Public Health Analysis of the Smart and Safe Arizona Initiative

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In November 2020, the citizens of Arizona will vote on an initiative titled Smart and Safe Arizona. Smart and Safe Arizona will legalize recreational marijuana use. In addition to legalizing the possession and use of up to one ounce of marijuana for people who are 21 years of age and older, it will expunge individuals arrested for, charged with, adjudicated or convicted by trial or plea of, or sentenced for, marijuana-related offenses before the legalization date. This initiative has many ramifications to public health. This paper will analyze the health concerns from recreational marijuana, review the importance of social determinants of health, analyze the extent of marijuana criminalization in Arizona, and analyze the benefits from social investments of potential tax revenue. It will also compare the current American Public Health Association recommendations to the proposed Smart and Safe Arizona ballot.

Health Effects from Recreational Use of Marijuana

Currently, recreational marijuana use in the United States is legal in 11 states and Washington, DC, including Alaska, California, Colorado, Illinois, Maine, Massachusetts, Michigan, Nevada, Oregon, Vermont, and Washington. Prior to the legalization of retail sale and possession of cannabis, medical marijuana was legal in several states like Colorado and California as a prescription from a licensed physician for patients with debilitating medical conditions including cachexia associated with HIV/AIDS, chronic neuropathic pain, chemotherapy-induced nausea, and glaucoma (Kondrad & Reid, 2013). With Colorado kicking off the trend in 2012, legalizing recreational marijuana use for adults 21 and over to possess up to one ounce of marijuana and grow up to six marijuana plants per household, the other 11 states have quickly followed suit by developing specific policies to suit their jurisdictions. While

the legalization of cannabis has had a positive impact on the economy, as marijuana dispensaries flourish at a prevailing rate and cannabis brands are popularized on social media, the public health effect of marijuana legalization has been kept inconspicuous to the public.

Health Concerns

The literature has reported the following public health concerns for chronic and frequent cannabis users: increased number of motor vehicle accidents; increased use of emergency department due to marijuana intoxication; unintentional marijuana exposure in children requiring hospitalization; psychotic symptoms such as hallucinations, paranoia, and schizophrenia; association with testicular cancer; deficits in learning and memory in adolescents; and misuse during pregnancy.

Similar to alcohol, it is illegal to drive under the influence of marijuana in every state, even the states with marijuana legalization. Thus, it was hypothesized that the states with cannabis legalization would see an increase in motor vehicle accidents as cannabis would impair one's driving ability. The evaluation of motor vehicle accident reports shows no significant increase in marijuana-related crashes after liberalization in Alaska, Colorado, Oregon, and Washington (Dills et al., 2016). Furthermore, a US Fatality Analysis Reporting System between 2009 and 2015 in Colorado and Washington found no statistically significant difference in motor vehicle crash facility three years after recreational marijuana legalization compared to states without recreational marijuana legalization (Aydelotte et al., 2017). Additionally, the number of arrests under the influence of marijuana has decreased over time in all cannabis legalized states (Zvonarev, Fatuki, & Tregubenko, 2019). However, it is reported that assessing causality between marijuana use and road accidents can be challenging because

tetrahydrocannabinol (THC) can stay in the bloodstream for several days after marijuana intake. Thus, a blood THC test is unspecific and can lead to unjust punishments (Zvonarev et al., 2019).

With marijuana being readily available and accessible, states like Colorado have experienced an upward trend in emergency department (ED) visits due to acute marijuana intoxication and overdose in children requiring hospitalization (Monte et al., 2015). The University of Colorado ED reports of treating 1-2 patients per week for marijuana intoxication, and 10-15 patients per week for marijuana-associated illnesses per 2,000 patients that include anxiety, panic attacks, public intoxication, and cyclic vomiting syndrome (Monte et al., 2015). A small study conducted at two Denver - area hospitals have reported an increase in cyclic vomiting presentations in the ED after medical marijuana liberalization (Monte et al., 2015). Furthermore, what has been a critical public health concern is the increase in the number of children evaluated in the ED for unintentional marijuana ingestion, which continues to rise in states with marijuana legalization. The Children's Hospital of Colorado reports an increase from 0 to 14 in the number of children evaluated in ED for unintentional marijuana ingestions two years after medical marijuana liberalization, with 14 children admitted to the hospital, with seven of them admitted to the intensive care unit (Monte et al., 2015). It is concluded that more unintentional marijuana exposure in children occurs in states with marijuana legalization (Monte et al., 2018). It is a significant trend to be aware of to educate parents on safe containment of THC products away from children, for manufacturers to avoid appealing product forms, and for ED physicians to effectively treat children.

