141
APPENDICES.....	146
APPENDIX A: TABLES AND FIGURES	147
APPENDIX B: INTERVIEW PROTOCOL	155
REFERENCES	156
REFERENCES.....	157

LIST OF TABLES

TABLE 1: Participants' Occupations, Roles, and Sectors.....106

LIST OF FIGURES

Figure 1: Recreational and Medical Marijuana Laws by State.....	3
Figure 2: Drug Arrests, by drug type 1982-2007.....	4
Figure 3: Coding Categories of Marijuana News in Sioux Falls, SD.....	40
Figure 4: Number of Reports by Marijuana-Related Offense.....	43
Figure 5: Concern, Hostility, and Consensus Coverage by Year.....	47
Figure 6: Distribution of Marijuana Titled Articles by Year 2005-2017.....	57
Figure 7: Number of Marijuana-Related SIA Reports Reviewed by Year of Publication	66
Figure 8: Concentration Area of Reports.....	67
Figure 9: Percentage of Total Coverage of Marijuana Legalization.....	68
Figure 10: Nonmedical Impact Coverage Broadly, in US, and in Canada.....	74
Figure 11: Nonmedical and Medical Impact Coverage in US, Canada.....	86
Figure 12: Number of Medical and Nonmedical Impact Reports by Year.....	87

ABSTRACT**ASSESSMENT OF THE IMPACTS OF MARIJUANA LEGALIZATION IN
SIOUX FALLS, SOUTH DAKOTA****MICHAEL LYNCH**

2018

As marijuana legalization expands in the United States, communities that are shifting rapidly from prohibition to legalization are impacted greatly. As South Dakota remains one of the only states in the nation that has not engaged the marijuana reform movement in any manner, it is vital to assess potential impacts marijuana legalization might have on the state. Although there are several marijuana impact reports that analyze potential health and economic impacts of legalization, few address political and criminological implications that impacted areas undergo as a result of this policy change. Subsequently, there is a need to analyze the impacts of marijuana legalization on regionally bound contexts to fully predict the extent to which the impacts will be felt. Additionally, there is a need to develop mitigation strategies, in advance of policy interventions, to identify and mitigate potential negative impacts of change.

Given the nature of the contextual significance of marijuana impacts, South Dakota's most populous city, Sioux Falls, stands to be the epicenter of marijuana legalization impacts in the state. Through conducting a media analysis of Sioux Falls print news, an analysis of existing marijuana impact reports, and twenty in-depth interviews with professionals engaged in the marijuana reform movement,

conclusions about the potential impacts on Greater Sioux Falls were identified and analyzed.

CHAPTER ONE: INTRODUCTION

Statement of the Problem



As marijuana legalization sweeps across the United States, every state has been impacted by a marijuana law reform effort. As of January 2018, Washington D.C. and an additional eight states: Alaska; Oregon; Washington; California; Nevada; Colorado; Massachusetts; and Maine have passed legislation legalizing recreational marijuana use. Each of the states with recreational marijuana legalization also provides residents the option of using medical marijuana. Twenty-two states passed some form of medical marijuana legislation but have not passed recreational marijuana legalization. These states are: Hawaii; Montana; Arizona; New Mexico; North Dakota; Minnesota; Arkansas; Louisiana; Illinois; Michigan; Ohio; Florida; Pennsylvania; New Hampshire; Vermont; New York; Rhode Island; Connecticut; New Jersey; Delaware; Maryland; and West Virginia (NORML, 2018). Figure 1 depicts a legalization map of the United States by state.

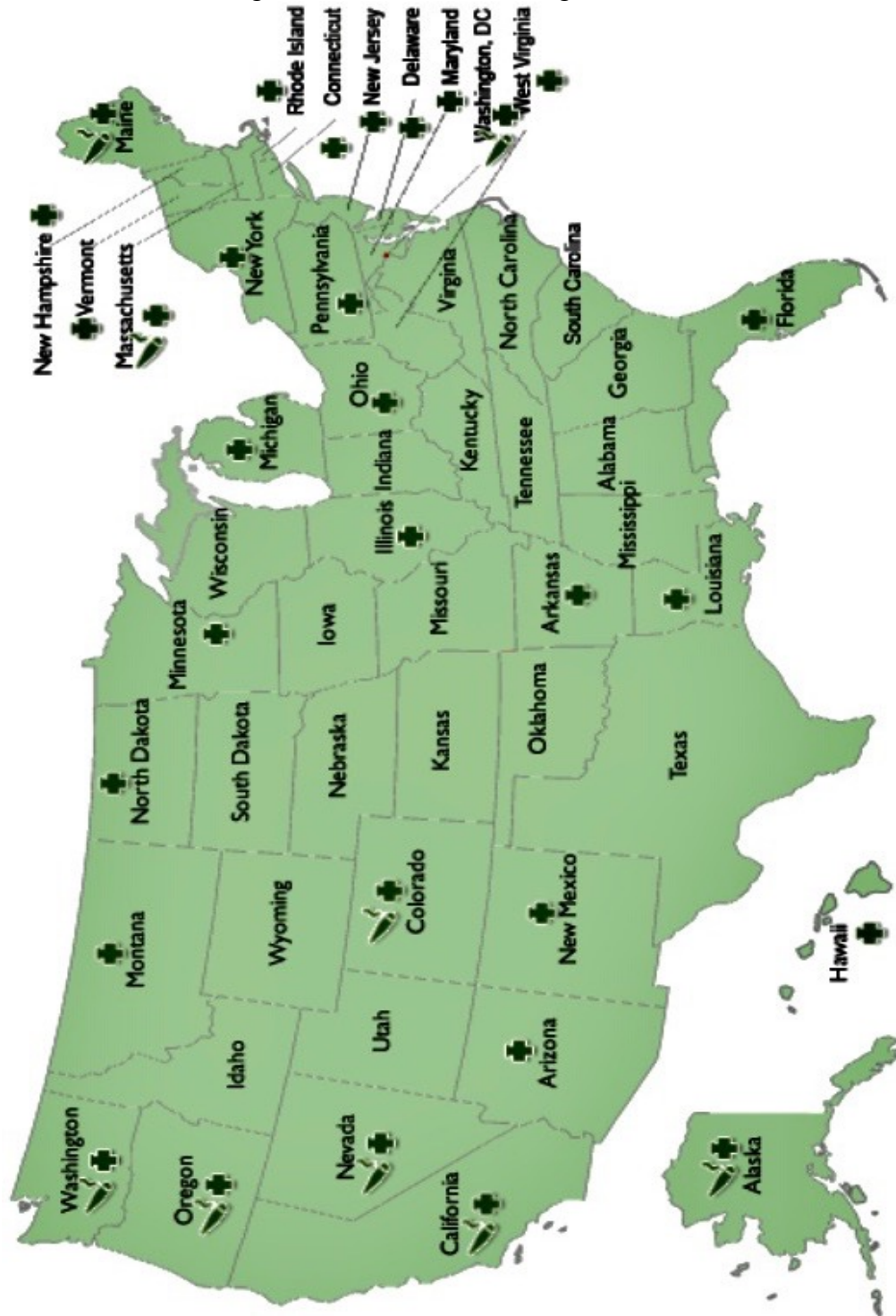
Nationwide Efforts

Nationwide and statewide pro-marijuana organizations are leading the reform movement. The National Organization for the Reform of Marijuana Laws (NORML) is a nationwide organization founded in 1970. NORML's foundational principle is that private and responsible marijuana use by adults should not be a legally punishable offense (Armentano, 2015). Advocates of recreational marijuana legalization argue that moving from prohibition to legalized adult use can actually lower violent and property crime. When states that have decriminalized marijuana

offenses and also enacted medical marijuana laws are compared to states that have not, property and violent crime rates are lower in decriminalized and states with medically legalized cannabis. (Branford and Branford, 2016; Maier, et al., 2017).

Figure 1: Recreational and Medical Marijuana Laws by State

 = Recreational Legalization  = Medical Legalization

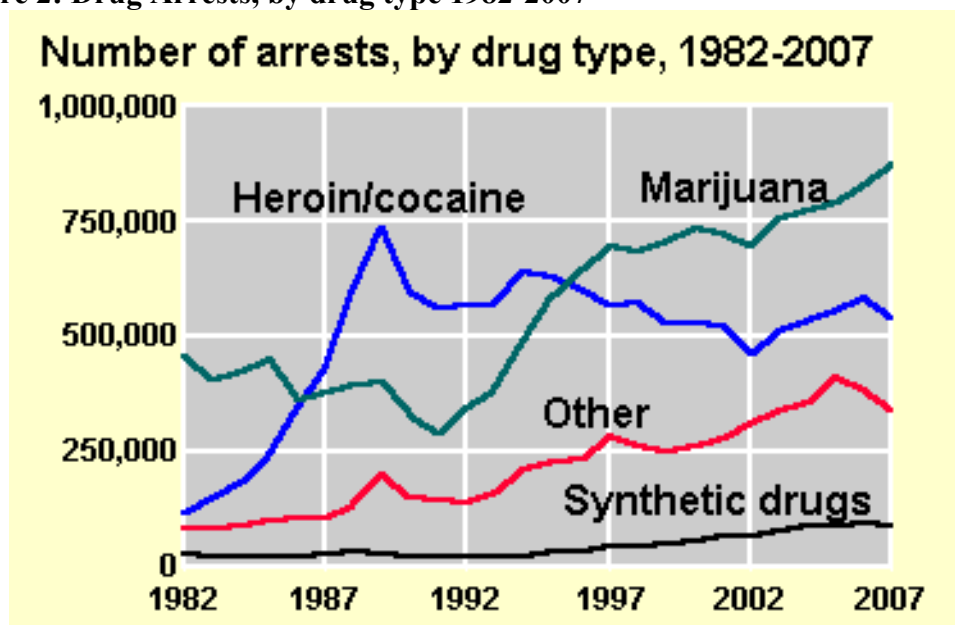


Source: National Organization for the Reform of Marijuana Laws Recreational and Medical Marijuana Laws by state, 2018

Criminology of Marijuana Legalization

With marijuana laws shifting in so many states, government spending on prosecuting marijuana offenses in the American war on drugs has come under intensifying scrutiny. Marijuana's federal scheduling is also an item of sustained debate, since it is currently classified in a manner that maintains its federally illegal status, despite state legalization. Miron (2005) estimated the United States could save up to \$7.7 billion dollars per year in government expenses and enforcement efforts if marijuana were legalized. It is estimated that there are more than 1,900 marijuana-related arrests in the United States per year, of which nearly 90% of the offenses are possessions charges (Armentano, 2015). As Figure 2 displays, between 1987 and 1995, drug arrests typically involved heroin or cocaine, but since 1996, arrests involving marijuana have been on the rise (FBI, 2018).

Figure 2: Drug Arrests, by drug type 1982-2007



Source: Bureau of Justice Statistics, Crime in The United States Annually, 2018

The volume of marijuana-related arrests is not the lone issue associated with marijuana prohibition. Although marijuana use is roughly equivalent between Black and white users, Black users are about four times more likely to be arrested for marijuana possession (ACLU, 2018). This racial bias in arrests is another argument used by pro-marijuana advocates to legitimize their calls for reform. Pro-marijuana activists argue that devoting policing efforts and strict penalties against marijuana users are ineffective regulation tools. The evidence of their inefficacy can be seen in the failed federal prohibition of marijuana. Possession charges, while disproportionately impacting people of color, also disproportionately impact young people. Gettman (2005) found that nearly 75 percent of those arrested for marijuana law infringements are under the age of 30. Nearly 25 percent of possession offenders are 18 or younger.

Young people, while being the primary targets of marijuana prohibition, have also been some of the most vocal in modern marijuana reform efforts. Students for Sensible Drug Policy (SSDP) is a network of students who are devoted to ending the war on drugs. SSDP is an international grassroots organization, which is led by students who aim to collaborate with others in evolving the discussion on marijuana legislation (SSDP, 2017). As depicted in Figure 1, there are multiple states that have enacted no marijuana reform and are currently under state and federal prohibition. Many states have expressed concern with anti-marijuana sentiments from the Trump Administration, citing Jeff Sessions' repeal of the Cole Memorandum in 2018. The Trump administration has been very unclear on their stance toward marijuana legalization altogether. On March 26, 2018 Donald Trump signed a medical

marijuana protection with less legal restrictions than had previously been seen (Angell, 2018). In April, 2018 the Trump administration declared plans to approve the authority of the states to formulate their own marijuana policies (Halper, 2018).

Economics of Marijuana Legalization

Most popularly, the pro-marijuana campaign argues for the legalization of marijuana citing its potential to rapidly stimulate economic growth. In 2015, Colorado attracted nearly 80 million visitors who spent \$19.1 billion. In 2014, visitors from out of state represented 44.5 percent of Denver's retail marijuana sales and 90 percent of marijuana sales in mountain communities (MPP, 2016). Washington earned \$319 million in legal marijuana related income in 2017 (LCB, 2017). Oregon collected \$108.6 million in state and local taxes between January and August 2017 and paid out \$85 million of those taxes to schools, public health efforts, police, and local governments (Crombie, 2017). Problems still arise when marijuana businesses attempt to engage the American banking system, due to marijuana's federally illegal status. Recently, a bipartisan group of senators drafted legislation that would allow marijuana businesses to store their profits in federally regulated banks (Angell, 2018). Despite the reform efforts, current federal banking systems are unable to legally accept funds from legal marijuana sales.

Medical Uses of Marijuana

The medical benefits of marijuana are key element of the pro-legalization argument. Advocates suggest that marijuana reduces stress, and has uses as an analgesic, an antiemetic, a bronchodilator, and an anti-inflammatory. It has been

found to cure hiccups, helps protect against brain trauma, improves the immune system, and helps the brain terminate bad memories following catastrophic events (Sides, 2015). The anti-legalization campaign periodically argues that states with medical marijuana laws see increases in youth usage rates. Lynne-Landsman, et al. (2013) found that states with medical marijuana laws did not have measurably significant increases in youth usage rates in the few years following medical legalization. Hasin, et al. (2015) adds context to Lynne-Landsman, et al.'s (2013) findings, suggesting that adolescent use is higher in states with legal medical marijuana. Thus, the relationship between medical marijuana legalization and impacts on youth usage rates is not currently known with any exactitude.

Politics of Marijuana

The federal scheduling of marijuana prevents researchers from running clinical experiments and advancing the knowledge of the impacts of marijuana. Until recently, most of the expansion of cannabis knowledge in America could be attributed to what we have learned from criminals in the illegal cannabis industry (Sides, 2015). In 2015, a federal judge validated the constitutionality of the classification, suggesting that illegality should be upheld as long as discrepancy about its safety exists among experts (Armentano, 2015). The discrepancy among experts may be the product of the lack of access to marijuana from the research community and a lack of eligibility for ethical study. The profound lack of research about marijuana's true criminological, economic, medical, and political impacts on a community has created a gap that this research aims to connect.

Marijuana and Panic Theory

The relationship between news media content and public perception and behavior is a phenomenon that has been researched since Cohen's (1972) moral panic theory was developed. Since then, social psychologists, criminologists, sociologists and journalists have paid increasing attention to moral panics. A moral panic occurs when social groups overreact to a perceived dilemma. Typically, these perceived social dilemmas, which are introduced and proliferated through news media, produce an unwarranted and overstated public response. Goode and Ben-Yehuda (1994) have developed Cohen's (1972) theory to include five criteria: concern; hostility; consensus; disproportionality; and volatility. These elements have been useful to scholars looking to examine connections between reports of drug offenders and public perception (Cobbina, 2008). Although the impact of news media on public perception may never be exactly known, critical analysis of news content is required to realize how media framing is related to public perception.

The role that media plays in shaping perceptions of drug offenders has received attention from scholars since the 1980s crack-cocaine panic (Reinarman and Levine, 1999). Richard Nixon spearheaded the war on drugs in 1971. By Reagan's presidency, the war on drugs intensified, which led to longer prison sentences for offenders, establishment of mandatory minimums, and disproportionate sentencing for offenders of color (Bjerk, 2017). The Clinton administration brought some downscaling of the war on drugs, but it has received sustained attention and resources since the 1970s (Goode and Ben-Yehuda, 1994). With other drugs like methamphetamine and opiates rising as a national concern, it is essential to reevaluate

and inform perspectives on marijuana law since its use and public perceptions of use may be changing. Moral panics have the capacity to institute social, legal, and political change (Stewart, 2016). Therefore, it is essential to examine media reporting of marijuana and its relationship with public perception.

Marijuana Assessment

Large-scale change can produce impacts on the entire fabric of a community. Institutions like schools and governments are impacted. Economies are impacted, and social interaction patterns may be altered. Subsequently, key sociological dimensions that are able to be measured are examined. Over the process of an intervention, these dimensions allow us to interpret basic processes of change when development occurs (Burdge, 2015). Therefore, impact assessments are being conducted where community change is taking place to political, developmental, medical, and economic structures. Social impact assessment is a valid method to measure community response to marijuana legalization. It also has potential to inform policymakers as they navigate contextual circumstances of marijuana legalization in their regions. The recommendations of existing marijuana impact reports are tied to public health, public safety, economics, and crime. These recommendations provide a foundation for subsequent impact studies to be conducted on marijuana legalization, including this research.

Purpose of the Study

The purpose of this mixed methods study is to address potential impacts of marijuana legalization in the city of Sioux Falls if legalization occurs at the state level

in South Dakota. This study will explore the media tactics used to create and sustain current public perception about marijuana use and those who use it. This study also examines existing marijuana impact reports and the recommendations made by assessors in other regions who have assessed marijuana legalization in varying criminological, economic, medical, and political contexts. The previous reports will be used to substantiate the findings and recommendations based on this research. Finally, this study investigates the extent to which the members of the criminological, economic, medical, and political sectors of Sioux Falls have input regarding how marijuana legalization should be executed in Sioux Falls. The study aims to address several research questions:

1. What social indicators should be addressed to assess the impact of medical and/or recreational marijuana?
2. What will be the impact of medical and/or recreational marijuana on levels of marijuana use?
3. How will medical and/or recreational marijuana affect the use of other illegal drugs?
4. How will medical and/or recreational marijuana affect illegal marijuana markets and their existing distribution networks?
5. What will be the impact of medical and/or recreational marijuana on crime (both violent and property)?
6. Which health issues might be associated with medical and/or recreational marijuana?

Theoretical Significance of This Study

According to moral panic theory, panics occur when conditions, episodes, individuals, groups, or activities are perceived to pose a threat to social values and mores. Subsequently a public response is produced that is generally considered to be greater than the perceived threat (Cohen, 1972). Moral panics can result from inaccurate or overstated media reporting related to the issue at hand. The process evolves when law enforcement agencies begin to comment publicly, thus involving them in the panic. Potter and Kappeler (2006) indicate experts often emerge and affirm the panic, then offer suggestions to address the issue at the heart of the panic. Sometimes, moral panics produce policy change. Other times, the panic dissolves or periodically resurfaces (Goode and Ben-Yehuda, 1994). Media reports will be analyzed to determine if a moral panic was developed by Sioux Falls' largest print source, *Argus Leader*, to determine whether this media source played a role in facilitating a marijuana panic in Greater Sioux Falls. Interviews will be conducted with participants to determine if a moral panic is taking place and how to progress with marijuana reform in the most informed manner possible.

Brief Description of Research Design

This project utilizes mixed methods to answer the aforementioned research questions. First, a media analysis of 119 news articles was undertaken to determine the presence or absence of a marijuana panic in Sioux Falls. The articles were coded using Goode and Ben-Yehuda's (1994) five themes, which were developed by Cohen's (1971) contribution to moral panic theory. Second, a content analysis of

existing impact reports was conducted to analyze their comparability with South Dakota's proposed marijuana legislation reform. This involved coding the reports for their region, level of legalization, and recommendations. The conclusions of the content analysis were used to inform the recommendations of this report. Lastly, interviews were conducted with 20 participants from the criminological, economic, medical, and political sectors of Sioux Falls. These participants were chosen on the basis of their expertise in their field and their advanced knowledge of potential marijuana legalization impacts.

CHAPTER 2: LITERATURE REVIEW

Social Impact Assessment and Marijuana Policy

Reports and publications on the effects and impacts of cannabis legalization are reflective of the ever-changing and quickly evolving position of the cannabis industry in the United States. To complicate the legally and ethically gray area of modern marijuana law, the federal government has elected not to preempt state law regarding enforcement of federal marijuana policy (Davidson, 2017). Some studies reveal marijuana legalization increases marijuana use among adult groups (Maxwell and Mendelson, 2016; Chu & Gershenson, 2016) but impacts on youth usage rates vary across political and geographic landscapes (Milliren, et al., 2017; Wilkinson, et al., 2016; Schmidt, Jacobs, and Spetz 2016).

The evolution of marijuana law does not alter all elements of social structure. Following suit with American drug enforcement history, marijuana laws are disproportionately enforced against African-Americans and Latin Americans (Chemerinsky, 2017). Interestingly, the recreational legalization of marijuana in places like Washington and Colorado produced a decrease in the number of misdemeanor charges for all racial groups, although racial disparities in drug arrests persist (Pierson, et al., 2017). Popular arguments in opposition of increased marijuana legalization fixate on youth usage rates, cannabis-use disorders like dependency, concern over changes in THC potency, cognitive impairment, and other adverse health effects (WHO, 2016). Doctors are in an interesting position in states that allow medical marijuana for certain conditions. Hersh and Goldenberg (2016) found that partisan identity of physicians is highly correlated with treatment decisions

when confronting politicized health issues such as abortion and medical marijuana. This finding reveals the highly politicized nature of the modern marijuana debate and underlines the widespread lack of comprehension about the true risks and benefits associated with medical and recreational marijuana use.

It is critical to examine the trends of medical marijuana legalization because medical legalization has foreshadowed recreational legalization in all eight states that have passed recreational legislation. (Anderson and Rees, 2014). To date, this pattern has emerged in Washington D.C., Alaska, Colorado, Nevada, Maine, Massachusetts, California, Oregon, and Washington. States that have legalized marijuana have not seen legislative uniformity in recreational environments, with some cities and counties within legalized states passing ordinances both in support of and in opposition to state-level legalization (Dilley, et al., 2017). Since marijuana laws vary so greatly among and within states that have legalized its use, each locale and society must be individually analyzed to fully grasp the contextual forces that produce social impacts.

The social impact assessment (SIA) framework is in a constant state of evolution and has been for several decades. Recent findings have expanded the existing framework so that SIA may be used to measure the social implications of policies (Adusei-Asante and Hancock, 2016). Subsequently, SIA has evolved to include social impacts of marijuana legalization, but few SIA reports have emerged relative to the recent nationwide expansion of marijuana policy. Existing reports measure impacts on public health (OR Public Health Division, 2016; VT DOH, 2016; WHO, 2016), social and legal effects of medical marijuana legalization (Klofas and

Letteney, 2012), economic (CBPR, 2017; SJSRP, 2013), and crime impacts (AWC, 2015).

There is a need to understand the ways marijuana legalization changes the social composition of communities that bear its impacts. The true nature of cumulative impacts is best analyzed with respect to their regional context (Vanclay, et al. 2015). Therefore, there is a need for SIA to be conducted in all communities that are considering changes in existing marijuana policy. Reports produced prior to policy changes are beneficial to communities because they help policy makers with decision-making and add value to the pre-planning process (Burdge, 2015). Subsequently, these assessments provide a useful and comprehensive baseline of data, which can be used for monitoring and evaluation long after policy change occurs (Roche, 1999).

Marijuana's Measured Impacts

Criminological Impacts

Perhaps the most interesting component of medical or recreational marijuana legalization is the nature in which states rapidly move from prohibition to regulation. This movement creates interesting considerations for the handling of former and future marijuana law offenders. Moreover, the presence of a legal marijuana industry seems to bring increased scrutiny over which crimes may increase alongside of, or seemingly in response to, marijuana legalization. Morris, et al. (2014) found that medical marijuana laws are not predictive of increased crime rates but rather may be related to decreases in homicide and assault rates. Regarding property crime, Bridget, et al. (2012) reported that some heightened security measures at marijuana

dispensaries, such as surveillance cameras and security personnel prove effective at reducing crime on-site and in the immediate proximity. Chang and Jacobson (2017) found no support for the notion that dispensary closures aid in crime reduction. States with medical marijuana dispensaries are not experiencing large increases in property or violent crime, but actually report significant decreases in rates of violent crime (Shepard and Blackley, 2016). In Denver, Colorado's largest city and capital, violent crimes and property crimes did not deviate from cyclical crime patterns after recreational legalization in 2012. Seattle, Washington's largest city, reports steady decreases in violent and property crimes over the last twenty years, despite recreational marijuana legalization occurring in the meantime (Dills, Goffard, and Miron, 2016).

Concerns over black market organizations, particularly Mexican controlled drug cartels, are a strong component of the anti-legalization argument. Gavrilova, Kamada, and Zoutman (2014) provided evidence suggesting the legalization of medical marijuana lead to decreases in crimes committed by Mexican cartels in the United States. Cartels rely on the US black market economy for marijuana in order to sustain their profits. With evolving legalization, strictures made to prevent legal businesses from competing with illegal businesses are decreasing competition between the illegal and regulated markets (Munoz, 2014).

One key element to bear in mind when considering legislative changes on the marijuana legalization spectrum is the nuanced and context-based manner in which societies respond to this shift. Currently, the volume of states that have passed medical marijuana legislation outnumbers states that have passed recreational

legislation. States with emerging marijuana policy argue binary options between prohibition and regulation, as if no middle ground exists. Caulkins, et al. (2015) argue alternatives including production by nonprofits, government monopolies, and production by socially responsible businesses. Because of the sociological and criminological nuances within and between states, it is critical that states remain the governing entities of marijuana policies within their geographic boundaries. As more and more states implement options for legalization, more research can be conducted on exactly which structures produce the most favorable social responses within their respective contexts.

Attitudes toward marijuana legalization in the US have greatly varied from the time of its criminalization in the 1930s through the present day, with public opinion favoring legalization on the rise since the early 1990s. It is well known that news media plays a part in the construction of social issues thereby influencing policy and public perception, although the full scope of public perception cannot currently be known with any exactitude (Chermak, 1995; Hennelly, 2010; Purcell, et al., 2014; Schudson, 2011). If media favorably represents groups (i.e.- elite interests), it can also be understood that media reporting disfavors specific groups and even criminalizes them (Omori, 2013). News media are responsible for amplifying and validating more powerful classes at the expense of the less powerful (Kellner, 1995) and have been scrutinized in the past for their role in stifling realistic representations involving women (Chesney-Lind, 1997; Cooky, et al., 2010), misleading readers about members of ethnic minorities (Mastro, 2015), and emphasizing class stereotypes (McKenna, 2011).

Race and class categories have been used in the past to link members of certain groups to the use of specific drugs (Cobbina, 2008). While media exposure was not significantly related to attitudes about marijuana legalization from 1975-1990, television and newspaper exposure had a significantly positive relationship toward favoring marijuana legalization from 1991-2012 (Stringer and Maggard, 2016). Currently, few studies investigate the changing manner in which marijuana offenders and users are perceived in light of dramatically shifting legislation. This gap is a key area of concern if nuanced and context-based information is to be used to fully understand criminological implications of evolving marijuana law.

Economic Impacts

While federally illegal, the United States government still benefits financially from statewide marijuana legalization, as wages, land, and ancillary businesses that contribute to the legal marijuana industry are all subject to federal taxation. In 2012, Colorado and Washington were the first states to legalize recreational marijuana use (CCSA, 2015). Since then, the economic impacts have been closely examined and documented. The Colorado Department of Revenue began reporting on taxes collected from retail marijuana sales in 2014. That year, Colorado collected \$67,594,323 in taxes and fees, \$130,411,173 in 2015, \$193,604,810, in 2016, and \$181,981,627 between January and September of 2017 totaling \$573,591,933 to date (CO Dept. of Revenue, 2017).

In response to Colorado's legalization, the Marijuana Policy Group (MPG) constructed a method for examining the industrial consequences of legalized adult-use marijuana. The marijuana impact model is a method for analyzing the economic

impact of legal marijuana by examining cultivation, manufacturing and retailing strategies used within the industry. Using this model, MPG found that legal marijuana activities in 2015 generated nearly \$2.5 billion for the state and created 18,005 jobs (Light, et al., 2016). 2015 estimates of the total marijuana market in Washington appraise the illicit and regulated markets at \$1.6 billion (Danelo, et. al, 2016). Colorado and Washington established their recreational markets under different regulatory frameworks and negotiate legalization quite differently. The Marijuana Enforcement Division of the Department of Revenue, along with other local authorities, must approve Colorado's legal marijuana licenses while the state Liquor Control Board oversees licensing in Washington (CCSA, 2015).

Growth of medicinal and recreational marijuana sales is projected to continually rise as more states offer options for adult-use legalization. New Frontier (2017) estimates that the US national marijuana markets will add 283,422 jobs in the next three years with profits rising from \$6.65 billion in 2016 to as much as nearly \$20 billion in the next decade. The cannabis industry is currently the fastest growing industry in the US economy, outpacing sales of organic foods, craft beer, and hybrid vehicles (Bernstein, 2016). Subsequently, further economic analyses on the legal marijuana industry will allow researchers to anticipate shifts and trends in areas where legal marijuana markets are still in development.

Medical Impacts

Financial benefits of the newly legalized market emerge alongside concerns over health risks associated with marijuana usage. Presently, more states in the US have enacted medical marijuana law than recreational marijuana law. There is also

considerable instability in eligible medical conditions, limits on cultivation and possession, and the restrictiveness of policies between states (Bestrashniy and Winters, 2015). There is evidence to support legitimate medical use of cannabis for HIV/AIDS cachexia, nausea and vomiting resulting from chemotherapy, neuropathic pain, and muscle spasticity for multiple sclerosis patients (Wilkinson, et al., 2015). Although medical and recreational legalization have provided more opportunities for clinical studies on health effects of marijuana, its federal status as a Schedule 1 substance limits the capacity for researchers to conduct high-quality trials in nationally funded and regulated settings (Monte, Zane, and Heard, 2015). Overall, the medical community has a mixed response over the endorsement of positive health impacts of medical marijuana. Hill (2015) indicates there are significant health risks associated with marijuana use as well as many potential benefits.

Potency increases generate concern over negative health impacts like drugged driving and increases in drug-related psychoses (Ghosh, et al., 2015). Linkages have been made between availability of recreational and medicinal marijuana and increasing potency of marijuana (Sevigny, et al., 2014). National studies produce inconsistent results on linkages between states with medical marijuana laws and traffic fatalities within those states with some revealing increases in fatalities (Salomonsen-Sautel, et al. 2014; Volkow, et al., 2014) and others indicating traffic fatalities fell by approximately nine percent following legalization of medical marijuana (Anderson, Hansen, and Rees, 2013). Department of Justice officials substantiate public concerns over drugged-driving and also worry over distribution of

marijuana to minors, keeping legal revenue away from criminals, and preventing increases in trafficking of other illegal drugs (Cole, 2013).

Adolescent marijuana use is linked with unfavorable consequences later in the life for the user so understanding and mitigating adolescent use is of paramount importance to public health (Hasin, et al., 2015). Researchers have found that medical marijuana legalization may alter attitudes toward marijuana use and change the perception of its harmfulness among users (Hopfer, 2014; Miech, et al., 2015). Marijuana has been shown to alter brain development among youth users, with noticeable negative impacts on brain structure and cognitive function in a manner that is not yet totally understood (Ammerman, Ryan and Adelman, 2015). Although more longitudinal research is needed, increases in youth usage rates of marijuana are not scientifically related to legalization of medical marijuana (Anderson, Hansen, and Rees, 2012; Choo, et al., 2014; Hasin, et al., 2015; Lynne-Landsman, Livingston, and Wagenaar, 2013).

