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ABSTRACT

Examining United States Drug Policy from 2010-2021: A Qualitative Summation Using PEST Framework Model

By
Izadora A. Nunes
April 22, 2021

INTRODUCTION: The war on drugs, initially started in 1971, has caused long-lasting effects on the criminal justice system and public health. Despite these effects and calls for reform, forces in charge have resisted changing current drug policies.

AIM: As the conversation surrounding United States drug policies has changed to be more tolerant among the general population, policymakers have been resistive to change, and ineffective policies continue. The aim of this capstone is to synthesize scientific drug policy literature and provide a summative perspective on the impacts and challenges to improve them.

METHODS: A qualitative summation using PEST (political, economic, social, and technological/types) framework criteria of peer-reviewed articles that describes current drug policies within the United States and other countries of relevance, the impact that these policies have on health and inequalities, political/historical context on drug control, usage, and prevalence rates, and the economic impact of these policies from 2010 to 2021.

RESULTS: Twenty articles were included in the literature review to determine influential factors based on PEST framework. Six articles were on tech/types of current drug policies, six on the social impact that drug policies have on health and inequities, four were on the political context of drug control and usage rates, and another four on the economic impact of current drug policies. An analysis of current drug policies substantiated the claim that the war on drugs has failed, as supply and usage of drugs did not decrease. The impact on population health and inequities were significant and prevalent within minority groups, where incarceration rates have increased exponentially within the past few decades due in large part to mandatory minimum sentencing and racial bias in law enforcement. Usage and prevalence rates within the political context in the United States have also remained markedly high. The economic impact of the drug market and the war on drugs provided some of the most condemning arguments; an increase in the price for a drug caused by a disruption in supply led to greater crime associated with its distribution.

RECOMMENDATIONS: Study findings suggest that an overhaul of the current system is necessary to ensure more equitable and socially-just drug enforcement policies in the US. A comprehensive public health approach to drug policy, one which is focused on harm reduction, correcting racial bias, and decreasing mass incarceration, is recommended as an alternative to the current policies.

Examining United States Drug Policy from 2010-2021:
A Qualitative Summation Using PEST Framework Model

by

IZADORA A. NUNES

B.S., GEORGIA STATE UNIVERSITY

A Capstone Submitted to the Graduate Faculty
of Georgia State University in Partial Fulfillment
of the
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MASTER OF PUBLIC HEALTH

ATLANTA, GEORGIA
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APPROVAL PAGE

Examining United States Drug Policy from 2010-2021:
A Qualitative Summation Using PEST Framework Model

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Author's Statement Page

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Izadora A. Nunes

Signature of Author

TABLE OF CONTENTS

ABSTRACT	1
APPROVAL PAGE	3
ACKNOWLEDGEMENT.....	4
AUTHOR’S STATEMENT PAGE.....	5
TABLE OF CONTENTS.....	6
ACRONYMS.....	7
INTRODUCTION.....	8
STUDY OBJECTIVES.....	12
METHODS.....	13
RESULTS.....	15
TECH/TYPES OF DRUG POLICIES.....	15
SOCIAL IMPACT ON HEALTH AND INEQUITIES.....	21
POLITICAL/HISTORICAL CONTEXT OF DRUG CONTROL & USAGE.....	26
ECONOMIC IMPACT OF POLICIES.....	28
DISCUSSION.....	32
LIMITATIONS.....	33
CONCLUSION & RECOMMENDATIONS FOR THE FUTURE.....	33
REFERENCES.....	35
APPENDIX.....	38

Acronyms

CDTs: Commissions for the Dissuasion of Drug Addiction

D.A.R.E.: Drug Abuse Resistance Education

DEA: Drug Enforcement Agency

HIV: Human Immunodeficiency Virus Infection

IDPs: Internally Displaced Populations

NSDUH: National Survey on Drug Use and Health

PEST Framework: Political; Economic; Social; Technological/Type Changes

PSUP: Personal Substance Use and Possession

PWID: People Who Inject Drugs

SUD: Substance Use Disorder

Introduction

The war on drugs initiated by the United States was a political tool used to combat the growing political dissent and youth revolt against the Vietnam War. In 1971, President Nixon declared that drugs were public enemy number one and thus coined the term “war on drugs.” The Nixon administration’s political tactics were further amplified in 1973 with the creation of the Drug Enforcement Administration (DEA), an entity used to centralize federal drug regulation; along with the Law Enforcement Assistance Administration, which assisted local law enforcement agency efforts to curb drug trafficking and drug possession. (Meier, 1994). Drug rhetoric after this point became increasingly anti-Black and anti-poor. John Ehrlichman, a key advisor to President Nixon, was quoted in an interview stating, “We knew we couldn’t make it illegal to be either against the war or Black, but by getting the public to associate the hippies with marijuana and Blacks with heroin, and then criminalizing both heavily, we could disrupt those communities.” He then continued, “We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about drugs? Of course, we did” (LoBianco, 2016).

This type of political rhetoric, which exemplified US executive leader’s stance on drug control, continued in the Reagan administration and within Congress in the 1980s. There was immense pressure for elected officials to appear tough on crime due to the drug war’s constant media coverage. In 1984, The Comprehensive Crime Act was passed, ensuring that drug manufacturing and sale crimes have increased penalties, as well as mandatory minimum sentences, and abolished federal parole (Meier, 1994). The law also carried a significant incentive for local law enforcement cooperation: assets seized during drug cases would be

shared, providing local precincts with a substantial potential revenue source. This incentive then caused increased lobbying efforts by local law enforcement at the state- and federal-level, which caused the dissemination of false information such as exaggerations and unsubstantiated claims about the dangers of drugs (Benson & Rasmussen, 1996).

In 1986 and 1988, The Anti-Drug Abuse Acts were passed, focusing on drug users. Federal prison sentences and fines for drug sales increased, and repeat drug offenders convicted of large-scale drug offenses were given a minimum mandatory sentence. This act also equipped local law enforcement agencies with federal grant money to fight against drugs (Belenko, 2000). These acts also contributed to the crack powder cocaine disparity, as the law change made five grams of crack cocaine possession with the intent to sell a five-year mandatory minimum sentence and ten years for ten grams. Yet, the cocaine threshold remained unchanged at 500 grams. Much of the emphasis on regulating crack cocaine was due to the intense media coverage on the drug and the violence it was causing in inner cities and who was using them: crack cocaine was seen as a drug used primarily by Blacks. In contrast, cocaine was seen as a drug used by upper-class Whites (Provine, 2011). Despite a decrease in crime and crack cocaine usage in the 1990s, Congress refused to change crack cocaine sentencing laws.

The drug policies of the United States employed a prohibitionist paradigm, and as the United States was a leader in the fight against drugs, many countries followed suit and implemented some of the same prohibitionist drug policies in their own countries (Santos, 2020). At the start of the 21st century, however, a shift began to occur in some countries that wanted to take a more public health-focused drug policy approach. In 2001, Portugal

decriminalized possession of all drugs, becoming the first country to do so. An important distinction to raise about the law is that drug possession was still considered illegal; however, decriminalization meant that anyone caught with possession for personal use was no longer criminally prosecuted and instead given an administrative violation (Greenwald, 2009).

Proponents of the law argued that the country's decriminalization framework is set in the context of demand and harm reduction rather than punishment. Lawmakers who were against decriminalization argued that drug usage would increase among Portuguese residents, and the country's laissez-faire attitude towards drug possession would lead to "drug tourism," where residents of other countries would travel to Portugal for the sole purpose of doing drugs (Greenwald, 2009).

In a study conducted seven years post-implementation of the Portuguese law, Greenwald, 2009 found that there were no adverse effects on drug usage rates within the country, the drug-related spread of STIs had significantly decreased, and drug-related deaths decreased. Portugal was able to become one of the countries with the lowest drug usage rates within the European Union. One of the most important findings of the study was the significant decrease in the criminal justice system's burden, as the courts were not hindered by prosecuting possession charges and could instead focus on drug traffickers and others committing violent crimes in the country.