It has been reported that THC is associated with psychosis, anxiety, and depression. Despite the psychosis side effects noted in the literature, an association between cannabis use

and a lower rate of suicide rate in males aged 20-39 has been observed (Anderson, Rees, & Sabia, 2014). However, new findings by Dills et al. (2016) report suicide rates in all four states (AK, CO, OR, WA) trend slightly upward, but it is difficult to see any association between marijuana legalization and any changes in these trends. According to a study that examined the relationship between cannabis and mental health diagnostic coding in Colorado ED discharges since the legalization of medical marijuana in 2009, the prevalence of mental health-related diagnostic codes related to cannabis-associated visits were five-fold higher (Hall et al., 2018). In contrast to mental health, it is known that marijuana use can adversely affect male fertility and evidence of an increase in testicular germ cell tumors (TGCTs) in the past 4-6 years with an association with marijuana use (Daling et al., 2015). A population-based, case-control study in Washington state has concluded that nonseminoma TGCTs were more likely to occur in men who are current marijuana smokers (Daling et al., 2015). However, additional studies need to be conducted to conclude a stronger association.

One of the most significant public health concerns regarding retail marijuana legalization is its effect on youth. Previous studies have suggested that frequent marijuana use harms youth cognitive development. However, standardized reading proficiency in eighth and tenth-grade students in Washington state shows no significant changes after legalization, and drug-related school suspensions have remained stable after full legalization in 2009 in Colorado (Dills et al., 2016).

THC is known to pass through the placenta and breast milk and is associated with stillbirth, increased risk of heart defects, decreased growth, and impaired cognitive function and attention in offspring (Monte et al., 2018). With the legalization of marijuana, Colorado has

experienced an increase in marijuana use among younger moms and those with unintended pregnancies (Dills et al., 2016). A 2019 cross-sectional study of cannabis dispensaries in Colorado found that 69% of Colorado dispensaries recommended the treatment of morning sickness with cannabis products (Dickson et al., 2019). The American College of Obstetricians and Gynecologists states that obstetrician-gynecologists should be discouraged from prescribing or recommending the use of marijuana during pregnancy and lactation (Dickson et al., 2018).

The majority of the current data regarding this topic are from Colorado, Alaska, and Washington state. Due to differing stages of marijuana possession and retail marijuana sale policy implementation amongst the different states, comprehensive and cohesive data regarding the multiple public health impacts are not yet available for specific states. The lack of information highlights the need for more research from cannabis-friendly states. Also, public health benefits need to be juxtaposed to the numerous public health concerns. Health concerns that include motor vehicle accidents, ED visits from marijuana intoxication, ED visits from unintentional marijuana exposure in children, psychotic episodes, association with testicular cancer in men, youth neurologic development, and misuse during pregnancy. These results also need to be compared to states where marijuana is illegal. Longitudinal, case-control, and observational studies are highly encouraged to develop a stronger association between public health impacts and marijuana use to educate the public properly.

Health Benefits as an Alternative to Opioids

Despite the numerous health concerns of recreational marijuana, a benefit seen in areas that legalized marijuana was a decline in opioid use. The reduction in opioid use has resulted in

a decline of opioid-related deaths in states that provide legal access to marijuana. In 2017, there were 70,000 drug-related deaths, and in 68% of those deaths, opioids were involved (Center for Disease Control and Prevention, 2019a). While opioids affected a large percentage of drug-related deaths, marijuana-related deaths remain minimal (Silverman, 2017). Research has shown that when marijuana is legalized, more people use cannabis over opioids (Powell, Pacula, & Jacobson, 2017). This shift can help to curb the opioid epidemic.