While medical marijuana legalization is not conclusively linked to increases in youth usage, decriminalization of marijuana laws may to be related to increased youth usage rates (Miech, et al. 2015). Cerda, et al. (2017) found that teens in Washington reported increases in marijuana usage following legalization of recreational marijuana, while those in Colorado did not. Salooner, McGinty, and Barry (2015: 1) present one sort of solution stating, “legalization with strong regulation potentially provides greater scope for protecting children than decriminalization policies, which on their own reduce crime penalties without controlling marijuana supply and price.” Regardless of conclusive data, the value of protecting youth against health risks

associated with marijuana use remains an appropriate concern for health and law enforcement officials.

Concerns over youth usage spearhead medicinal and recreational marijuana debates. However, health risks associated with marijuana use are not exclusive to youth. Consistent exposure to cannabis is associated with attention, memory, and verbal learning impairments (Sofuoglyu Sugarman, and Carroll, 2010). Volkow, et al. (2014) address the risk of addictive properties of marijuana use, effects on brain development, relation to mental illness, effects on academic performance and lifetime achievement, risk of car accidents, and risk of certain cancers. There is also documented concern over the cardiovascular impacts of marijuana use, especially with linkages to strokes, infarctions, and death although more research is needed to substantiate these relationships (Thomas, Kloner, and Rezkalla, 2013).

Unintended negative consequences are not the only hallmark of medical marijuana laws. There is increasing traction for the valid use of medical marijuana as a substitute for some prescription drugs, namely opiates. Bradford and Bradford (2016) found that once medical marijuana laws were implemented, “the use of prescription drugs for which marijuana could serve as a clinical alternative fell significantly” (p. 1). In April, 2018 Pennsylvania became the first state in the nation to include opioid dependency as a qualifying condition for medical marijuana treatment (Common Wealth of PA, 2018). (Powell, Pacula, and Jacobson (2015) found that states with legal marijuana dispensaries report lower admissions for treatment of addiction for pain medications and lower opioid overdose death rates. States with medical marijuana laws indicate a 20% decrease in admission for heroin

treatment and a 0-15% decrease in arrests for cocaine and heroin possession combined (Chu, 2015).

Political Impacts

Beneficial characteristics of legalization emerge alongside legal complexity given marijuana's federally illegal status in the United States. The Controlled Substances Act was created to regulate the manufacture, importation, use, possession, and distribution of specific substances. The Drug Enforcement Administration (DEA) and the Food and Drug Administration (FDA) created classification schedules to categorize substances into one of five categories. Marijuana is a Schedule 1 substance, grouped with heroin, crack cocaine, bath salts, and other heavier substances. Agents and judges in the DEA attempted to move marijuana to a Schedule 2 substance in 1986 and again in 2016, but superior DEA officials overruled the judge's decision (Young, 1988). Schedule 1 substances are defined as those with no currently approved medical use and a high potential for abuse (DOJ, 2015). The Schedule 1 classification of marijuana is a popular item of debate, with many advocating the imminent need to reevaluate marijuana's status. Deputy Attorney General James M. Cole (2013) released a document that came to be known as the Cole Memorandum. Cole states:

In jurisdictions that have enacted laws legalizing marijuana in some form and that have also implemented strong and effective regulatory and enforcement systems to control the cultivation, distribution, sale, and possession of marijuana... enforcement of state law by state and local law enforcement and regulatory bodies should remain the primary means of addressing marijuana-related activity. (p. 2).

In this memorandum, James Cole effectively declared marijuana policy enforcement as a state and local issue, rather than a federal concern, allowing marijuana industry experts and consumers to breathe a temporary sigh of relief.

Overall, the Trump administration has sent some mixed signals regarding its handling of marijuana policy. While campaigning, Trump suggested treating marijuana legalization, particularly medical legalization, as a states'-rights issue (NORML, 2017). However, United States Attorney General Jeff Sessions has not aligned with this approach, indicating his stance that marijuana use is directly tied to violent crime, evidencing an imminent need to impose tougher legal sentences on offenders (Porter, 2017). From the political purview, the official response to the national drug crisis has been to formulate and strengthen the war on drugs, which has substantially increased penalties faced by offenders.

Marijuana's Context in South Dakota

A comprehensive understanding of how populations are impacted by any program or policy results from analyzing population impacts, arrangements between institutions and the respective community, communities in transition, individual and family level impacts, and community infrastructure needs (Burdge, 2015).

Hickenlooper (2014) suggested that the numerous states legalizing marijuana, from both ends of the political spectrum, is an indicator that marijuana policy is no longer a partisan issue. It may, however, be too early in the marijuana policy revolution to declare its nonpartisanship with any certainty. Specific politically conservative states maintain an officially tough stance on marijuana, sometimes placing extensive and outdated penalties on offenders. For example, South Dakota places a maximum

penalty of \$2,000 and one-year incarceration against any offender possessing two ounces or less of marijuana (NORML, 2017). South Dakota is primarily a rural farming state home to a predominantly non-Hispanic white population and several large Native American reservations. The two largest cities are located in the southeastern and southwestern regions of the state, Sioux Falls and Rapid City respectively.

The first ballot initiative in South Dakota featuring marijuana policy change appeared in 2006. The South Dakota Medical Marijuana Initiative, known as Initiative 4, would have legalized the growth of up to six plants, and possession of up to one ounce of marijuana for medical purposes (SD Secretary of State, 2006). The measure was narrowly defeated with 52.3% voting “no” and 47.7% voting “yes” (Tupper, 2015). Four years later, 2010’s medical marijuana Initiative 13 was also defeated, this time with 63% opposed and 36% in favor (Harriman, 2014). In 2014, the U.S. Justice Department decided to allow tribes the right to legalize marijuana within the boundaries of tribal land. In 2015, the Flandreau Santee Sioux Tribe of Flandreau, SD attempted to legalize recreational marijuana on their reservation and was unsuccessful (Walker and Nelson, 2015). South Dakota Attorney General Marty Jackley brought charges of conspiracy to grow marijuana against the consultants hired by the Flandreau Tribe to help them orchestrate their marijuana growing operation. After a trial, the consultants were freed of all charges (Ellis, 2017).

Members of New Approach South Dakota, an organization comprised of parents, medical patients, law enforcement, and health professionals, were largely responsible for collecting over 16,000 signatures to place medical marijuana on the

2016 ballot, but the initiative was rejected due to a notary error (Huber, 2017). Similarly, when New Approach collected signatures for the 2018 ballot, this time aiming for medical and recreational marijuana legalization, it was turned away due to wording that served to legalize paraphernalia, rather than marijuana (Ferguson, 2017), despite copying the language directly from other states that have successfully legalized marijuana. After the South Dakota Secretary of State, Shantel Krebs, took a sample of the signatures collected in favor of the 2018 medical marijuana ballot initiative, it was determined that only 9,470 of the 13,871 needed signatures were valid (Kota, 2018). South Dakota remains the sole state in the country to vote down medical marijuana twice (Tupper, 2015). This is just one of the reasons that validates the need for understanding and estimating the social impacts of potential marijuana policy change on the various communities within the state.

Sioux Falls is South Dakota's largest city with approximately 174,000 of the state's 865,00 residents (Sioux Falls City, 2016). Sioux Falls residents, therefore, account for over 20% of the state's population, which allow the city to be quantitatively representative of South Dakota's population. The political characteristics of Sioux Falls, however, are not so generalizable to the rest of the state. The city's political divide shows 50% conservative and 43% liberal makeup (Alderman, et al., 2005), while statewide conservatives and liberals constitute 62% and 32% of the vote respectively (Statewide Races, 2017). Interestingly, voters in support of marijuana legalization generally look favorably upon their decision to support legalization. In their Washington study, Subbaraman and Kerr (2016) found higher levels of voter satisfaction among those in support of marijuana legalization

compared to those in opposition. Voter preferences can offer some explanatory power behind the reasons cities frequently adopt policies that diverge from their state's (Einstein and Kogan, 2015). South Dakotans in the conservative party might have the foothold at the state level, but voters in Sioux Falls play an essential role in shaping the outcomes of state-wide elections and initiatives.

CHAPTER 3: METHODOLOGY

Research Design

The goal of this research study is to advance the understanding of implications regarding marijuana legalization in South Dakota by assessing how its largest city, Sioux Falls, could be impacted by the medical and recreational legalization of marijuana. This research will set out to accomplish that goal by examining the context of marijuana with multiple mixed methods, all of which are in alignment with the method of social impact assessment (SIA). First, in analyzing potential impacts, this research examines the extent to which news reporting in Sioux Falls may play a role in driving public perception and fear pertaining to marijuana legalization. Second, this research analyzes extant marijuana impact reports conducted primarily in America and Canada to determine processes, goals, and recommendations other assessors have made during marijuana law reform in other regional contexts. Finally, this research examines the experiences, input, and perceptions of individuals, who would in some way, provide informed contributions toward estimating the potential impacts of changing marijuana policy. The experiences of these individuals were gathered during in-depth interviews over a period of four months.

Social Impact Assessment

The SIA method, theoretically advanced and explained by Rabel Burdge and other prominent assessors, is “the process of assessing or estimating, in advance, the social consequences that are likely to follow from specific policy actions or project development, particularly in the context of appropriate national [and] state” policy

legislation (Burdge and Vanclay, 1994, p. 1). The justification for this method's use arose from a need of civilians, community leaders, and elected officials to fully comprehend the outcomes of a proposed action beyond the simple awareness that a social change may occur. This process aims to provide clarity of direct and indirect social impacts by measuring them at the community, city, or county levels. An adequate SIA will utilize empirical methods to identify and interpret the consequences of a change for entire communities, based on impact events. The basic SIA model aims to involve similar projects that are in operation and attempts to draw conclusions based on similar existing reports (Burdge, 2015).

Triangulation

Validating this research with the use of multiple data sources, methods, and theoretical schemes was done in an effort to provide the most corroborating evidence possible. Triangulation assists with the researcher's ability to observe and analyze phenomena from multiple perspectives. Data from the media analysis, impact analysis, and interviews were triangulated with available statistics and demographic information to advance reliability. Expert debriefing was used throughout this research so the principal investigator could receive detailed feedback on methods, meanings, and interpretations from an adept researcher, well-versed in social implications of drug policy.

Media Analysis

A detailed media analysis is critical for determining the manner with which marijuana events were handled by reporters. The media analysis assisted in the understanding of how marijuana users and offenders are perceived within the state of

South Dakota and by environments within and around Sioux Falls. Since marijuana legalization first appeared as a South Dakota ballot initiative in 2006, newspaper articles from January 2005-December 2017 were included in the media analysis. These dates were selected in order to access comprehensive reporting one year prior to 2006 through the year leading up to 2017, where 2018 ballot initiative efforts are underway. This media analysis aimed to determine if and how news reporting on efforts to obtain marijuana legalization evolved since the year before its 2006 introduction as a ballot initiative in the state.

Sioux Falls' largest print media source, *The Argus Leader*, was used as the primary media source. Articles pertaining to marijuana and its legislation were searched in *Pro-quest*, which archives all articles from *Argus Leader*. The articles were searched using the term, "marijuana" along with other relevant names for the drug that appear in the media. These include references to "pot", "cannabis", "weed", and "reefer". Data gathered from the media analysis privileged the predictions of impacts, particularly those experienced in the short-term. In total, 119 articles were analyzed to determine if a marijuana panic had been created and sustained in the reports from *Argus Leader*.

Impact Report Analysis

This research utilized the content analysis method to evaluate and analyze marijuana impact assessments to determine probable impacts of marijuana legalization in Sioux Falls. The World Health Organization (2016) assessed the health and social effects of nonmedical cannabis use, the Vermont Department of Health (2016) conducted a health impact assessment on marijuana regulation in Vermont, the

Association of Washington Cities (2015) conducted an assessment of impacts to cities in Washington implementing recreational marijuana legalization, Klofas and Letteney (2012) investigated social and legal effects of medical marijuana in Rochester, NY. Thus, research on marijuana legalization impacts is gaining traction as a method for understanding impacts and implications of shifting marijuana policy.

Impact reports were produced in searches by using the terms, “marijuana impact analysis”, “social impacts of marijuana”, “economic impact analysis of marijuana”, and “health impact analysis of marijuana”. These items were searched in a variety of academic databases, with searches primarily being conducted using *Google Scholar*. A total of 27 impact reports were analyzed to determine their contributions to nonmedical and medical marijuana legalization processes. The medical and nonmedical marijuana reports were analyzed to individually determine the recommendations set forth by the respective assessors to determine which recommendations may apply to the context of Sioux Falls, SD. Reports included recommendations broadly pertaining to public health, public safety, youth use prevention, education, and regulation in Canada and the United States.

These reports, in addition to all currently available marijuana impact assessments provided a list of possible impacts and best practices to avoid unintended consequences experienced in environments with regulatory frameworks comparable to those being proposed in South Dakota. These best practices can be interpreted, analyzed, and subsequently applied to Sioux Falls. This content analysis provides useful information from alternative contexts for the most comprehensive understanding of cumulative impacts of marijuana legalization.

Interview Sampling

A broad sample of individuals that stand to be impacted by marijuana law reform was contacted to participate in this study. In-depth one-on-one interviews were conducted with 20 individuals from several occupational fields and sectors of interest to empirically determine the perception of how marijuana legalization in South Dakota might impact the population, economy, public health, and political framework in Sioux Falls. Subsequently, particular focus was placed on the opinions of individuals and professionals within Sioux Falls' criminological, economic, medical, and political sectors. Therefore, interviews were conducted with marijuana advocates, law enforcement and marijuana offenders; ancillary business owners, workers, and consumers; healthcare professionals and medical marijuana consumers; and political activists and local politicians. Five members from each of the four sectors were selected to interview.

Criminological: Five participants represented the criminological sector of the interview scope. Two law enforcement officers were included in the study. These officers were recruited through key informants and direct contact during community policing events. Law enforcement have been purposefully identified as key stakeholders, as they have already begun strategizing for enforcement changes if marijuana is legalized in South Dakota. Two individuals who have committed marijuana offenses were also interviewed for this category. Both individuals are non-imprisoned, but one of the offenders spent time in jail for a marijuana-related offense. These offenders were recruited through direct contact and a key informant. The input of police and offenders was essential to include because their viewpoints contribute to

the understanding of the continuum of perception related to marijuana-related offenses. The last individual speaking on behalf of the criminological sector spends considerable time advocating for the treatment of imprisoned marijuana-offenders in Sioux Falls. This individual was recruited through a pro-marijuana political organization.

Economic: Five members of the economic sector were interviewed for this research. Two ancillary business owners, two ancillary business consumers, and one banking executive were interviewed for this research. The business owners operate organizations that constitute ancillary businesses to the marijuana industry were interviewed because they are key stakeholders and would be professionally and personally impacted by marijuana legalization. The two consumers were interviewed since they are members of the community and are also key stakeholders. Owners and consumers were recruited by directly requesting an interview from them at their respective business locations. Ancillary business consumers were recruited through a local pro-marijuana nonprofit organization. The banking executive was recruited through direct contact. This individual was included due to their expert input regarding economic potential of a marijuana market and expert knowledge of banking regulations pertaining to marijuana. Marijuana banking is a considerably gray area in states with legal marijuana industries. This is because marijuana remains illegal at the federal level and banks are controlled by federal regulations, so interviewing this banking expert is essential to assessing cumulative impacts of marijuana legalization.

Medical: To access the opinions of those who stand to be impacted by a local medical marijuana industry, three healthcare professionals were interviewed.

Interviewees were drawn from a variety of occupations within the healthcare field and a doctor, a nurse, and a therapist were interviewed. The doctor and nurse were recruited through direct outreach. The therapist was recruited through a local pro-marijuana political organization. In order to provide as comprehensive coverage of this sector as possible, two medical marijuana users were interviewed for this study. Each of the medical marijuana users was recruited through a pro-marijuana political organization.

Political: Political activists, particularly those involved in the local marijuana movement were interviewed due to their high levels of awareness of the implications of legalization. Local politicians were interviewed because they are informed of regulatory impacts of costs or benefits associated with marijuana legalization. Interviews were conducted with two politicians, two political activists, and one executive member of a pro-marijuana organization. Their opinions were necessary to the project as this group is informed on strategies that potentially mitigate negative and unintended consequences of legalization, so they are key stakeholders. These participants were recruited at events run by pro-marijuana nonprofit groups that advocate marijuana legalization. Interviews with local politicians were set up through direct outreach and contact.

These 20 interviews were conducted in-person at various locations in and around Sioux Falls. Each of the interviews lasted approximately 45-120 minutes, depending on the content provided by the interviewee. All participants were subjected to the same interview protocol, with slight variations in probes based on the responses of the participants. The recruitment process involved the primary investigator

establishing direct contact with the participants with a general description of the study and a request for participation. In an effort to achieve balance with the interviews, the principal investigator did not make any public requests for participation, but rather contacted individuals on the basis of referrals and direct outreach. Interviews were transcribed on a field computer during the interview process. The participants were informed of the confidentiality of any disclosures during interviews. The sample included 11 women and 9 men over the age of 18.

The confidentiality of the participants in this project is of utmost importance due to the current illegal nature of cultivating, distributing, and possessing marijuana in South Dakota. Although not all participants admitted to using marijuana regularly, their contributions have a need to remain confidential due to the overly negative stigma of marijuana reform in and around Sioux Falls. The interviews concluded with a request by the principal investigator for additional contacts that might contribute to this research. The participants who provided an additional contact person each gave permission for their name to be used if/when the principal investigator established contact with the new reference. Otherwise, their names, affiliations, organizations, specific occupations and all other identifying information have been removed from this report. The interviewee's personal information, along with their interview transcription, will be kept in a secure locked location until the project has reached completion, at which time this information will be destroyed to protect the confidentiality of the participants.

Per the standards of theoretical sampling, a sample size is complete upon theoretical saturation (Glaser, 1978). The inclusion of five members from each

identified category was very deliberate and substantiated the strategy for outreach and referrals of interviewees rather than inviting the interviewees to contact the principal investigator.

Data Collection Instrument and Procedure

This mixed methods research design was utilized to achieve as comprehensive of an understanding of the phenomena as possible. Mixed methods research involves collection of qualitative and quantitative data, analysis of both forms of data, and integration and connection of data. The purpose for designing this project with mixed methods was due to the strength of drawing from both qualitative and quantitative research methods. Additionally, the mixed methods approach is advantageous because it privileges the understanding of research questions by comparing quantitative and qualitative perspectives, developing a comprehensive understanding of changes for marginalized groups, and having a better comprehension for the need of an intervention and its potential impacts (Creswell, 2014).

The use of content analysis to study media is a methodology that has been practiced for over a century and was often used to study and understand political propaganda leading up to World War II (Krippendorf, 2004). The content analysis process typically unfolds subsequent to the formation of research questions. The same content analysis methodology was applied to produce the findings for the media and impact analyses. First, texts or sets of texts are selected to review their potential for inclusion in the analysis. Codes or themes are then created, based on their emergence from the texts and the codes are applied successively to the rest of the texts. The

analytical process should produce answers or partial answers to the research questions posed at the outset of the process (Bernard, 2013).

In-depth interviews consisted of the researcher asking open-ended questions in a semi-structured format. An interview protocol was utilized to provide a structure to the interview and supporting questions were asked when necessary so that participants could elaborate or engage in in-depth explanation on certain themes. Participants were invited to freely explicate on topics relevant to the research questions. Interviews took place between December 2017 and March 2018. The interviews were conducted at coffee shops, restaurants, office locations, and various public locations. As participants answered questions, the principal investigator transcribed their answers into a field computer. The field computer was then taken to a secure location where transcripts were uploaded into NVivo, a qualitative software package.

All identifying information was kept out of the files, aside from a number sequence used to identify which category the participants contributed to, the interview date, and the number of participants in that category. Two individuals had access to this number sequence and understood how to decode it. One of the individuals who knew how to decode the number sequence was the principal investigator of this project, the other is the Acting IRB Coordinator at South Dakota State University. No one other than the principal investigator had access to the names of the participants. Confidentiality of the participants was ensured due to disclosures of illegal behavior.

Analysis

Newspaper articles were uploaded into NVivo, a qualitative data analysis software. They were individually examined for indicators of moral panic based on Goode and Ben-Yehuda's (1994) theoretical framework (concern, hostility, consensus, disproportionality, and volatility). Impact reports were uploaded into NVivo and analyzed based on their regional location, type of report (EIA, SIA, HIA), units and levels of analysis, the type of marijuana legalization being sought (recreational, medical, or both), types of impacts addressed, and recommendations that were made by assessors. Interview data were uploaded into NVivo and coded based on the participants' various sectors (criminological, economic, medical, and political), whether their comments were based on structural implications of marijuana legalization or impacts to groups and individuals.

CHAPTER 4: MEDIA ANALYSIS

MARIJUANA FRAMING: MORAL PANIC

This chapter examines marijuana reporting published in *Argus Leader*, Sioux Falls, South Dakota's largest print media provider. The findings indicate that newspaper media played a role in framing the local marijuana legalization debate, contributed to marijuana offender typification, and bolstered the moral panic over medicinal and recreational marijuana legalization. The analysis will conclude with an exploration of marijuana reporting trends.

Marijuana Moral Panic

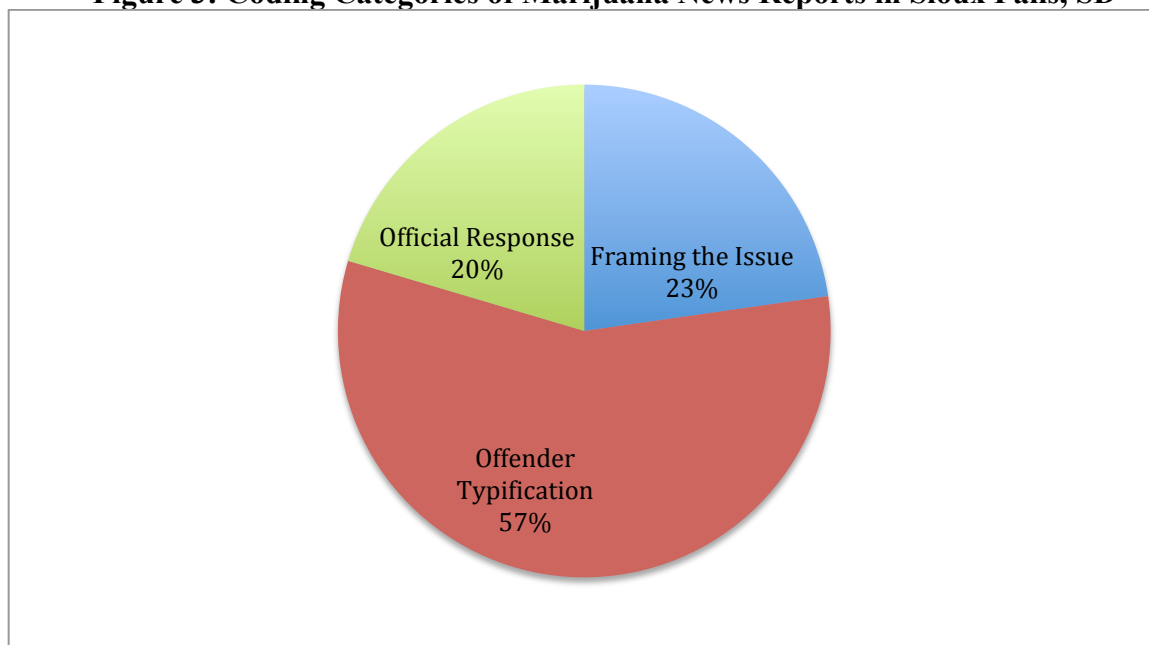
A moral panic happens when certain groups or activities are perceived as a threat to the normativity and stability of an otherwise balanced society. Generally, the perceived threat is perceived as disproportionately higher than the actual harm. Media outlets then step in to observe and report, with questionable accuracy, on details of the group or activity in question, which often leads to group vilification. Subsequently law enforcement, politicians, writers, and other moral entrepreneurs cultivate the discussion on the subject of the panic. To culminate the moral response, experts and policy makers emerge and attempt to understand the panic and provide policy options for mitigating its perceived damage (Cohen, 1972; Critcher, 2003; Goode and Ben-Yehuda, 1994; Potter and Kappeler, 2006). Articles that focused on framing the problem of marijuana offenders were coded deductively using Goode and Ben-Yehuda's (1994) themes: concern, hostility, consensus, disproportionality, and volatility. Subsequently, other themes emerged and were coded inductively based on

how their content framed the issue of marijuana in Sioux Falls and whether the public and legal reaction framed the larger official response to local marijuana use.

Categories of a Panic

Figure 3 represents the broad coding categories into which the news content was placed. Since content within articles was coded separately each article contains between one and six separate codes. Seventy-five articles in the sample contained more than one code, so it is important to note that Figure 3 displays the percentage of content devoted to the respective categories rather than the percentage of articles that contained the content. When codes are discussed below, information is provided to clarify the number of articles with content that fit each code. Content within the articles fit broadly into the three following categories: framing the issue; media vilification; and moral response. Each of these broad categories has several codes within it.

Figure 3: Coding Categories of Marijuana News Reports in Sioux Falls, SD



Media Framing

Objectivity and credibility of media portrayals are constantly debated and questioned (Schudson, 2011). News media outlets have historically been held responsible for representing the interests of political and social elites (Hall, et al., 1978; McChesney, 1997). News media have the power to influence public perception and political agendas, though the full impact of media influence may never be known (Shaw, et al., 2010). The total power of the media's ability to influence public perception is exceedingly difficult to measure, though media consumers have discretion in what they accept or reject through critical media analysis. *Argus Leader* framed marijuana coverage in the following categories: economic impact, cultivation, sales, and possession. Subsequently, there is support for the notion that news media plays a key role in the formulation of social values, interests, and epistemologies (Kellner, 2011; Cobbina, 2008).

Economic Benefits

Argus Leader framed the marijuana issue among the readership in greater Sioux Falls by focusing on the economic benefits of a potentially legalized marijuana market while highlighting the drawbacks of local illegal marijuana cultivation, possession, and distribution. This was an interesting framing strategy because it juxtaposed the economic benefits of a legal marijuana market in places like Colorado and Washington against the social and legal drawbacks of marijuana's illegal status in Sioux Falls. These economic benefits were prominently mentioned in 5% (n=6) of the articles and included those felt by states that had an existing legal framework for

cannabis cultivation and distribution. These articles all highlighted the commercial benefits of the marijuana industry.

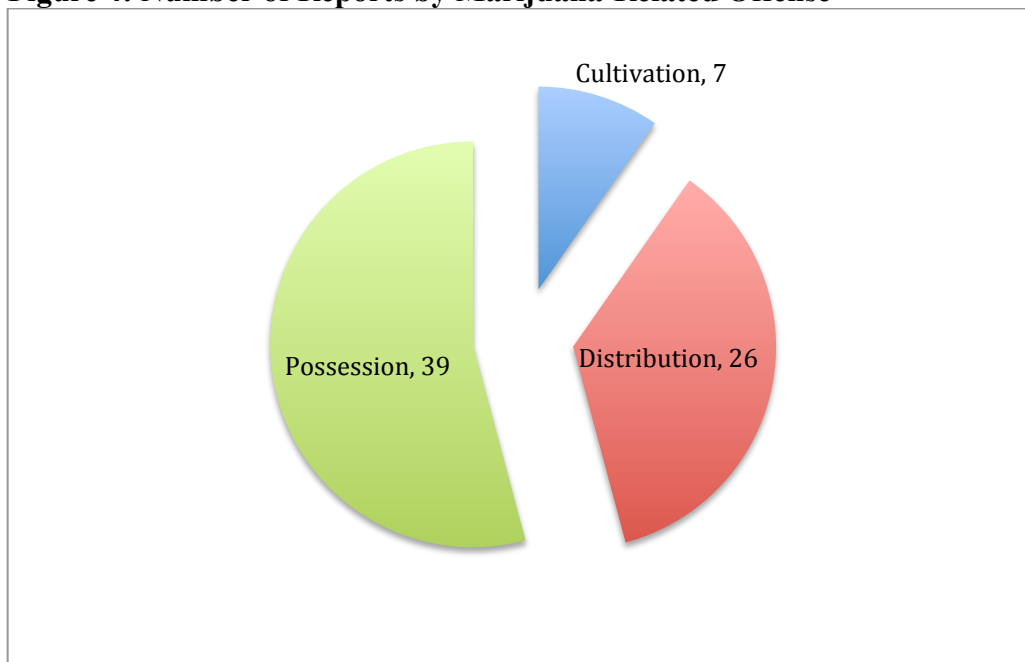
But the potential is obvious: a new study by Colorado economists found that marijuana legalization created 18,005 new jobs in 2015 and netted \$996 million in sales and \$121 million in taxes, with an overall \$2.4 billion economic impact for Colorado alone. Numbers like these have piqued interest. (Trevor Hughes, *Argus Leader*, November 3, 2016)

New Frontier Data, a cannabis analytics firm, says the current legal cannabis industry could grow to \$8 billion by year's end and reach \$16 billion by 2020. GreenWave Advisors says there's 30 million recreational marijuana users today. (Trevor Hughes, *Argus Leader*, March 27, 2017)

The market is booming thanks to an ever-increasing number of states that have legalized cannabis for both medical and recreational use. Legal sales of marijuana grew 30% last year, reaching \$6.7 billion, according to Arcview Market Research. ...Arcview estimates that a total of \$53 billion worth of marijuana was sold in North America last year, with 87% of that consisting of illegal sales. This implies that the legal marijuana market could still experience a more-than-sevenfold increase in size. (John Maxfield, *Argus Leader*, April 7, 2017)

America's marijuana industry isn't sure where President Trump and his attorney general stand on marijuana, but it is forging ahead with expansion plans anyway. Cannabis businesses are hiring new workers, leasing new space and pushing across state borders. And regulators are drafting rules that will give access to legal recreational pot to tens of millions of adults. The stakes are high: This is a job-generating industry that cannabis data firm New Frontier estimates could be worth \$2.3 billion within three years. (Trevor Hughes, *Argus Leader*, March 12, 2017)

The articles mentioning economic impacts indicated the medical and recreational cannabis industry's potential to continue to prosper and grow, despite ongoing opposition from the Trump administration.

Figure 4: Number of Reports by Marijuana-Related Offense

Marijuana Cultivation

The media framing of marijuana in Sioux Falls included reports of offenders charged with cultivation. Discussion of cultivation occurred in 6% (n=7) of the reporting. These reports contained the names of offenders and the amount of marijuana plants that were found in their possession. The number of marijuana plants in the offenders' possession ranged from small to large amounts, but frequently tied the offenders to additional harder substances.

In all, agents seized 192 marijuana plants, 17 LSD tablets, 11 ecstasy pills, hashish, numerous pieces of drug paraphernalia, an AK-47 rifle and more than \$9,000 in cash, he said. The task force had received information about the growing operation, and investigators built a case over several months, McManus said. "They're pretty confident that this was going to be for the local market," he said. (Matthew Gruchow, *Argus Leader*, March 8, 2008)

Officers noticed a jar containing marijuana in the back seat and obtained a search warrant for his home. There officers found eight marijuana plants each about 4 feet tall, along with methamphetamine residue and paraphernalia. (Josh Verges, *Argus Leader*, September 18, 2009)

The first of the above examples represents the marijuana cultivator as violent with some descriptive focus on the firearms in their possession. Both excerpts reference other illicit substances being found in the cultivator's possession, which may reinforce the gateway stereotype associated with marijuana use.

The largest cultivation operation in the reports indicated 600 plants at a marijuana grow facility located on the Flandreau Santee Sioux Indian reservation, which was owned and operated by the respective tribe, about 45 miles away from Sioux Falls. This growth facility was run despite local, state, and federal laws restricting any sort of marijuana growth, distribution, or possession. Subsequently, charges were brought against the Colorado consultancy that sold the tribe their marijuana. The Flandreau Santee Sioux tribe destroyed their marijuana crops when they were informed about a possible federal raid before they were able to open for business.