The conversation shifted favorably among lawmakers and the public towards a public health policy approach to drugs after seeing the novel Portuguese decriminalization model's success. Marijuana legislation is an excellent example of this shift; over the past 20 years, there have been several states within the U.S. that have either decriminalized or completely legalized

the drug. One state recently went even farther than just decriminalizing marijuana. Oregon state passed a ballot measure in November 2020 that decriminalized possession of all drugs that were to be of small, personal amounts (Sutton, 2021). Much like the Portuguese decriminalization framework, people caught with possession of drugs determined to be for personal use would not be entered into the criminal justice system but instead connected with services that can help with recovery, harm reduction, housing, and job assistance. The law is funded by marijuana tax revenue from the state. This source was thought to bring in over \$100 million in funds from the first year and approximately \$129 million a year by 2027 (Sutton, 2021). This bill's passage is also a hallmark of stakeholders' and government officials' combined effect to pass common-sense drug laws that do not further marginalize minorities and communities of color. According to the Oregon Criminal Justice Commission report, this new law will cut racial disparities in drug arrests by 95% (Sutton, 2021).

Despite the steps taken away from total prohibition of drugs from various states and other countries, the United States has continued with anti-drug laws and push for supply control at the federal level. I, therefore, conducted a qualitative summation of the literature between 2010 and 2021 of United States, and other relevant countries' drug policies, to examine what causes the resistance to change, what are the impacts these laws cause on the population, the effectiveness of these current policies, and what are the policy alternatives to the current system.

Study Objectives

This study aims to carry out a qualitative summation of drug policies in the U.S. and other relevant countries, with the objective of contributing to the discussion on policy reform, by highlighting policy alternatives and lessons learned in terms of the current drug policies that have been implemented. The research questions are as follows:

- Why have policymakers and others in power been resistive to changing current policies?
- What are the impacts the current laws cause on the population?
- Have these policies been effective at meeting their objective of decreasing drug usage and drug eradication?
- What are the policy alternatives to the current system?
- What are the gaps, and how can these lessons learned help improve future drug policies?

Methods

Literature Search:

To find available data on drug policies in the United States and other relevant countries, four electronic databases were used for selecting articles: PubMed, Cochrane, Google Scholar, and Wiley Online Library. While conducting these searches, the following keywords used were: 'drug policy,' 'illicit drug use and prevalence,' 'health disparities AND illicit drug use,' 'mass incarceration AND illicit drugs,' 'illicit drug economy,' 'disparities AND drug arrests,' and "harm reduction AND drugs.'

Inclusion/Exclusion Criteria:

Filters were applied to the results yielded from the literature search to match the objectives of the paper. These filters were assigned as follows:

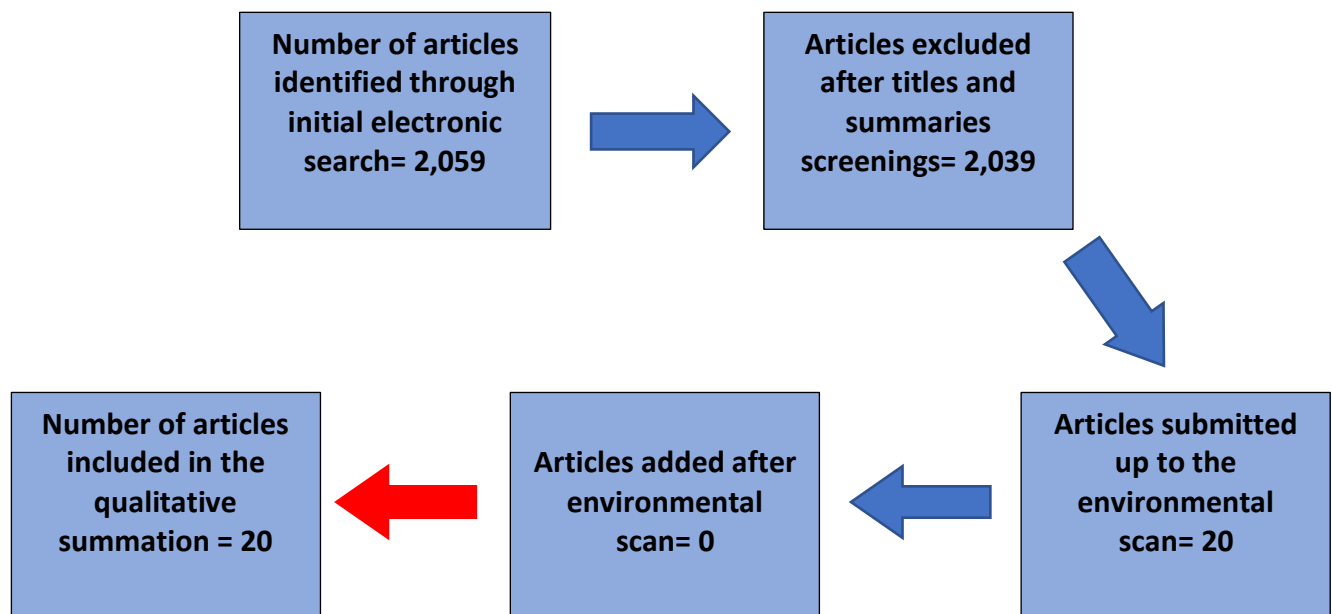
- The article should have been published no earlier than 2010.
- The article should be written in or translated into English.
- The article should be peer-reviewed and published from a reliable source.
- The article should be unbiased and provide the full context of the problem.
- The article should provide a thorough analysis of the problem as well as explicit outcomes.
- The article should be relevant to United States drug policy.

The choice of including only articles published after 2010 is justified because only relevant and current materials should be analyzed for this review. Therefore, only current policies and implications should be examined for this paper. Including only articles that apply to the United States is a part of the selection criteria, as one of the aims of this paper is to address

the drug policies within the United States and provide opportunities for change here.

Objectivity in presenting materials is also important. By selecting peer-reviewed articles that were unbiased and provided the full context, along with explicit outcomes, the aims of this study could be met. Ultimately, 20 publications were included in the summation after inclusion/exclusion criteria were applied (see Figure 1 below).

Figure 1: Flowchart of the literature search process



Literature Review

Through the literature search, the twenty articles were placed into one of four categories under the PEST framework, with six articles identified for tech/type of drug policies, six on the social effects on health and inequities, four on political/historical context of drug control and usage rates, and four on drug policies' economic impact.

Tech/Types of Drug Policies:

A study conducted by Hughes & Stevens (2010) focused on the Portuguese policy of drug decriminalization. It analyzed data from 1998 to 2008, using data from within the country and a comparative analysis of Portuguese drug policy versus Spain and Italy's policies. Along with these analyses, there were interviews conducted with 13 key informants within the country in 2007 and 2009.

The Portuguese government used Commissions for the Dissuasion of Drug Addiction (CDTs) to enforce their decriminalization. CDTs are administrative penalties given to drug users if caught with illicit drugs, and most CDT's that were given out were for acquisition or possession of cannabis or heroin. From 2001 to 2006, there was a decrease in the proportion of heroin cases from 33% down to 14%, and in 2008 it went down again to 13%. Cannabis, however, increased from 53% in 2001 to 70% of CDT cases in 2006 but then decreased in 2008 to 64% (Hughes & Stevens, 2010).

According to the stakeholders interviewed, CDTs provided many advantages, including earlier intervention for drug users by a specialist panel of experts, providing a broader range of responses; increased emphasis on prevention for occasional users; and increased provision of treatment and harm-reduction services for experienced and dependent users. As pointed out

by the stakeholders, however, the full potential of decriminalization was not reached as there was a lack of appropriate interventions for users who were just occasionally using rather than drug addicts (Hughes & Stevens, 2010).

The burden on the criminal justice system decreased following decriminalization in Portugal. There were over 14,000 criminal offenses in 2000, but only an average of between 5000-5500 per year following decriminalization from 2002-2008. The overall number of offenders arrested/ placed into the system decreased every year following decriminalization (Hughes & Stevens, 2010).

Compared to Spain and Italy, Portugal had a reduction in problematic drug use and a decrease in the criminal system burden. In contrast, the other two neighboring countries did not have a drop. Spain was shown to have signs of increased market expansion of drugs in the country, while the opposite was found in Portugal, as they were found to have a decrease in the retail price of drugs (Hughes & Stevens, 2010).