Several reports have found that due to the pain-relieving aspect of marijuana and the safer therapeutic window compared to opioids, many patients who experience chronic pain are likely to avoid harmful and addictive painkillers like opioids. According to the 2018 report, Monitoring Health Concerns related to Marijuana in Colorado, there is some evidence that hospitalizations and deaths due to opioid overdose are less prevalent in states with marijuana legalization (Dills, Goffard, & Miron, 2016). In 13 states that have approved medical marijuana laws, a decline in opioid overdose death was strongly observed over time, with a mean reduction of 24.8% (Hayes & Brown, 2014). This is an extremely relevant public health outcome to note due to the severity of the opioid epidemic the United States is currently battling. In addition to the positive effect of marijuana legalization has on the opioid epidemic and management of chronic pain and cancer therapy side effects, the legalization of cannabis will create opportunities for clinicians to study health effects of marijuana use to educate the public as legalization continues throughout the nation.

Another consideration is that marijuana has fewer addictive properties that are more readily managed with treatment. According to the CDC, there were 4 million people, or 1.5% percent of the population, that had a marijuana use disorder in 2016 (2019b). Whereas, "in

2016, 11.5 million people self-reported that they had personally misused prescription opioids during the previous year" (CDC, n.d., para. 5).

Public Health Benefits from Cannabis Criminal Justice Reform

The Federal Comprehensive Drug Abuse Prevention and Control Act of 1970, also known as the Controlled Substances Act, was passed by Congress to regulate the manufacturing, importation and exportation, distribution, and dispensing of controlled substances (Gabay, 2013). This policy organized drugs into five schedules, or levels, according to their potential abuse risks. Schedule IV drugs were considered to be the lowest abuse potential among controlled substances (Gabay, 2013). Schedule I drugs were defined as the highest abuse potential and also deemed to have no accepted medical use (Gabay, 2013). Under this Act, Schedule I drugs cannot be prescribed, dispensed, administered, or studied (Gabay, 2013). Marijuana was categorized as a Schedule I drug (Gabay, 2013). For comparison, the opioid, Vicodin 5/325mg, is classified as a Schedule III drug, and the family of drugs known as benzodiazepines (ex: Valium) is classified as a Schedule IV drug (Gabay, 2013). Even though the latter two drugs are currently categorized as having less potential for abuse, they have plagued communities causing addiction, overdoses, and public health epidemics. While opioids continue to ravage communities in the United States, the classification system deterred research and criminalized marijuana. The discrepancies of the current classification system and laws need to be examined and updated to reflect current knowledge. If this state law passes, it will not change the fact that marijuana is a Schedule I medication under federal law. However, starting in 2009, the federal government began to adopt a far more tolerant approach toward legalization that allowed states to adopt reforms and regulations of marijuana (Mikos, 2019).

Effects of a Felony Conviction to Social Determinants of Health

Many factors contribute to the health and safety of the public. Policymaking, social factors, health services, individual behavior, and biology can affect the status of health in a person (Office of Disease Prevention and Health Promotion [ODPHP], 2020a). Additionally, the five fundamental areas of social determinants are economic stability, education, social and community context, health care, and the built environment (ODPHP, 2020c). Criminalization directly alters an individual's social determinants of health.

People who are incarcerated have been found to have worse mental and physical health (ODPHP, 2020b). More than half of all people who are incarcerated have mental health issues (ODPHP, 2020b). They also have been found to have higher rates of high blood pressure, asthma, cancer, arthritis, and infectious disease when compared to the general population (ODPHP, 2020b).