Jackley presented the charges to a courtroom full of community members and reporters. He said state investigations found that Hagen and Hunt bought marijuana seeds of 55 strains from the Netherlands, which they had sent packaged in CD cases and sewn into T-shirts. Court documents show that the pair along with other Monarch employees began growth of approximately 600 plants in the Flandreau facility. (Dana Ferguson, *Argus Leader*, August 4, 2016)

The charges brought against the Colorado consultants amounted to no penalties being served, although one of the two consultants pleaded guilty. The other consultant was found not guilty as a result of the trial.

Marijuana Possession

Other reports that framed marijuana as a public issue focused on the salience of arrests for marijuana use and possession within Sioux Falls. Articles

mentioned the arrests of marijuana offenders for possession 33% (n=39) of the time. The offenses in the reports were typically for relatively small amounts of marijuana.

As police walked around the outside of the residence, they looked through a basement window to see two men weighing bags of marijuana on a scale, police said. ...There were 2.9 ounces of marijuana in the house, divided into five smaller bags and one 50-gram bag, police said. The drugs have a street value of about \$300, Clemens said. Hirsch, 21, is charged with possession of marijuana in the amount of less than a pound but more than two ounces, possession of drug paraphernalia and inhabiting a room where drugs are kept or used. (John Hult, *Argus Leader*, July 23, 2009)

When the officer asked Rouse for his identification, Burs said, he handed over his wallet. Rouse was charged with misdemeanor drug possession when the officer opened the wallet and found a few grams of marijuana. (John Hult, *Argus Leader*, August 19, 2010)

A search of the vehicle turned up 24 grams of marijuana in 12 separate baggies, said Lt. Dan Kaiser of the Sioux Falls Police Department. Bollen was detained on charges of marijuana, possession of drug paraphernalia and felony possession of marijuana with intent to distribute. (John Hult, *Argus Leader*, December 17, 2011)

The amounts mentioned in the reports above are considered fairly small quantities. In states with legal marijuana, it is fairly uncommon to see charges brought against anyone in possession of two ounces or less (Armentano, 2015).

Marijuana Distribution

Possession of marijuana in South Dakota is punished in a manner that contradicts emerging national trends. For example, possessing two ounces or less of marijuana is a misdemeanor punishable by up to one year in in prison and a maximum fine of \$2,000 for the first offense. Reports of marijuana use and possession have contributed to the framing the issue of marijuana in the Sioux Falls community, but reports of marijuana distribution are also prominently mentioned.

The sale of any amount of marijuana less than one-half ounce is a misdemeanor, which carries a mandatory minimum sentence of 15 days but is punishable by up to one year in prison and a \$2,000 fine (Armentano, 2015).

A 44-year-old Sioux Falls man who spent several years in prison for killing two people in a 1979 car crash pleaded guilty Thursday to possession of two ounces or less of marijuana. (Denise Tucker, *Argus Leader*, January 7, 2005)

Juan Carlos Trevino-Barrera, 24, was arrested in February and charged with possession of 97 pounds of marijuana after members of the Sioux Falls Area Drug Task Force raided a Sioux Falls apartment. (Matthew Gruchow, *Argus Leader*, March 5, 2009)

Police arrested a 19-year-old woman Saturday on marijuana possession and distribution charges after finding her smoking in a car with two other teenagers. The officer was called to a strip mall parking lot near 41st Street and Western Avenue at 6:35 p.m. Saturday. In the front passenger seat he found Jean Watson III, who turned over several bags containing a total of 1.6 ounces of marijuana.” (Josh Verges, *Argus Leader*, November 3, 2009)

Although the reports for marijuana use and possession typically indicated small amounts, reports on distribution ranged from small amounts too much larger quantities. Articles mentioned the arrests of marijuana offenders for distribution 22% (n=26) of the time.

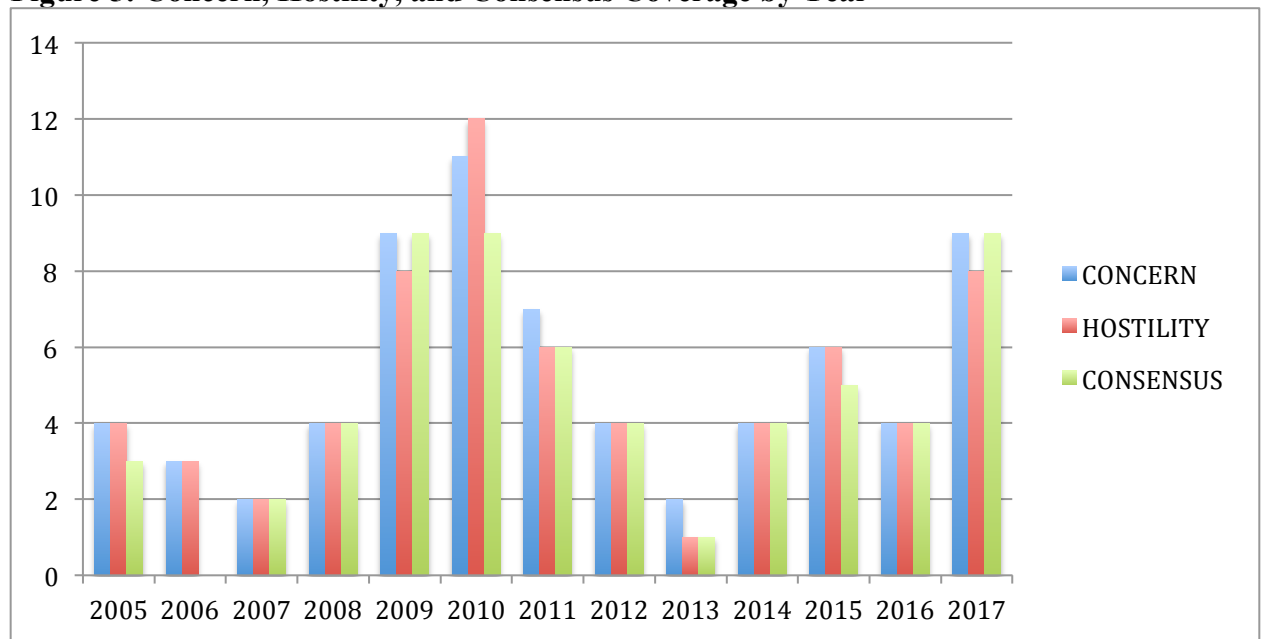
Offender Typification

There were 195 instances of offender typification within the articles. *Argus Leader* typified marijuana offenders in three manners: that prompted concern over how widespread marijuana use has become in Sioux Falls (e.g., concern); that defined the folk devils and designated them as the enemy (e.g., hostility); and encouraged readers to form a consensus that the threat of marijuana is real (e.g., consensus).

Figure 5 represents the number of news articles that were placed into each of the first three codes of moral panic: concern; hostility; and consensus. Figure 4 displays the

number of articles per year from *Argus Leader* coded into each respective category. Figures 3 and 4 are complementary and assist in depicting the general categories each code was placed into (Figure 3), in addition to providing a visual depiction of the number of articles, which were placed into each code (Figure 4). As depicted in Figures 3 and 4, the reports prominently focus on offender typification and arrests for marijuana possession. Offender typification is tied to concern, hostility, and consensus. Figure 5 depicts the number of references *Argus Leader* made to each of the three categories of moral panic during each year.

Figure 5: Concern, Hostility, and Consensus Coverage by Year



Concern

Within the category of offender typification, *Argus Leader* indicated concern for folk devil behavior in 58% (n=69) of the articles in this sample. Concern occurs when there is heightened scrutiny over the behaviors of a certain group and the consequences their behavior causes for society (Goode and Ben-Yehuda, 1994).

These articles included information about how widespread the marijuana problem is within Sioux Falls by discussing its impact on local youth.

A 16-year-old Sioux Falls male was arrested Friday afternoon for marijuana possession and drug paraphernalia after a school bus driver smelled marijuana, police spokesman Loren McManus said. The driver called police to an Eastern Dakota Educational Cooperative school in Sioux Falls after he smelled marijuana on the bus and noticed some students huddled together, McManus said. The teen was taken to the juvenile detention center in Sioux Falls for possession of less than two ounces of marijuana and for possession of drug paraphernalia, he said. (Matthew Gruchow, *Argus Leader*, May 22, 2007)

Two teenage girls were arrested Wednesday night on suspicion of distributing marijuana after an officer found several bags of the drug in the girls' car. The two 17-year-olds had parked about 11:30 p.m. behind a business in the 2300 block of West 49th Street, turned the lights off and sat there, Clemens said. An employee got suspicious and called the police. (Matthew Gruchow, *Argus Leader*, March 27, 2009)

Teenagers have discovered a new way to inhale marijuana- e-cigarette vaporizers, according to a study released Monday. Vaporizers give kids a better way to hide what they're inhaling. "It's so much easier to conceal e-cigarette pot use," said Morean, an assistant professor at Oberlin College. "Everybody knows that characteristic smell of marijuana, but this vapor is different. It's possible that teenagers are using pot in a much less detectable way. (Christine Rushton, *Argus Leader*, September 7, 2015)

The above excerpts display news stories depicting teen use of marijuana. Reporting on these incidents can reinforce the belief that marijuana's impact extends to the young people who reside where it is legalized. These excerpts provide evidence of intent to facilitate and confirm the perception that teen use is one reason to keep marijuana illegal. That argument, while popular, does not take into account the extent to which regulatory bodies restrict access to marijuana from any individual who does not meet the age requirement for use.

Hostility

Reports revealed that marijuana possession often connected the offender with criminal activity outside of marijuana law infringements. Other criminal activity mentioned in these reports frequently involved violent and/or property crime. This was done in a manner that vilified marijuana law offenders and appeared to group these offenses with more extreme drugs and violence. Hostility toward a group occurs when the offenders are labeled as the enemy whose behavior is collectively seen as harmful (Goode and Ben-Yehuda, 1994). Argus Leader mentioned these folk devils in 55% (n=66) of their reports in this sample.

An officer who responded to a 911 call for an accidental shooting Wednesday evening smelled “an overwhelming odor of marijuana” as he entered the house, according to court documents. Nicholas Beesley, 21, of Sioux Falls is charged with first-degree manslaughter in the death of Lucas Mogck. Both men were playing video games at a friend’s house at 1212 W. 15th St. Mogck, 22, was fatally shot in the head, police said. (Dan Haugen, *Argus Leader*, December 31, 2005)

The girlfriend of a man murdered in what’s been called a botched drug robbery by Minnehaha County prosecutors has been indicted in federal court for conspiring to sell more than 220 pounds of marijuana. (Jay Pickthorn, *Argus Leader*, March 7, 2014)

Theresa Rasmussen, 55, pleaded guilty to conspiracy to distribute a controlled substance. She admitted traveling to California once with other co-conspirators to purchase marijuana. Rasmussen and three others, including her daughter, Faith Rasmussen, were charged with the drug conspiracy following an investigation into a December botched robbery that ended in the shooting death of a local marijuana dealer. (Mark walker, *Argus Leader*, August 28, 2014)

The above excerpts reinforce the stereotype that marijuana use is conflated with violent and property crime. Armentano (2015) indicated that areas undergoing marijuana legalization are, in fact, at a lower risk for violent and property crime.

Gavrilova, et al. (2014) found that areas with recreational marijuana legalization also experience lower rates of gang violence.

Consensus

The final aspect of offender typification occurred when reports suggested that marijuana possession and use were overly harmful or threatening and that wrongdoing members of society were enacting dangerous behaviors *because* of their marijuana use. This consensus is typically widespread, although the majority of the population does not need to universally agree (Goode and Ben-Yehuda, 1994). Consensus occurred in 50% (n=60) of the reporting and portrayed offenders both within Sioux Falls and in other areas of the country with existing adult-use legalization.

And Richard Kirk of Denver faces first-degree murder charges stemming from the fatal shooting of his wife inside their home in April. Kirk's wife called 911 to report he was hallucinating and rambling after eating marijuana candy and taking prescription medication. Kristine Kirk died while on the phone with police. (Trevor Hughes, *Argus Leader*, May 9, 2014)

Five to six men, two of whom were carrying guns, entered the home and tried to take a game console but ended up leaving with a wallet. During the scuffle, a man inside the home was hit over the head with a gun. The only description of the suspects was that they were black. Drugs were found in the home, and in executing a search warrant, police found one pound of marijuana, hash oil and paraphernalia, Clemens said. Five people were arrested. (Megan Raposa, *Argus Leader*, December 8, 2015)

An attempt to sell marijuana became a robbery on Monday night when the buyer allegedly pulled a handgun on the seller. The incident happened in the parking lot of the Best Buy in Sioux Falls. At around 8:30 p.m., a 23-year-old man called police to report that he and his friend had been robbed, police spokesman Sam Clemens said. The man's story kept changing, but it eventually came out that the man's friend, also 23, had been trying to sell marijuana to the person who had robbed them. (Katie Nelson, *Argus Leader*, December 23, 2015)

The above excerpts provide examples of how reporting of marijuana crimes facilitates negative stereotypes among readership. These examples depict dire and extreme situations where the reports suggest a need for law enforcement intervention.

The media framing of marijuana is consequential for Sioux Falls because extreme depictions of offenders may prevent elements of the local marijuana reform movement from progressing. In order to try to comprehend the full scope of local media's influence on public perception, the official response must be considered.

Official Response

Print media representations, particularly those of drug offenders, tend to impact the official response (Cobbina, 2008). This may be due to the reliance journalists place on public officials to supply them with stories (Hall, et al., 1978; Chermak, 1997). In *Argus Leader*, reports indicated that public officials were largely opposed to initiatives for legalizing medical and recreational marijuana. Further, reports show that public officials in South Dakota opposed reducing sentences for marijuana offenders, despite the state having some of the most restrictive marijuana laws in the country.

Nonmedical Marijuana Legislation

Reports mentioned nonmedical marijuana legislation 17% (n=21) of the time. Nonmedical marijuana legislation efforts were aimed at changing existing marijuana laws for nonmedical reasons. For example, reports of proposals to reduce prison sentences for marijuana offenders fell into this category as well as reports of campaigns to legalize recreational marijuana. Distorted beliefs regarding crime frequently result in the formation of policies by government and law enforcement

agencies (Potter and Kappler, 2006). In South Dakota, it is possible to receive a misdemeanor charge, punishable by a one-year incarceration and a \$2,000 fine, if an individual is inhabiting a room where marijuana is being used or stored, whether or not the individual is aware (Armentano, 2015). Although there have been attempts in South Dakota to reduce the misdemeanor prison sentence from one year to 30 days, it has been rejected by elected officials who claim that many offenders do not get sentenced to the maximum amount of prison time, if they get sentenced at all, so the severity of the enforcement does not follow suit with the law.

A Senate panel Tuesday rejected a bid to lower the maximum penalty for possessing less than 2 ounces of marijuana from a year in jail to 30 days. Supporters and opponents of Senate Bill 221 conceded the overwhelming majority of those charged serve far less than a year in jail, with most receiving only fines. ...Attorney General Marty Jackley and lobbyists for county prosecutors, sheriffs and police chiefs said the bill would send the wrong message about a drug they consider a gateway to more harmful substances. (John Hult, *Argus Leader*, February 13, 2013)

The above sentiment evidences South Dakota's lack of interest in engaging in prison reform to alleviate the state's marijuana offenders. Further, it underlines the state's ability to exercise their power in a manner that separates South Dakota from the rest of the nation with respect to treatment of smalltime nonviolent criminals.

The 2015 Flandreau Santee Sioux tribal movement to legalize recreational marijuana within the borders of its reservation was denounced publicly by state officials. This movement began after the Wilkinson Memorandum was issued declaring that the previously released Cole Memorandum would "guide United States attorneys' marijuana enforcement efforts in Indian Country," including instances where "sovereign Indian Nations seek to legalize the cultivation or use of marijuana in Indian Country." (USDOJ, 2014, p. 2). Elected officials declared that the process

of navigating the legal complexities between the reservation and non-reservation areas was reason enough to fundamentally oppose the movement citing the state's "guilty by ingestion" law, which is unique to South Dakota.

State law says a person found to have traces of THC, the ingredient in marijuana that creates the sensation of being high, in his or her body even weeks after ingesting the drug is subject to a Class 1 Misdemeanor. The charge is punishable by one year in jail, a charge of \$2,000 or both. And that could be a problem for non-tribal members interested in using marijuana at the facility, lawmakers said at a committee meeting Monday. ... Sen. Craig Tieszen, R-Rapid City, told the State Tribal Relations Committee that the issue had the potential to become a "minefield" between the state and the Flandreau tribe if not handled properly. "This is a jurisdictional and enforcement nightmare. It's a bad situation all the way around." (Dana Ferguson, *Argus Leader*, October 27, 2015)

Nonmedical marijuana legislation had trouble progressing at the state level as well. Recent proposals to legalize recreational cannabis have been opposed by elected officials who doubt that taxes from recreational sales would amount to anything worthwhile for the state.

South Dakota Republicans have acknowledged that the state faces a challenge in bringing in enough revenue to run government offices and programs. But despite that, they said they don't foresee a future in which recreational cannabis would be the solution. "Never. Absolutely not," said South Dakota House Speaker Mark Mickelson, R-Sioux Falls. "Tax yourself for something you need, don't tax someone else for their path to destruction." Sen. Larry Tidemann, R-Brookings, chairs the state's Joint Committee on Appropriations. He said he wasn't convinced that passing the proposal would bring in as much funding as proponents said. "I don't think we have enough people in the state to generate enough revenue." Tidemann said. "We don't even have as many people as Denver." (Dana Ferguson, *Argus Leader*, April 4, 2017)

The excerpt above evidences the general climate among politicians in South Dakota when the discussion of marijuana legalization is put on the table.

Medical Marijuana Legislation

Medical marijuana legislation was mentioned in 34% (n=41) of the reporting. Medical marijuana legislation consisted of reports of social and political action aimed at modifying existing marijuana laws to allow for the use of marijuana as medicine for various illnesses. Law enforcement, elected officials, and healthcare professionals treated the notion of legalizing medicinal marijuana as dismissively as they did initiatives to legalize recreational marijuana.

But law enforcement officials say the push to legalize marijuana for medical purposes is dangerous and a front by groups who want to legalize the drug for all. They also fear legalizing marijuana for use by medical patients could lead to more of the drug being used illegally in South Dakota. “There’s great concern about how easily this marijuana could fall into the wrong hands,” said Minnehaha County Sheriff Mike Milstead, who opposes the measure. (Megan Myers, *Argus Leader*, November 5, 2006)

Those against the measure [Initiated Measure 4] said approval would have led to open use, and the public might think that it is the only medicine effective for certain ailments. Sioux Falls police chief Doug Barthel said he feared that people would abuse the privilege. “I think the state will be glad they voted against it, because from an enforcement aspect, I think it would have been a nightmare for us,” Barthel said Tuesday night. “Look at an event like JazzFest where you have thousands of people,” he said. “Some who would have been allowed to smoke it would be doing that openly. How would we differentiate between who can and can’t?” (Jay Kirschenmann, *Argus Leader*, November 8, 2006)

The excerpts above underline the sentiments of fear among elected officials who appear to be buying in to the marijuana moral panic. City officials seem to be worrying over marijuana falling into the hands of people without prescriptions and use at outdoor community events. If marijuana were legally accepted as a medication, strictures and punishments may be appropriated for use without a prescription. Secondly, the use of any prescribed medication in a public setting is not necessarily

cause for panic as events like JazzFest may still disallow any type of smoking from being done on the premises. It seems that Barthel is underestimating the unofficial regulatory forces that would need to be imposed if marijuana were legalized.

Proponents of marijuana legalization publicly commented, citing their own marijuana use and how it is preferable to prescriptions that do not address or cure chronic pain. Credentialed experts in elected positions subsequently opposed these types of arguments.

I read with interest your dispassionate editorial opposing Initiated Measure 4 on medical marijuana. As a Gulf War veteran who was exposed to nerve agents while busting bunkers in Iraq and who, as a result, suffers from a degenerative muscular disease that meant the end of my career and that likely will cut short my life, I must disagree. I've been prescribed virtually every FDA-approved narcotic and opiate on the market. These medications didn't effectively treat my pain and left me in such a haze, I couldn't remember what my family had said the previous day. Moderate amounts of marijuana have eased my pain and allowed me to interact with my family. ...As an Army veteran, a now-retired nurse and a mother who deals with constant, indescribable pain each day, I can only tell you that medical marijuana has allowed me to lead a more normal life. (Valerie M. Hannah, *Argus Leader*, October 26, 2006)

The four-year-old has Dravet Syndrome, which causes multiple seizures each day. And while [George] Hendrickson and his wife Kristin keep Elijah on a special diet and take precautions to reduce potential triggers, they worry it's not enough. "My son's time is urgent. Waiting this year, we got lucky that he survived," Hendrickson told lawmakers Tuesday. The couple spent days at the Capitol last year urging lawmakers to pass a bill that would legalize the possession and use of cannabidiol oil, a derivative of marijuana that they hoped would treat their son's seizures. But it ultimately failed, leaving the Hendricksons in a state of medical and legal limbo as they have been unable to give their son the drug that reduces his symptoms at home without breaking the law. (Dana Ferguson, *Argus Leader*, February 15, 2017)

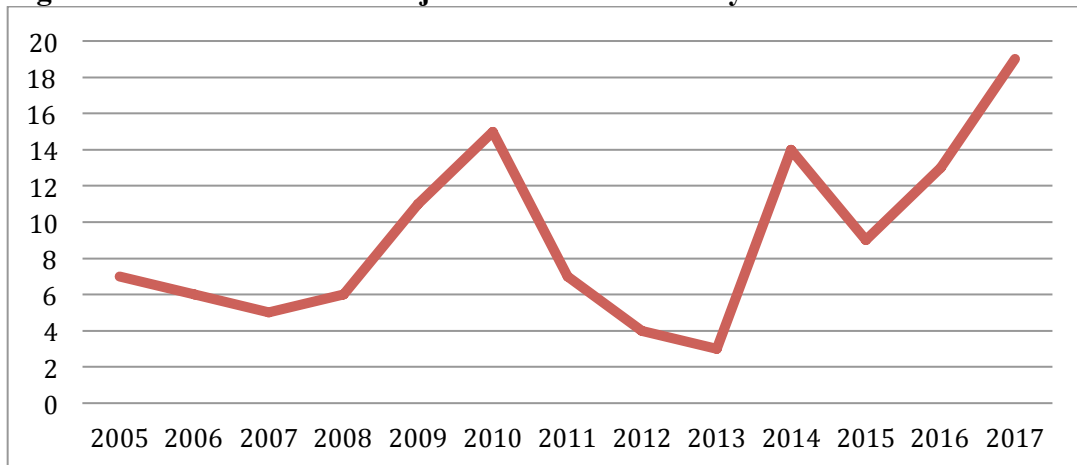
Dr. Thomas Huber, president of the South Dakota Medical Association, said no one needs marijuana. His organization opposes the measure, saying synthetic versions of marijuana's active ingredient are available and there isn't enough research to prove a benefit. "The proof isn't there," Huber said. Most people will smoke the medical marijuana and expose themselves to a host of cancer-causing chemicals, he said. Even if patients would benefit from

marijuana, they will do damage to their lungs, he said. “Smoking is bad for you, and smoking marijuana is bad for you, besides being illegal, Huber said. (John Hult, *Argus Leader*, September 6, 2010)

These excerpts show that those who step out and speak in favor of legalizing medical marijuana for certain conditions are immediately discounted by experts and right-thinking professionals who delegitimize patient claims, despite testimony from those patients or their caregivers. This shows that, even when individuals speak out about the positive impacts of medical marijuana in South Dakota, they are not met with seriousness. Citing that “the proof isn’t there” reveals ignorance toward the marijuana reform movement and its connection with a growing body of empirical research conducted by physicians, social scientists, and natural scientists.

Marijuana Reporting Trends

The volume of marijuana reporting conducted by *Argus Leader* varies from year to year based on political, legal, and social trends. Over time, the issue of marijuana legalization seems to emerge suddenly at some points in time and lie dormant at others. This type of change in reporting trends can make the hostility toward offenders temporary, though reporting is not the only factor that impacts hostility toward offenders. Other ways to elevate moral concern, maintain hostility toward deviant groups, and potentially sustain panics come in the form of organized social movement, legislation, enforcement practices, and informal norms or practices for punishing offenders (Goode and Ben-Yehuda, 1994).

Figure 6: Distribution of Marijuana Titled Articles by Year 2005-2017

Sioux Falls Marijuana Reporting Volatility

Figure 6 depicts the distribution of marijuana titled articles between 2005-2017 in Sioux Falls, SD. The data shown on Figure 6 indicate some volatility in salience of reporting on issues related to marijuana. Perhaps sociopolitical movements that have taken place in Sioux Falls during the period under observation, such as initiatives to legalize medicinal and recreational marijuana, may provide some explanatory power for the reporting trends seen on Figure 6. The first noticeably significant increase in reporting displayed on Figure 6 occurred between 2008 when six marijuana titled articles were published to 2010 when 15 articles were published. This shift may be attributable to several factors, one of which was the widespread effort to pass The South Dakota Medical Marijuana Initiative, also known as Initiative 13, at the state level. The measure sought to legalize the possession, use, distribution, and cultivation of cannabis by those registered with the South Dakota Department of Health. This initiative was defeated 64% -36% (MPP, 2017; Harriman, 2014). The second major spike observed on Figure 6 is between 2014 and 2015 and may be attributable to the 2015 movement by the Flandreau Santee Sioux Tribe to

attempt to legalize marijuana on their reservation. Finally, Figure 6 depicts a dramatic increase in reporting beginning in 2017, which may be attributable to the latest efforts to place marijuana legalization on the state ballot.

Local Tribal Marijuana Initiatives

Figure 6 shows reporting on marijuana titled stories decreased between 2011-2013 and began to rise again in 2014. In 2014, the U.S. Justice Department issued the Wilkinson Memorandum giving tribes the right to legalize marijuana within the boundaries of their reservations. South Dakota is home to nine Native American tribes whose populations largely reside within the boundaries of reservations and tribal lands throughout the state (South Dakota Indian Business Alliance, 2010). Subsequently one of South Dakota's tribes, the Flandreau Santee Sioux Tribe, began proceedings to attempt to legalize recreational cannabis within its sovereign reservation grounds by attempting to build the nation's first marijuana resort (Cano, 2015). South Dakota Attorney General Marty Jackley, who is well known for campaigning against the reform of marijuana laws, brought charges against the Colorado consultancy and its representatives that were working to assist the Santee Sioux Tribe with their industrial aspirations (Nord, 2017). Between 2015 and 2017, Jackley pursued the case despite a profound lack of evidence, which did not result in convictions for the consultants or the firm they represented (Ellis, 2017).

Recent and Current Social Action

Alongside increased media attention due to the circumstances with the Flandreau tribe came the latest statewide push for marijuana legalization since Initiative 13 happened in 2010. New Approach South Dakota, an organization

comprised of parents, medical patients, law enforcement, and health professionals were largely responsible for collecting over 16,000 signatures to place medical marijuana on the 2016 ballot, but the initiative was rejected due to a notary error (Huber, 2017). New Approach attempted to place recreational and medicinal marijuana on the 2018 ballot but only collected enough signatures to place medicinal marijuana on the ballot. After collecting more than the 13,000 needed signatures, the initiative went unsponsored as of February 2018. It was also found that only about 62% of the collected signatures were valid. The strategic political and legal maneuvering to avoid putting marijuana on another ballot in South Dakota gives some validity to its status as an object of moral panic in the state.

Conclusion

Using Goode and Ben-Yehuda's (1994) themes of moral panic, there is sufficient evidence to suggest a moral panic over marijuana in Sioux Falls, South Dakota was facilitated during the timespan under observation. Collectively observing the media framing of marijuana, offender typification, and the official response, the signs of moral panic are abundant. Argus Leader framed marijuana reporting largely in terms of marijuana law offenses. For example, articles that framed the marijuana debate in Sioux Falls focused on cultivation, possession, and distribution offenses. These aforementioned crimes highlight the costs of associating oneself with marijuana. One particularly interesting finding was that when marijuana's potential as a commodity was discussed, it was always framed in terms of the crop's profitability.

Reports that fell under the category of "offender typification" were coded using Goode and Ben-Yehuda's (1994) themes of moral panic. In these reports, the

first of these themes, concern, was evident. For a moral panic to evolve, there must first be a heightened level of concern over the deviant behavior of a certain group. That concern materializes in public opinion polls, public commentary, social movement activity, and media attention. Since there would be no news articles covering marijuana cultivation, possession, distribution, or legalization in the absence of concern, this initial criterion is satisfied. This concern is underlined by reporting that highlights marijuana possession and distribution by minors within Sioux Falls. Further, reports suggest that the act of using marijuana is changing as the vapor industry evolves making marijuana use increasingly more difficult to detect.

For a moral panic to evolve past concern, there must be an increased level of hostility toward the group whose behavior is regarded as deviant. The reports included definite sentiments of hostility toward marijuana offenders. Hostile reports mentioned marijuana offenders being found with more serious illicit substances, engaging in more risky and illegal behaviors like robbery, and committing acts of violence and/or murder. Subsequently, the secondary criterion of moral panic, hostility, is satisfied.

Consensus, the tertiary criterion in the evolution of a moral panic, occurs when designated segments of society find the deviant behavior of a group to pose a threat that is real, serious, and caused by the group's behavior (Goode and Ben-Yehuda, 1994). Consensus can occur when law enforcement, politicians, and other claims makers indicate that something must be done about the behavior of the deviant group. The newspaper examples used in the "Consensus" section above illustrate how readers might feel a sense of urgency for something to be done about marijuana

offenders in Sioux Falls. The examples from this section conflate marijuana offenders with the behavior of dangerous and violent criminals, which is not an accurate summation of the marijuana-using population in Sioux Falls. The third theme of moral panic, consensus is satisfied.

Goode and Ben-Yehuda's (1994) fourth component of a moral panic is disproportionality. Disproportionality occurs when the threat of danger or damage caused by the deviant group behavior is said to be far more substantial than it actually is. As readers, we place confidence in statements given by scientists, medical figures, or other experts and accept them as true. It has been shown that *Argus Leader* has framed the marijuana situation in Sioux Falls with a higher proportion of costs than benefits. For example, economic benefits were discussed in several instances, using quotes from experts and empirical industrial data from other states' legal marijuana organizations. When medical benefits of marijuana were discussed, however, it was often quotes from the patients that used marijuana as medicine rather from experts in the healthcare field. When quotes from healthcare experts were mentioned, they often countered the input of the medical marijuana users in a way that allowed experts to coopt the medical legalization debate and nullified the input of the users.

Incorporating quotes from marijuana users to endorse the potential legalization of marijuana, rather than obtaining supporting quotes from healthcare experts, seems to have a higher potential for skepticism pertaining to medical benefits among *Argus Leader's* readership.

Lawmakers in South Dakota relied on sentiments of disproportionality to maintain the illegal status of cannabis and to uphold the discriminatory practices that

inordinately subject people of color for cannabis-related offenses. This was observed in efforts to reduce prison terms for marijuana offenders, an effort that was fundamentally opposed by state officials. It is this type of unified opposition from elected officials in South Dakota that keeps the state out of step with national progress toward marijuana law reform.

The last of Goode and Ben-Yehuda's (1994) diagnostics for a moral panic is volatility. Volatility occurs when panics break out suddenly and subside nearly as quickly. Figure 6 illustrates the marijuana reporting trends of Argus Leader from year to year between 2005-2017. This figure indicates volatility in reporting on marijuana, particularly before and during election years. Dramatic increases in reporting occurred around the time that Flandreau Santee Sioux tribe indicated its plans to move forward with their marijuana resort, which never materialized. These trends are suggestive of the highly politicized nature of South Dakota's marijuana debate, which can be most likely be expected to continue in the state until some form of progressive marijuana legislation is passed.