Santos (2020) examined the prohibitionist paradigm's failures within drug policies and analyzed the Americas' legal reforms. The objective of the war on drugs was to prevent harmful health effects associated with drug use and consumption. When measured against the results, the objective has failed: consumption levels for illicit drugs have not decreased, and production and supply of these drugs have not been reduced.

The human toll that came from the war on drugs globally has been immense. Just in Mexico following President Felipe Calderón's declaration of a war on drugs in 2006, there have been more than 250,000 human casualties, many of whom were innocent bystanders and not involved in the illicit trade and trafficking of these drugs. This war has also been directly linked

to the increase in Mexico's violence, with 2019 being the most violent year on the modern record (Santos, 2020).

The United States attempt at curbing cocaine supply from Colombia is another example of the failed war. "Plan Colombia" aimed at reducing cocaine supply by targeting coca cultivation in Colombia. However, if the supply chain were disrupted, it would be moved and started up again in the new location, thus demonstrating why Colombia is still the world's largest supplier of cocaine, despite all of the initiatives put in place to curb the production of the drug (Santos, 2020).

The United Nation's stance on drug policies has also largely contributed to the prohibitionist framework that has been in place for decades across many countries. The influence that they have can also place significant stigmatization on certain illicit substances. This influence, in turn, causes legal drugs, such as alcohol, tobacco, and other prescription drugs, which can have more negative health effects than their illicit counterparts, to be viewed as safer, even though that may not be the truth. An example of this scenario can be seen with the opioid epidemic in the United States. Many people viewed these drugs as safe, primarily because they were prescribed medications by a medical professional. Compounded with not knowing that it can be an incredibly addictive substance, opioids are now considered one of the leading causes of drug-related deaths in the U.S (Santos, 2020).

Strang et al. (2012) assessed the scientific basis of interventions intended to prevent or minimize the damage that illegal substances cause and provided information to lawmakers to make educated decisions on public policy options for the public good. The authors examined the quality of evidence for different policies, estimated the magnitude of the policies' effects,

assess potential unintended consequences, and identified promising areas for future research and interventions.

The research findings led the authors to create a framework with four tiers of straightforward policy approaches from micro- to macro-level interventions. The bottom (fourth) tier was macro-level, as it looked at helping the population as a whole, and one of the interventions suggested by the authors was supply control of illegal substances. The third tier focused on primary prevention interventions, like behavioral change therapies. Within that same tier, however, the authors clarified that an often-used behavioral therapy technique known as Drug Abuse Resistance Education (D.A.R.E.), which has been in place since 1983, is not an effective intervention and that other therapy techniques should be used in its place (Strang et al., 2012).

Second-tier interventions were secondary preventions, such as consultation with a clinical professional or motivational interview. The top (first) tier of the framework was the micro-level interventions, where a health or social service is provided, like harm reduction strategies, to an individual. Per the authors' recommendations, policymakers would make the most impact by focusing on an intervention at the bottom tier but should tailor those interventions to an upstream model (Strang et al., 2012).

Kilmer et al. (2012) was the only article under review that analyzed the gaps in drug research and provided a list of opportunities for improvements based on those gaps. Through an analysis of the current drug policies and, more specifically, analyzing the problems they contain, the authors were able to establish three vital gaps in the research: 1) drug research is sponsored by agencies that are not invested in looking at major policy changes but instead

keeping the status-quo; 2) very little funding goes towards big-picture research, like that of evaluating novel strategies that show promise; and 3) lack of analysis and evaluation of current programs is causing for drug policies to remain unchanged, despite calls for reform.

Eight opportunities for change and improvement included: 1) providing support for new and young researchers; 2) spread information to decision-makers more quickly; 3) replicate and study new programs hastily; 4) support research on marijuana policy in a nonpartisan way; 5) study ways to reduce drug-related violence in Mexico and Central America; 6) improve understanding about pharmaceutical drug market; 7) help the infrastructure of community prevention efforts and; 8) develop sensible policies that help reduce mass incarceration levels and those that further increase the racial disparities found in drug arrests (Kilmer et al., 2012).

The authors also highlighted four forces that they believe will begin to set the stage for policy change: 1) intolerance of marijuana prohibition; 2) Latin American nations speaking out against the policies and stating they do not work; 3) mass incarceration is a growing concern and becoming a focal point for reform; and 4) passage of the Mental Health Parity and Addiction Equity Act, along with the ACA, provides real access for the public to addiction treatment and counseling. These four factors, along with the emphasized gaps and points for improvement, help promote drug policy reform discussion (Kilmer et al., 2012).

Kleinman & Morris (2021) was the most recently published article that described the ballot measure passed in November 2020 that decriminalized all drugs in Oregon. The report provided an overview of the United States' current situation concerning personal substance use and possession (PSUP), substance use disorder (SUD), and incarceration rates. Also, it explained why the new ballot measure is essential to the discussion on drug policy reform.

Using National Survey on Drug Use and Health (NSDUH) data from 2019, the authors found that 165.4 million people aged 12 or older had used substances in the past month, and within that group, 20.4 million people met the criteria for SUD. Of the 1.56 million arrested in the United States in 2019, 87% of them were incarcerated for drug-related offenses for personal use possession only. Their research also found that Blacks and Hispanics represent less than a third of the US population yet accounted for 46% of drug-related offenses in 2018. Cannabis, despite steadily becoming more acceptable by society and law enforcement, is still leading to a large number of arrests at the federal level, with more than 545,000 arrested for it in 2019. With all of these prevalent issues taking part around the country, Oregonian legislatures and citizens decided to take a more compassionate drug policy approach (Kleinman & Morris, 2021). The authors suggest that this new law can help address the adverse effects that the past system has caused.

Kleinman & Morris also suggested that it should be studied and evaluated post-implementation to look at the impact it has on substance-associated morbidity and mortality, public safety, law enforcement-related disparities, and other quality of life indicators.

Neill (2014) looked at the history of U.S. drug policy using the degenerative policymaking framework and how this design prevented a public health approach from being utilized through an in-depth discussion of the policies that have caused the current status quo and analysis of the framework. The policy framework that the authors studied demonstrated a feedback loop that is created where policy is both an input and an output that is shaped by other elements within the process, such as the target population, societal context, framing dynamics, issue context, and designing dynamics (Neill, 2014).

The social construction of target populations as deviants has caused drug policy design to be harsh and punitive on individuals with substance use disorders, further establishing a negative feedback loop between target groups and drug policy. A shift in opinion by the American public is marking the possibility of change in policymaking. Two-thirds of society believe that the government should focus on treatment over punishment. Therefore, reframing drug addiction towards medical treatment and public health would be a solution to the negative feedback loop created through the social construction of addicts as deviants (Neill, 2014).

Social Impact on Health and Inequities:

Reuter (2013) attempted to answer why drug policy has remained relatively unchanged for over 30 years by analyzing current drug policies and advocating for these policies' reform. Much of the reason for the lack of change to drug policy comes from the fact that no politician wants to be seen as soft on crime. Thus, no one has come out and tried to change the laws to make them less punishing. The language used by politicians that occurred during the 1970s and 1980s led the American public to be fearful of drugs, and the feeling was further intensified by a heroin epidemic, two separate cocaine epidemics, both for crack and powder cocaine, and the elevated crime rates caused by these drugs during this time. This fearfulness has remained one of the biggest reasons against changing policy; anything other than strict enforcement or punishment of those who break the laws will be insufficient to protect society from returning to the high crime rates seen during the 1980s (Reuter, 2013).

Congress was set to vote on the Fair Sentencing Act in 2010, which would help to diminish the crack to powder cocaine disparity and lawmakers did so by a voice vote, making it

so that no one was on the record as being soft on drugs. When it came time to apply the new act to previous sentences, many Congress members opposed retroactive application; it took the Supreme Court's intervention on *Dorsey v. the United States* to rule in favor of allowing that reward for those still incarcerated (Reuter, 2013).

Another reason for the hesitance to change existing laws is because drug usage has been declining – why risk a change when it seems that the problem is diminishing? The author emphasized that despite the decline in drug use compared to past decades, it is essential to remember that these current policies are still expensive, dismissive, and intrusive. Therefore, existing policies should be modified (Reuter, 2013). The decline in drug usage can also not be tied to the drug policies themselves but other mitigating factors. The author suggested that reforming the current policies should be geared towards minimizing harms related to drug usage rather than trying to prohibit use entirely through the analysis done in this article.