Once an individual is incarcerated, 67% will be re-arrested, and 50% will be incarcerated within three years (ODPHP, 2020b). Recidivism affects the majority of individuals because they face problems with their family, employment, housing, health, and difficulty adjusting to life outside of prison or jail (ODPHP, 2020b). In the two weeks following release from prisons, ex-prisoners are 129 times more likely to overdose than the general public (ODPHP, 2020b). Arizona excludes felons from the political process because voting rights are taken away from them (Maricopa County, n.d.). A felony conviction in Arizona will also result in denials for education assistance, public housing, food stamps, and driver's licenses (Maricopa County, n.d.).

Not only do social harms from incarceration affect individuals, but adverse effects also carry across generational lines and harm future familial generations. Social exclusion is a complex process brought about by an unbalanced distribution of power and influence across economic, political, social, and cultural dimensions (World Health Organization [WHO], 2018). What results is a continuum of inclusion/exclusion characterized by unequal access to resources, capabilities, and rights that leads to health inequalities (WHO, 2018). Social exclusion can affect health, happiness, and wellness within communities and be detrimental to public health. Any person or group can be susceptible to social exclusion. However, children with paternal imprisonment are particularly vulnerable (Bonner & Luscombe, 2008).

During the 1980s and 1990s, incarceration rates escalated quickly. In 2008, it was reported that 1 in 100 adults in the United States is now imprisoned (The Pew Charitable Trust, 2010). The high level of imprisonment disproportionately affects minorities, especially black men (The Pew Charitable Trust, 2010). One in 87 white men will be imprisoned compared to 1 in 36 Hispanic men and 1 in 12 black men (The Pew Charitable Trust, 2010). Paternal imprisonment is directly related to later adolescence and early adult social exclusion, including homelessness, political disenfranchisement, health care uninsuredness, children's aggressive behavior problems, and educational attainment (Foster & Hagan, 2007). Child homelessness has also been found to be linked to paternal incarceration (Foster & Hagan, 2007). Social determinants of health and social exclusion are essential factors when discussing drug policy. Evidence from social exclusion and public health effects should lead the discussion of how to solve future drug-related non-violent crimes like marijuana offenses. Instead of incarcerating these individuals, a public health approach should be incorporated to develop solutions that regulate and deter.

These decisions have a multigenerational social impact that undoubtedly creates generational effects.

Economic Impact from a Felony Conviction

In the State of Arizona, a person found to possess less than 2 pounds of marijuana is subject to a Class 6 felony (National Organization for the Reform of Marijuana Laws [NORML], 2020). A felony conviction can have detrimental effects on a person with their employability and potential earnings. If a job application has a question that indicates a felony record, an employer is 63% more likely to call the applicant with no criminal record (Agan & Starr, 2019). This one indicator on a job application is a significant obstacle that results in ex-felons having to take lower-income jobs to find employment.

Looney & Turner (2018) found 49% of ex-prisoners earn less than $500, 32% between $500 and $15,000, and only 20% earn more than $15,000 in the first year following their release. The median income for ex-prisoners is $10,090, and the average is $13,890 (Looney & Turner, 2018). In contrast, the median full-time earnings with less than a high school diploma were $19,492 (Looney & Turner, 2018). The low-income potential and perceived employability that ex-prisoners experience results in them to be impoverished. Poverty increases the risk of mental illness, chronic disease, higher mortality, and lower life expectancy (ODPHP, 2020c). The impoverished are generationally vulnerable to this downward spiral of health because they are more likely to have poorer health and less likely to have access to health care and social structures to prevent catastrophic outcomes (World Health Organization, 2003a).

Demographics and Extent of the Problem

Arizona legalized the use of marijuana for medical use in 2010 with the Arizona Medical Marijuana Act (Coleman, 2010). This Act allowed the use of medical marijuana for people who obtain a medical card from a physician. The use of the card enables patients to buy up to 2.5 ounces of marijuana and use it without facing arrest. The state charges $150 for a card that does not expire for two years (azmarijuana.com, 2020). Additionally, a doctor's appointment is required to evaluate the qualifying condition that can cost $75-$150 (azmarijuana.com, 2020). However, if someone fails to comply with these steps, cannot afford these fees, and is found to possess less than 2 pounds of marijuana, they are subject to a Class 6 felony (National Organization for the Reform of Marijuana Laws [NORML], 2020). A Class 6 felony is punishable to a minimum sentence of 4 months, a maximum sentence of 2 years, and a fine of $1,000 (NORML, 2020). These costs disproportionately allow marijuana use for people that have the financial means to obtain a license and harshly punishes people with low socioeconomic status.