CHAPTER 5: IMPACT REPORT ANALYSIS

Impact Analysis

Impact analyses are undertaken to provide higher levels of comprehension relating to social change, to predict the impact of those changes, and to respond to the implications of hotly contested goals (Howitt, 2011). The job of the assessor is to distinguish between the critical issues that relate to an intervention and those requiring less extensive study (Bamberger, et al. 2011). Social impacts are unique when compared to biophysical effects because social impacts emerge immediately, alongside changing social conditions, including those that occur in anticipation of policy change (Burdge, 2015). Conducting baseline studies in areas undergoing policy change is an essential component to understanding cumulative pressures of changes in respective regions and can inform impact prediction, identify priority areas, and guide mitigation and management efforts (Franks, et al. 2011).

Cumulative Impacts

Cumulative impacts are a result of the aggregation and interaction of an environment's impacts (Franks, et al., 2011). The true nature of cumulative impacts is best analyzed with respect to their regional context (Vanclay, et al. 2015). Therefore, there is a need for SIA to be conducted in all communities that are considering changes in existing marijuana policy. Reports produced prior to policy changes are beneficial to communities because they help policy makers with decision-making and add value to the pre-planning process (Burdge, 2015). Subsequently, these

assessments provide a useful and comprehensive baseline of data, which can be used for monitoring and evaluation long after policy change occurs (Roche, 1999).

Recommendations in SIA

Standards for SIA should be based on basic principles specific to its practice. Basic principles of SIA serve to establish a baseline of standards for conducting the method in any environment, with definite consideration for international contexts. As Burdge (2015) indicates:

The objective of SIA is to ensure that development maximizes its benefits and minimizes its costs, especially those costs borne by people (including those in other places and in the future). Costs and benefits may not be measurable or quantifiable and are often not adequately taken into account by decision-makers, regulatory authorities and developers. By identifying impacts in advance: (1) better decisions can be made about which interventions should proceed and how they should proceed; and (2) mitigation measures can be implemented to minimize the harm and maximize the benefits from a specific planned intervention or related activity. (p. 275)

Evaluation research focuses on intended and purposeful goals of public policy initiatives while SIA more commonly focuses on unintended consequences of developments (Freudenberg, 1986). Undesired effects are not always undesirable and, as Merton (1936) indicates, the consequences or impacts of purposive action are bound to those elements of effect, which are uniquely the outcome of the purposive action itself. In SIA, a counterfactual would be absent of impact and any consequences of assessor recommendations. Therefore, one of the essential activities of the assessor is to develop and recommend mitigation measures to be utilized in the event of intended or unintended consequences (Vanclay, 2012).

Marijuana Impact Assessments

To prepare Sioux Falls for impacts of a legal marijuana market, existing SIAs, HIAs (health impact assessments), and EIAs (economic impact assessments) conducted on marijuana legalization were reviewed to determine the relevance of their respective impacts and recommendations. The reports in the sample vary in format, objective, and length. All impact assessments (N=27) were categorically linked to marijuana legalization, however the unit of analysis varies between the county, city, state, and country levels. Subsequently, the contributions and recommendations suggested in the reports reflect the context in which they were conducted. Reports with varying levels of analysis were included due to the potential value of their recommendations and contributions toward understanding how differing marijuana legalization strategies in other cities, states, and countries might be implemented in Sioux Falls.

Figure 7 displays the number of SIA reports analyzed by year. Forty-four percent (n=12) of the marijuana impact reports were written in 2016. That same year, 33% (n=9) of the marijuana impact reports were conducted on various states in the US. These states were Colorado, where 11% (n=3) of the reports were based, followed by Washington, Oregon, California, Rhode Island, Arizona, and Wyoming, each representing roughly 4% (n=1) of the total sample.

In 2016, 7% (n=2) of the marijuana impact reports in the dataset were conducted in various places within Canada. One other marijuana impact report was conducted in 2016 by the World Health Organization and was hosted by the Swedish Ministry of Health and Social Affairs. This impact report was not produced by one

nation for any specific area but instead focused on the neurobiology, epidemiology, short and long-term effects, and prevention and treatment for cannabis use in a broad sense. Figure 7 depicts 33% (n=9) of SIAs in the sample were written in 2017 with three or less reports from all other years in the sample. There were no reports in the sample conducted in 2014.

Figure 7: Number of Marijuana-Related Reports Reviewed by Year of Publication

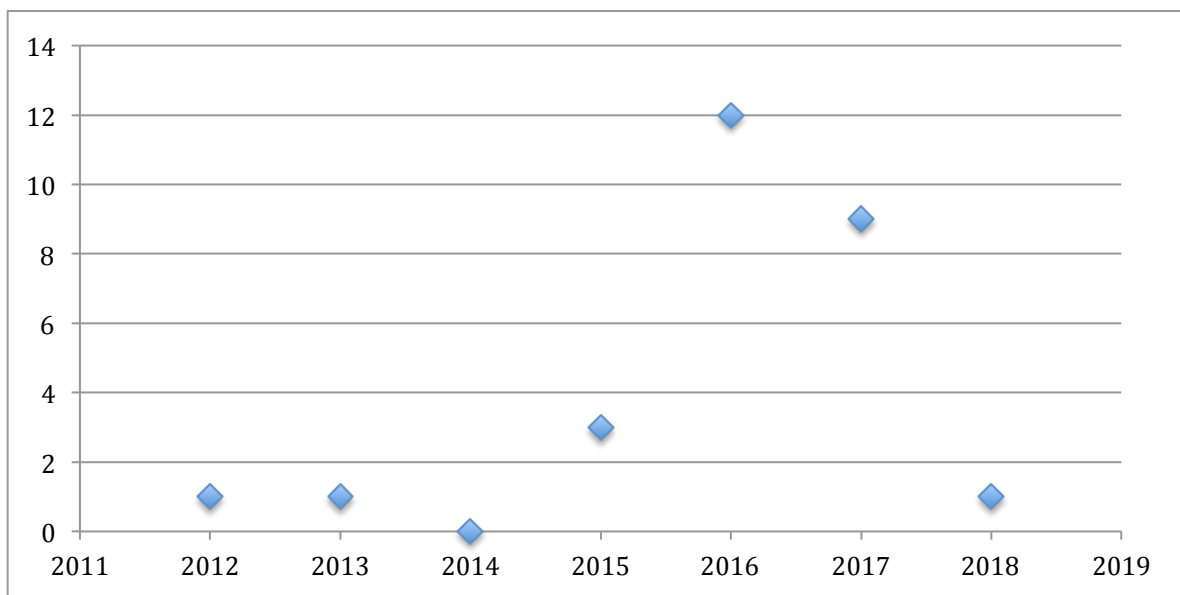


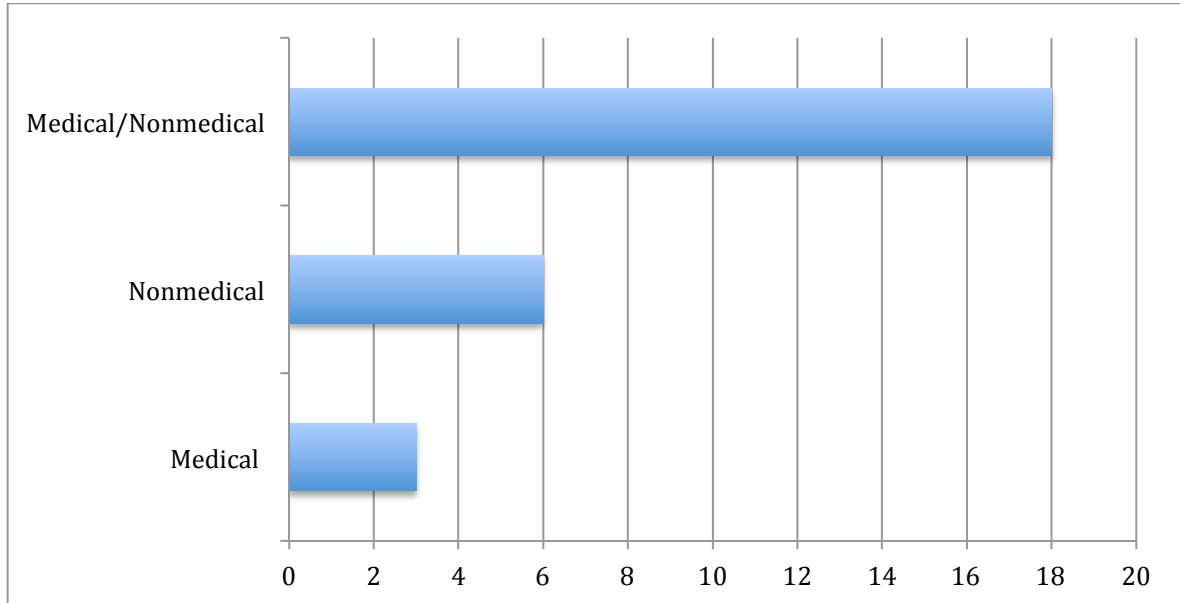
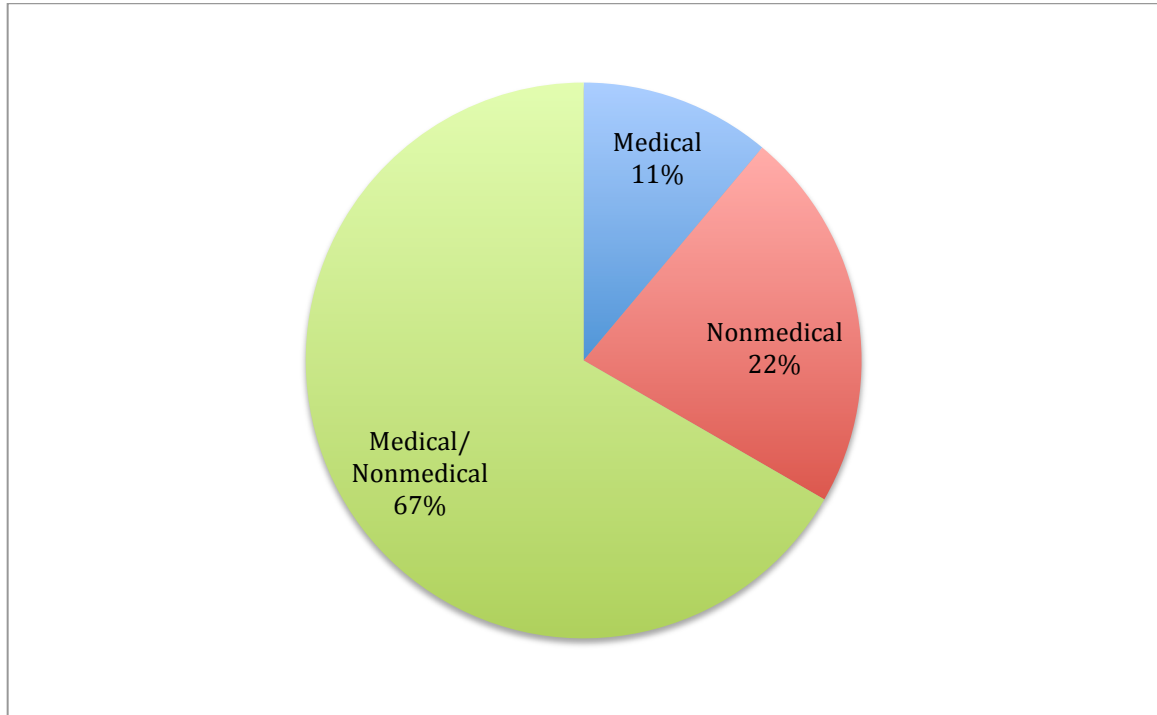
Figure 8: Concentration Area of Reports

Figure 8 represents the concentration area of SIA reports in the sample.

Reports were divided between those who prominent coverage was on medical marijuana legalization, nonmedical/recreational marijuana legalization, and reports that contained ample coverage of both medical and nonmedical marijuana legalization impacts. The medical legalization category revealed the fewest reports, constituting about 11% (n=3) of the total sample.

Figure 9: Percentage of Total Coverage of Marijuana Legalization

Medical Impacts of Marijuana Legalization

Medical reports in this sample were all produced in the United States. Impact areas were Rochester, NY (Klofas and Letteney, 2012), Kansas (Lin, et al., 2015), and California (MacEwan, et al., 2017). The documents from Rochester and Kansas were produced in response to legislative shifts, which were being proposed in each of those states during the time the reports were completed. The broad goal of those reports was to aid in legislative decision-making pertaining to the potential legalization of medical marijuana in New York and Kansas. The document from California aims to analyze the economic impacts of statewide medical cannabis cultivator regulations on the cannabis industry.

Each of the reports addressed some aspect of consumer health-related outcomes. The primary focus of Klofas and Letteney's (2012) report was to elucidate

the then-known statuses of marijuana legalization in all states that had allowed some form of medical marijuana to present a comparative analysis. The Rochester report posed several questions aimed at assessing health impacts of marijuana that would ideally be answered prior to the implementation of a medical market. These medical marijuana-related questions are:

“[1] What social indicators should be considered to assess the impact of medical marijuana? [2] What will be the impact of medical marijuana on the levels of marijuana use? [3] How will medical marijuana affect the use of illegal drugs such like heroin and cocaine? [4] How will medical marijuana affect illegal marijuana markets and the neighborhood distribution associated with them? [5] What will be the impact of marijuana on property crime? [6] What will be the impact of marijuana on violent crime? [7] What health issues might be associated with medical marijuana?” (Klofas and Letteney, 2012, p. 2-5)

These research questions are broad and could be applied to a variety of regional contexts. Therefore, these questions may be valuable to other assessors attempting to determine public health impacts of medical marijuana legalization in regions outside of Kansas.

Klofas and Letteney (2012) acknowledge differing rules between states can lead to various outcomes regarding social factors like crime, drug use, government action, and the public perception of medical marijuana. Lin, et. al’s (2015) report on Kansas, which was a health impact assessment (HIA), analyzed similar factors by asking the following research questions:

- How will the legalization of medical marijuana affect the following factors?
How will changes in these factors affect health?
- Access to marijuana
 - Consumption of marijuana
 - Crime
 - Driving under the influence of marijuana
 - Accidental ingestion of marijuana

- Vulnerable populations (Lin, et al., 2015, p. 2)

As the segment above illustrates, impact reports assess issues of access, consumption, public safety, marijuana-impaired driving, accidental ingestion, and inclusion of traditionally underserved populations in areas where marijuana legalization was being assessed.

Lin, et al.'s (2015) report focused special attention on populations that had the potential to be disproportionately impacted by changes in marijuana policy. Accordingly, special attention was paid to at-risk youth and how to prevent young people from accessing marijuana when they are not legally permitted to do so. While the initial medical reports described above analyzed health impacts of marijuana prior to potential legislative shifts, MacEwan, et al.'s (2017) report focused on how rules are being made to govern medical cannabis cultivation in California and the economic impact of that process. While this report analyzes economic impacts of California's regulations, labeled as a standard regulatory impact assessment (SRIA), important considerations are made about the health impacts of these medical market regulations imposed by the Medical Cannabis Cultivation Program (MCCP). For instance:

The MCCP regulations will have an uncertain impact on individuals. Regulations will increase cannabis product safety (e.g. limited pesticides), but this has uncertain effects on consumer health outcomes. General safety may improve through better regulation, enforcement, and compliance (licensing), but there is limited evidence to support that. A Cato (2015) report finds that in Colorado, Alaska, and Oregon, legalization had a negligible effect on unintended outcomes among consumer groups. That is, there is no evidence of adverse health or public health outcomes. (MacEwan, et al., 2017, p. 73)

This above excerpt insinuates that there is no proof that marijuana use produces negative impacts. It does not however, make the argument that marijuana is healthy to use. This is particularly interesting because regulations that apply exclusively to the medical cannabis industry in a state whose regulatory structure has been impacted by changing regulations for recreational cannabis are considered. Therefore, the importance of continued health impact analysis in regions with a legal retail market for cannabis is legitimized.

Medical Marijuana Recommendations

Klofas and Letteney (2012) focus on social indicators that should be considered when assessing medical marijuana's impacts. They suggest analyzing whether public organizations have emerged to protect and support medical marijuana legalization. In areas that are pro-medical marijuana, the presence of such support groups is significantly stronger. To curb increases in post-legalization violent crime, Klofas and Letteney (2012) offer some evidence to support that protection for medical marijuana patients may establish safer distribution standards for patients who do not want to disclose their identities. Some recommendations to ensure patient privacy are medical marijuana delivery services, enhanced security services, and confidentiality agreements between dispensaries and patients. Finally, the Rochester report concludes with a recommendation to analyze and understand the variety in marijuana legislation across states to better understand the myriad impacts of medical and nonmedical marijuana legislation.

Focusing on public health aspects, Lin, et al. (2015) produced a report that more traditionally aligns with the HIA process. This methodological process unfolds

accordingly: screening; scoping; assessment; recommendations; reporting; monitoring and evaluation. During the assessment phase, key informant interviews were conducted to establish public participation. Recommendations were then developed pertaining to medical marijuana legalization in Kansas. Lin, et al. (2015) produced the following recommendations based on key areas of marijuana legalization. These key areas and some of their selected recommendations are:

Access to Marijuana

- Conducting a media campaign to highlight the myths and realities of the medical marijuana program in Kansas.

Consumption of Marijuana

Monitoring and Surveillance

- Monitoring rates of participation in treatment programs

Youth Prevention

- Discouraging adults from using marijuana in the presence of children because of the influence of role modeling by adults on child and adolescent behavior.

Provider Accountability

- Identifying evidence-based practices that keep health care providers accountable to the types of prescription/recommendations they make for medical marijuana

Violent/Property Crime

- Implementing zoning requirements for dispensaries stipulating minimum distances to certain entities including schools, universities, child care, and correctional facilities.

Driving Under the Influence of Marijuana

- Increasing testing and reporting for marijuana in drivers, especially fatally injured drivers and at-fault drivers

Accidental Ingestion

- Monitoring emergency department visits for accidental ingestion of marijuana, especially among children under age five.

Vulnerable Populations

- Prioritizing 13 “vulnerable” counties for any efforts focused on reducing risks associated with marijuana use (Lin, et al. 2015, p. 54-56)

Several reports included variations of the recommendations mentioned above. The placement of dispensaries is strategic in communities experiencing newly legalized

marijuana. The above report mentioned zoning requirements for dispensaries to reduce crime. Chang and Jacobson (2017) found no support that closing dispensaries reduces crime, therefore implying no proven association between dispensaries and crime increases.

Since the final report in this category is a SRIA, certain considerations are made for the social and economic impacts of medical marijuana legalization. MacEwan, et al. (2017) suggest that since the medical cannabis industry is still in its infancy, consumers in the market are having their demands “partially met through the informal black/grey market for non-medical cannabis” (p. 5). Proposition 64, the Adult Use of Marijuana Act, which was passed in California in 2016, produced some changes for the medical industry because some medical cannabis consumers may substitute to the recreational market when it becomes legal. This may lead to decreases in the size of the market for medical cannabis, which can drive cannabis businesses to focus their efforts on recreational marijuana rather than medical marijuana. This is an important finding to consider because states with adult use have typically passed legislation for medical cannabis prior to obtaining recreational legalization. This means that states negotiating medical marijuana legalization should consider how the medical market might potentially be impacted by recreational legalization in the future.

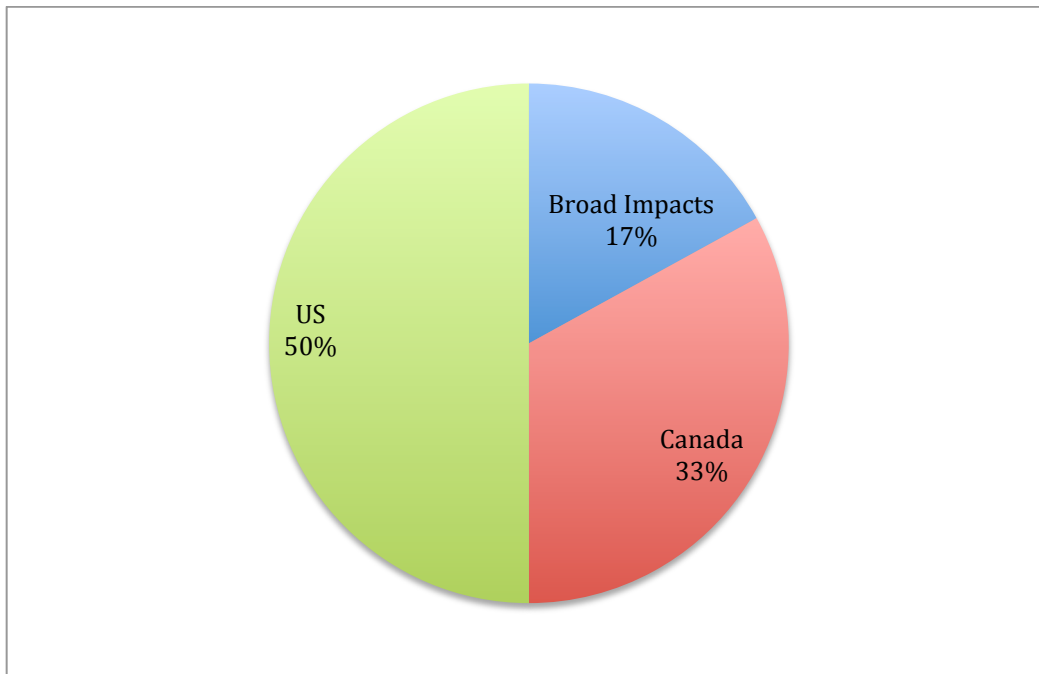
Nonmedical Marijuana Assessments

Figure 9 depicts that 22% (n=6) of the impact reports are based on nonmedical marijuana legalization. Although the primary coverage area of each of these reports was nonmedical marijuana, nearly all of the nonmedical reports were comprehensive

and included a great deal of information pertaining to public health in contexts with nonmedical marijuana legalization. One of the reports in this category was an Economic Impact Assessment (EIA) and subsequently examined economic and industrial impacts of the nonmedical cannabis industry at the county level. The report focusing on broad impacts of recreational marijuana legalization was conducted by the World Health Organization and did not pertain exclusively to any one region.

Nonmedical Impact of Marijuana in America

Figure 10: Percentage of Nonmedical Impact Coverage Broadly, in US, and in Canada



Nonmedical marijuana reports in this sample were collected from a regionally broad environment whose locations are within the United States and Canada. As Figure 10 depicts, 50% (n=3) were based in the United States and focused on the state of Colorado (Duke, et al., 2013), the city of San Francisco, CA (Comerford and Gara, 2017), and Calaveras County, CA (Center for Business and Policy Research, 2017).

As the unit of analysis of the American-based nonmedical reports shifts between reports, so do their respective objectives. Canadian reports constituted 40% (n=2) of the reports in this category (Deloitte, 2015; Akhigbe, et al. 2017). The World Health Organization (2016) report constituted about 17% (n=1) of the nonmedical reporting category.

The broad goal of these reports was to analyze contextual impacts of marijuana legalization in order to mitigate unanticipated consequences and to avoid those that were anticipated. Duke, et al.'s (2013) HIA focused on efforts to prevent unintentional ingestion of marijuana by children across Colorado during post-recreational marijuana legalization. Since a key area of concern in the marijuana legalization debate is access to marijuana and ingestion by children, many of the impact assessments in the sample devoted considerable attention to preventively addressing this problem. Duke, et al.'s (2015) HIA exclusively focused on preventing accidental marijuana ingestion by children. True to the accepted standards of HIA, Duke, et al.'s (2015) report aimed to use scientific procedures, methods, and resources in order to provide recommendations on recreational marijuana policies to maximize positive impacts and minimize the negative impacts. Since much of the debate around preventing children from accidental marijuana ingestion revolves around the packaging of marijuana edibles, a considerable portion of this report was devoted to this discussion.

On May 28th, 2013, Governor John Hickenlooper signed into a law a number of pieces of legislation, including HB 13-1317, that took steps to establish the legal and regulatory structure for marijuana in Colorado. HB 13-1317 created the State Licensing Authority which was responsible for regulating medical and retail marijuana. The bill also specified that regulations should require

packaging similar to those required by the Poison Prevention Packaging Act of 1970. (Duke, et al., 2017, p. 3)

As the above excerpt mentions, packaging of edibles and child ingestion are not the only public health concerns prompted in the nonmedical marijuana legalization debate. Comerford and Gara's (2017) report assessed multiple sources of information to formulate an understanding related to potential health impacts of adult-use that would be felt by San Francisco. Comerford and Gara's (2017) goal were to:

- Prevent youth access and exposure to cannabis
- Minimize potential harms to communities from cannabis use
- Prevent the renormalization of tobacco product use and reverse of declining use rates
- Ensure perceptions of cannabis recognize risks associated with use (p. 2)

In order to accomplish these goals, the following research question was posed:

What are the health impacts of adult use cannabis retailers on San Francisco communities? More specifically... How does the density of and proximity to adult use cannabis retailers impact youth exposure and neighborhood quality of life? And how does allowing onsite consumption of adult use cannabis impact youth exposure and neighborhood quality of life? (p. 2)

The findings of Comerford and Gala's (2017) report revealed disproportional impacts on communities of color. These communities were impacted by the location of medical cannabis dispensaries, youth usage rates, and negative health outcomes of cannabis use that led to related hospitalizations. There was also some documented concern over cannabis edibles, which were expressed in terms of potency and related hospitalizations rather than just packaging. Finally, Comerford and Gala (2017) indicate increased concern over developing a responsible prevention strategy through advertising, since similar approaches have been relatively successful in previous campaigns focused on substance use prevention.

The final American-based report on the impacts of nonmedical cannabis analyzed county-level economic impacts of cannabis cultivation. This county's economic impacts are important to analyze because the county established a temporary ordinance regulating cultivation in response to the passage of California's Proposition 64. After the temporary ordinance, a special election was scheduled, which gave Calaveras County voters the option to ban cannabis cultivation in the county. This economic impact assessment was conducted between the temporary ordinance and the May 2017 vote to provide insight into the economic impacts of cannabis cultivation within Calaveras County.

In Calaveras County, CA, cannabis cultivation is the largest industry, accounting for 21% of the county's employment and 15% of the county's Gross Regional Product (GRP). The full range of the economic impacts of cannabis cultivation in Calaveras County, or the total effect was measured by direct effects, indirect effects, and infused effects. These effects are explained below:

Direct Effects are the jobs and income directly supported by the industry such as the jobs held by cannabis farms' employees

Indirect Effects represent the interactive impacts of the inter-industry transactions as supplying industries respond to demand from the sector(s) where the initial expenditures occurred. An example of an indirect impact would be employees of a hardware store supplying cannabis cultivators.

Induced Effects reflect the expenditures made by recipients of wages in the direct and indirect industries. Examples of induced impacts include employees' expenditures on items such as retail purchases, housing, food, medical services, banking, and insurance. In these analyses, the total, direct, indirect, and induced effects are reported by employment, output, and labor income (Center for Business and Policy Research, 2017, pp. 8-9)

Direct effects appear to be experienced by workers in the cannabis industry while indirect effects are tied to interagency collaboration in the marijuana industry.

Induced effects occur when those in the direct and indirect industries spend money to infuse the economies where cannabis industries exist.

Using the IMPLAN economic model, Center for Business and Policy research calculated the cannabis cultivation industry in Calaveras County, CA generated \$251.5 million in sales output, directly employed 2,605 individuals with a direct labor income of \$148.4 million. The total impact of cannabis cultivation in 2016 amounted to \$339.2 million in output, impacted 3,404 employees, and brought a total labor income of \$172.2 million. These numbers indicate the power of regulatory decisions surrounding the cannabis cultivation industry.

Nonmedical Impacts of Marijuana in Canada

Nonmedical marijuana legalization is negotiated differently in Canada than in the United States. The Cannabis Act, which was tabled in the House of Commons, is expected to become federal law in July 2018. This law would allow Canada to legalize adult use marijuana at the federal level and permit Canada's provinces and territories responsibility for licensure, oversight of distribution and sales of cannabis. Following federal guidelines and conditions, Canada's provinces and territories will have the power to:

- increase the minimum age in their province or territory (but not lower it)
- lower the personal possession limit in their jurisdiction
- create additional rules for growing cannabis at home, such as lowering the number of plants per residence; and
- restrict where adults can consume cannabis, such as in public or in vehicles (Akhigbe, et al. 2017, p. 4)

This excerpt depicts the Canadian government's autonomous approach to federal legalization. Similar to US state-level marijuana laws, Canada's provinces may autonomously modify marijuana laws in their region.

This new legislation has prompted several impact assessments aimed at reducing harm and maximizing benefits for Canadians. Deloitte (2015) published a report that focused on public opinion, consumption trends, and retail opportunity. This report indicated that national support for marijuana legalization had 21% strongly in support, 19% who somewhat supported the movement, 15% somewhat opposed, 21% strongly opposed, and 24% neither supported nor opposed. These numbers indicate that nearly 40% of adults are in support, about 35% opposed, and approximately 25% are indifferent. This is a particularly interesting finding because it sheds some light on the somewhat balanced opposition and support in Canada. Despite this balance, the Canadian government moved forward with plans to legalize. Economic projections in Deloitte's (2015) marijuana report suggested that sales of recreational marijuana could lead to \$5 billion during the first year, with ancillary businesses earning at least \$12.7 billion, and the total cannabis market size potential at over \$22.6 billion. The Deloitte (2015) report suggested questions for businesses and government stakeholders to ask, some of which are included below:

Business Questions

- What does the entire value chain look like and where are the opportunities beyond production and sale?
- How well do you understand the marketplace and the segment you are trying to attract?

Government Stakeholder Questions

- How can a province leverage its existing expertise – in education, technology hubs, agriculture, etc. – to best support industry participation?

- Which retail and distribution model works best for your province both economically and in maintaining socially responsible consumption?
- What does public and youth education look like in a recreational market?

These questions are important for Canada to consider, but also set up a model framework for industry structure in America. Particularly, these questions can be transposed onto the regulatory framework for medical and recreational marijuana at the state or federal level in America, as the country collectively evolves its marijuana law. While the US stands to learn a great deal from the Canadian approach, the Canadian implementation of marijuana legalization has been largely informed by those states in the US that have given rise to marijuana legalization in North America. Particularly, the Canadian approach to marijuana legalization stresses knowing public health implications and basing harm reduction strategy from empirically grounded scientific findings. Akhigbe, et al. (2017) specifically mentions mitigating the following potential harms in the HIA developed to address public health implications of recreational cannabis legalization:

- Risk of toxicity
- Unintended exposure to children
- High mortality and morbidity attributable to cannabis, including motor vehicle accidents, lung cancer and substance use disorders
- Occupational safety risks
- Negative mental health outcomes
- Respiratory health impacts
- Impaired child and youth development
- Equity implications considering differential usage rates across gender and income levels (pp. 4-5).

Based on the potential harms mentioned above, Ontario Public Health Association (OPHA) has suggested the Federal and Provincial government prioritize health

concerns at the forefront of the legalization movement and to incorporate an approach that will mitigate the harms.

Nonmedical Recommendations in US

Although these reports considered nonmedical marijuana legalization, many of the recommendations made in them pertain directly to public health concerns presented by a recreational marijuana market. Duke, et al.'s (2013) report, which concentrated specifically on the public health and wellbeing of children by limiting the scope of the HIA to retail packaging of marijuana, produced evidence-based recommendations for retail packaging of marijuana products. These recommendations were based on scientific evidence, expert opinion and stakeholder input. In making the recommendations, an assumption of the HIA was that Colorado's marijuana industry would not be restricted in the type of infused marijuana products they could produce. Subsequently, the following recommendations were developed:

1. All retail marijuana and marijuana products should leave retail establishments in child-resistant packaging as defined by ASTM International and the Poison Prevention Packaging Act of 1970 (PPPA)
2. All child-resistant packaging should be opaque
3. All child-resistant packaging should be re-closeable
4. Allowances should be made to re-use appropriate child-resistant packages

As the above comments imply, strictly regulating packaging is aimed at addressing issues related to accidental marijuana ingestion by children, there are broader public health implications to consider. Comerford and Gara (2017) provided several public health recommendations for regulating the recreational marijuana market in San Francisco, CA in their HIA. Comerford and Gara (2017) suggest the following recommendations are undertaken to ensure maximization of public health and minimization of harms:

1. Take a measured approach to regulating adult-use cannabis
2. Implement a robust public educational campaign
3. Integrate cannabis into youth prevention programming
4. Address potential disproportionate impacts to communities
5. Strong regulation of cannabis edibles
6. Develop advertising standards to protect youth and work to avoid creating social norms.