Mitchell & Caudy (2015) provided an analysis of different explanations for the racial disparities present in drug arrests. In NSDUH data that was examined from 2010, the illicit drug dependence rate for those aged 12 – 17 years old was 1.8% for Blacks and 2.6% for Whites; similarly, those aged 18 – 25 had rates of 5.2% for Blacks and 5.6% for Whites. However, after 25, dependence rates for Blacks are higher than for Whites, at 2.4% and 1.1%, respectively. This difference in dependence rates is approximately 120% greater for Blacks than for Whites, yet the rates of drug arrests for Blacks were around 260% higher than for Whites (Mitchell & Caudy, 2015).

Inner-city versus middle-class dealers also carried significant differences, where inner-city drug dealers were more likely to have to sell in public locations and often did not know the

people they were selling to. In contrast, middle-class dealers would almost always sell directly to steady customers in private settings and often sell in large quantities. As can be expected, inner-city dealers would have higher risks of violence, or threat of violence, compared to the middle-class. As evidenced by this analysis study results, the disproportionate arrest rates of minorities may be the product of the nature of drug distributions in inner cities (Mitchell & Caudy, 2015).

This article's authors had a significant finding from their analysis: the war on drugs disproportionately held African Americans accountable for breaking the law. When controlling for differences in drug and non-drug offending, in addition to the measure of community crime problems, African Americans had higher likelihoods of drug arrests, and this effect grew with age (Mitchell & Caudy, 2015).

Another significant finding of this article was that the racial disparities in drug arrests could not be explained by race differences in drug offending or drug use. In the sample that was analyzed, African Americans and Hispanics had no higher, and often less, likelihood of being involved in drug offending than Whites. The heavy police presence in minority neighborhoods also had a strong relationship with drug arrests for those in those neighborhoods. To quantify these results, approximately 85% of African Americans' higher probabilities of being arrested for drugs could not be attributed to differences in drug usage, sales, non-drug offending, or neighborhood context, but was instead associated with racial bias in law enforcement (Mitchell & Caudy, 2015).

Friedman et al. (2016) examined how income inequality and structural racism contribute to the prevalence of HIV and mortality rates among PWID. The authors analyzed five papers,

which spanned 17 years, that address the predictors of PWID population prevalence, HIV prevalence, or incidence in 96 large metropolitan areas in the United States.

The study's findings yielded two crucial outcomes: drug arrests do not reduce injection drug use but instead increase the likelihood of contracting HIV and AIDS among PWID. The second finding stated that racial and income inequalities, as well as segregation, are linked to higher rates of drug injection use. Thus, to be able to address HIV infections from intravenous drug use, reformation of drug laws, along with other social movements, such as trying to reduce inequality, oppression, and racism, should be of public health interest and a priority in research and action (Friedman et al., 2016).

Stevenson (2011) reviewed the punitive criminal justice system, provided the costs associated with incarceration, and advocated reforming the existing laws by analyzing the drug policies. One of the findings was that nearly 500,000 of the 2.3 million people incarcerated in 2011 were there for a drug offense, with most having no history of violence or drug trafficking. The focus on drugs has also been costly for society: the diverted attention from violent crimes by law enforcement led to an increase in the serious crime index (Stevenson, 2011).

The implications for Black and Hispanic populations are also devastating - minorities feel the effects of mass incarceration more deeply, with disruptions to social and cultural norms in their communities. It also led to an increase in the displacement of children, as parents are incarcerated for drug possessions and put children into the foster care system if there is no family around to care for them. Another important finding – drug treatment was significantly more cost-effective than imprisonment as it places a greater burden on society because it takes

more tax dollars to put someone in prison than to get them the help they need (Stevenson, 2011).

Drucker (2014) was another article that looked at the impacts of mass incarceration by examining the individual and population effects caused by current drug policies and providing solutions to implement in future policies by conducting a public health analysis of criminal justice policies. This article was broader than the previous article by Stevenson (2011), as this one studied the global impact but still emphasized the United States. One of the authors' solutions was that the maintenance programs had proven efficacy in treating drug addiction, and governments should increase the implementation of these programs rather than incarceration. The authors also suggested that the government should declare blanket amnesty for drug users who are serving long-term sentences that no longer apply to the original offense, instead of replacing the current parole system with community-based support services that are not linked to the corrections system (Drucker, 2014).

del Pozo & Beletsky (2020) had one of the most poignant analyses conducted from the articles within the literature review as it evaluated the impact of COVID-19 and how there should be no return to normal once the pandemic ends concerning punitive drug policies. The authors analyzed current drug policies that led to the mass incarceration of racial minorities and advocated for a new policy system that did not continue with further harm to minorities. This article detailed how The Controlled Substances Act failed in regulating the prescription drug market, fueling the opioid epidemic, as well as overall drug addictions in Americans (del Pozo & Beletsky, 2020). Due to the pandemic, the opioid epidemic was further intensified, as access to mental health services and clinicians was significantly decreased.

The current carceral system also adds to society's burden. Those placed into the criminal justice system suffer from diminished economic opportunities, voter disenfranchisement, increased prevalence of drug addiction, and altogether fewer prospects for the future. One of the reasonings provided by the authors for the aggressive push for different policies is that COVID-19 has provided a once-in-a-lifetime opportunity for large-scale change, and reform should focus on public safety initiatives, like harm reduction techniques aimed at reducing overdoses and the spread of preventable diseases (del Pozo & Beletsky, 2020).

Political/Historical Context of Drug Control and Usage Rates:

The Vuolo (2015) article was one of two cross-sectional surveys. It looked at 15–24-year-olds from 2002 and 2004 from the European Union to demonstrate the association between national-level drug policy, use of an illicit drug other than marijuana in adolescents, and uncover the cultural and structural factors influencing drug use through multi-level analysis of drug policies. This research found that in countries with decriminalized possession of drugs for personal use, youths had 79% lower odds of past-month drug use, while countries with a high offense rate had higher odds of use at 42%. Also, a harm reduction technique of pharmacy syringe exchange policies was associated with 41% lower odds of use (Vuolo, 2015).

Peacock et al. (2018) reviewed up-to-date information on alcohol, tobacco, and illicit drug use and their associated mortality and burden of disease by analyzing data obtained in 2015 from the World Health Organization, United Nations Office on Drugs and Crime, and Institute for Health Metrics and Evaluation. In this global analysis study high-income, North Americans had the highest rates of cannabis, opioid, and cocaine dependence. The most used substance was alcohol, with a prevalence rate of 18.4% among adults, followed by 15.2% for

daily tobacco use. Substance-attributable mortality rates were highest for tobacco smoking at 110.7 deaths per 100,000 people, with illicit drugs making up only 6.9 deaths per 100,000 people. Alcohol and tobacco smoking cost the human population more than a quarter of a billion disability-adjusted life years, while illicit drugs accounted for less, in the tens of millions (Peacock et al., 2018).

Conway et al. (2013) is the only cohort study in the literature review that examines the prevalence and demographic correlation of self-reported drug use and identifies subgroups of polysubstance users among 10th graders in the U.S. In the sample that consisted of 2,524 students, the most commonly used illicit drug used was marijuana (26%), followed by misuse of medication (9%) and use of other illegal substances (8%). More than 1/3 of the survey population also reported alcohol use, and 8% reported being polysubstance users. These polysubstance users also had higher somatic and depressive symptoms, suggesting that they have worse mental health than those in the other study groups (Conway et al., 2013).

Swendsen, Burstein, & Case et al. (2012) was the second cross-sectional survey that examined the prevalence, age at onset, and sociodemographic correlations between alcohol and illicit drug use and abuse among American adolescents aged 13-18 years old. Of the 10,123 teens surveyed, 78.2% of them had consumed alcohol by late adolescence, and 47.1% were regular drinkers, consuming at least 12 drinks a year. In the older subgroup, 81.4% reported the opportunity to use illicit drugs, and in the general survey group, 42.5% reported having used drugs, and 16.4% reported drug abused (Swendsen, Burstein, Case, et al., 2012).