The expungement of marijuana offenses will impact many in the state of Arizona. From 2009-2018, there were 161,140 arrests for marijuana possession and 13,088 for marijuana sales (Federal Bureau of Investigation, n.d.). In 2018, there were 12,389 arrests for the possession of marijuana (Arizona Department of Public Safety, 2018). Blacks were three times more likely to be arrested, and Native Americans were 1.2 times more likely to be arrested. These ratios mirror national trends that show minority communities are more likely to be arrested and convicted (ODPHP, 2020b).

Data from neighboring states has shown that the legalization of marijuana does lower marijuana-related arrests and court cases for possession and distribution (Farley & Orchowsky, 2019). In interviews and surveys with law enforcement officials in states that legalized

marijuana, it was noted that methamphetamine and heroin were much more significant problems for their agencies than was marijuana (Farley & Orchowsky, 2019).

It is essential to review the harms caused by the criminalization of marijuana. Social injustices and harm have disproportionately affected communities of color. Moving towards decriminalization and expunging records of marijuana offenses is the right step towards correcting the harm and injustices that these communities have experienced.

Social Investments from Recreational Marijuana

Marijuana has been around since around 500 BC and has been used as an herbal medicine for just as long. In the 20th century, it began to be used more as a recreational drug. In the past several decades, there has been a rising discussion about legalizing retail marijuana in many countries (Jacobi & Sovinsky, 2016). If the Smart and Safe Arizona initiative passes, the tax revenue that is generated and collected will be able to fund social programs that will improve the social determinants of health in Arizona communities. The language in the proposed measure states that the monies from the Smart and Safe Arizona fund should establish a justice reinvestment fund, invest in STEM workforce development within community colleges, and increase support to public safety departments. From 2014-2020, Colorado has collected $1,286,670,405 in revenue from marijuana taxes and fees (Colorado Department of Revenue, 2020).

Effects of Retail Prices on Social Investments

Eleven states have legalized both medical and recreational marijuana, and 33 states have legalized medicinal marijuana (Pacula & Smart, 2017). Two of the states that were among the first to legalize marijuana were Colorado and Washington in 2012. These early legalizations

have allowed the United States to see how legal retail marijuana has affected the economy and society as a whole. The process of changing the legal status of marijuana took over a year, and even then, stores did not open until 2014 (Pacula & Smart, 2017). The delayed opening was due to the length of time it took to set regulatory and licensing processes, and even after stores opened, there were still new regulations that had to be developed due to unforeseen consequences of this market (Pacula & Smart, 2017). An example of these unexpected consequences is the start of the three-tier system designed in Washington to avoid paying taxes. This led to the development of rules to regulate the processing, packaging, and sale of edibles (in both WA and CO), and additional restrictions on signage and advertising (Pacula & Smart, 2017). After 2014, seven more states adopted the legalization of marijuana before Washington and Colorado could develop a fully fleshed out system of regulation.

With the vast amount of research from the change in policy over time and from state to state, one would think there would be enough opportunity to assess the effects of marijuana legalization policies on health and social outcomes. However, the research done shows very erratic, mixed, and insignificant findings due to the slow pace at which the literature is being developed. Eight years of legalization in two states is still not enough time to concretely say whether or not legalization is helping or hindering health or social outcomes. Additionally, due to this lack of significant findings, a majority feel that legalization policies must be harmless and that continuing legalization would not harm society (Pacula & Smart, 2017). Recent surveys have also found that a majority of public opinion has shifted in favor of legalization (Caulkins et al., 2015).