The excerpt above mentions an educational campaign, the need to formulate youth prevention strategies, regulate edibles, and underlines the need for addressing and mitigating impacts to vulnerable communities.

While nonmedical impact reports address public health, they also include recommendations for the economic aspects of the nonmedical cannabis industry. Center for Business and Policy Research (2017) conducted their EIA on Calaveras County and provided suggestions for local issues that ought to be considered in the context of a countywide nonmedical cannabis cultivation industry:

- Removal of speculative applications and applications that were likely to be denied
- Adjustments for the type of grower (indoor, greenhouse (mixed-light), and outdoor) and their associated yields
- Adjustments for local growing conditions and practices (p. 7)

In the excerpt above, the Calaveras County SRIA appeared to make the case, at least economically, that the cannabis cultivation industry in the county produces enough profits and job opportunities to justify its continuance. Center for Business and Policy Research (2017) indicated, “the county has seen continual increases in its incidence of poverty and sustained declines in its real (inflation adjusted) median household income levels.” (p. 10). This could be attributed to the 43% of cannabis cultivation employees live outside of Calaveras County.

Nonmedical Recommendations in Canada

Deloitte's (2015) report presented some data on public perception, consumption trends, and retail markets for countrywide recreational marijuana in Canada. Recommendations of this report were tied to public health but were more closely concerned with the regulatory structure for commercial marijuana. Several of the Deloitte (2015) recommendations were framed to businesses and governments in the following phrases:

When it comes to actually entering the market, businesses should consider now how to build their brands, so they will be positioned to lead should legalization occur.

Market aspirants should also be prepared to take advantage of any existing business components to drive future success. ...Moreover, considering the total economic potential for ancillary businesses from marijuana sales-around testing, distribution, technology, packaging and professional services

The diverse makeup of the potential consumer market should provide further opportunity. A clear understanding of how that market is segmented will be vital. To- go-to-market success, from selecting the seed strains being grown to marketing strategy to merchandising.

Also consider that the 'likely consumer' will have a unique set of needs; the unknowledgeable will require guidance and education in navigating this new world, presenting a chance for brands to establish strong consumer bonds from the outset.

Government stakeholders, too, will have to keep certain challenges in mind. For provincial governments, a wide variety of sales and distribution models may be available under the new legislation, including government-owned, industry-owned, private or some hybrid of the above. Determining which model will make the most sense for individual provinces is a complicated question, requiring detailed modeling to balance the financial potential against not only consumer preference, but appropriate commitments to social responsibility and public health. (pp. 9-10).

The above recommendations of the Deloitte (2015) report incorporate considerations for the businesses in the legal marijuana industry. These involve branding, ancillary business potential, consumer demographics, and governmental collaboration.

Recommendations of Akhigbe, et al.'s (2017) HIA were less focused on the economic impacts and more on those of public health, youth prevention, and overall consumer harm reduction. The following recommendations were produced in accordance with the objectives of Canada's Task Force on Cannabis Legalization and Regulation. While the recommendations apply to the context of Ontario, the report indicates that some of the recommendations have the potential to be implemented by other levels of government. Each of the recommendations are provided below, along with some supporting materials to substantiate each:

- Protect Young Canadians by: restricting access and implementing education and enforcement
- Protect public health and safety by: focusing efforts at curbing impaired driving and unintended exposure.
- Ensure Canadians are well-informed by: focusing on Communication, Training, and Health Promotion
- Establish and enforce a system of strict production by: restricting production, distribution, and sales, and taxation.
- Conduct ongoing data collection by: investing in collaborative public health approach that prioritize evidence-informed prevention and treatment services that prevent and respond to problematic use.
(pp. 6-10).

The above excerpt follows suit with other impact reports suggesting concerns for youth and public safety, but differs in its inclusion of communication, training, and health promotion as an educational tool. Further, the Ontario recommendations include a provision for ongoing data collection, which may be necessary to assess the effects of marijuana legalization as comprehensively as possible.

Viewing recommendations made in US reports alongside those made in Canadian reports does not reveal a tremendous difference in the themes of the recommendations, depending on the goals and scopes of the various reports. While in reports that predominantly focused on nonmedical marijuana legalization, recommendations were made with special consideration to public health, harm reduction and economic impacts. Generally, areas considering nonmedical marijuana legalization experience a great deal of concern about keeping marijuana out of the hands of children. Engaging in preventive measures, especially as they pertain to youth, is a key concern of the public health debate over marijuana legalization. This analysis has provided a description of reports that focused on either medical or nonmedical legalization separately. The next session of this chapter will examine reports that included an analysis of impacts of both medical and nonmedical legislation.

Medical and Nonmedical Reports

The final category of impact reports included a discussion of both medical and nonmedical marijuana legalization impacts. Medical and nonmedical impact reports constituted the largest percentage of the sample. Figure 9 shows 67% (n=18) of the impact reports fell into the category of both medical and nonmedical marijuana legalization. This category of reports provides more comprehensive coverage than the reports focused solely on medical or nonmedical legalization. Since medical marijuana legalization typically preempts nonmedical legalization, reports that highlight potential impacts of both industries provide a more comprehensive understanding of cumulative impacts of marijuana legalization.

Figure 11: Nonmedical and Medical Legalization Impact Coverage in US, Canada

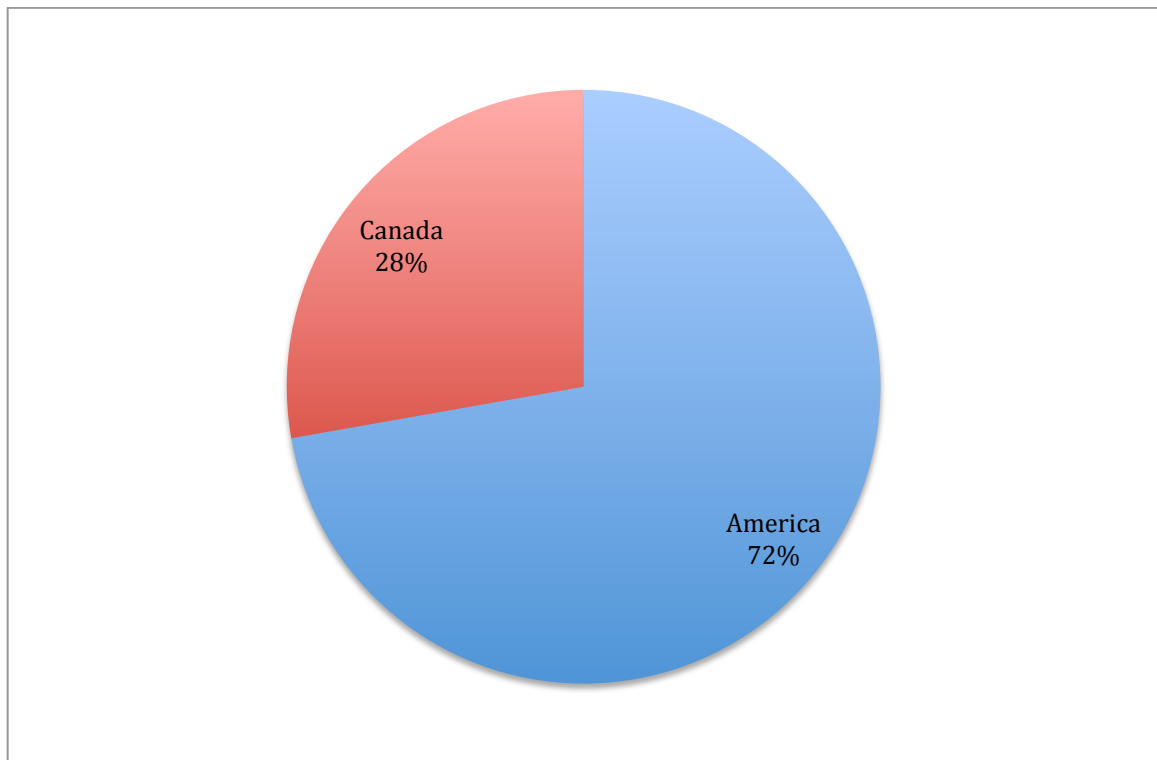
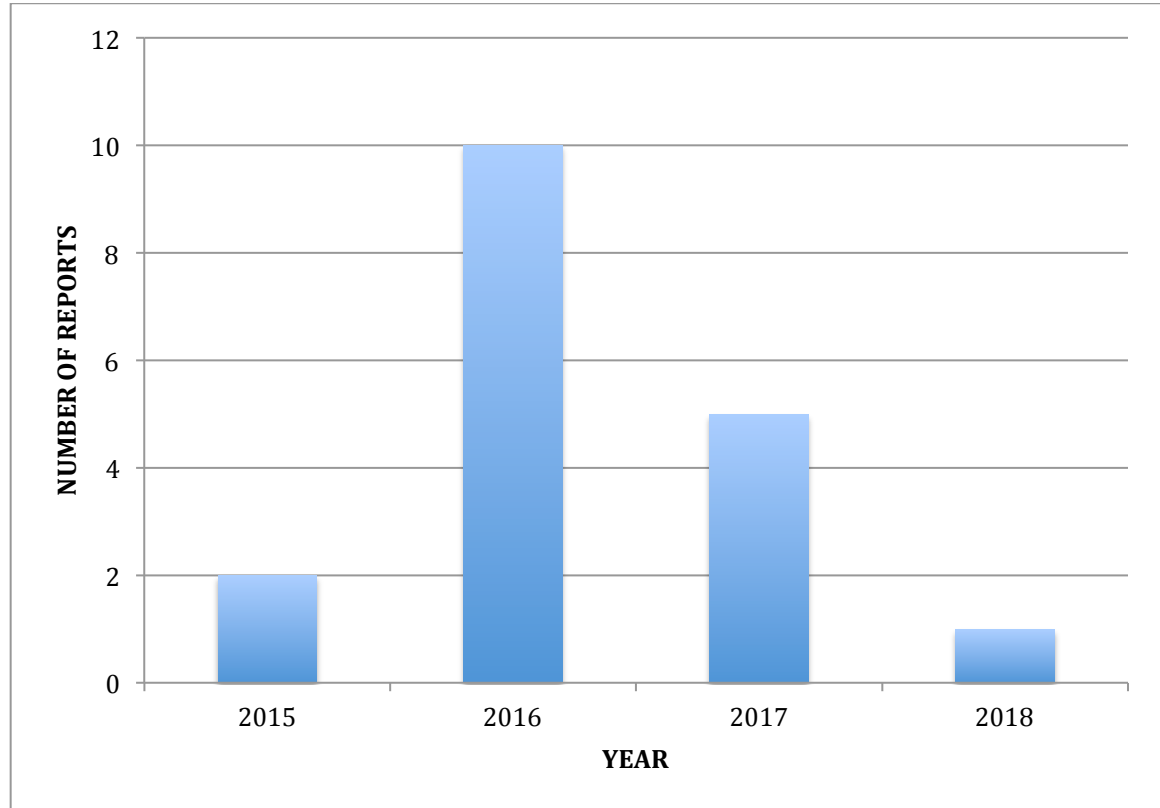


Figure 11 depicts the percentage of coverage of nonmedical and medical legalization impact studies in America and Canada. Since the nonmedical and medical report category includes more impact reports than previous categories, Figure 12 assists in visualizing the distribution of them throughout the timeframe in this category.

Figure 12 displays the number of total medical and nonmedical legalization impact reports between 2015-2018. In 2016, 58% (n=10) of the reports in this category were written. In the following year, 2017, 28% (n=5) of the reports in this category were written. In 2015, 11% (n=2) of the reports were written and approximately 6% (n=1) of the reports were written in 2018.

Figure 12: Number of Medical and Nonmedical Impact Reports by Year

Medical and Nonmedical Impacts of Marijuana in America

As Figure 11 shows, the reports that highlighted impacts of medical and nonmedical marijuana legalization in America constituted 72% (n=13) of the reports in the category. Reports from Colorado represented 28% (n=5) of the American reports in the medical and nonmedical category. This was the most coverage of any single state in the sample, likely due to their progressive nonmedical legislation, which brought about legalized recreational marijuana in the state in 2013. Reports from California represented the second largest focus of the category of impact reports with 11% (n=2) of the reporting being conducted there. The Department of Transportation (2017) focused broadly on the United States. Subsequent reports in

America were conducted in Washington, Oregon, Rhode Island, Arizona, Wyoming, and Vermont.

Figure 12 displays two reports that were conducted on medical and nonmedical marijuana legalization impacts in 2015. One of the 2015 reports was produced in the US and was written by the Police Foundation and the Colorado Association of Chiefs of Police (2015). This report focused on:

Colorado’s public safety challenges, solutions, and unresolved issues with legalized marijuana and recreational marijuana... to help all law enforcement who are facing the challenges of legalized marijuana. (p. 2)

The above excerpt identifies the unique objective of the potential to be utilized as a law enforcement tool. Regularly the forerunner of the marijuana legalization and reform, the Police Foundation identified several impact categories based on law enforcement experience with marijuana legalization. Several examples of impacts from the 2015 report are listed below:

Denver officials say they are facing one unexpected result of legalization – a significant influx of homeless adults and juveniles are coming to Denver due to the availability of marijuana. Although homelessness has been a persistent problem in Denver, police have seen an increase in the number of 18 to 26 year olds seeking homeless shelters because they are hoping to find work in the cannabis industry. ... The issue of homelessness has spread to suburban neighborhoods because of the location of growing operations, police said. (pp. 10-11)

In addition, police cannot access patient information because of privacy laws, and so they cannot ascertain whether the “caregivers” are growing the amount specified in a doctor’s recommendation or whether the caregiver is indeed still the caregiver for a given patient. Amendment 20 – which made medical marijuana legal in the state – mandates that patients must carry a medical marijuana registry card, whereas caregivers have no cards and no punitive sanctions from law enforcement if they have not registered. (p. 13)

These excerpts address two valid concerns associated with recreational marijuana legalization. The first is the influx of a homeless population. Regions that legalize

marijuana for recreational use should determine their likelihood of encountering an influx of homeless individuals and make appropriations to ensure mitigation of any potentially negative impacts. The second excerpt displays the need for medical marijuana laws to provide detailed and comprehensive information as to who can cultivate marijuana in their homes and what the legal quantity thresholds for cultivation ought to be.

The Police Foundation (2015) report considers impacts to law enforcement, which transcend to the public. It also highlights the importance of conducting further research in Colorado, since its retail and medical market syncope has been established longer than any other state. The largest volume of impact reports in the medical and nonmedical category was produced in 2016. All but one of the twelve 2016 reports were produced in America. Rhode Island proposed legislation in 2016 that aimed to advance the state's existing medical marijuana legalization to recreational legalization. In a HIA conducted on Rhode Island, Aimua (2016) includes mentions the following impacts to be considered in a pre-nonmedical environment:

Behaviors and Attitudes Related to Marijuana

- ...Over the past years, fewer high school students in RI perceive marijuana use as harmful
- Increases in marijuana use parallels a declining perceived risk of harm

Educational Impact of Marijuana Use

- College students using marijuana are at risk for negative future academic outcomes

Health Impact of Marijuana

- With long-term marijuana use, executive functions can continue to be impaired, memory and attention increasingly worsen, and risk-taking and poorer decision-making can result from functional brain alterations. (p. 2)

The excerpt on behavior and attitudes indicates that youth perceive marijuana as less harmful. Since a moral panic on marijuana was discovered in the context of Sioux Falls, it is not necessarily disadvantageous for youth populations to perceive marijuana as less harmful. It is disadvantageous, however, if they are engaging in higher rates of marijuana use. The mention of health impacts of marijuana also needs to be explicated more completely if the examples provided are to be taken seriously as potential impacts of marijuana legalization. Declining memory and impairments to executive function can be the result of several, distinct age-associated processes. Buckner (2004) and Finucane, et al. (2002) found that increasing age is related to comprehension errors and inconsistent preferences. Subsequently, aging processes may provide some partial explanatory power for the impacts mentioned in the above excerpt.

In Oregon, voters passed Measure 91 in 2014, which expanded its existing marijuana market by legalizing the sale of nonmedical marijuana statewide. Oregon legalized medical marijuana in 1998. Dilley, et al. (2016) highlighted several impacts to marijuana use, attitudes, and health effects in a HIA of Oregon's marijuana legalization. Dilley, et al. (2016) focused on the following impact areas:

Many young people and adults in Oregon currently used marijuana.

- Approximately half (48%) of Oregon adults report they have ever used marijuana. One in 10 (11%) [of] Oregon adults report they currently use marijuana; use is higher among men (14%) than women (8%) (p.2)

Youth prevention efforts may be needed

- 62% of 11th-graders report they have easy access to marijuana. Youth report that marijuana is easier to get than cigarettes. (p.2)

Many adults use marijuana for medical purposes.

- Three percent of adults report current medical marijuana use, making up less than one-third of total adult marijuana use (p.3)

Public health impacts have already been observed associated with legalization of marijuana.

- Marijuana-related calls to the Oregon Poison Center were stable from 2013 through mid-2015 and increased in the second half of 2015.
- Marijuana-related arrests decreased from 2012 to 2015 (p. 3)

This excerpt is interesting because the initial impact areas substantiate those in various other reports. One interesting element of the above excerpt is the last sentiment that indicates marijuana-related arrests have decreased. This decrease in arrests provides stability to the argument that marijuana legalization is not necessarily tied to higher crime rates in areas that pass marijuana legislation.

States where medical marijuana legalization has brought about established industries may serve as useful resources for states preparing to engage in legalization of any form of marijuana. Figure 12 displays a total of five reports conducted in 2017. Of the 2017 reports, one was conducted in US. Compton (2017) produced a report related to marijuana-impaired driving, which was submitted to Congress. The primary impact assessed in Compton's (2017) report was the relationship between marijuana use, the variety in state marijuana law, and risk of vehicular crash. Compton (2017) highlights drug-impaired driving as a concern:

Much of this progress in addressing the harm caused by alcohol-impaired driving and the public's understanding of this problem derives from the pharmacodynamics (how a drug affects physiological process and behaviors). These processes differ, often substantially, for other drugs, including marijuana. Understanding these differences is critical to understanding how marijuana-impaired driving differs, and the impact these differences will have on efforts to reduce the harm from drug-impaired driving. (p. 3).

The above excerpt underlines potential issues associated with marijuana-impaired driving. Additionally, it highlights the need for medical reports that detail direct impacts of marijuana use on driving.

Compton's (2017) report was the only study in the sample that was concerned solely with impacts to driving safety. Hamai (2018) produced a draft report from the County of Los Angeles calling for a health impact assessment to be conducted on the regulation of commercial medical and adult use cannabis in unincorporated areas. Hamai's (2018) document included buffers that addressed youth prevention, strict management of cannabis dispensaries, and overall community harm reduction:

These proposed buffers protect places where children congregate against the impacts of cannabis businesses, and ensure that cannabis stores do not locate close to existing drug or alcohol treatment centers. These buffers also protect communities from an overconcentration of cannabis retailers by ensuring that cannabis stores are located away from other cannabis stores. The buffers additionally address the potential combined impacts from cannabis stores locating near liquor stores by ensuring cannabis stores are located away from places that sell alcohol for offsite consumption. (p. 10).

The above sentiment references buffer zones for marijuana dispensaries. This characterizes the need to analyze spatial considerations of marijuana dispensary placement.

Nonmedical and medical marijuana legalization reports frequently mention impacts broadly tied to strict regulation of the proposed marijuana industries, public health, public safety, and youth prevention. Canada's medical and nonmedical impact reports will be discussed in the following section. Figure 11 displays 28% (n=5) of the reports in the medical and nonmedical category highlighted impact regions within Canada.

Medical and Nonmedical Impacts of Marijuana in Canada

Studies from Canada represented 28% (n=5) of the impact reports in the medical and nonmedical category. Canadian Centre on Substance Abuse (2015) produced a report that analyzed the progress made in Colorado and Washington and

made suggestions for the Canadian approach to nonmedical and medical marijuana legalization. The goal the Canadian Centre on Substance Abuse (2015) was attempting to achieve was, “not to arrive at a position on the question of legalization, but to ensure that CCSA has the best available information with which to provide evidence-informed policy advice on the issue of cannabis regulation in a timely way (p. 3). Representatives from CCSA met with stakeholders in Colorado and Washington to inquire about impact areas that should be considered prior to legalization efforts.

Stakeholders in both states emphasized the importance of taking the time and making the proactive investments needed for a strong and comprehensive regulatory framework. That framework should include the infrastructure needed to address public health and safety concerns such as cannabis use among youth and cannabis-impaired driving. Also before legalization, a jurisdiction should gather comprehensive baseline data and after legalization continue ongoing research and data collection on the health and social impacts of cannabis use. (p. 6).

The above excerpt evidences the use other impact assessments can have on an area considering marijuana legalization. The practices mentioned above are structural in nature, and include provisions for public health, impaired-driving, and the need for more comprehensive data in order to approach the process of marijuana legalization.

Canada assembled a task force on cannabis legalization and regulation in July 2016. This nine-member group was mandated to consult and give expert advice on how to design legislative and regulatory frameworks that would allow legal access to cannabis while following the Canadian government’s promise to “legalize, regulate, and restrict access.” (Health Canada, 2016, p. 8). Health Canada (2016) reported:

Although the ultimate aim of the drug treaties is to ensure the “health and welfare of humankind,” there is growing recognition that cannabis prohibition has proven to be an ineffective strategy for reducing individual or social

harms, including decreasing burdens on criminal justice systems, limiting negative social and public health impacts, and minimizing the entrenchment of illicit markets, which in some cases support organized crime and violence. Thus, a growing number of governments are interested in alternative approaches to cannabis control that promote and protect the health, safety and human rights of their populations. (p.10)

The above sentiment evidences the potential for the government to be a positive force in the marijuana reform movement. The excerpt brings attention to the increasing number of governing bodies taking a role in shifting the public perception to modernize views of marijuana legalization.

As with the American reports, Canadian reports emerging from various regional contexts produced different results regarding perception of impacts of a nonmedical and medical marijuana framework. Gaudreau, et al. (2017) prepared a report for the Prince Edward Island Chief Public Health Office concluding:

Cannabis use is associated with short and long-term health harms. ... Short-term health harms are varied and include anxiety/panic/dysphoria, cognitive and psychomotor impairment (e.g. memory, attention, coordination), increased accident risk including motor vehicle collisions, low birthweight pregnancy and acute poisoning in children. Early initiation and regular use of cannabis is associated with poor long-term social and educational outcomes. Given the early stage of cannabis legalization in other countries, there are few long-term studies that collectively assess these health and social harms at a population level. (p. 65)

Strict regulation can mitigate population health risk. ...the importance of strict government regulation including control of cannabis production and sale, establishing a minimum age of purchase, restricting advertising and marketing, curbing demand through pricing and taxation, promoting public health messaging and harm reduction (e.g. Lower Risk Cannabis Use Guidelines), and investing in surveillance and research. The Government of Canada has recommended committing cannabis taxation revenue to support public health goals. (p. 66)

As seen above, all impact reports do not have the same supportive undertones for cannabis legalization. Regardless of their stance or context, similar themes are

emergent from all medical and nonmedical reports. These themes were tied to marijuana industry regulation, public health, public safety, and youth prevention.

Medical and Nonmedical Recommendations in America

To address impacts of medical and nonmedical cannabis legalization in their contexts, authors of the various reports in this category provided key recommendations for their legislators and decision-makers to adhere to. Here are several recommendations provided by The Police Foundation and Colorado

Association of Chiefs of Police:

- New standards need to be established by law enforcement to be able to determine the difference between a legal and an illegal marijuana growing operation (p. 15)
- Law enforcement should work with policymakers to bring clarity and transparency to the medical marijuana patient and caregiver identification system
- Increase cooperation with bordering states regarding the illegal transportation of Colorado marijuana across state lines (p. 21)
- Co-ordinated planning and outreach are needed to ensure the safe operation of marijuana businesses (p. 28)
- Public education campaigns to prevent juvenile marijuana use should be revised to emphasize the health dangers of regular marijuana use by youth (p. 30)

Although the objective of the Police Foundation's (2015) differed slightly than other impact reports in this analysis, its recommendations were similar. Their need to detect illegal marijuana operations persists in the face of legalization so law enforcement requires a method to discern the difference. Public education efforts seem they may be aimed at youth prevention through education of marijuana use by youth.

Aimua's (2016) HIA reviewed potential impacts of a medical and nonmedical marijuana market in Rhode Island. This report emphasizes recreating some of the

more effective enforcement strategies used to regulate alcohol and tobacco and apply them to marijuana legalization processes. In terms of concrete recommendations,

Aimua (2016) states:

Given the range of adverse negative public health and safety consequences of changing marijuana policy, particularly its impact on youth, it is imperative to shore up the identified inconsistencies in current RI marijuana regulations. The primary advice to Rhode Island from other states with enacted recreational marijuana use laws is to refine the current laws in place as soon as possible in order to lessen the public health and safety impact.

Elected officials and policy makers must ensure that evidence based data on all of the social costs to individuals and communities is reviewed before making further changes to legislation. A thorough and independent assessment of the latest public health data from all medical and legalized states should be required before any change in law is passed. (p. 20)

The first excerpts depicted above evidences the need to lessen public health and safety impacts. This was seen among many of the impact reports, which underlines its reliability as a recommendation. The second excerpt suggests that politicians should be making their decisions with evidence-based data and encourages the thorough assessment of up-to-date health data from all areas impacted by marijuana legalization.

Reports also focused on recommendations that broadly addressed the public debate over marijuana edibles, education, and protection of public health. Dilley, et al.'s (2017) report for the Oregon Health Authority indicated the Public Health Division's role as it pertains to marijuana involved:

- Understanding and minimizing the possible negative public health impacts of retail and medical marijuana products;
- Educating the public about health issues related to marijuana use;
- Protecting children and vulnerable populations from marijuana exposure;
- Preventing youth from starting to use marijuana;
- Monitoring marijuana use, attitudes and health effects (p. 4)

The excerpt above reaffirms the need for understanding and mitigating negative impacts to public health, educating the public about the realities of marijuana, youth protection and prevention, and includes a recommendation to monitor marijuana use and attitudes. Data pertaining to attitudes toward marijuana could be useful in longitudinal analysis to determine which interventions cause the greatest variations in marijuana attitudes.

While the aforementioned recommendations applied to the general public and communities wherein changes to marijuana legislation are taking place, Compton's (2017) report focused on criminal and law enforcement adaptation to evolving marijuana law. In Compton's (2017) report to congress about marijuana-impaired driving, the following recommendations were made:

Increase the use of effective and efficient methods for training law enforcement personnel, including drug recognition experts, to detect or measure the level of impairment of a motor vehicle operator who is under the influence of marijuana by the use of technology or otherwise. (p. 26)

Continue research to enable development of an impairment standard for driving under the influence of marijuana, and in the meantime, maintain training and other support to enable law enforcement officers and prosecutors to pursue cases using available evidence. (p. 27)

Encourage states to collect data regarding the prevalence of marijuana use by drivers and among those arrested for impaired driving. (p. 30)

These recommendations detail law enforcement objectives aimed at apprehending marijuana-impaired drivers. Further, recommendations are made that suggest increasing research efforts to determine a marijuana-impairment standard for driving under the influence, much like the practices seen with alcohol.

Law enforcement recommendations provide much needed insight into how marijuana legalization plays out in states that move from prohibition one day to medical or nonmedical legalization the next. With a profound lack of empirical data to formulate a basis for exactly how marijuana effects and impairs each individual coupled with a lack of capacity to measure impairment, law enforcement are appropriately concerned. Several of the recommendations of Hamai's (2018) draft report are listed below:

- Create a new cannabis commission.
- Finalize a health impact assessment to develop equity models for cannabis permitting
- Buffers from sensitive uses
- Equity workshop and cannabis equity review panel
- Unlicensed cannabis business elimination plan

The above excerpts from Hamai's (2018) report identify and elaborate multiple recommendations for incorporating medical and nonmedical marijuana businesses into communities in Los Angeles.

Medical and nonmedical recommendations in American impact reports were fairly comprehensive in their considerations for public health, public safety, youth prevention, drug-impaired driving, and possible adverse health effects associated with cannabis use. Each implemented recommendation legitimizes the need for social impact assessment to be conducted prior to legislative changes in medical or nonmedical marijuana law.

Medical and Nonmedical Recommendations in Canada

When the CCSA delegation set out to establish a report of lessons learned in Colorado and Washington to inform the implementation of a framework for medical

and nonmedical marijuana in Canada, they produced a report that recommended Canadian governments do the following:

Reconcile medical and retail markets to promote consistency in such areas as purchase quantities and administration, and to reduce the scope of the grey market, which is the market for product produced or distributed in ways that are unauthorized or unregulated, but not strictly illegal;

Be prepared to respond to the unexpected, such as the overconsumption of edibles in Colorado and an unmanageable volume of licensing applications within a limited timeframe in Washington state;

Control product formats and concentrations to ensure there are no unanticipated consequences from unregulated formats and concentrations;

Prevent commercialization through taxation, rigorous state regulation and monitoring, and controls on advertising and promotion; and

Prevent use by youth by controlling access and investing in effective health promotion, prevention, awareness and education for both youth and parents.

(p. 1)

A key recommendation made in this excerpt references controlling the grey market, to curb illegal and untaxed distribution of marijuana in communities that legalize. The above recommendations suggest reliance on strict regulations on the legal marijuana industry in order for it to achieve its purpose. This will likely be true in any context where marijuana is legalized.

It was interesting, in the case of the CCSA (2015) report that Canada, which aims to make medical and nonmedical marijuana legal at the federal level, would rely on lessons learned in Colorado and Washington to advance the implementation of their own regulatory structure. Since Canada plans to move forward with nonmedical legalization by summer 2018, it would be interesting to consider the United States gleaning lessons learned from Canada if medical and nonmedical legalization becomes a federal priority in the United States government. Health Canada's (2016) report produces several categories of recommendations and a multitude of

recommendations within each category. Health Canada's (2016) report listed a very comprehensive list of recommendations. Several are listed below:

MINIMIZING HARMS OF USE

- Set a national minimum age of purchase of 18, acknowledging the right of provinces and territories to harmonize it with their minimum age of purchase of alcohol (p. 2)
- Impose strict sanctions on false or misleading promotion as well as promotion that encourages excessive consumption, where promotion is allowed
- Additionally, for edibles:
 - Implement packaging with standardized single servings, with a universal THC symbol
 - Set a maximum amount of THC per serving and per product (p. 3)

MEDICAL ACCESS

- Promote and support pre-clinical and clinical research on the use of cannabis and cannabinoids for medical purposes, with the aim of facilitating submissions of cannabis-based products for market authorization as drugs
- Evaluate the medical access framework in five years (p. 6)

IMPLEMENTATION

- Ensure timely evaluation and reporting of results
- Engage with Indigenous communities and Elders to develop targeted and culturally appropriate communications (p. 7)

This excerpt displays Canada's recommendations to market cannabis to a strictly adult market. There are also recommendations that regulate the products and promotions used by the cannabis industry. The inclusion of clinical research is a key recommendation made in this excerpt. The assessor is insinuating that the availability of recreational marijuana does not negate the need for advanced medical research.

Gaudreau, et al. (2017) produced a report on cannabis legalization and regulation for the Prince Edward Island Chief Public Health Office. This comprehensive report established recommendations for a framework with several different concentrations. For example, recommendations were provided with a public

health-focused regulatory framework. Several of those recommendations are displayed below:

- Establish a government monopoly on sales
- Limit availability
- Curb demand through pricing
- Curtail higher-risk products and formulation
- Invest in education and prevention (p. 21)

The above recommendations include provisions for limiting the amount of marijuana made available, which may address several issues like youth access, accidental ingestion, and addiction.