Economic Impact of Drug Policies:

Felbab-Brown (2014) analyzed the economic impact of drug policies in the United States, South America, and Latin America by examining the failures of past eradication efforts in drug supply. The attempts at completely stopping supply in these countries led to a balloon effect, where stopping production to cut off supply would stop it in one area but simply cause it to start again in another. Consequently, some of the effective strategies that the authors recommended instead of flow-suppression were strategies such as focused deterrence, selective targeting, and sequential interdiction (Felbab-Brown, 2014).

Another issue mentioned in the article is that many of the attacks coordinated by law enforcement are non-strategic strikes on low-level offenders. Instead of this, the authors suggested that police focus on counter-crime operations instead (Felbab-Brown, 2014).

Atuesta Becerra (2014) set out to answer questions about what happens to the citizens of Colombia and Mexico who have been displaced due to the countries' drug policies, an often-forgotten issue associated with the war on drugs. Through simulation analysis of the legalization of drugs in Colombia and migration analysis of citizens in Mexico, the authors established some of the costs associated with the displacement of these citizens in their respective countries. An indirect cost of drug prohibition is the creation of internally displaced populations (IDPs), where citizens of the country move out of their homes due to drug violence, crime, or loss of land due to the drug market (Atuesta Becerra, 2014).

The authors provided answers to the issue of IDPs but stated that legalization and regularization of illicit drugs would not itself fix the problem. The legalization of drugs is only thought to be beneficial if the armed conflict within these countries is ended, and the

expenditures the government used to tackle the conflicts are then reinvested into other sectors, such as health, education, and transportation (Atuesta Becerra 2014). Unfortunately, it is not guaranteed that the resources would be placed into these sectors, so the problem often continues to persist at the cost of innocent citizens.

Csete (2014) was a review that analyzed 11 articles on the cost-benefit and cost-effectiveness of health services for people who use drugs and assess the benefits of treatment with respect to medical care, criminal activity, earnings of people treated, and welfare program payment based on data from 43 treatment facilities in the state of California. The article aimed to address the tangible costs associated with problematic drug use, such as loss of life, pain and suffering, productivity loss, drug-related crime and criminal justice, road accidents, environmental impact, and research and prevention activities. Based on the 43 California facilities' data, treatment cost an average of \$1,583 per person but benefited society at a rate of \$11,487, a 7:1 ratio. The most significant economic benefit came from a decrease in criminal activity, with a savings of 65% (Csete, 2014).

Another critical finding - being in some form of drug dependence treatment led to a decrease in robbery incidence by 0.4 robberies per patient per year. Also, drug courts in the US carry only a benefit-cost ratio of 1.92:1, substantiating claims made in other articles from this literature review stating that the court system is not a cost-effective way of dealing with the drug problem in the country (Csete, 2014).

Lastly, Foldvary (2012) was an analysis of drug policies in the United States, Colombia, Peru, Bolivia, Mexico, Guatemala, Portugal, and Afghanistan and provided an examination of the foreign effects that the U.S. war on drugs has on each of these countries. By looking and the

supply and demand shifts caused by the war on drugs, demand for illegal drugs was found to be inelastic, where quantity has a small response to a change in price. So, the drug prohibition tactic of using higher prices on illicit drugs does not decrease demand but does increase theft and crime associated with the drugs. The high prices of drugs also led to increased profit opportunities for drug cartels, thus inducing more crime as criminals fight for territory and expanding their business (Foldvary, 2012). Therefore, the supply-reduction policies that have been in place in the studied countries have failed.

Results

As previously mentioned, the twenty articles from the literature review were placed into four different categories pertaining to the PEST framework. This framework presented in Figure 2 in Appendix A., where the political, economic, social, and technological/type changes conjoin together to create strategic opportunities for more effective and just policy alternatives.

Along with this classification through the framework model, a content analysis was conducted and presented in Table 1. (see Appendix A.) This content analysis focused on 1) the year the article was conducted or published, 2) the category each article falls under, 3) the study aims and objectives, 4) the study design, 5) the study settings, and 6) the outcomes from the articles.

As shown in Table 1., the studies not only were conducted in various countries individually but also looked at the global perspective. One of the selection criteria was that while this study sets out to analyze United States drug policy, it is essential to look at all relevant countries since the laws apply and have an impact on a global scale.

The oldest article within the literature review is from 2010, which was the oldest threshold set within the selection criteria since one of the major points of this article is to look at current policies and the impact they create now. One of the newest studies came out in 2021 and analyzed the greatest shift in policy that the United States had seen since the initial movement of marijuana decriminalization in the early 2000s, and this study was conducted in the state of Oregon. This article served as a crucial component to the literature review because it was the most novel policy of its kind and could be used as a reference in future evaluation studies.

As previously mentioned, this summation consisted of six articles about tech/types of drug policy; six articles about the social impact on health and inequities, four articles on political/historical context of drug control and usage rates, and four articles describing the economic impact caused by drug policies. There were three different types of study designs employed in the articles selected: (18) on analyzing and evaluating policies and effects, (2) cross-sectional surveys, and (1) national cohort. One of the studies was both a cross-sectional survey and an analysis of existing literature on drug policies.

The articles' outcomes from the tech/types, social impact and those that analyzed the economic impact were all in favor of reforming the existing drug policies utilized in the United States. In those three categories, the authors of the articles all acknowledged that the current policies have profound adverse effects on the American population and the global one as well. The political/historical context of drug control and usage rates category differed from the other three categories as it looked not only at illicit drug use but also usage of tobacco and alcohol. Comparing illicit and legal drug usage to one another provided important comparative data, as

illegal drug use is often vilified as the most significant harm posed to America's youth. Still, the results of the studies under review did not substantiate those claims.

Discussion

Many of the study aims for the articles reviewed suggested alternative recommendations for existing policies, since the consensus is that current policies are not accomplishing their objectives of curbing drug use and eliminating supply.

Strategic opportunities for policy alternatives are an important part to the PEST framework model. Harm reduction was offered as a policy recommendation in many of the articles under review, but Strang et al. (2012) provided a comprehensive framework that addresses the drug problem from the micro to the macro level. Harm reduction techniques fall under the top tier (micro-level) of the authors' framework; provided to addicts were health and social services and other programs, such as needle exchanges, throughout the community they serve. Through this work, addicts got help at the individual level. However, the authors argue that to make effective change, bottom-tier implementation tactics should be employed, such as supply control.

While this is a good idea in theory, Foldvary (2012) & Felbab-Brown (2014) argue that supply eradication leads to adverse consequences, such as higher crime rates and the "balloon effect," mentioned earlier in this paper. Due to this effect, Foldvary (2012) & Felbab-Brown (2014) suggested that hindering drug supply efforts should be focused-deterrence strategies, selective targeting, and sequential interdiction rather than zero-tolerance and flow-suppression of drugs.

Mass incarceration and racial bias, and disparities in the criminal justice system also helped guide the discussion on reformation. In the six articles under review for social impact on health and inequities, all of them provided findings that the current system is undeservedly harsh on minority populations and has caused the increase in mass incarceration over the past few decades. Law enforcement should direct their resources towards violent crimes, not simple possession of drugs.

Unfortunately, that has not been the case for much of law enforcement, and the attention to violent crime has led to a severe increase in the serious crime index (Stevenson, 2011). As mentioned in this article's background and literature review, policymakers' significant reasons against changing current laws are that harsh drug policies protect the public from violent crimes. However, if law enforcement is continually distracted by imprisoning low-level drug offenders, they cannot attend to those violent crimes, making the public less safe.

Limitations

These findings are subject to limitations. First, the articles chosen for the literature review are not exhaustive. However, the four databases selected were believed to be the most relevant to the study topic. Second, only articles in English or translated to the English language could be analyzed in this paper, leaving a gap in possible articles that could have been relevant to the study but then excluded from revision due to the language barrier. Third, the topic of United States drug policy has research gaps, as pointed out by Kilmer et al. (2012). The author addressed that much of the drug-related research conducted is sponsored by agencies not invested in policy changes but instead keeping the status quo.