It is difficult to determine a specific point in time when Colorado or Washington's initiative could be considered fully functional and thus base research off to explore the effects of consumption and societal impacts. However, some guidelines could help provide an appropriate window to examine these effects. If marijuana prices are not affected by the opening of recreational markets, then the immediate or short-run consumption response associated with legalization may not be indicative or adequately reflect the long-term effects of the policy change (Pacula & Smart, 2017). However, if prices start to fall immediately following the opening of stores, then the incremental change from medical marijuana stores to recreational stores is more substantial. This suggests that an examination of consumption and other outcomes immediately following the opening of stores is an appropriate window for considering the effect of the policy (Pacula & Smart, 2017). Prices of retail marijuana are essential to watch as legalization is being contemplated in many states.

Prices of retail marijuana are essential because consumers respond to price change. If prices change, then it can be assumed that there will be a change in use. Additionally, one of the main reasons why the legalization of marijuana is being considered is the increase in revenue from taxing the product. If prices of retail marijuana decline, then the revenues from the taxes tied to the sale price will also decline (Pacula & Smart, 2017). Prices are an excellent indication of how slowly or quickly the retail market is emerging and what the likely effects will be on overall consumption (Pacula & Smart, 2017). Illegal production of the drug leads to higher prices due to the barriers that producers face, such as hiding production, which is often less efficient hence the high prices. Legal production could mean lower prices, meaning less revenue from taxes, but it could ensure quality products that can be regulated.

A pattern that has been noticed when marijuana markets shift from medical to recreational use is that revenues and prices increase in the short term. It is predicted that in the long-run, these prices, and the revenues from them, will decline. The decline in prices is due to the lack of artificial barriers to production, and legal risks imposed that previously raised costs for the suppliers (Pacula & Smart, 2017). Market prices can be used to determine the effects of legalization and can be used to determine appropriate time windows to evaluate the impact of policy change. If the market is still in transition, then these prices and evaluations are negligible as they will not accurately represent the impact of the policy. Though the market prices may not be an excellent tool to use when analyzing the effect of the policy, it can be used to determine where the market is in its transition.

Regulations to Maximize Social Investments and Minimize Social Harm

Concern for individuals who are underage to have access to marijuana is justified. Higher prices may keep youth from being able to obtain the drug. Nevertheless, prices will begin to drop the more established the market becomes. This decline in prices may make it easier for younglings to purchase marijuana for recreational use. However, there would still be laws and regulations that would make purchasing marijuana as difficult as buying cigarettes or alcohol (Jacobi & Sovinsky, 2016). In addition to easier access to obtain marijuana, there is a concern that children may accidentally ingest marijuana-infused goodies. As preventative measures, states have further regulated these products by implementing stricter packaging and labeling requirements (Pacula & Smart, 2017). Advertisement for retail marijuana has also been monitored. In Colorado, pop-up advertisements on the internet that target children have been prohibited. In Washington, signs are regulated to two signs per store that are 1,600 square

inches and cannot have marijuana imagery on them (Pacula & Smart, 2017). Preventative measures such as education, health communication, and regulations have been introduced whenever new circumstances arise to mitigate social harms from recreational marijuana.

Comparison of APHA Statements to Smart and Safe Arizona Initiative

Legalization of marijuana marked ever-changing laws and public opinion. Inquiry over its recreational and medicinal potential has led to conflicts of interest regarding its regulation. State policies concerning marijuana are continually being developed despite its legalization still being in its infancy and the limited availability of regulatory models for commercial adoption. Interest group politics has already disrupted the regulatory arena and created an imbalance between business and health interests of this industry (Barry & Glantz, 2018). Future legislation should be designed to include a firmly ingrained public health framework in place of a business-focused agenda. With the new Smart and Safe Arizona initiative on its way, a comparative analysis of its language to the recommendations of the American Public Health Association (APHA) for the regulation of commercial marijuana can help identify existing gaps and recognize potential needs of legislation.

With the onset of the new Arizona state policy governing marijuana production, sale, and use, it is important to analyze the Smart and Safe Arizona act from a public health standpoint. The APHA gives several recommendations for the oversight of existing and upcoming commercial marijuana markets, with the intent to advance public health goals. This policy statement, titled "Regulating Commercially Legalized Marijuana as a Public Health Priority," discusses several essential factors that should be addressed by state laws to avoid federal government intervention and ensure that public safety is maintained (APHA, 2014).