Gaudreau, et al. (2017) brought forward recommendations of other agencies in Canada that have focused attention on regulating medical and nonmedical marijuana in various contexts and regions within Canada.

The Canadian Pediatric Society (CPS) has published regulatory recommendations for the legalization of cannabis. These recommendations include limiting marketing and availability to minors, funding prevention, education and treatment, and monitoring changes in cannabis use.

The Canadian Public Health Association (CPHA) has published recommendations for the regulation of recreational cannabis use in Canada. These guidelines aim to minimize the harms of use, establish a safe and responsible production system, design a safe and appropriate distribution system, enforce public safety and protection and ensure access to medical cannabis.

The Chief Medical Officers of Health of Canada released a position statement on cannabis policy and regulation in Canada. They recommend strategies and practices aimed at preventing cannabis-related morbidity and mortality, preventing unintended consequences of legalization, and supporting the principle of public health practice. (p. 4)

The above recommendations in Canada bear resemblance to those in America. The recommendations in medical and nonmedical marijuana legalization reports focus on improving social wellbeing, reducing crime, increasing presence of vulnerable groups

in the cannabis industry, regulating commercial medical and nonmedical marijuana markets, and incorporating fair legislation with uniform understand law enforcement strategies.

Conclusion

This chapter has outlined the importance of analyzing extant marijuana impact literature in formulating an understanding of the current debates relevant to various forms of marijuana legalization. The importance of utilizing impact analysis reports to understand the legalization phenomena is underlined. The content analysis of existing impact assessments brings the assessor to terms with the cumulative impacts faced by regions that vary from stances on politics, criminology, public health, and public safety. Further this chapter underlines the importance of the recommendations made by assessors who have conducted previous reports in the formation of recommendations for new impact assessments on similar topics.

Medical marijuana impact assessments contribute to the discussion by providing information on impacts that are felt solely in contexts with legalized medical marijuana. From these reports, key research questions from other assessors were included to advance the standing of this assessment. These questions encourage considerations to be made to a variety of potential impact sectors, which are of concern in most communities where medical marijuana legalization is being discussed. These reports repeatedly indicate how the lack of available evidence of marijuana's physical impacts severely limits the ability to make concrete recommendations that directly lead to increased health. This insinuates a greater need for impact studies that account for the physical impacts of marijuana use. In medical

marijuana reports, recommendations are made to address access to marijuana, impacts to crime, impaired driving, and accidental ingestion, among others. Therefore, the recommendations in medical reports transcend the discussion on public health alone and offer a fairly broad and comprehensive view of the cumulative impacts of medical marijuana legalization.

Impacts of nonmedical marijuana legalization in US and Canada were discussed separately to provide the reader with a sense of the similarities and differences between the American and Canadian organizations of regulatory structures. Goals of nonmedical reports were similar to those of medical reports in both America and Canada. Assessors mentioned the desire to prevent youth exposure and minimize risks associated with use. Nonmedical marijuana report assessors in America examined factors like neighborhood quality of life, economic impacts and effects. Nonmedical assessors in Canada focused on youth prevention, lowering personal possession limits, and restricting public consumption. Canada's approach anticipates a great deal of cooperation between business and government stakeholders. Several reports mentioned Canada's nonmedical marijuana industry would be most beneficial if it were structured as a government monopoly. Assessors made provisions for child-resistant packaging, but also recommend strict approaches to adult-use cannabis. Recommendations to advance public knowledge through educational campaigns were present throughout the nonmedical marijuana legalization reports.

Reports that addressed impacts of medical and nonmedical marijuana legalization were also included in this chapter. This section included a report

produced by the Police Foundation and Colorado Association of Chiefs of Police to highlight criminological considerations with marijuana legalization. As police forces face issues with medical and nonmedical marijuana law enforcement, the industry is showing no sign of diminishing in size. Therefore, the need to adapt and implement law enforcement strategies to uphold law and order are of paramount importance. Other areas of impact identified in medical and nonmedical reports include health impacts experienced by long-term marijuana users and public perceptions of harm associated with marijuana use. Since Canada is pursuing federal legalization, impact teams from Canada stress cooperation between retail markets and federal and provincial governments.

Areas considering medical and nonmedical marijuana legalization are encouraged to understand the public health and safety implications as fully as possible. Since this is typically achieved through more extensive research and data collection, long-term monitoring strategies are recommended. Health Canada's (2016) report specifically mentioned engagement with the Indigenous communities, specifically the Elders to proceed with medical and nonmedical legalization in a manner that is culturally appropriate to their context. As efforts to legalize all forms of marijuana expand, different regions and areas will subsequently be impacted by this expansion. The importance of involving traditionally underserved and vulnerable groups cannot be expressed enough, particularly because it is these same groups that were most negatively impacted by the laws of the now-ending marijuana prohibition era.

CHAPTER 6: INTERVIEW RESULTS

This chapter displays the results of the public participation component of social impact assessment (SIA). Public participation occurs when affected publics are encouraged to participate in planning and decision processes. In order for the process of public participation to be successful, proponents, agencies, organizations and interested and impacted publics must be included. Through public participation, individuals are able to provide input to a proposed action prior to a final decision being reached. Therefore, public participation is ideally a key element of the planning process. Since the assumption is that community members know their communities better than outsiders, the informed public is able to offer alternatives or suggestions for a plan or course of action (Burdge, 2015).

Public participation in this SIA was achieved through interviews with individuals from political organizations, politicians, healthcare professionals, patients, law enforcement, non-imprisoned marijuana law offenders, marijuana activists, business executives, business owners, and educators. Individuals were selected to participate due to their heightened awareness of South Dakota marijuana law and its implications for effected populations. Participants were sought on the basis of their potential to advance the understanding of how existing criminological, economic, medical, and political structures in Sioux Falls would be impacted if marijuana legalization occurred in South Dakota. The interview results presented in the following sections of this chapter, cover both the structural implications and impacted population, and include comments from participants in each of the respective categories of interest. Theoretical sampling was used to obtain the same number of

participants for each category of interest. A total of five respondents participated in each category (N=20) and are depicted in Table 1. Table 1 also includes information relating to the occupational field of each participant, their role of interest to this project, and the sector into which they were placed.

Table 1: Participants' Occupations, Roles, and Sectors

Participant ID	Occupation	Role of interest	Sector
101	Teacher	Marijuana Offender Advocate	Criminological
102	Student	Marijuana Offender	Criminological
103	Non-profit	Marijuana Offender	Criminological
104	Police Officer	Law Enforcement	Criminological
105	Police Officer	Law Enforcement	Criminological
201	Business Owner	Ancillary business owner	Economic
202	Business Owner	Ancillary business owner	Economic
203	Marketing	Ancillary consumer	Economic
204	Self-employed	Ancillary consumer	Economic
205	Banking	Business finance	Economic
301	Nurse	Healthcare professional	Medical
302	Physician	Healthcare professional	Medical
303	Therapist	Healthcare professional	Medical
304	Non-profit	Medical user	Medical
305	Veteran	Medical user	Medical
401	Advocate	Executive of political organization	Political
402	Advocate	Board member of political organization	Political
403	Self-employed	Political activist	Political
404	Self-employed	Politician	Political
405	Consultant	Politician	Political

Criminological Impacts

Interviews in this section were conducted with law enforcement, non-imprisoned marijuana offenders, and advocates for prison reform in South Dakota. Non-imprisoned offenders are those who have been arrested for marijuana offenses but did not go to prison or are currently out of the prison system. The insights of the

individuals in this category were essential to include in this analysis due to their experiential knowledge regarding marijuana law enforcement and punishment from a variety of perspectives. Of the five participants that contributed to this category, 40% (n=2) had experience working in law enforcement [104, 105], 40% (n=2) were non-imprisoned marijuana offenders [102, 103], and 20% (n=1) have experience advocating for imprisoned offenders of marijuana law [101] (see Table 1).

Structural Implications

Several of the participants in this section commented on the status of those imprisoned in Sioux Falls for marijuana related offenses. A non-imprisoned marijuana offender, participant 103, comments on how marijuana law reform may change the nature and volume of prisoners in the city and might also alter the structure of prisons altogether:

Participant: With any new industry startup, you don't know what's going to go wrong until it goes wrong. In Las Vegas, it's secure when you go in to a dispensary, but when you leave, no one watches you to make sure you don't get jumped on the way out. Will there be stricter loitering laws? Will there be a curfew for buying it if/when it becomes recreational? Will the police be equipped with different mechanisms that allow them to verify your prescriptions? Will straw purchases occur? You would have to control the market and put cultivation centers and dispensaries somewhere they could be protected. [103]

A member of law-enforcement takes a contextual approach to the relationship between marijuana law and prison reform based on the severity of the prisoner's offense:

Participant: People in jail for cannabis-related offenses should stay if they're in jail for distribution. They've committed a felony by making the choice to be a drug dealer, so lenience isn't really on the table. If they're dealing marijuana, it is likely that they're dealing other drugs as well. Is justice being served for drug dealers? If they're in jail... yes. It's different for the guy who bought from the dealer, for possession it's different. Anyone in jail for

minimal amounts of possession, anything at the misdemeanor level, should walk out of jail the government signs the bill legalizing marijuana in this state. [105]

Both participants believe that something needs to be done to address the circumstances of the state's incarcerated population.

Impacted Population

Participants who commented on the groups most impacted by marijuana law reform mentioned the Native American population in and around Sioux Falls. There are approximately 72,000 Native Americans residing in South Dakota, accounting for about 9% of the state's total population. There are approximately 720,000 white South Dakota residents, accounting for about 82.5% of the state's population (US Census, 2016). Unfortunately, this cultural imbalance has led to a great deal of racism toward Native Americans in South Dakota. An activist [101] comments about the relationship between the racist narrative of South Dakotan Native Americans and the South Dakotan criminal justice system:

Participant: I know better but because I've been raised in the state that portrays the drunken, poor, shiftless Indian, even though I know that's not right, I have to go through the process of not accepting that narrative. If you look at people using drugs, there are no differences between racial groups, but if you look at the rate at which they're arrested for drugs, there's the main difference! There are a lot of White people who smoke marijuana in this state and they're not the ones sitting in prison for it. [101]

This participant [101] makes the argument that Native Americans in South Dakota are paying a higher price for marijuana use than whites.

The Flandreau Santee Sioux Tribe, located about 50 miles north of Sioux Falls, attempted to legalize marijuana on the Flandreau Santee Sioux Reservation in 2015 with plans to open a recreational marijuana resort. Their efforts followed the

release of the Wilkinson Memorandum, which indicated, “The eight priorities in the Cole Memorandum will guide United States Attorney’s marijuana enforcement efforts in Indian Country.” (p. 2). South Dakota Attorney General Marty Jackley brought charges in response to the tribe’s efforts and the marijuana resort never opened for business. A non-imprisoned offender [102] commented:

Participant: With the Natives trying to grow their own product up at the Flandreau Reservation, we should be letting them have a revenue. Let them grow weed and have a bud and breakfast. I loved that idea. I have friends that are in California and heard about it because it was national news. [102]

A non-imprisoned marijuana offender [103] comments:

Participant: We have some small-minded folks like Marty Jackley. We are the number one most corrupt state regarding violations to the American Indian Rights Act of 1962. The tribes have to keep working on their own legislation. [103]

There is a sordid history of Native American sovereignty in South Dakota and tribal initiatives to exercise sovereignty being blocked by political and legal forces from outside reservations. This continually harms and oppresses the Native American population.

With some of the most restrictive marijuana laws in the nation, individuals affiliated with the pro-marijuana campaign in Greater Sioux Falls worry over the implications of being penalized for marijuana related offenses, beyond the impact on Native Americans. Fear was cited as one reason little progress has occurred in South Dakota’s marijuana reform efforts. Participants indicated the fear of being penalized prevents many residents from stepping out and declaring their support for marijuana legalization. An activist [101] suggests:

Participant: We’re not as red of a state as you might think but the people we elect are. People won’t even try to run for office. [101]

A non-imprisoned marijuana offender [102] offered support for the sentiment of public fear slows progress and marijuana reform, indicating:

Participant: The community believes strongly that it should be legal, but you can't step out in support of marijuana reform for fear of the legal backlash. Public opinion of marijuana is far ahead of state policy. The federal scheduling keeps the fear going. [102]

There seems to be some agreement that fear plays a part in determining who runs for office, which directly impacts how laws are made and enforced. When considering cumulative impacts of marijuana legalization in Sioux Falls, a great deal of consideration must be given to the economic costs and benefits.

Economic Impacts

In order to comprehend the possible economic impacts of marijuana legalization in Sioux Falls, interviews were conducted with a member of a financial institution, business owners, and consumers. Of the five interviews conducted in this category, 40% (n=2) were conducted with owners of businesses that are considered ancillary to the marijuana industry [201, 202]. These include, but are not limited to, head-shops, glass blowers, and tobacco product retailers. Additionally, 40% (n=2) of the interviews in this section were conducted with consumers of those products [203, 204]. Finally, a professional with executive responsibilities at the largest financial organization in Sioux Falls was interviewed, accounting for 20% (n=1) of the interviews in this category [205].

Structural Implications

Participants in this category commented on the structural impacts of legal marijuana on South Dakota's economy and the economy of Sioux Falls. Consumers of ancillary businesses in Sioux Falls focused on the potential for legal marijuana profits to be redirected to improve upon existing infrastructure. Here, one participant discusses the potential for residents, and marijuana tax fund allocation:

Participant: It makes sense that if South Dakota were to legalize, we would have more revenue. We could do a better job taking care of our residents. We could spend some of the tax money from this industry to treat South Dakota residents decently because this state is set up best for the rich people. It also has a jacked idea of how to capitalize on tourism revenue! As far as tourism goes, recreational marijuana would blow pheasant hunting right out of the fucking water! If the problem is that South Dakota is so poor and has so little revenue, why is it not looking at recreational marijuana as an added benefit? [204]

Another ancillary consumer discusses how allocation of tax funds could be distributed:

Participant: These funds should be allotted to improve treatment for addicts of other drugs. My biggest hope with legalization of marijuana is that South Dakota could take the money they're spending to imprison and police us and do something about meth and heroin in our state. It's time! [203]

Discussions about allocating marijuana taxes to groups afflicted by addiction included concerns about utilizing a portion of these funds to improve the treatment of Native Americans in South Dakota. The idea that marijuana profits could be used to alleviate other concerns faced by individuals and groups in our states emerged among discussions with participants in this category:

Participant: We could be using money earned from a legal cannabis market to alleviate the historic trauma faced by Native Americans in our state. With the Native population comes disproportionate representation in our prison

systems. Many in this group are afflicted by substance abuse. If we legalize, it could potentially alleviate some of the targeting we are seeing happen with that ethnic group. Legalization could potentially alleviate pressure related to drug possession and use for Native Americans as well. [204]

Several participants across all sectors acknowledge structural changes that need to occur in order to reduce the impacts on disproportionately affected populations. The connection between the economic benefits of legalizing marijuana and reducing impacts on disproportionately affected groups was a key finding from participant interviews in all sectors. This connection is an element of legalization that would have to be carefully analyzed and executed if and when marijuana legalization occurs in South Dakota.

Impacted Population

Participants in this category primarily discussed revenue interests as beneficial for Sioux Falls and the state of South Dakota overall. These participants indicated the potential benefits of legalized medical and recreational marijuana industries. A participant who owned an ancillary business [201] commented:

Participant: If you can't stop people using marijuana with prohibition, then it's time to make money off it like all the other states that are doing it so close to here. In Sioux Falls, we have places that you can buy hydroponics. If you grow your own wheat grass at home, why not grow your own cannabis at home? Legalization would create an economic boom for local businesses that support marijuana in an ancillary fashion. [201]

This participant [201] believes the economic benefits justify the need for inclusion of this industry in the state. Another business owner indicates the demographic may be larger than what may be perceived on the surface:

Participant: A positive consequence of legalization would be more consumer choice. And people around here are shifting toward enlightenment. One-third of my CBD [cannabidiol] sales are to people over 50, because they are seeing that it can help. [202]

A banking executive in Sioux Falls offered similar support and addresses some of the potential benefits of a legalized market:

Participant: Sioux Falls would benefit if South Dakota were given access to a legal cannabis market. With distribution centers, dispensaries, and supporting businesses, there's money to be made. Why would South Dakota want to be the last one in on that? If we could merge medical facilities in Sioux Falls together with the cannabis industry, it would be a great opportunity. Think about how good it would be for local business! [205]

The banker above referred to the benefits of an open market for cannabis, which was a popular notion among the all participants in this sector, as shown in the above excerpts.

Those interviewed for their input on the potential economic impacts spoke overwhelmingly in support of marijuana legalization. These participants addressed regulation, market inclusion, and the potential for economic development within the city of Sioux Falls and more broadly in the state of South Dakota. Individuals in the criminological and economic sectors shed light on concerns for legal implications of marijuana legalization and the potential for economic development respectively. To provide comprehensive coverage of cumulative impacts of marijuana legalization, the impacts to the medical industry and public health must also be analyzed.

Medical Impacts

Whether marijuana legalization occurs at the medical or recreational level, impacts to public health and the healthcare industry need to be addressed. In order to identify and assess impacts to public health and the healthcare industry, 40% (n=2) of the interviews in this category were conducted with individuals who are actively working as licensed healthcare professionals [301, 302]. Subsequently, 60% (n=3) of

the interviews in this category were conducted with patients who actively use cannabis for medical treatment [303, 304, 305].

The patients who use cannabis for medical treatment have informed their doctors of their marijuana use and consume cannabis in addition to prescription medication and other forms of professionally recommended medical treatment. Participants in this category commented on the structure of existing medical care in South Dakota, which was frequently juxtaposed against the medical value of opiates. Participants also commented on the impacts of medical uses for cannabis and the broad potential for the application of cannabis to treat a wide variety of disorders. Participants in this category made mention of spiritual and holistic healing that takes place because of their own medical cannabis use.

Structural Implications

In 2018, political organizations in South Dakota gathered over 13,000 signatures in support of legalizing medical marijuana. The motion went unsponsored, leaving medical marijuana off the 2018 ballot. A medical marijuana user commented on the structure of South Dakota politics as they relate to healthcare in the state:

Participant: Why aren't we legalizing medically? We are not following through with governmental processes or holding elected officials responsible. We did our part gathering the signatures on our petitions. Why aren't they following through? Because of something Jeff Sessions said? So tell me, can there be some sort of a legal issue there? It's completely wrong and we're being caught up in the mess of state officials' thirst for money and power and they treat us like we just don't know what we're talking about. It's saved my life, even if it's illegal [304]

A physician commented on the connection between politics and the state healthcare system:

Participant: Here's an interesting scenario I could see playing out in South Dakota. Those suggesting we should legalize would have to deal with the state board of medical examiners if it went through, and the state board is a very conservative group. If the state medical board doesn't authorize physicians to prescribe medical marijuana in South Dakota, would the state legislature try to force them? The state board of medical examiners might fight back and thumb their noses at the legislature. The board is run by a bunch of old white conservative guys who would never be on board with medical marijuana legislation. [302]

Since medical marijuana is a highly politicized issue that cannot entirely be disentangled from politics, participant 304 comments on Jeff Sessions' 2018 decision to repeal the Cole Memorandum. States with a legal marijuana market have continued to flourish their marijuana markets despite Sessions' preoccupation with reentering nationwide marijuana prohibition. Participant 304 also commented on the social structure in Sioux Falls and how medical marijuana may allow residents' perceptions to develop:

Participant: Medical legalization will help normalize perceptions of use. This will be the result of a lot of listening. The idea of going medical first allows people to warm up to it. People in Sioux Falls don't understand that we don't have a black market. We have a black *hospital* market. We're doing medicine that these doctors should be doing. We're doing it already, and it would be nice to do it and not have to worry about going to jail! [304]

A participant who is employed as a therapist stated their concerns with governmental involvement in medicine:

Participant: The main change we can probably anticipate is the status of patients that need medical treatment. There will be too much red tape that will prevent patients from signing up for the program. The government here makes things infinitely difficult. Once the government gets involved, it's over. Because it's not about helping people, it's about the dollars. It's becoming so connected with the pharmaceutical industry and whoever is roped in with that lobby makes the money. I don't think marijuana legalization is in South Dakota's immediate future. [303]

A licensed nurse in Sioux Falls commented on the costs associated with living in an area where existing structures impede the wellbeing of patients:

Participant: These people who medically use are taking a big risk. If they're caught they'll never see the light of day again. This is so frustrating when you live in this city and you can drive 35 miles to Minnesota or Iowa and it's legal to possess the same kind of medicine that you can't possess here. And the big deal is that it helps kids who experience seizures. This area would be impacted greatly. The cost savings would be extremely beneficial! [301]

A physician offers their perspective on issues that will likely arise from the prescription process if it is not highly monitored and regulated:

Participant: If I write a prescription for a Metoprolol, an inexpensive beta-blocker, the patient takes the prescription to the pharmacy. The pharmacist will instruct the patient to take one 25 mg tablet daily. The pharmacy would lose their license if they gave the patient more than they've been prescribed. With medical marijuana, the doctor prescribes the amount of THC and/or CBD that the patient needs, but the dispensary doesn't have to honor the doctor's recommendation for the prescribed amount. They're getting a prescription for something and getting the product that also gets them high. I'm not opposed to medical marijuana legalization but the markets are operating in such an unrestricted fashion. If you're going to treat it as a drug, then treat it as a drug. [302]

While the healthcare professionals interviewed for this study discussed potential structural considerations for Sioux Falls, which is currently enduring marijuana prohibition, there was more in-depth discussion about the potential for marijuana legalization to impact the community.

Impacted Population

While the medical costs and benefits associated with marijuana use are not fully known due to a lack of longitudinal research being conducted on individuals who utilize medical cannabis, several costs and benefits associated with medical marijuana use are well known. A veteran who uses marijuana for medical purposes commented on the medical benefits of use:

Participant: I spent 20 years in the military before retiring honorably. The military is anti-cannabis for good reasons. On 6 separate deployments over the span of 11 years, I ran convoys with the Army. Death was a regular part of the experience. I was injured in a car accident and was prescribed hydrocodone. I became addicted and retired for fear of my own life. After beginning to use cannabis, I can say it helps with my nightmares, depression, life enjoyment, and increasing my appetite. I've got PTSD and the marijuana treats that. PTSD doesn't always have to do with war, it can be caused by traumatic events in your life. Marijuana has allowed me to get closer to my family because I was afraid to admit to them when I was addicted to pills. Using cannabis is also good for me because it helped me kick the pain killer addiction. The cannabis doesn't just treat the symptoms of the pain, it treats the addiction to the pain pills. [305]

Not all participants in this category believed that marijuana use is totally beneficial to the user. A physician commented on physical costs:

Participant: People can forget that smoking still has effect on your cardiovascular system. Athletes I treat take marijuana orally sometimes, which may be one of the safer ways to consume. If you tell people who want it legalized that it's harmful to smoke, they'll completely disagree. I'm middle of the road and I just want people to be educated about what might happen to them years from now. I know someone who used marijuana heavily in the 80s and 90s and now has frontal lobe atrophy. People sometimes don't consider the long-term consequences. From a recreational perspective, if someone has a couple of puffs a week, they'll probably be okay. If it's long-term use where someone is smoking marijuana every day for over 20 years, it will certainly have long-term effects on their health. People who advocate for the medical portion of the medical marijuana only want to get high. I have a difficult time coming to grips with how you weed out these people. How do you get dispensaries and pharmacies to align with doctor prescriptions? The other problem is that there are so few physicians that have any education on marijuana. So there'd need to be an educational program. Physicians will need to have gone through some educational program to know exactly what to prescribe. [302]

With respect to the sentiment that some patients can abuse prescriptions when given the opportunities, several participants commented on the status of the escalating opiate crisis America is facing. A non-profit employee who uses marijuana for medical purposes indicated:

Participant: If it were to get on the ballot in South Dakota, it would pass. Conservative people would engage in use if the medical legislation were to pass. When you think about it, opioids are legal and they're horribly addictive. When you think of all the other drugs that are legal for medical use, it seems totally crazy that marijuana isn't one of them! [304]

Marijuana was discussed as an alternative to other legal drugs in several interviews.

The nurse who was interviewed said:

Participant: Medical cannabis works for people with disabilities that relate to calming, it can help a great deal with anxiety, assisting with ADHD, and stress, just to name a few. This form of medication seems like it could directly help more than some of the alternative medication that's prescribed already. [301]

A possible cost of a legal marijuana market was brought up by a physician who, after visiting Colorado, noticed the influx of homeless and transient individuals who had come to the state to capitalize on the availability of legal marijuana there:

Participant: The homelessness is one issue that gets passed over by cities that legalize. They need to be proactive to address all the negative stuff that can happen if they legalize. First and foremost, the tax revenues earned from this industry need to help the people who are transient and down on their luck. That should be the primary focus of where the tax dollars go. I know most people will suggest the tax dollar allocation should go to address existing infrastructure and repaving the roads, etc. The tax dollars need to go to the people that stand to be harmed by it first. Maybe they provide shelters for those people if the revenue is generated. We should be helping the users with addiction counseling. Whether they'll actually do it is the question but at least it would be offered to them. [302]

In addition to addressing concerns caused by a new marijuana market, participants commented on conditions that medical marijuana might assist with, focusing on intrinsic benefits of marijuana use and its potential for holistic healing. The therapist who was interviewed argued:

Participant: I know the importance of relaxation. You have to have a point where your on switch isn't on all the time. Otherwise, you've got tension

your body, your muscles, nerves, possible issues with range of motion. It's just not comfortable to be in a body that's under tension or stress. We are in a time where we're constantly bombarded by technology and much of it does not resonate with humanity. Things that are supposed to make us more efficient like software uses an interface that hasn't kept up with our physical and physiological needs. Cannabis can help us ease up, part of the reason for involvement in the field of therapy is because I want to know what holistic healing does for other people and what healing can do for myself. Medical cannabis just involves taking care of people and providing them with a natural substance that can help people with physiological issues. It's just taking care of people. [303]

The theme of using marijuana in order to obtain basic wellness emerged in several interviews. However, a physician offers a perspective about the users of medical marijuana:

Participant: My thoughts have evolved over the past decade from being completely opposed to opening my eyes to the possibility of the things we may be able to do with medical marijuana. Here's my beef... there are two things. 1- There's two primary components of marijuana – there's the CBD and the THC and the CBD is vastly responsible for the medical benefits. 2- My personal belief is that there is a group of people who would really benefit from it and then there's the group of people who want to get high and there's definitely people who use the medical aspect as an excuse to get high. [302]

Medical marijuana users indicated their interests in seeing other illegal substances legalized for the sake of medical benefit. One medical user pointed out:

Participant: To have marijuana labeled as a schedule 1 drug is awful. Methamphetamine is scheduled as less harmful than marijuana. LSD's status as a schedule 1 is questionable as well. Psilocybin, LSD, and MDMA all have therapeutic uses. These are the future of mental wellness and the way that we can get away from big pharma. I want to just be well and there is something so deep within me that's traumatizing me that's making me still experience anxiety and depression. So this MDMA pill is in third phase trial and it's supposed to be on market January 2021. It's basically ecstasy for therapeutic reasons. You take a certain amount and go in for talk therapy. Three or four times, you do that over the span of a couple of months and then you'll stop. If you need to you can continue to go back in and do it in the presence of a physician. The responses are curative. People leave feeling really good! [304]

A physician offered their perspective on the use of other drugs being discussed in the broad drug legalization debate:

Participant: I suppose I could tolerate Psilocybin and mushrooms being allowed. There's certainly talk of marijuana being a gateway drug to other things. I used to buy into that. I have a lot of friends who use marijuana right now. I can tell you the vast majority don't do any other drugs. What I've seen is that they may have done harder drugs in the past. Over the years, they've mellowed and they've gotten off the other drugs and have moved into marijuana. Legalization can be a slippery slope with respect to other drugs. Where do you draw the line? There's some organization in California that was trying to legalize hallucinogenic mushrooms. I don't know where it ends. Do you then allow people to do cocaine and methamphetamine and then heroin? If I were in charge, I would not let it go beyond marijuana. I understand that's not totally Libertarian. You look at the costs of a heroin addict to society. They're costing more than they're contributing. They're hurting us more because we'd have to take care of them. [302]

A medical user comments on the scheduling of marijuana and the medical value of similar illegal substances:

Participant: If marijuana becomes recreational in Sioux Falls, other drugs won't work too well in this community. I think that medical legalization might make the most sense for marijuana and some other substances like MDMA. [305]

A physician comments on potential issues that could arise from the federal schedule status of marijuana:

Participant: Part of the problem with the regulation is you have no idea what you're getting as far as edibles go. If it's got 10% CBD and 10% THC and it has to be evenly distributed through the entire product, that creates some issues. It all comes back to the fact that it's still illegal on the federal level so the scheduling still needs to be addressed. [302]

This sentiment evidences a certain interest among medical users in Sioux Falls to continue to explore the medical value of drugs that have been illegalized beyond the scope of marijuana.

A therapist commented on the spiritual benefits of cultivating and using marijuana for medical purposes:

Participant: Something we learned in our second week of school is the goal of therapy is high level wellness whereas before, the goal of wellness was just an absence of disease. So we have crawled beyond that quite a bit, which is good. Cannabis can help with recovery and illness. It can also help keep them in balance and help them grow to be better people. It's really silly that it's not okay to use a plant, when I believe plants are gifts to people from the world. It's not okay to keep that from people who choose to use it. Cannabis use is a way to express harmony with nature. Clearly we need to connect with each other and everything a lot more... not by social media. We should be doing this with plants, animals, and water. [303]

A nurse offered some similar insight about the spiritual benefits associated with medical cannabis use:

Participant: By cultivating, you are improving your spiritual health. In that process, you are also improving your physiological health because you have a relationship with something you're growing. And it's on a personal level rather than an industrial level. So this can be very spiritually balancing and can even have effects to improve your mental health. [301]

Those arguing the benefits of medical marijuana address the physical, physiological, mental, emotional, and spiritual benefits of use. Given the illegal status of marijuana in South Dakota, the argument for access to medical marijuana is a highly politicized debate. In order to address the cumulative impacts of marijuana legalization, the political implications must be addressed in addition to those aforementioned.

Political Impacts

When considering the implications of a legal marijuana industry in Sioux Falls, the political context of South Dakota must be taken into account. South Dakota is home to 527,190 registered voters. Of the voting registered population, 47% (n=245,440) are registered Republican, 30% (n=158,328) are registered Democrat,

23% (n=120,475) have no party affiliation or are independent, .3% (n=1,683) are registered Libertarian, .1% (n=794) are registered with other parties, and .09% (n=470) are registered with the Constitution party (SD Secretary of State, 2018). In a state that is disproportionately conservative, marijuana's continued prohibition may not be surprising. Sioux Falls has a population of 178,500. The city has a race distribution that is 88.1% white, 3.7% Black, 4.1% Latino, 1.8% Native American, 1.4% Asian, and 2.7% of other races (US Census, 2016).

Minnehaha County is home to the city of Sioux Falls, although the city's metro area spans over four counties. In the most recent presidential election 58% (n=42,043) voted for Donald Trump and 42% (n=30,610) voted for Hillary Clinton. In the presidential election between Mitt Romney and Barack Obama, 54% (n=40,330) voted for Mitt Romney and approximately 46% (n=34,668) voted for Barack Obama (NY Times, 2017). These figures evidence that Minnehaha county voters back Republican candidates in presidential elections.