Despite these three limitations, they can provide future work in drug policy and drug law reformation with a path to filling in the gaps and improving the body of knowledge on this topic.

Conclusion & Recommendations for the Future

This qualitative summation's overarching finding is that current drug policies cannot remain and must be reformed using the opportunities for change from the PEST framework. The harm caused on minority populations who suffer under the punitive policies, and therefore drive the exponential growth in mass incarceration rates, should be enough to shift policies towards a more public-health-focused approach. Still, when all of the other factors are analyzed, such as the risk these policies pose to public safety and the harms to health they cause, political inaction is no longer an option.

Laws like the one passed in Oregon show signs of hope, but they cannot stop there. There are many policy alternatives to the current system that should be employed, such as decriminalization, expungement of records for sentences that are no longer applicable, harm reduction strategies, and federal legalization of marijuana. All of these alternatives would help cut down on the disparities caused by the existing drug policies. Future research on this topic should look at the impact that the novel Oregon law had on residents of that state. If found to be successful, a larger-scale policy intervention should be implemented to help the citizens of the United States and across the world.

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Appendix A:

Figure 2: PEST Framework Model

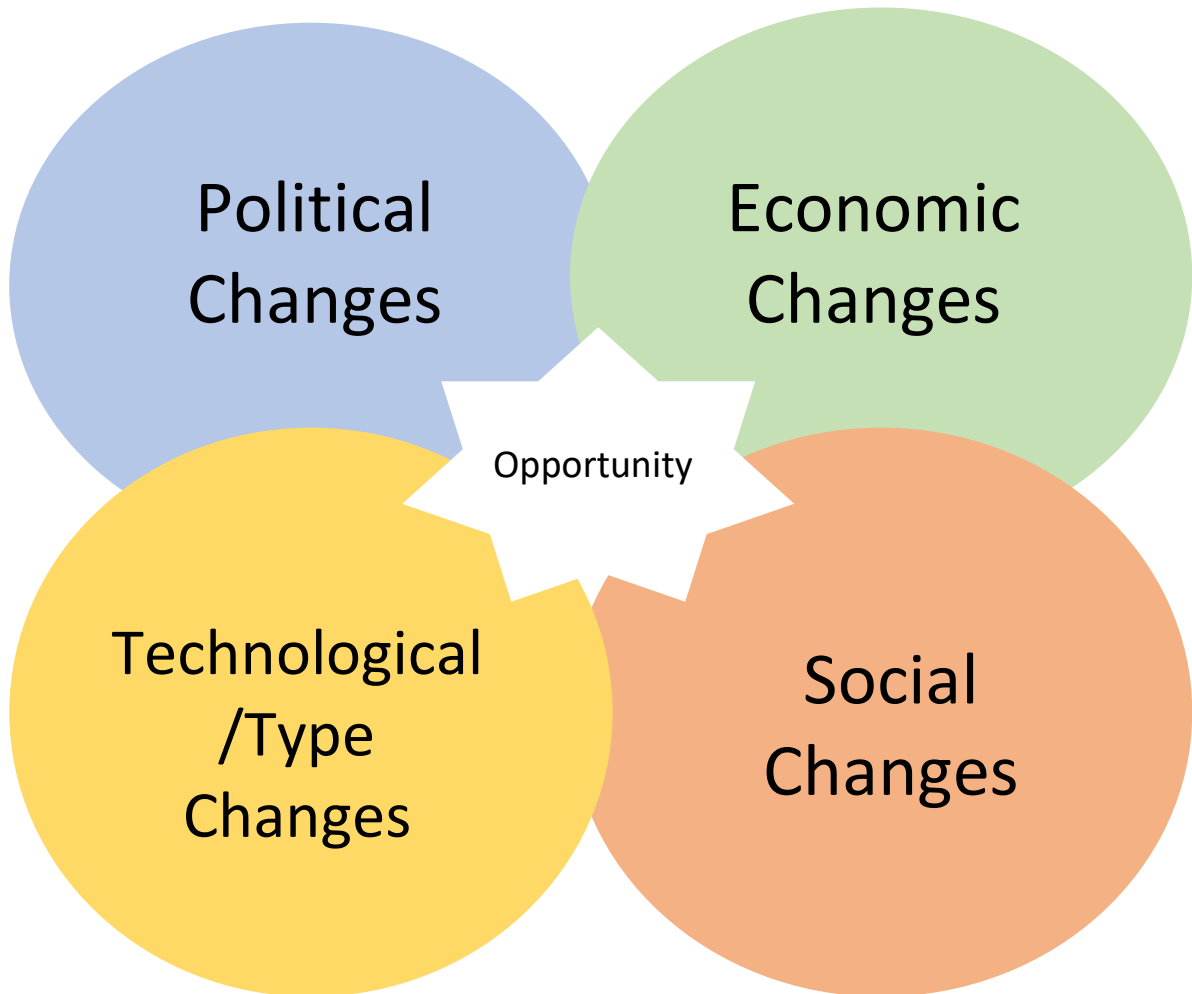


Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
Category 1: Technological/ Types of Drug Policies							
1.1	What Can We Learn from The Portuguese Decriminalization of Illicit Drugs (Hughes, & Stevens, 2010)	2010	Tech/ Types of Drug Policies	<ol style="list-style-type: none"> 1. Describe Portuguese drug reform. 2. To provide an overview of the health and criminal justice impacts. 3. To discuss the contribution of this reform and this research to the existing state of knowledge on decriminalization. 	<ol style="list-style-type: none"> 1. Review, analysis, and evaluation of Portuguese policy. 2. Comparative analysis of Portuguese drug policy versus Spain and Italy's policies. 3. Interview of a sample of key informants in Portugal. 	Portugal, Spain, and Italy	<ol style="list-style-type: none"> 1. The burden on the criminal justice system decreased in Portugal. 2. Slight increases in reported illicit drug use amongst adults. 3. Decreased illicit drug use among problematic drug users and adolescents. 4. Increased uptake of drug treatment. 5. Decrease in opiate-related deaths and infectious diseases. 6. Increases in the amounts of drugs seized by the authorities. 7. Decrease in the retail prices of drugs.
1.2	Drug Policy Reform in the Americas: A Welcome Challenge to International Law (Santos, 2020)	2020	Tech/ Types of Drug Policies	Advocate for reform of current drug policies.	<ol style="list-style-type: none"> 1. Examination of the failures of the prohibitionist paradigm of drug policies. 	The Americas	<ol style="list-style-type: none"> 1. The objective of the war on drugs failed, as it did not cause a decrease in consumption levels, and the supply of drugs has not gone down.

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
					2. Analyze legal reforms in the Americas.		2. Human casualties caused by the war on drugs are vast.
1.3	Drug policy and the public good: evidence for effective interventions (Strang et al., 2012)	2012	Tech/ Types of Drug Policies	<ol style="list-style-type: none"> 1. Assess the scientific basis of interventions intended to prevent or minimize the damage that illicit drugs cause. 2. Help policymakers make informed decisions on policy options for the public good. 	<ol style="list-style-type: none"> 3. Examine the quality of evidence for different policies 4. Estimate the magnitude of policies' effects 5. Assess potential unintended consequences. 6. Identify promising areas for future research and interventions. 	Global	<ol style="list-style-type: none"> 1. The conceptual framework of the four tiers has provided a straightforward approach to policies that target at the individual level and large-scale population. 2. Bottom tier: supply control is effective in the population when proper methods are used. 3. 3rd tier: primary prevention interventions that focus on behavior change are effective, but school-based programs such as D.A.R.E. are not. 4. 2nd tier: secondary prevention within the clinical setting, such as an intervention via consultation or motivational interview, can reduce drug use.