As with tobacco and alcohol sales, similar regulatory mechanisms should be administered to limit access and availability to adolescents. According to a recent Monitoring the Future study by the National Institute on Drug Abuse, monthly marijuana vaping among 12 graders has experienced a significant one-year increase, nearly doubling from 7.5% to 14%, amidst reports which indicate that the drug is easily obtainable among high school students (Miech, Patrick, O'Malley Johnston, & Bachman, 2020). The proposed Smart and Safe Arizona initiative prohibits the sale of marijuana products by a licensed establishment to persons under 21 years of age, verified by means of government-issued photographic identification such as a driver's license, state-issued ID, or birth certificate (HB 2871, 2020). The licensing is in accordance with the newly enacted Tobacco 21 Law increasing the age restriction to at least 21 years of age for tobacco products (Further Consolidated Appropriations Act, 2020, 2019).

In addition to having retailers adhere to legal age requirements, the APHA also lists taxation and time and location restrictions as regulatory interventions that may limit the use or misuse among adolescents. In the past, cigarette prices have been raised through increased taxation as a means of tobacco control. The new bill would impose an additional 16% excise tax to the current 6.6% state transaction privilege tax or sales tax set for medicinal marijuana (HB 2871, 2020). The increase in tax places Arizona's cannabis tax rate just behind those of Oregon and Washington, two of the four pioneer states in the marijuana legalization movement, at 17% and 37%, respectively (Khan, Thompson, & Tremblay, 2020). Increased taxation would also keep marijuana prices high, potentially lowering use among young people.

To combat the proximity of establishments, the Smart and Safe Arizona act would commission the Arizona Department of Health Services to restrict the institution of recreational

retail marijuana shops to no more than two per county. They also cannot be in the vicinity of existing medical dispensaries, and must be limited to every ten licensed and operating pharmacies per county. Any city, town, county, or "locality" as the legislation words it would also be able to regulate the hours of operation and manner of a marijuana establishment (HB 2871, 2020). By limiting the density of marijuana shops and controlling the number of days and hours that marijuana can be sold, accessibility will potentially decrease among consumers, especially young adolescents. Furthermore, misuse of marijuana products would be prevented by capping the amount of marijuana sold in a single transaction to not more than one ounce and no more than five grams of fully concentrated cannabis (HB 2871, 2020).

As with any newly introduced product, standardization and quality assurance are crucial to both maintain consumer safety and to uphold the reputation of the product in the market. The Smart and Safe Arizona initiative assigns the Arizona Department of Health Services to oversee and enforce requirements on marijuana establishments testing facilities such as maintaining the potency of tetrahydrocannabinol or THC at reasonable levels and setting standard serving sizes (HB 2871, 2020). The enforcement at the state level complies with the APHA's recommendation to develop regulatory frameworks, similar to alcohol products, for the standardization of commercial marijuana (APHA, 2014). A notion of clarity can help guide the consumer to make a more informed decision with their purchase.

Product labeling and advertising restrictions are other regulatory elements that the APHA mentions in its policy statement because marketing can prompt significant health impacts. Special consideration for advertising restrictions is key to protect consumers, especially children and adolescents (APHA, 2014). The bill indicates the inclusion of accurate

warning labels concerning marijuana use. However, the language does not explicitly mention any cautionary government notice of potential health risks that are common on alcoholic beverages and tobacco products. Labeling can also influence consumer behavior, and therefore marijuana products, under the bill, are prohibited from resembling any "...human, animal, insect, fruit, toy, or cartoon" or containing any names marketed to children that may suggest such (HB 2871, 2020).

Passive exposure is another concern with vapor releasing substances like marijuana, which APHA further recommends to be prohibited in public spaces and multi-unit housing. The Smart and Safe Arizona act restricts any person from smoking in an open area, which it defines as "a public park, public sidewalk, public walkway, or public pedestrian thoroughfare" (HB 2871, 2020). Retailer liability is also a common and necessary aspect of consumer protection. If a product or service sold by a licensed establishment causes injury or death, accountability measures ensure that they are held responsible. The Smart and Safe Arizona policy permits any locality to impose any liability that violates any rule adopted in its chapter (HB 2871, 2020).