Although Sioux Falls has a higher proportion of Democrats than the state of South Dakota, the Democrats in Sioux Falls remain considerably outnumbered by Republicans. Democrats have typically spearheaded the most sweeping marijuana reform in other parts of the country like California, Oregon, and Washington. However, states like Florida, Louisiana, Arizona, North Dakota, and Montana where voters typically favor Republican candidates have engaged in marijuana law reform as well. This evidences that marijuana reform remains highly politicized but may not necessarily be as partisan as some other political issues. This shift also gives hope to the progress of the marijuana reform movement within states like South Dakota that

have traditionally favored Republican candidates. Contrary to popular belief, states can maintain their Republican status while engaging the nationwide marijuana reform movement.

To identify the political implications of marijuana legalization, 20% (n=1) of the interviews were conducted with an advocate who holds an executive position in a pro-marijuana political organization [401]. Political activists were interviewed and represented 40% (n=2) of the interviews in this sector [402,403]. Local politicians running for office in 2018 comprised 40% (n=2) of the interviews in this category [404, 405].

Structural Implications

It is not atypical for conservative politics to dominate rural areas, which often extends to urbanities within rural areas. A teacher and political activist commented on the structure of politics in Sioux Falls and how local and state politics are bound with race:

Participant: If marijuana were able to get on the ballot, it would pass. Conservative people in Sioux Falls and all over the state would engage in use if the medical legislation were to pass. The conservative population could accept it if it were whites running the business aspect with the distribution and dispensaries. The difference being if it wasn't illegal, at least then migrant groups in the community wouldn't be targeted. Still being a liberal or progressive in South Dakota seems hopeless. I can't imagine legalization of marijuana changing South Dakota all that much. Unless we get honest about it, no change will come. We'd have to acknowledge that the whole story we have told ourselves about drugs is wrong. It's so hard for people to admit when they're wrong about something. So, realistically it'll be a long ways away for that to happen. If you're going to participate in a civil discourse about marijuana legalization, you have to recognize the racial component and many people don't want to go there. They want to believe they're color blind and that race is only an issue in big cities and not in South Dakota or Sioux Falls. They don't want to confront the privilege that they have. [403]

A participant who works as a marijuana advocate commented on the success of women in the marijuana reform movement, suggesting that a local industry could help women prosper, but still identifies issues with the inclusion of minorities:

Participant: Women run the world! When it comes to cannabis, women are thinking a mile ahead. They're able to be more fluid through different elements of the industry and engage the industry from a collective and holistic sense. Women are killing it in the cannabis industry because they're multi-taskers. The women who are killing it are mom[s]. They run entire households from the day the baby pops out and then they have careers to juggle. They're already juggling so many balls. Cannabis is just an extra ball. There are some amazing minority women in cannabis. What we're seeing in the younger generations is that there's not a ton of African American men who break into this industry. They've been disproportionately punished for their marijuana use during prohibition years and now they're being kept out of the industry because they have criminal records that reflect violations that are now part of a prospering legal industry. I'm so sick of living in the 1950s. You can't expect us to progress without being progressive [401]

Race is not the only structural issue at play within state and local politics. Several participants mentioned the role of Christianity and organized religion within the state playing a role in the perception marijuana:

Participant: Marijuana has a reputation as an illegal drug, and with the cultural background in the state, there is a higher level of influence on public perception in Sioux Falls. By culture, I am referring to Christianity, conservative politics, and policies and procedures that don't reflect the public mindset of this city or South Dakota as a whole. [405]

The idea that South Dakota's politicians do not represent the desires of the voters resurfaces in the next section on impacts. Another political activist sees the population of Christians in Sioux Falls as beneficial to the marijuana reform movement:

Participant: There is room for acceptance of all members of society from Christianity, so perhaps they'll accept this. You don't really see people rallying against any other medications. The idea of going medical first allows conservative people to warm up to it, but the federal scheduling of marijuana makes it tough to disentangle from other substances. I realize it

would take people a while to accept it. The thing with the Christians is, if God put an endocannabinoidal system in your body, then put a lipid system in your body to process it, doesn't that imply God wanted you to have it? [402]

As participant 402 mentioned the scheduling of marijuana, other participants also worried about the scheduling being connected with the sustenance of perception that marijuana use is more harmful than it actually is:

Participant: Federal government overreach is the greatest cost to the marijuana legalization movement. The Republicans want it as a schedule 2 substance so the pharmacies can move in on it. If we're able to pass legalization in our state, we will see the penalties likely get reduced at the state level. If we allow people to have personal amounts in their home only. But all of this starts with deregulation at the federal level because they've been lying about it for years. [404]

A political activist shares their concern about potential government interference in a legal marijuana market:

Participant: The government needs to be out of the industry, not in the industry. These laws are not being written in a way that helps the people they govern. There's too much change going on in the marijuana movement and the state is pushing against it just because we're in an election cycle. I don't think it'll pass. West River folks will be more likely to get the vote than East River folks. [402]

In addition to the connection with political infrastructure, participants expressed concerns over the political impacts and their potential effects on individuals.

Impacted Population

While participants acknowledged the potential for impacts of marijuana legalization on state and local political structure, they also mentioned the need for individuals to become educated on the credible research conducted on the benefits of marijuana use. This self-employed participant who works as a political activist

mentions the need for education and indirectly expresses the need for ideology and practice to align with voter behavior:

Participant: Any of these social groups could be impacted if they realized they have access to current information about cannabis. There's a great opportunity for an education here. What's so important about making marijuana legal is making sure the public is motivated to be educated about it. I've noticed there are a lot of rednecks just outside Sioux Falls who smoke weed and still vote republican. They love Trump but they smoke weed and I'm like 'What the fuck?' I don't get it. It's so weird to me, how they vote their politics, but they'll sign my petition for legalizing it. Then they wonder why things aren't better. They sit there and pack their bowl and tell me how they hate my Bernie Sanders t-shirt! [402]

An executive of a pro-marijuana political organization substantiates the notion of hypocrisy among state voters and politicians:

Participant: If we accept the arguments that conservatives are worried that potheads are going to take over the world and we're going to be lazy and sit on our couches doing nothing then they win! If you actually think about it though, they would lose. If they think it's gonna make us lazy, then give it to us! They'd get all the riches anyway. Their arguments just don't hold up. If cannabis were legal in Sioux Falls, you'd see that every job in the industry would be open to anyone who would have the work ethic to do the job and you'd see these workers embodying all the traits the politicians and the naysayers are suggesting we lack! The thing I find interesting about politicians who are part of the anti-legalization campaign and then switch over to the reform movement all of sudden... is actually something important we all have to ask ourselves. Why do we have to wait until someone you love is dying to make a change? We have patients that can't show up for advocacy because they're in so much pain but when someone wants to sell a cupcake with a tiny bit of alcohol baked into it, the motion passes in two weeks! [401]

A politician argued that fear is stopping many people from speaking out in favor of marijuana legalization in Sioux Falls:

Participant: So much information out there shows the benefits of cannabis use, it's impossible to believe that the anti-legalization campaign isn't wrought with logical fallacies and scare tactics. When something like cannabis works, it allows more openness and people need to share their stories and talk about it. You need to be able to speak with people and have an open dialogue to change the public conversation and perception. [404]

Changing the perception of marijuana use was a popular sentiment among the participants who were interviewed for this sector. A teacher who works as a political activist commented:

Participant: What comes to mind is the belief that when you treat people like they're immature, then they are much more likely to act that way. I don't buy in to the whole gateway drug thing. I really don't. The more uptight we get about substances, the more problems we see with people using them incorrectly. [403]

Participant 403 is suggesting that relaxing punishments for marijuana users may not present entirely negative changes about the way people act or use other drugs.

Further, they are suggesting that politicians do not need to focus efforts on drug use prevention. As we approach the fifth decade of the American war on drugs, the targeted problems have persisted despite the efforts, resources, and power of the American political system.

Perceptions of Marijuana Legalization in Sioux Falls

The results of the interviews with virtually all of the participants in this study validated the moral panic on marijuana among residents in Sioux Falls and South Dakota. This was interesting because none of the participants explicitly mentioned the moral panic in the media, but rather evidenced the culturally, regionally, and politically motivated marijuana panics that grip South Dakotans. Participant 102 evidences this with reference to “fear of backlash” preventing individuals who support marijuana legalization from stepping out and speaking in its favor. Further, participant 402 suggests “it’s impossible to believe the anti-legalization campaign isn’t wrought with logical fallacies and scare tactics”. These two sentiments provide evidence that the marijuana panic in South Dakota plays a role in preventing the

marijuana reform movement from achieving its full potential and that the government (the anti-legalization campaign) plays a role in maintaining that panic.

Several participants insinuated the role of state politics in driving the South Dakotan marijuana panic more directly. Participant 302 commented on the connection between the medical board in South Dakota and the partisan and racial identity of its members, “The board is run by a bunch of old white conservative guys who would never be on board with medical marijuana legislation.” Participant 403 indicated, “The conservative population could accept [marijuana legalization] if it were whites running the business aspect with the distribution and dispensaries.” Participant 401 also mentioned the power of conservative arguments in the anti-legalization campaign, “If we accept the arguments that conservatives are worried that potheads are going to take over the world and we’re going to be lazy and sit on our couches doing nothing then they win!”. Participant 401 mentioned this to elucidate the logical fallacy that marijuana makes users lazy and should, therefore, remain illegal. Participant 401 was exposing the fallacy of this argument by suggesting that those making this argument are truly afraid of marijuana legalization occurring in South Dakota because it impedes their traditional sensibilities.

Perhaps the finding that echoes most clearly in these interview results is that the people of Sioux Falls are not having their voices heard by state politicians. When their contributions are analyzed, it quickly becomes apparent that the majority of them are not frustrated that marijuana is illegal in South Dakota. They are not angry just because South Dakota refuses to engage in the marijuana reform movement seriously or open-mindedly. The participants speak to a much larger issue. Many of

these participants are enraged because they have marijuana-related expertise yet elected officials do not take them seriously. The goal being pursued in the marijuana reform movement is not to overturn the conservative agenda. There are plenty of cities, counties, and states where the legal marijuana industry is prosperous under conservative political leadership. Rather, the goal of the reform movement is to educate those willing to keep an open mind to this ever-evolving debate.

Conclusion

This chapter outlines the different areas through which marijuana legalization stands to impact the community of Sioux Falls. Consistent with existing impact literature, economic, medical, and political impacts are examined. This chapter also examines the criminological implications of a legalized marijuana market to include input from police and non-imprisoned marijuana offenders to provide depth and perspective to the discussion on cumulative impacts. Analyzing the criminological structure in Sioux Falls gave way to participant-driven predictions that offered comparisons to other city's legal marijuana infrastructures, treatment of prisoners who have been incarcerated for marijuana-related offenses, and disproportionately negative legal impacts of Native Americans in Sioux Falls and the state of South Dakota. Participants also discussed how fear of legal retaliation keeps individuals from stepping out in favor of marijuana.

Economic impacts were analyzed to determine the nature of legal marijuana's impact to the city and state economies. This section sought participant-driven input to predict the potential economic impacts of a legal marijuana market. Participants discussed the potential for economic growth, funneling revenue and taxes to improve

treatment of disadvantaged groups in the city and state, the potential for industrial growth in tourism, and improving treatment of addicts within the state. Participants in this section mentioned using the economic infusion to ease the hardships faced by vulnerable populations, specifically Native Americans. Participants in this sector acknowledged changing perceptions of marijuana use and how that might lead to growth in use and infusion to local small businesses.

Medical impacts were analyzed in an effort to include participant-driven predictions related to how public health and the healthcare industry might be impacted. Participants mentioned frustration with local and state governments not following proper procedure in response to the statewide marijuana reform movement. Concerns for regulation were expressed by several participants pertaining to scheduling, prescription regulation, and the need for medical access among medical marijuana users. Comparisons were made to nearby states with existing legal infrastructures for medical marijuana. Medical marijuana users discussed the nature of their medical needs and their beliefs that legalization could be acquired if medical marijuana were placed on the ballot. Some issues were discussed that related to health risks associated with smoking, treatment of individuals a marijuana market may unintentionally attract, and the possibility that reform efforts may shift to harder substances with questionable medical value. Several participants also shared beliefs that cultivating and using marijuana may have positive impacts on physical, mental, and spiritual wellbeing.

Political impacts were discussed in the final section of this chapter. Participants in this sector voiced concerns for the structure of conservative politics in

the state and the ability of politicians to undermine the desires of the voters. Concerns surfaced related to the potential for government interference in the medical marijuana industry, which may present challenges in the city and state contexts. In addressing impacts to individuals, participants attempted to elucidate logical fallacies in arguments from those opposed to marijuana legalization and/or the political parties working to obtain legalization.

Overall, these interviews evidence that Sioux Falls voters are empowered to contribute to the discussion on marijuana legalization in South Dakota. Despite the fact that not all participants agree with how this change should occur on a structural or individual basis, there is widespread agreement that the conversation of marijuana legalization in South Dakota has never disintegrated. In fact, it appears to be catching traction as nationwide efforts to legalize marijuana flourish on a daily basis. If and when marijuana legalization is a ballot item in South Dakota, this report can be used to offer insight into predicting impacts at the criminological, economic, medical, and political levels. Further, these impacts can be used to determine which unintended consequences arise a result of marijuana legalization and, most importantly, how to mitigate them so the process of legalization in Sioux Falls can become a model for all cities within rural contexts attempting to legalize in the future.

CHAPTER 7: CONCLUSION

The purpose of this study is to explore the potential impacts of marijuana legalization in Sioux Falls and the ways in which public perception of marijuana legalization is formed, sustained, and is subject to development. This report also explores the impacts and recommendations of marijuana legalization in other regional contexts where legalization has been proposed by analyzing existing impact studies. This chapter summarizes key findings of this research and situates them with respect to similar impact assessments. Finally, this chapter will elaborate limitations of this study.

Summary of Findings

Print media reports were examined to determine whether a marijuana moral panic was created in Sioux Falls. Using Goode and Ben-Yehuda's (1994) themes of moral panic, sufficient evidence was found to affirm *Argus Leader's* contributions to a marijuana panic in Sioux Falls, SD. Multiple theoretical standpoints suggest news media have a stronghold on formulating the social perceptions of their audiences (Tsfati, 2002). Therefore, a relationship between reporter bias and audience perception forms, which may cloud readers' understanding of the true nature of events. The realization of reporter bias is critical to interpret in order to achieve adequate media literacy, though not all members of the media audience achieve media literacy (Vraga, et al., 2009).

The media analysis conducted in this research presented in a very interesting manner. The articles framed the financial impacts of marijuana legalization as

beneficial. However, the concentration of the articles did not always focus on the benefits of marijuana legalization. Articles revealed patterns of offender typification that are usually observed in a moral panic and are highlighted under the phase of concern. For instance, *Argus Leader* framed the marijuana issue in Sioux Falls by focusing on marijuana law offenders and the specific laws they perpetrated. Articles that focused on marijuana crime highlighted offenders guilty of cultivation, possession, and distribution related offenses. Reports of marijuana crime also focused on offenses committed by youth in Greater Sioux Falls. This may have been done in an effort to ramp up public concern for marijuana-related crimes and its potential to impact local youth populations. Other scare tactics emerged from the reports, which highlighted the process of vaping marijuana as an emergent danger due to its inability to be detected as easily as traditional marijuana. The media, therefore, increased public concern by framing marijuana as a crime problem, an issue that impacts youth populations, and as a drug that is becoming increasingly difficult to detect.

Media reports of marijuana users often conflated marijuana offenders with offenders of violent and property crime. These reports highlighted the frivolous and risky behaviors of marijuana users in a manner that generalized marijuana users as violent, lawless, and capable of great harm. Articles from *Argus Leader* regularly featured local law enforcement, political, and health official's comments, which often stigmatized and over-exaggerated results of marijuana use. Officials reinforced sentiments that marijuana offenders are a dangerous and violent group of individuals. *Argus Leader* framed the marijuana issue in Sioux Falls with a higher proportion of costs than benefits. While this may be due to the current illegal status of marijuana in

South Dakota, it seemed to also be done in a manner that delegitimized marijuana's value as medically valid. Medical uses of marijuana were included using remarks from patients who used marijuana. Since these patients were using marijuana illegally, their use was stigmatized similar to the way seen when criminal offenders were discussed. Subsequent to remarks from patients admitting to marijuana use, expert opinions were often included. The opinions of the experts *Argus Leader* reported on usually invalidated patient claims that marijuana was medically beneficial.

In South Dakota, lawmakers and politicians strive to uphold the illegal status of cannabis. This can be seen in their efforts to avoid any type of decriminalization associated with marijuana, including efforts to block reduced prison terms for marijuana law offenders. These traditional political and legal tactics are what keep South Dakota in the minority of states that have not passed any marijuana sort of marijuana law reform. The volume of marijuana reporting by *Argus Leader* was volatile and fluctuated in accordance with local efforts to legalize marijuana, which were unsuccessful.

The media analysis, while uncovering a moral panic, gave way to several areas that need to be addressed in Sioux Falls if marijuana becomes legal in South Dakota. For instance, youth usage rates appear to be a concern. This suggests a need for any marijuana law introduced to institute evidence-based youth prevention tactics. Additionally, public safety appears to be a concern so the implementation of a marijuana market in Sioux Falls would require strategically placed dispensaries in a recreational market and a strictly regulated prescription process in a medical market.

Lastly, and possibly of greatest consequence, is the need for the Sioux Falls community to modernize their knowledge of marijuana by becoming and staying educated on the most up-to-date research, policies, and uses. The Sioux Falls community is not alone in their lack of education and progress regarding marijuana reform. Several of the impact analyses reviewed in Chapter 5 highlight the need for educational programs preceding and following marijuana legalization in rural, urban, and suburban contexts.

Impact reports conducted on marijuana legalization in other regional contexts were considered in this research. These reports provided insight on how other places have successfully negotiated marijuana legalization at medical and recreational levels within their respective areas. These reports were used to inform the research questions posed in this study. Further, these reports justified the need for more research to be conducted on the medical and recreational costs, benefits, and overall impacts of marijuana legalization so they might be fully known. The majority of these reports were taken from contexts in the United States and Canada, which can provide useful insight toward constructing a regulatory framework for marijuana in Sioux Falls. Assessors and participants in most of the reports expressed concern over youth usage, marijuana-impaired driving, and prevention of accidental ingestion.

The recommendations in the impact reports analyzed in this study provide a useful foundation for assessing marijuana legalization in Sioux Falls. This is because the recommendations provide a baseline of for how to operationalize a marijuana industry at the medical or recreational level. By learning from other areas that have enacted marijuana legalization, South Dakota can introduce a legal marijuana market

that safeguards against some of the unforeseen consequences experienced by other regions. The ability to predict and mitigate negative consequences associated with marijuana legalization is perhaps the key benefit of being one of the last states in the country to engage in marijuana reform efforts.

Interviews were conducted with professionals from Sioux Falls' criminological, economic, medical, and political sectors. The goal of these interviews was to inform the impact assessment, to further predict unforeseen consequences of a potential marijuana industry in Sioux Falls, and to engage the public participation component of social impact assessment. Participants indicated that a great deal of misrepresentation of the impacts of marijuana use have permeated public perception. Participants indicated that fear of marijuana has a firm grasp on public perception. This fear also keeps members of the public from stepping forward and speaking in support of marijuana legalization, so the fear is connected to the social stigma associated with supporting marijuana reform.

Many participants spoke about conservative politics impacting the willingness of the public to update their knowledge on marijuana use. One key theme that emerged from all sectors of the interviews was the expressed need for modern education regarding marijuana. The uncertainty toward marijuana use may keep individuals from using it or stepping out in favor of it, despite their intentions of use. Many participants indicated that the educational component is critical whenever introducing a new industry to an area, especially for an industry that moves from prohibition to legalization as quickly as the marijuana industry has. The idea of education is key to the findings of this report because advancing one's education of

the modern uses of marijuana may deteriorate the moral panic associated with marijuana use.

Policy Implications

Law enforcement in Sioux Falls can use this research to better comprehend how individuals within the city are using marijuana for medical and recreational purposes. Despite marijuana's illegal status, the marijuana reform movement in Sioux Falls is stronger than ever. Some members of law enforcement have aligned with members of the public in their desire to see marijuana legalized, especially at the medical level. Marijuana legalization may have a great impact on marijuana-only offenders in the city as well. Legalization may curb the number of small-time drug arrests, allowing authorities to devote their resources to the prohibition of more harmful substances, which are plentiful in Sioux Falls and in South Dakota. Further, legalization of marijuana may unburden the jails and prisons within South Dakota, potentially decreasing the disproportionate incarcerations experienced by minorities in the state's system.

Businesses stand to be impacted by shifting marijuana policy due to the industry's reputation for rapid growth. Ancillary businesses that support the marijuana industry, such as smoke shops, software development companies, restaurants, nonprofits, and driving services all stand to be positively impacted by marijuana legalization in Greater Sioux Falls. The medical industry is one of the fastest growing in Sioux Falls. Legalizing medical marijuana would bring an influx of economic growth to that already burgeoning local industry.

Politicians in Sioux Falls and in South Dakota may use this report to inform their decisions on how to negotiate marijuana legalization if and when it is presented as a sponsored ballot initiative. If the majority of the nation's progress on marijuana reform tells politicians anything, it is telling them that marijuana prohibition is an element of the past and that some sort of legalization may be the way of the future.

Limitations

This project aimed to answer the research questions as fully and comprehensively as possible, although there were several limitations. The first limitation was the lack of available data on the criminological and medical impacts of marijuana legalization on communities. Whether communities aimed to legalize recreational or medical marijuana, available crime statistics do not reflect causal implications of marijuana legalization, but rather draw on associations of crime with marijuana legalization. Further, it seems that for every association found between crime and legalized marijuana, there was another article disputing that association, so decisions were made to include sources that were scientific, peer-reviewed, and cited widely among experts in the criminological research community. A similar problem was encountered regarding available data on the medical uses of marijuana. Due to the lack of available data, some medical reports were suggestive of marijuana's benefits while others detailed marijuana as costly to individual and public health. Therefore, the importance to include scientific, peer-reviewed, and heavily cited sources was paramount. Available data on political and economic implications of marijuana legalization was much more plentiful than criminological and medical data.

A second limitation of this study was related to its small sample size. However, the small sample size was one part of the total analysis. Further, participants were sampled in order to get a diverse and comprehensive set of opinions that covered the basis of areas that would be impacted under marijuana legalization. The smaller sample size, while being tied to the time constraints mentioned above, was also tied to political constraints of this assessment. The participants were not selected randomly, which prevents generalization. Although generalization was not the goal of this research due to its geographically bound setting, the opinions and insights expressed from the participants are not necessarily generalizable to the Sioux Falls population. Further, in trying to contact participants that would contribute perspectives in favor of and in opposition to marijuana reform, the principal investigator received more feedback from participants in favor of marijuana reform. Subsequently, the majority of the feedback from participants who were included in this research looks more closely at aspects of marijuana legalization that are likely to be judged in a positive manner.

Despite the limitations, this study makes a valuable contribution to impact assessment research by furthering its applicability to the marijuana industry. Additionally, most of the impact studies commissioned on marijuana legalization do not acknowledge the unique contexts of cities situated against the backdrop of rural America. This was one of the primary achievements of this report. Lastly, this study may also be used as a tool for policy makers in South Dakota and Sioux Falls as they navigate the incredible complexities associated with marijuana legalization.

Future Research

This research gives rise to several areas for future inquiry. First, other researchers can focus on impacts of marijuana legalization in cities situated in rural contexts. The idea of marijuana legalization in the American Midwest is interesting because it is a region typically associated more closely with conservative politics and values while marijuana legalization is associated more closely with liberal politics and values. Since areas do not necessarily lose their conservative political status just because they engage in marijuana reform, impact research needs to be conducted in states that have not enacted any marijuana law reform. This will allow researchers and those employed in law enforcement, the medical community, as politicians, and those in the marijuana industry to understand and anticipate impacts to areas that undergo legalization. It will also allow them to mitigate any potential negative impacts in advance.

There is a need for research on prison populations regarding marijuana-only offenders and how they will be managed as regions move from prohibition to legalization. Since the war on drugs has disproportionately impacted people of color, provisions should be made for marijuana-only offenders as to not keep them out of the legal marijuana industry. As the marijuana industry moves into widespread legalization, there is increasing acknowledgement that the vast amount of information known about marijuana is attributed to those currently being punished for crimes related to its cultivation, possession, or distribution (Sides, 2015). Future research might provide statistics and policy information regarding those currently imprisoned

for marijuana-related offenses and provide solutions for how to integrate that population into the legal marijuana industry.

Finally, there is a need for impact assessment to be conducted in any area considering marijuana legalization. Population impacts are contextually based and are often bound by location. Therefore, the impact assessment process needs to become a standard component of marijuana legalization in any area impacted by this change. For example, if marijuana is legalized in South Dakota, it may impact Sioux Falls differently than the other main city in the state, Rapid City. Impacts to non-urban areas should also be considered so that legalization can be negotiated with knowledge of impacts that is as comprehensive and regionally relevant as possible.

Conclusion and Recommendations

Marijuana legalization is a growing trend across the United States (Sides, 2015). As marijuana moves from prohibition to legalization, researchers are increasingly studying the impacts on populations affected by legalization. Several social indicators that should be addressed to assess the impact of medical or recreational marijuana legalization involve analysis of public perception of marijuana use and legalization. Public attitudes toward a project form from the outset of any policy change. Assessing the attitudes can provide valuable information on the social climate that may emerge during the stages of planning and decision-making (Burdge, 2015). Media reporting of marijuana use and legalization in any given area contributes to the understanding of how perceptions are formed, what the perceptions are, and how they can be modified or updated. A second social indicator that should be addressed is the presence or absence of social action or social movement activity

in favor of marijuana legalization in a given area. Activity from interest groups are community force that need to be understood in the assessment process because these groups play a key role in determining responses from the entire community that stands to be impacted. They also provide informed insight to enhance the mitigation of unintended consequences (Burdge, 2015).

With the introduction of any new industry, skilled employees are essential. However, there should also be allotment for unemployed individuals and factory and farm workers to have access to this new industry (Burdge, 2015). The inclusion of as many sectors from the labor force as possible could ensure economic stability and could potentially sustain growth. Many participants discussed the need to include Native Americans in the marijuana industry if it becomes legalized in Sioux Falls. Therefore, the need to equitably distribute opportunities in the marijuana industry to community members on the basis of ethnic origin and race are paramount. Since the legal marijuana industry is predominantly controlled by whites (Bacca, 2015), the inclusion of other ethnic groups in Sioux Falls into the marijuana industry is an essential component of legalization in this state.

A marijuana industry would not be possible in Sioux Falls without interorganizational cooperation. This would require regulatory and government bodies in South Dakota to work together to ensure cohesion of the various elements of marijuana legalization. Regarding medical marijuana legalization, one participant mentioned the inconsistencies with prescriptions for marijuana and what the dispensaries are providing to patients. This is an important consideration because

there would need to be standards in place to ensure patients were receiving only the amount prescribed to them.

A final key indicator that would need to be addressed in any changes to community infrastructure. Community infrastructure addresses the components of physical infrastructure and city support facilities (Burdge, 2015). If marijuana were legalized recreationally, Sioux Falls would be responsible for ensuring mitigation strategies that manage transient populations by the development of additional shelters in the city to handle the influx of this population. Further, the healthcare community in Sioux Falls would be responsible for adapting their addiction centers to treat anyone who may become addicted to marijuana. Structural changes would need to take place to accommodate the implications of the policy changes.

Levels of marijuana use may rise subsequent to medical marijuana legalization, although the data to support this notion is inconsistent (Hasin, et al., 2015; Lynne-Landsman, et al., 2013). Where medical marijuana legalization is legalized, impacts on levels of use subsequent to legalization are questionable. This might be attributed to patients who use marijuana for medical purposes but do so illegally, so they may not be honest about their illegal behavior prior to medical marijuana legalization. Additionally, patients may substitute prescription drugs for marijuana after medical marijuana becomes legalized, accounting for some observed increase in marijuana use following medical legalization. It should be acknowledged that in a medical marijuana market, levels of use could be highly regulated through the practice of prescriptions. In a recreational market, increased marijuana use can be regulated with eligible quantity thresholds. Therefore, the potential for marijuana use

to increase in post-legalization markets could be an effect of the regulatory standards enacted by governing bodies and law enforcement.

Medical marijuana legalization may decrease the use of other drugs, particularly when there is increasing use of marijuana as a substitute for opiates (Branford and Branford, 2016). States with medical marijuana legalization have recorded a 20% decrease in treatment center admissions for heroin treatment and up to 15% decrease in arrest for cocaine and heroin possession combined (Chu, 2015). States with recreational marijuana dispensaries are reporting lower admissions for treatment of addiction to pain medications and decreases in opioid overdose deaths (Powell, Pacula, and Jacobson, 2015). Therefore, the evidence supports the concept that marijuana legalization may decrease the use of other drugs, particularly those that are more harmful or are outright lethal. Further, state-specific studies are consistently concluding that marijuana legalization does not inspire greater use from teens in those states (Armentano, 2015).

It is common, in states where marijuana legalization occurs, for residents to express concern with black market infusion and impacts on increased crime. However, there is evidence to support that marijuana legalization is reducing demand for illegal marijuana as the legal industry's product is causing the black-market price to fall (Burnett, 2014). Miroff (2014) reported the wholesale price of marijuana in Mexico has plummeted in years following American legalization. In a report by the United States National Highway Traffic Safety Administration (2015), the largest of its kind found that, when controlling for age and gender, no increased accident risk was observed among THC-positive drivers. Bridget, et al. (2012) found that

marijuana dispensaries are not associated with higher violent or property crime rates. In Denver, which is considered the headquarters of Colorado's retail marijuana industry, the homicide rate more than halved in the year following legalization and motor vehicle theft decreased by over one-third (Armentano, 2015). Therefore, it is reasonable to conclude that medical and recreational marijuana legalization is not necessarily causal in increasing crime rates.

Marijuana legalization has been disputed by the anti-legalization campaign in the United States. However, there is little substantive research to support many of the arguments made by the anti-legalization campaign as the country trends toward legalization. More research on the social impacts of marijuana is needed to further substantiate its potential for medical use and to modernize perspectives regarding its potential as a recreational substance.