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							<ol style="list-style-type: none"> 5. Top tier: health and social service, such as addiction treatments, work well at the individual level but require commitment from the individual to want to stop the behavior. 6. Policymakers should focus on interventions with the most significant population effect based on their countries' needs by focusing on effective addiction research.
1.4	The U.S. Drug Policy Landscape Insights and Opportunities for Improving the View (Kilmer et al., 2012)	2012	Tech/ Types of Drug Policies	<ol style="list-style-type: none"> 1. Provide a nonpartisan primer of current drug policies and their problems 2. Highlight which areas get the most research funding 3. List the opportunities for improvement based on the gaps 	<ol style="list-style-type: none"> 1. Analysis of current drug policies and the issues they present 2. Analysis of the gaps in research funding in the United States 	United States	<ol style="list-style-type: none"> 1. Obama's ACA provided the country with much-needed preventative care and community-based treatment options for people who struggle with drug addictions. 2. The gaps in the research were found to be: <ol style="list-style-type: none"> a. Drug research is sponsored by agencies not invested in major

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
				found in research funding			<p>policy changes but rather keeping the status quo.</p> <ul style="list-style-type: none"> b. Little-to-no funding goes towards big-picture research, like that of evaluating novel strategies that show promise. c. Lack of analysis and evaluation of current programs is causing drug policies to remain unchanged, despite calls for reform. <p>3. Opportunities for change and improvement when it comes to drug research were found to be:</p> <ul style="list-style-type: none"> a. Providing support for new and young researchers. b. Spread information to

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							decision-makers more quickly. c. Replicate and study new programs quickly. d. Support research on marijuana policy in a nonpartisan way. e. Study ways to reduce drug-related violence in Mexico and Central America. f. Improve understanding of the pharmaceutical drug market. g. Help the infrastructure of community prevention efforts. h. Develop sensible policies that help reduce mass incarceration levels and those

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							that further increase the racial disparities found in drug arrests.
1.5	Rethinking the Criminalization of Personal Substance Use and Possession (Kleinman & Morris, 2021)	2021	Tech/ Types of Drug Policies	Advocate for the evaluation of the new law passed in Oregon in 2020 and the impacts that it could have if similar measures were taken at the federal level.	<ol style="list-style-type: none"> 1. Provide an overview of the United States' current situation regarding PSUP, SUD, and incarceration rates. 2. Explain why the new ballot measure that decriminalized personal possession of controlled substances is essential to the discussion of drug policy reform. 	Oregon, United States	<ol style="list-style-type: none"> 1. NSDUH data from 2019 showed that 165.4 million people aged 12 or older had used substances in the past month, and within that group, 20.4 million people met the criteria for SUD. 2. 87% of the 1.56 million arrests for drug-related offenses in 2019 were from PSUP. 3. Blacks and Hispanics represent less than a third of the US population yet accounted for 46% of drug-related offenses in 2018. 4. Cannabis is still leading to a large number of arrests at the federal level, with over 545,000 arrested for it in 2019, despite many states having

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							<p>decriminalized or legalized marijuana.</p> <p>5. The new Oregon law can help address the adverse effects that the past system has caused. This new law should be studied and evaluated to look at its impact on substance-associated morbidity and mortality, public safety, law enforcement-related disparities, and other quality of life indicators.</p>
1.6	Tough on Drugs: Law and Order Dominance and the Neglect of Public Health in U.S. Drug Policy (Neill, 2014)	2014	Tech/ Types of Drug Policies	Analyze the history of U.S. drug policy using policy design framework and how it prevented a public health approach from being utilized.	<ol style="list-style-type: none"> 1. In-depth discussion of the history of U.S. drug policies that have caused the current status quo. 2. Analysis of the policy design framework. 	United States	<ol style="list-style-type: none"> 1. The degenerative policymaking system model demonstrates the feedback loop that is created, where policy is an input and an output that is shaped by other elements within the process such as the target population, societal context, framing dynamics, issue context, and design dynamics.

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							<ol style="list-style-type: none"> 2. The social construction of target populations as deviants has caused drug policy design to be harsh and punitive on individuals with substance use disorders, further establishing a negative feedback loop between target groups and drug policy. 3. A shift in opinion from the American public is marking the possibility of change in policymaking, as two-thirds of society believe that the government should focus on treatment over punishment. 4. Reframing the issue of drug addiction by turning the discussion towards medical treatment and public health as a solution and away from politically based ones.

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
Category 2: Social Impact on Health and Inequities							
2.1	Why Has US Drug Policy Changed So Little over 30 Years? (Reuter, 2013)	2013	Social Impact on Health and Inequities	<ol style="list-style-type: none"> 1. Demonstrate the reasons why the policy has remained relatively unchanged for over 30 years. 2. Advocate for reform of current drug policies. 	Analysis of current drug policies.	United States	Policy changes should be geared towards minimizing the harms related to drug usage rather than prohibiting drug usage entirely.
2.2	Examining Racial Disparities in Drug Arrests (Mitchell & Caudy, 2015)	2015	Social Impact on Health and Inequities	<ol style="list-style-type: none"> 1. Examine the different explanations for the different drug arrests rates between other races 2. Advocate for reform of current drug policies. 	Analysis of different explanations for the racial disparities present in drug arrests.	United States	<ol style="list-style-type: none"> 1. War on Drugs disproportionately held African Americans accountable for their actions, where drug offenders had a higher likelihood of drug arrest than Whites. 2. Racial differences cannot explain racial disparity in drug arrests between Black and Whites. 3. The higher rate of drug arrests for Non-Whites is tied to racial bias in law enforcement.
2.3	Income inequality, drug-related arrests,	2016	Social Impact on Health	<ol style="list-style-type: none"> 3. Examine how income inequality 	Analysis of 5 papers that address the	96 large metropolita	<ol style="list-style-type: none"> 1. Drug arrests do not reduce injection drug use

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
	and the health of people who inject drugs: Reflections on seventeen years of research (Friedman et al., 2016)		and Inequities	and structural racism contribute to the prevalence of HIV and mortality rates among people who inject drugs (PWID).	predictors of PWID population prevalence, HIV prevalence, or incidence.	n areas in the United States	but does increase the likelihood of contracting HIV and AIDS among PWID 2. Racial, income inequalities and segregation are linked to higher rates of drug injection use
2.4	Drug Policy, Criminal Justice, and Mass Imprisonment (Stevenson, 2011)	2011	Social Impact on Health and Inequities	<ol style="list-style-type: none"> 1. Review the punitive criminal justice system and provide the costs associated with incarceration. 2. Advocate for reform of current drug policies. 	Analysis of current drug policies.	United States	<ol style="list-style-type: none"> 1. Nearly 500,000 of the 2.3 million people that were incarcerated in 2011 were there for a drug offense, with most having no history of violence or drug trafficking 2. Focus on drugs has diverted law enforcement attention from violent crimes, leading to an increase in the serious crime index 3. Minorities feel the effects of mass incarceration more deeply, with disruptions to social and cultural norms in their communities and an

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							increase in the displacement of children 4. Drug treatment is more cost-effective than imprisonment
2.5	Mass Incarceration as a Global Policy Dilemma: Limiting Disaster and Evaluating Alternatives (Drucker, 2014)	2014	Social Impact on Health and Inequities	<ol style="list-style-type: none"> 1. Examine the individual and population effects caused by current drug policies. 2. Provide solutions that can be implemented in policies in the future. 	Public health analysis of criminal justice policies.	Global; focus on the United States	<ol style="list-style-type: none"> 1. Maintenance programs have proven efficacy in treating drug addiction, and governments should increase these programs' implementation. 2. Governments should declare blanket amnesty for drug users serving long-term sentences that no longer apply to the original offense. 3. Replace the current parole system with community-based support services that are not linked to the corrections system.
2.6	No “back to normal” after COVID-19 for our failed drug policies (del Pozo & Beletsky, 2020)	2020	Social Impact on Health and Inequities	Advocate for reform of current drug policies	1. Analysis of current drug policies that have led to the mass	United States	<ol style="list-style-type: none"> 1. The Controlled Substances Act failed in regulating the prescription drug market, fueling the

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
					incarceration of racial minorities. 2. Advocate for a new drug policy system that does not further harm minorities.		opioid epidemic, as well as overall drug addictions in Americans 2. The current carceral system adds to society's burden, as those who are placed into the criminal justice system suffer from diminished economic opportunities, voter disenfranchisement, increased prevalence of drug addiction, and altogether fewer prospects for the future. 3. COVID-19 has provided a once-in-a-lifetime opportunity for large-scale change, and reform should focus on public safety, like harm reduction techniques that are aimed at reducing