Impaired driving, according to APHA, is a potential consequence of marijuana that needs to be addressed or amended in traffic laws (APHA, 2014). Although a standard blood alcohol concentration limit of 0.08% exists as an indicator for DUI offenses involving alcohol, marijuana intoxication is more challenging to accurately detect, since it is detectable for much longer than alcohol, and lasts long after the driver is impaired (Kleiman, Jones, Miller, & Halperin, 2018). Therefore, current Arizona legislation regulates unlawful driving offenses under the standard of being "impaired to the slightest degree," which rests a Class I Misdemeanor on the subjective interpretation of a law enforcement officer (ARS §28-1381). A majority of the violations

mentioned, including being underage, possessing marijuana at a greater than allowed amount, and smoking in a public area, are classified as a petty offense, which is punishable to a maximum $300 fine and carries no jail time. The bill is reasonably clear in its enforcement, however, listing drug counseling and Class 1 and 3 misdemeanors as consequences for subsequent offenses (HB 2871, 2020). The bill goes further to prohibit marijuana consumption by passengers, which can be labeled as constructive possession but is a conviction that is generally more difficult to prosecute.

Public health efforts are difficult to achieve without proper funding. All money collected from taxation, violations fees, donations, and grants, will be placed into an established medical marijuana fund. According to the Smart and Safe Arizona initiative, the Arizona Department of Health Services will be in charge of distributing the funds to various designated entities. A large portion of this sum, $10 million to be specific, will be used to support the formation of programs dedicated to improving public health issues such as teen suicide and substance abuse (HB 2871, 2020). The rest of the funds will help to fund various programs focused on early childhood development, behavioral health, teacher's workforce, and secondary education.

While the majority of the language in the Smart and Safe Arizona Initiative agrees with the core elements of the Act, the administrative rulemaking of the Arizona Department of Health Services that will ensue, will further elaborate on the regulatory compliance and standard requirements of marijuana use. As a health agency, the responsibility of the ADHS is to certify the protection of Arizona residents. Its roles include the promotion of education, enforcement of the law, and ensuring continued compliance through investigations. The provisions of the Smart and Safe Arizona Act task the implementation and enforcement of

marijuana products and establishments to the ADHS. Specifically, the ADHS will oversee licensing of establishments and delivery of products, set criteria for dispensary registration, and enforce disciplinary action for violation of rules. Furthermore, the Act mentions that the ADHS will collect an excise tax on all marijuana products sold and deposit all the profits into an established marijuana fund. A total financial aid of $15,000,000 is mentioned to be given to the ADHS to help it carry out and enforce the various responsibilities designated to it (HB 2871, 2020).

This section sets out to compare the APHA's recommended regulatory mechanisms for marijuana legalization with a public health approach and the policy implementations of the Smart and Safe Arizona initiative, in order to determine whether a significant gap, if any, between best practice and legal requirements, exists. For the most part, compliance with the regulatory recommendations for integral subject matters, including increased availability, passive exposure, consumer protection, and motor vehicle safety, was met by the Smart and Safe Arizona initiative. Age restriction, a limited number of retail marijuana shops, and smoke-free locations were some of the strict mechanisms put in place to prevent potential issues with the commercial legalization of marijuana. This close link between best practice and legislation resulted in a very small gap between the two documents. In fact, only one out of the ten recommendations in the APHA policy statement was not disclosed in the Smart and Safe Arizona initiative bill. There was no mention of any plans for monitoring or evaluating the public health impacts of the policy, which is a crucial element of the public health framework. Outcomes of regulatory policies, like this upcoming initiative, can determine whether future modifications are needed to improve circumstances. By upholding the recommendations

proposed by the APHA, the bill's impact on public health may shift the opinions of other states concerning marijuana legalization.

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