APPENDICES

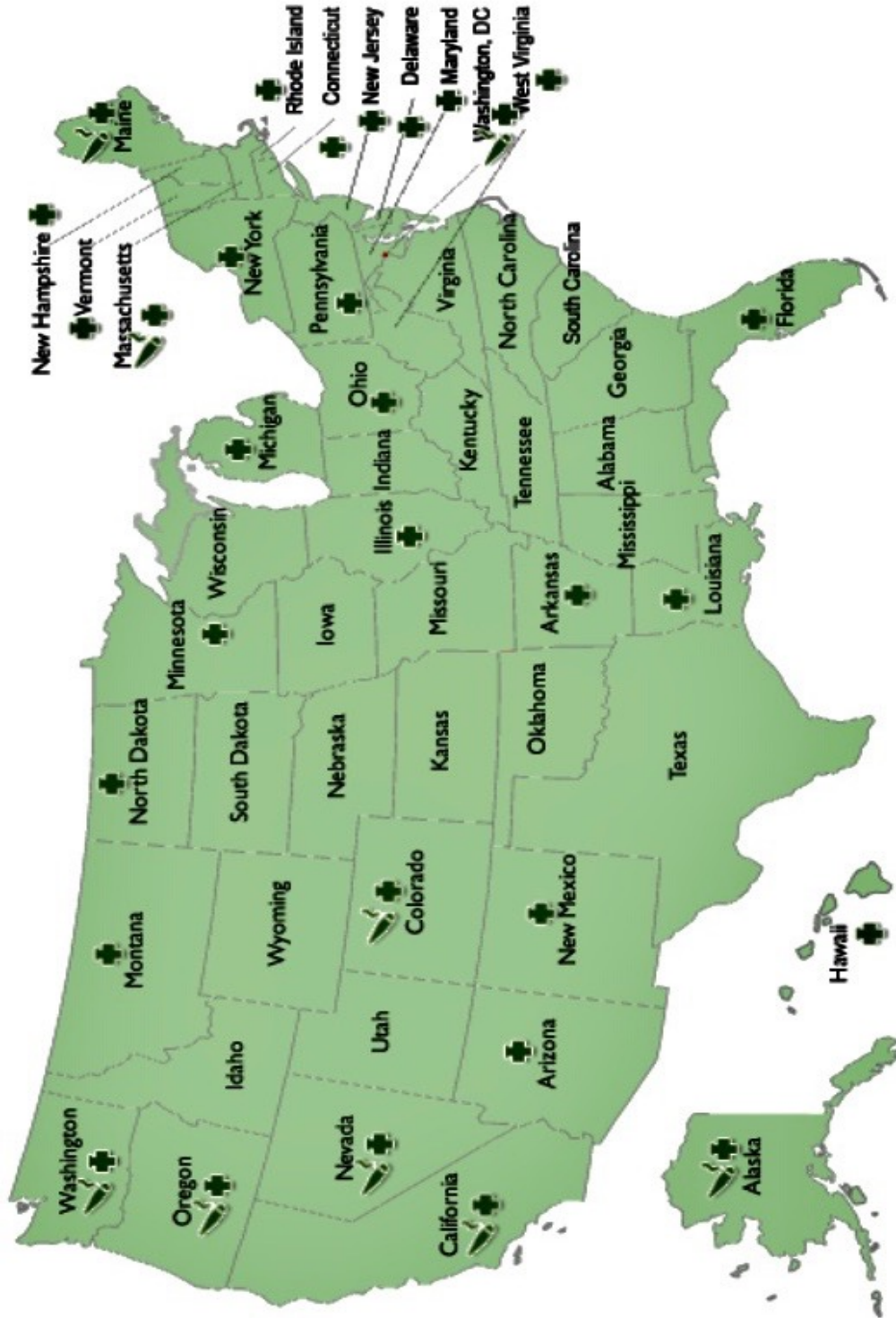
APPENDIX A: TABLES AND FIGURES

Table 1: Participants' Occupations, Roles, and Sectors

Participant ID	Occupation	Role of interest	Sector
101	Teacher	Marijuana Offender Advocate	Criminological
102	Student	Marijuana Offender	Criminological
103	Non-profit	Marijuana Offender	Criminological
104	Police Officer	Law Enforcement	Criminological
105	Police Officer	Law Enforcement	Criminological
201	Business Owner	Ancillary business owner	Economic
202	Business Owner	Ancillary business owner	Economic
203	Marketing	Ancillary consumer	Economic
204	Self-employed	Ancillary consumer	Economic
205	Banking	Business finance	Economic
301	Nurse	Healthcare professional	Medical
302	Physician	Healthcare professional	Medical
303	Therapist	Healthcare professional	Medical
304	Non-profit	Medical user	Medical
305	Veteran	Medical user	Medical
401	Advocate	Executive of political organization	Political
402	Advocate	Board member of political organization	Political
403	Self-employed	Political activist	Political
404	Self-employed	Politician	Political
405	Consultant	Politician	Political

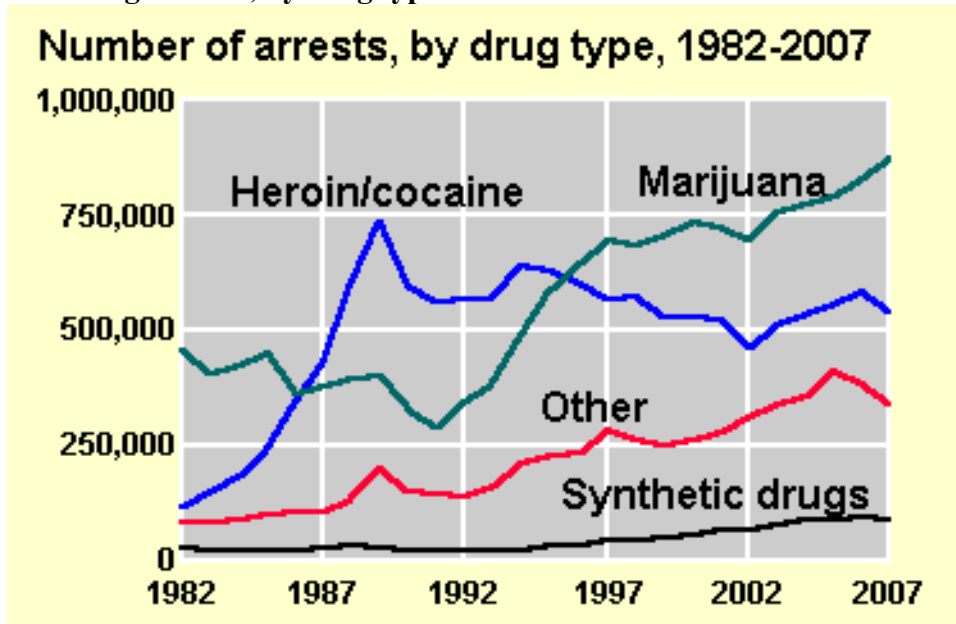
Figure 1: Recreational and Medical Marijuana Laws by State

 = Recreational Legalization  = Medical Legalization



Source: National Organization for the Reform of Marijuana Laws Recreational and Medical Marijuana Laws by state, 2018

Figure 2: Drug Arrests, by drug type 1982-2007



Source: Bureau of Justice Statistics, Crime in The United States Annually, 2018

Figure 3: Coding Categories of Marijuana News Reports in Sioux Falls, SD

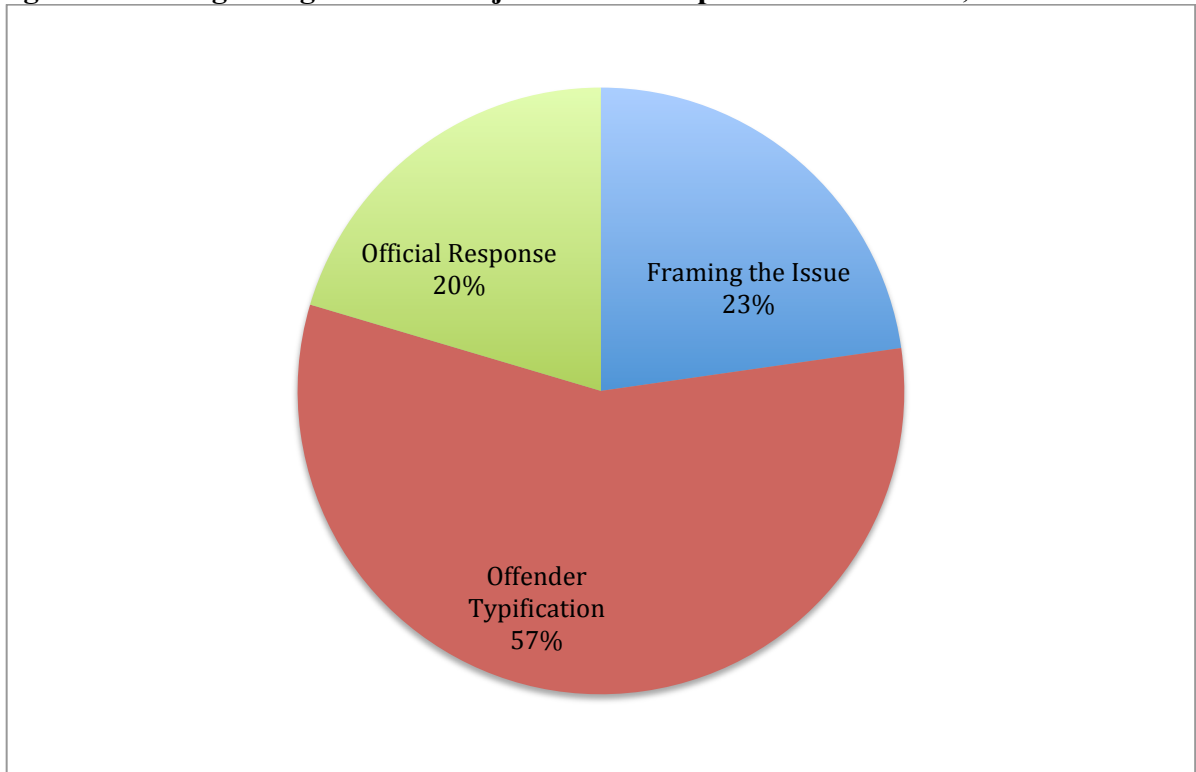


Figure 4: Number of Reports by Marijuana-Related Offense

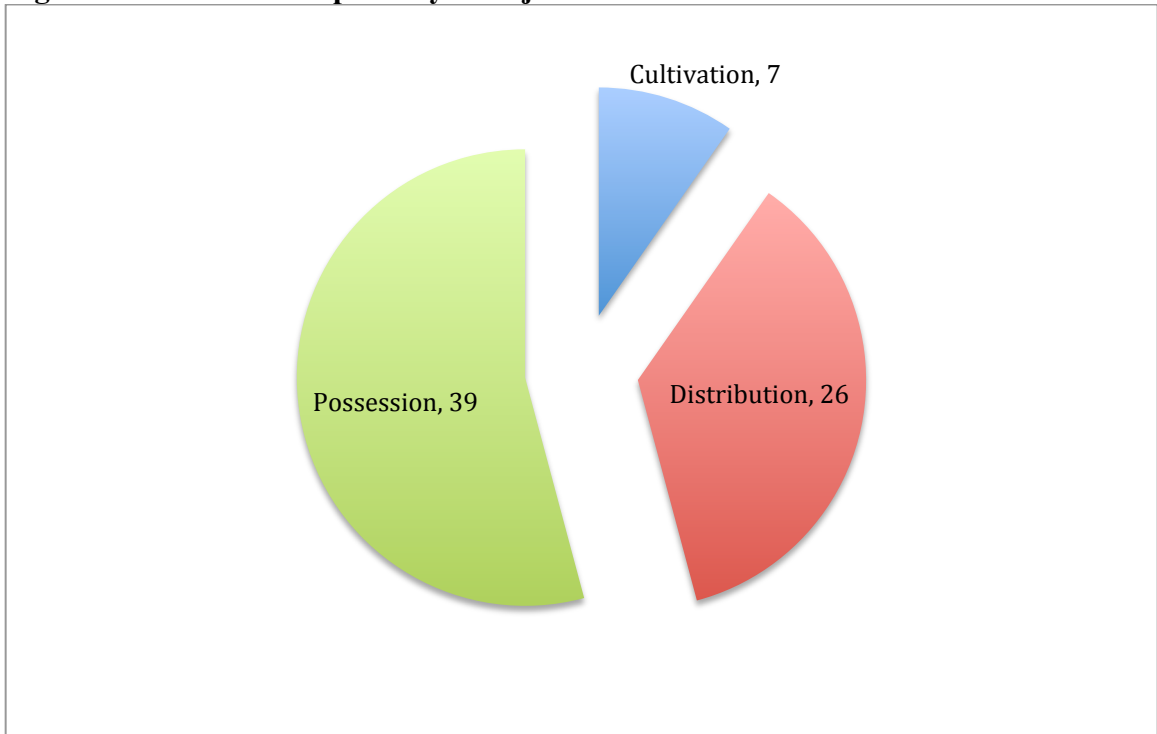


Figure 5: Concern, Hostility, and Consensus Coverage by Year

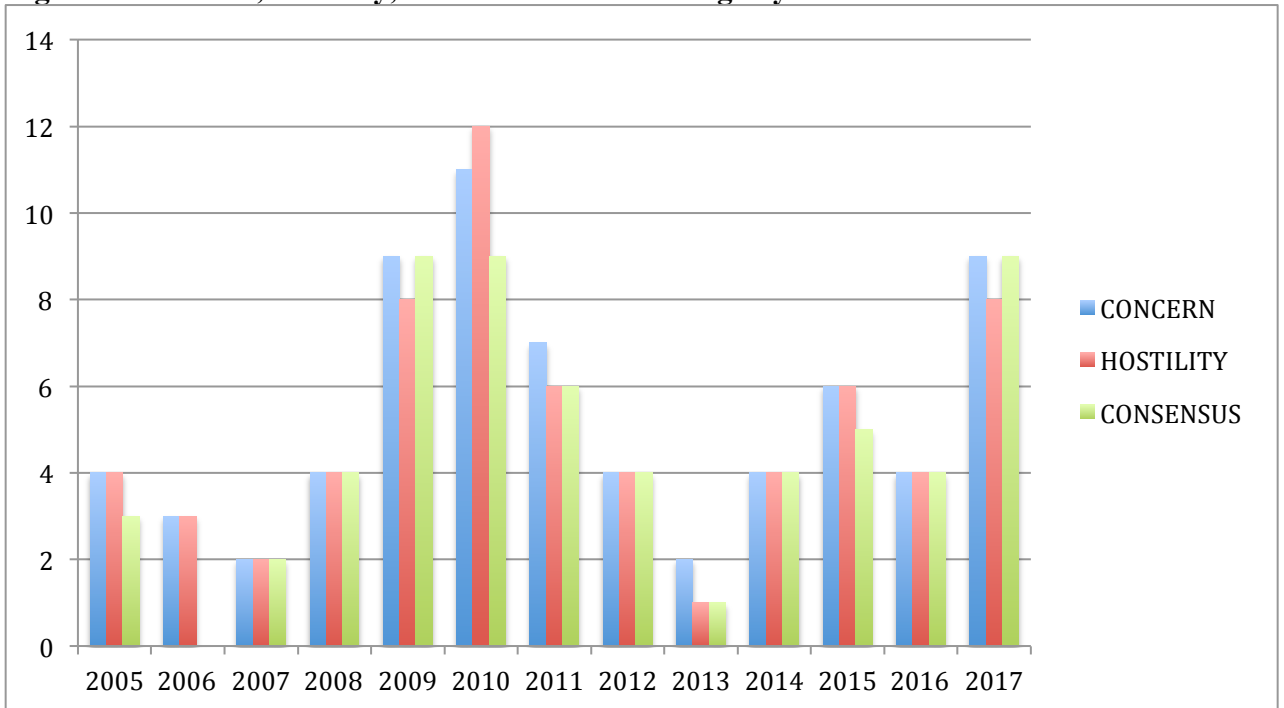


Figure 6: Distribution of Marijuana Titled Articles by Year 2005-2017

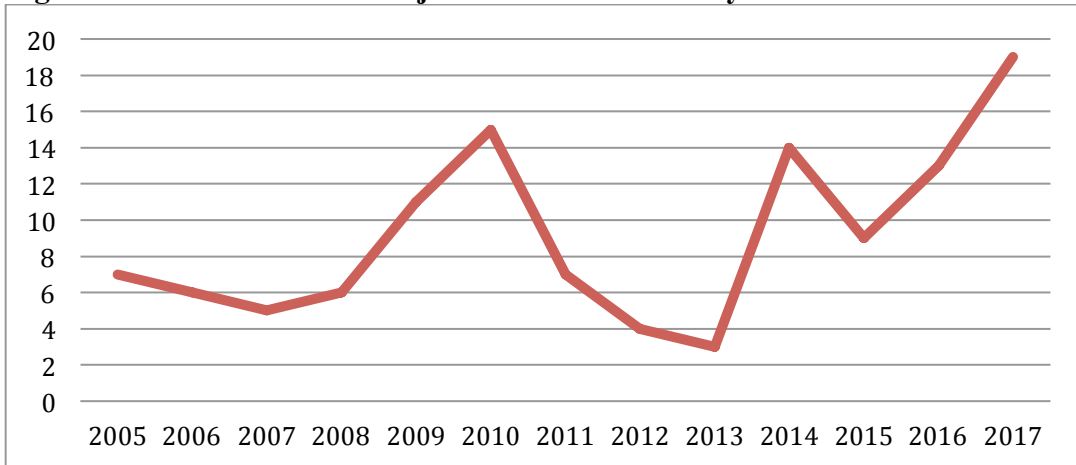


Figure 7: Number of SIA Reports Reviewed by Year of Publication

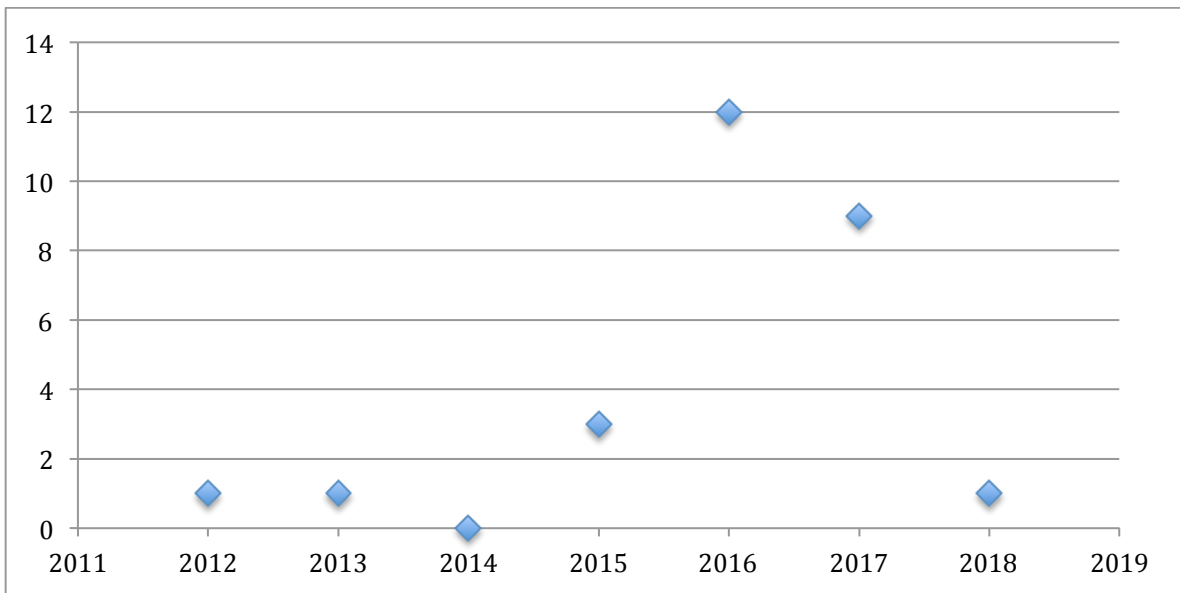


Figure 8: Concentration Area of Reports

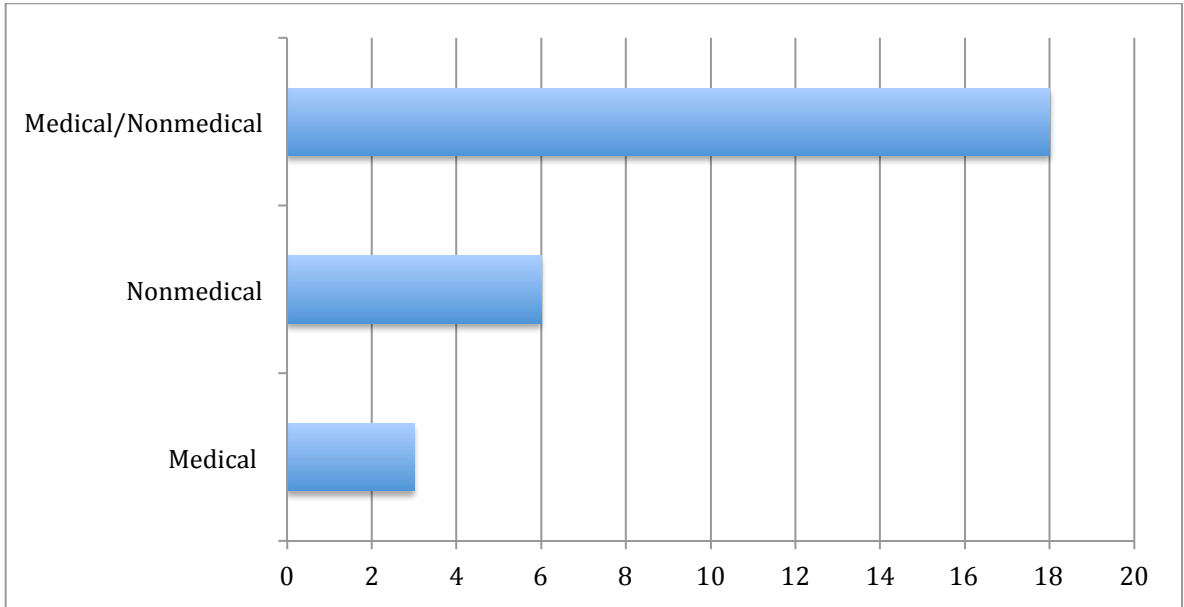


Figure 9: Percentage of Total Coverage of Marijuana Legalization

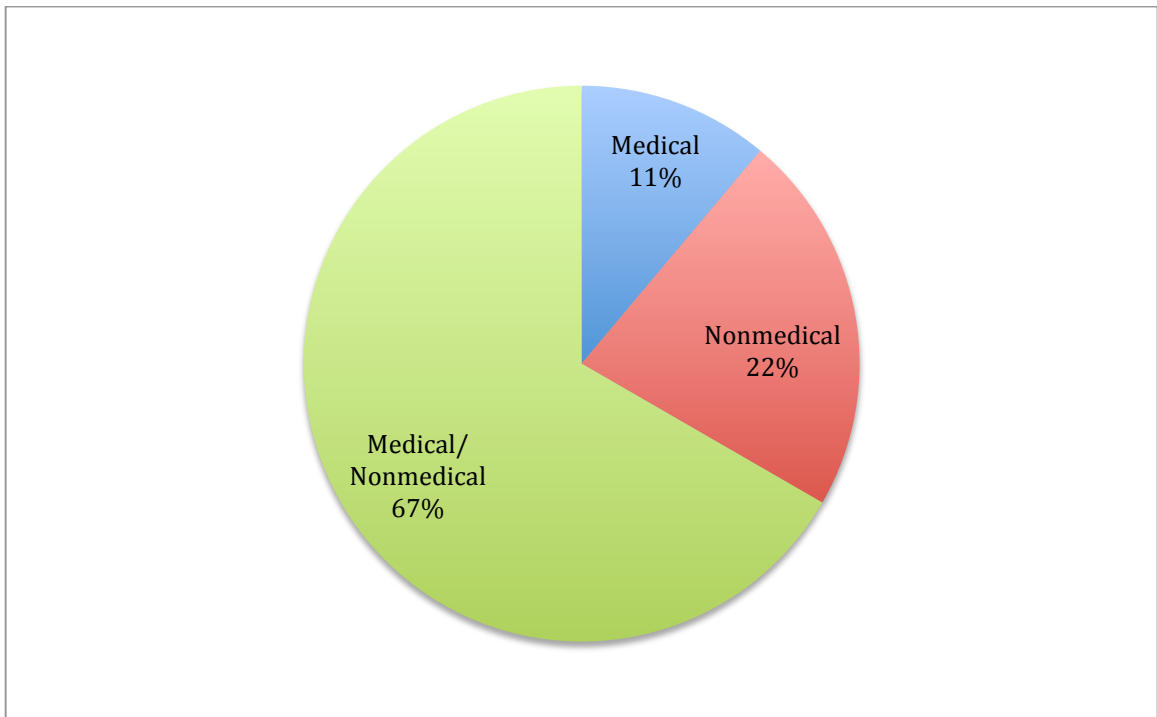


Figure 10: Percentage of Nonmedical Impact Coverage Broadly, in US, and in Canada

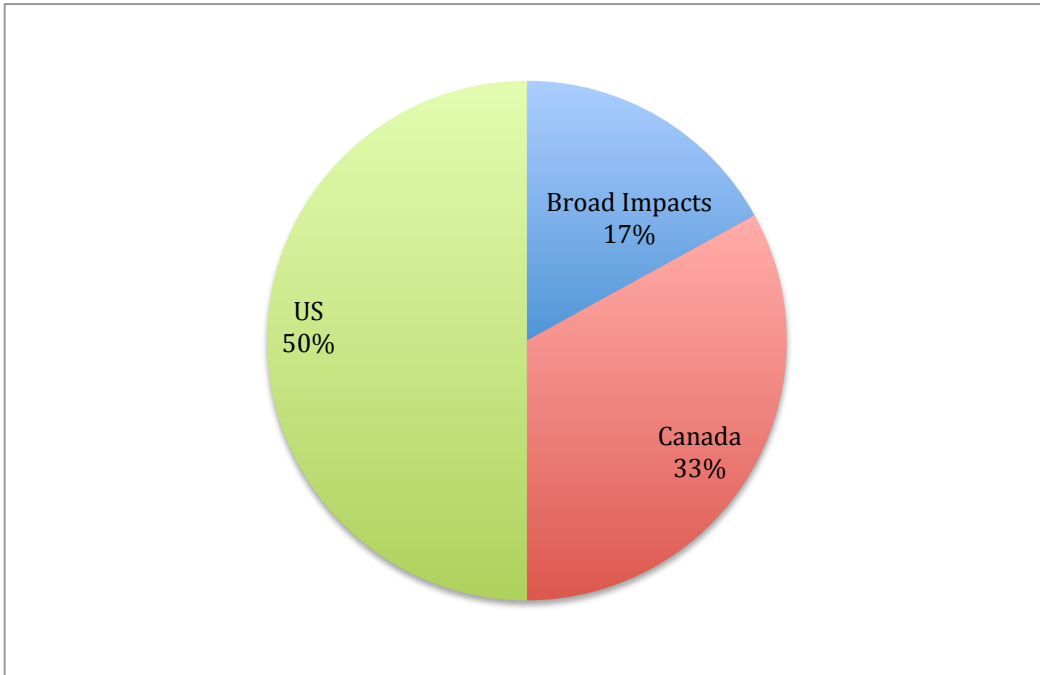


Figure 11: Nonmedical and Medical Legalization Impact Coverage in US, Canada

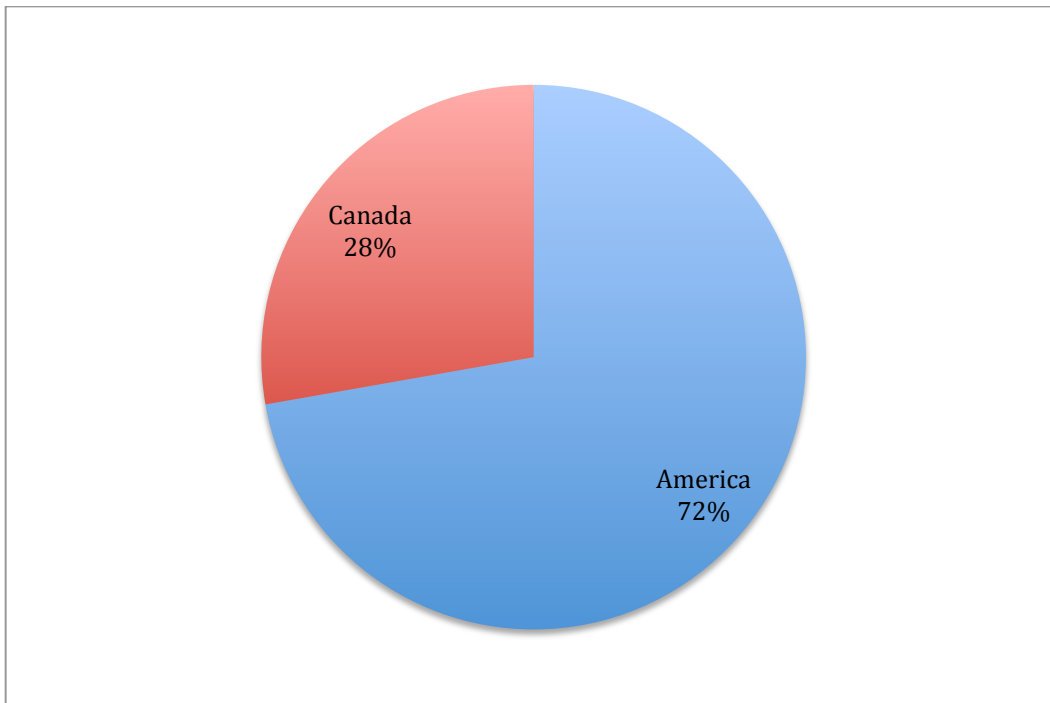
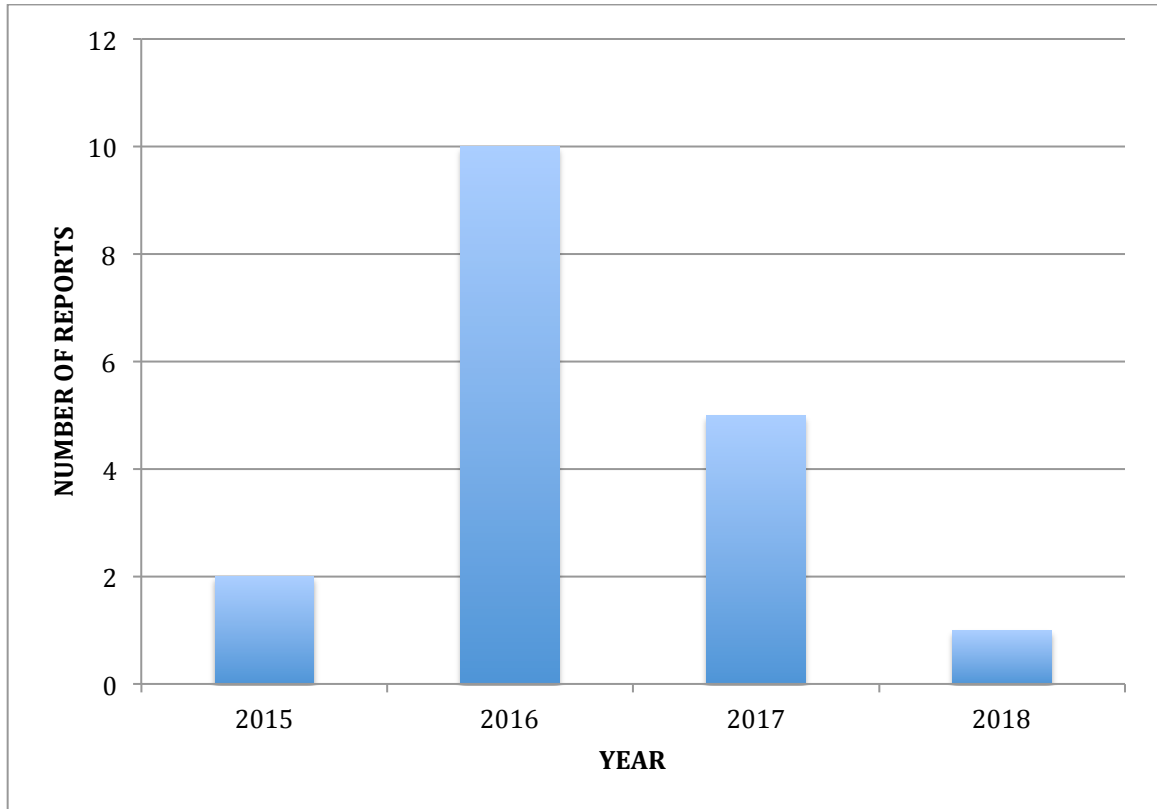


Figure 12: Number of Medical and Nonmedical Impact Reports by Year



APPENDIX B: INTERVIEW PROTOCOL

Interview Protocol Project: SIA of Marijuana Legalization in Sioux Falls

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Position of interviewee:

(Provide brief introduction to the project.)

1. Medical and recreational marijuana legalization are being proposed as ballot measures for 2018. How might your role change if this measure succeeds?
2. Describe how some of the costs and benefits associated with full-scale marijuana legalization in South Dakota may impact you.
3. If/when legalization occurs, how would you like to see costs associated with marijuana legalization mitigated at the local level?
4. How will different social groups in Sioux Falls be impacted by marijuana legalization?
5. How might marijuana legalization change the way harder drug use is perceived locally?
6. If/when marijuana legalization occurs in South Dakota, what are the long-term consequences for Sioux Falls?
7. To whom should we speak to find out more information about the public reaction to this potential policy change?

(Thank the individual for participating in this interview. Assure him or her of confidentiality of responses and potential future interviews.)

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