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							overdoses and the spread of preventable diseases.
Category 3: Political/Historical Context of Drug Control & Usage Rates							
3.1	National-level drug policy and young people’s illicit drug use: A multi-level analysis of the European Union (Vuolo, 2015)	2015	Political/ Historical Context	<ol style="list-style-type: none"> 1. Demonstrate the association between national-level drug policy and the use of an illicit drug other than marijuana in adolescents. 2. Uncover the cultural and structural factors influencing drug use. 	<ol style="list-style-type: none"> 1. Cross-sectional surveys from 2002 and 2004 of 15–24-year-olds. Survey population: 15, 191. 2. Multi-level analysis of drug policies. 	European Union	<ol style="list-style-type: none"> 1. In countries with decriminalized possession of drugs for personal use, youths had 79% lower odds of last month's drug use. 2. Countries with a high offense rate had higher odds of use of 42%. 3. Pharmacy syringe exchange policies were associated with 41% lower odds of use. 4. Adolescents not in school, regardless of completion level, had increased odds of use.
3.2	Global statistics on alcohol, tobacco, and illicit drug use: 2017 status report (Peacock et al., 2018)	2018	Political/ Historical Context	Review of up-to-date information on alcohol, tobacco, and illicit drug use and their associated mortality and disease burden.	Analysis of data obtained in 2015 from the World Health Organization, United Nations Office on Drugs and	Global	<ol style="list-style-type: none"> 1. High-income North Americans had the highest rates of cannabis, opioid, and cocaine dependence. 2. The most used substance was alcohol, with a

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
					Crime, and Institute for Health Metrics and Evaluation.		<p>prevalence rate of 18.4% among adults, followed by 15.2% for daily tobacco use.</p> <p>3. Substance-attributable mortality rates were highest for tobacco smoking at 110.7 deaths per 100,000 people, with illicit drugs making up only 6.9 deaths per 100,000 people.</p> <p>4. Alcohol and tobacco smoking cost the human population more than a quarter of a billion disability-adjusted life years.</p>
3.3	Polysubstance Use in a Nationally Representative Sample of 10th Graders in the United States (Conway et al., 2013)	2013	Political/ Historical Context	Examine the prevalence and demographic correlation of self-reported drug use and identifies subgroups of polysubstance users among 10 th graders in the U.S.	<ol style="list-style-type: none"> 1. Nationally representative school-based cohort of 10th-grade students. 2. Number of students interviewed: 2,524. 	United States	<ol style="list-style-type: none"> 1. The most common illicit drug used was marijuana (26%), followed by misuse of medication (9%) and use of other illegal substances (8%). 2. More than 1/3 of the survey population reported alcohol use.

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	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							3. 8% reported being polysubstance users and had higher levels of somatic and depressive symptoms.
3.4	Use and Abuse of Alcohol and Illicit Drugs in US Adolescents Results of the National Comorbidity Survey– Adolescent Supplement (Swendsen, Burstein, Case et al., 2012)	2012	Political/ Historical Context	Examine the prevalence, age at onset, and sociodemographic correlations between alcohol and illicit drug use and abuse among American adolescents.	<ol style="list-style-type: none"> 1. Cross-sectional survey of teens using a modified version of the Composite International Diagnostic Interview. 2. Ages of teens: 13 to 18 3. Number of adolescents studied: 10,123. 	United States	<ol style="list-style-type: none"> 1. 78.2% of teens had consumed alcohol by late adolescence. 2. 47.1% were considered to be regular drinkers, consuming at least 12 drinks a year. 3. 15.1% met the measurements for lifetime abuse. 4. 81.4% of the older subgroup reported the opportunity to use illicit drugs. 5. 42.5% reported drug use, and 16.4% reported drug abuse. 6. The median age of onset was: <ol style="list-style-type: none"> a. 14 years – with or without alcohol dependence.

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							<ul style="list-style-type: none"> b. 14 years – drug abuse with dependence. c. 15 years – drug abuse without dependence.
Category 4: Economic Impact of Drug Policies							
4.1	Improving Supply-Side Policies: Smarter Eradication, Interdiction, and Alternative Livelihoods – and the Possibility of Licensing (Felbab-Brown, 2014)	2014	Economic Impact of Drug Policies	<ul style="list-style-type: none"> 1. Examining the failures of past eradication and interdiction of drug supply. 2. Provide policymakers with new, effective interventions for tackling the drug issue. 	<ul style="list-style-type: none"> 1. Analysis of policies to stop the supply and cultivation of drugs. 2. Evaluate the current policies. 	United States; South and Latin America	<ul style="list-style-type: none"> 1. Eradication causes a shift of production from one area to another, causing a “balloon effect.” 2. Effective strategies to hinder drug supply have been shown to be focused-deterrence strategies, selective targeting, and sequential interdiction rather than zero-tolerance and flow suppression. 3. Law enforcement should move away from random non-strategic strikes on low-level offenders and towards counter-crime operations.

Table 1.: Findings of Articles from Literature Review

	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
4.2	Addressing the Costs of Prohibition: Internally Displaced Populations in Colombia and Mexico (Atuesta Becerra, 2014)	2014	Economic Impact of Drug Policies	Answer questions about what happens to the citizens of Colombia and Mexico who have been displaced due to the countries' drug policies.	<ol style="list-style-type: none"> 1. Simulation analysis of the legalization of drugs in Colombia. 2. Migration analysis of citizens in Mexico. 	Colombia and Mexico	<ol style="list-style-type: none"> 1. An indirect cost of drug prohibition is the creation of internally displaced populations (IDPs). 2. Legalization and regularization of illicit drugs would not itself fix the problem of IDPs. 3. The legalization of drugs would only be beneficial if the armed conflict within these countries is ended, and the expenditures the government used to tackle the conflicts are then reinvested into other sectors, such as health, education, and transportation.
4.3	Costs and Benefits of Drug-Related Health Services (Csete, 2014)	2014	Economic Impact of Drug Policies	Address the tangible costs associated with problematic drug use, such as loss of life, pain and suffering, productivity loss, drug-related crime and criminal justice, road accidents,	<ol style="list-style-type: none"> 1. Review of 11 studies that analyze the cost-benefit and cost-effectiveness of health services for people who use drugs. 	United States; California state treatment facility	<ol style="list-style-type: none"> 1. Based on data from California facilities: treatment cost an average of \$1,583 per person but benefited society at a rate of \$11,487, a 7:1 ratio. 2. The greatest economic benefit came from a

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	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
				environmental impact, and research and prevention activities.	2. Assess the benefits of treatment with respect to medical care, criminal activity, earnings of people treated, and welfare program payment based on data from 43 treatment facilities.		<p>decrease in criminal activity, with a savings of 65%.</p> <p>3. Being in some form of drug dependence treatment led to a decrease in robbery incidence by 0.4 robberies per patient per year.</p> <p>4. Drug courts in the US carry only a benefit-cost ratio of 1.92:1.</p>
4.4	The Foreign Economic Effect of the U.S. War on Drugs (Foldvary, 2012)	2012	Economic Impact of Drug Policies	<ol style="list-style-type: none"> 1. Advocate for decriminalization and legalization based on the economic effects that the war on drugs has had on several different countries. 2. Explain the supply and demand shifts caused by the war on drugs. 	<ol style="list-style-type: none"> 1. Analysis of drug policies in the United States, Colombia, Peru, Bolivia, Mexico, Guatemala, Portugal, and Afghanistan. 2. Examination of the foreign effects that the U.S. war on drugs has on each of these countries. 	United States; Colombia; Peru; Bolivia; Mexico; Guatemala; Portugal; Afghanistan	<ol style="list-style-type: none"> 1. Demand for illegal drugs is inelastic, where quantity has a small response to a change in price, so the drug prohibition tactic of using higher prices for illicit drugs does not decrease demand but does increase greater theft and crime associated with the drugs.

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	Title	Year Published	Category	Study Aim(s)	Study Design	Study Settings	Outcomes
							<ol style="list-style-type: none"><li data-bbox="1623 310 2041 467">2. Supply-reduction policies that have been in place in the studied countries have failed.<li data-bbox="1623 467 2041 777">3. The high prices of drugs caused by prohibitionist policies have led to increased profit opportunities for drug cartels, thus inducing more crime as criminals fight for territory.