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Evaluating the Pragmatic and Moralistic Approach to Drug Policy and Addiction in Opioid Epidemic Outcomes

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Evaluating the Pragmatic and Moralistic Approach to Drug Policy and Addiction
in Opioid Epidemic Outcomes

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Fall 2021

SIT Switzerland: Global Health and Development Policy

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Abstract

Drug use, policy and outcomes differ in all countries; however, trends exist in response to these circumstances and can typically be evaluated through a pragmatic and moralistic lens. The public health, and evidence-based pragmatic approach differs from the law enforcement-centered moralistic approach, specifically in outcomes of people suffering from substance use disorder. Particularly for opioid use disorder, countries that have taken the pragmatic approach in response to opioid epidemics have had dramatic results. Two of the countries discussed include Switzerland and Portugal, with additional information on the Netherlands. In contrast, current opioid epidemics exist in certain countries who maintain a moralistic approach - namely the United States, with additional information on Canada who is experiencing a parallel epidemic. Though evidence demonstrates a pragmatic approach to drug policy and addiction will fare positive outcomes, hesitance to implement public health prevention and harm reduction policies remains. This paper discusses the context, dynamic, and policy behind countries that were able to combat the opioid crisis, while comparing these lenses to countries that struggle to achieve similar results. Moreover, this paper includes recommendations for countries with rising opioid epidemics to expand pragmatism in their approach to drug policy and addiction to improve the health of their populations.

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Introduction

Throughout the world, drug use has always existed in society. Used historically for religious, recreational and medicinal use, it is only in recent centuries that drug use has been regulated and prohibited. Shamans and priests have been ingesting psychoactive plants for millennia to alter their consciousness and achieve states of God-like trances (1). Recreationally, drugs such as alcohol, nicotine and caffeine are noted throughout history for their widespread consumption among all populations (1). These 'recreationally' used drugs, currently deemed as acceptable by society in comparison to illicit, or 'hard' drugs, have deep roots in culture and tradition in many areas. Additionally, certain drugs like opium have been used for its medicinal traits since the first documentation of written word (1). As much as the use of psychoactive substances has been documented, addiction to such substances has also been highly documented throughout history. Opiates specifically, are complex substances - one that has high medicinal potential, but which also has high addiction potential.

Opiates are substances derived from the poppy seed plant. Common 'natural' opiates include morphine, opium and codeine, which are coined as natural due their direct production from the poppy seed plant (2). In contrast, opioids are substances that are synthetically, or partially synthetically derived from opiates (2). Opioids can include heroin (partially synthetic), fentanyl, carfentanyl, and prescription morphine, codeine, oxycodone and hydrocodone. Both opiates and opioids act similarly in the human body - these molecules bind to the brain and block receptors that control pain (2). This property has enabled the use of opioids and opiates to treat extreme short-term pain as well as chronic long-term pain. Along with pain relief, at high doses this substance can produce a euphoric feeling, and it can be highly addictive.

As medicine advanced, as did the knowledge that opium and its derivatives can be addictive. At this point, however, opium use was widespread due to globalization and migration. Despite regulations that restricted trade, global consumption and possession of opioids in the 20th century, the impacts of opioid use and opioid use disorder became a public health concern. Opioid use disorder, or OUD, is characterized as “the chronic use of opioids that causes clinically significant distress or impairment” and “consists of an overpowering desire to use opioids, increased opioid tolerance, and withdrawal syndrome when discontinued” (3). Examples of these opioids can include heroin, morphine, codeine, fentanyl, and synthetic opioids such as oxycodone. Opioid use can lead to fatal overdose, especially in an illicit market where the purity of the compound is largely unknown. Opioid use is also associated with the spread of infectious diseases through intravenous drug injection and needle sharing. These harms associated with opioid use as well as the addictive nature of the drug constitutes the root of what many countries have experienced as ‘opioid epidemics’.

As opioid epidemics rose in many countries in the 20th-21st centuries, different national responses led to different population outcomes. There are two major strategies in response to opioid epidemics that will be discussed in this paper: the pragmatic and the moralistic approach. The pragmatic approach refers to evidence-based policies and interventions that were implemented when prior responses proved inadequate to support the needs of the public. This approach was taken by some European countries, namely Switzerland, the Netherlands, and Portugal, where these three countries were able to successfully handle crises by adopting a new perspective of drug use and addiction. The moralistic approach refers to policy and interventions that are implemented based on personal values and ideals about drug use in society - typically with abstinence as its goal. The moralistic approach often names drug use as a crime which

results in law enforcement and punishment as a response. This approach, which most countries used prior to the emergence of the pragmatic approach, continues to be the main strategy of some countries including the United States. The efficacy of the moralistic approach is questionable as rates of opioid use and overdose continue to climb in the United States, but reluctance to change strategies remains high. Evidence suggests that the pragmatic approach is effective in reducing rates of OUD and its subsequent outcomes, however these strategies are still debated and not enforced by proponents of the moralistic approach. This paper will discuss differences in cultural, historical and political context coupled with a different understanding of drug use that results in some countries adopting the pragmatic approach, and others maintaining the moralistic approach to drug policy and addiction.

Research Methodology

This research was qualitative and includes a comparative analysis between the pragmatic and the moralistic approach to addiction and drug policy in efforts to combat opioid epidemics. This was done through the lens of multiple countries including brief mentions of Canada, the Netherlands, and Portugal, but with a specific distinction comparing Switzerland and the United States. The research includes evaluating past and current opioid crises, the dynamic of each country prior to the epidemics, their approach in response, and the associated outcomes. Data for this project was collected through formal, semi-structured virtual and in person interviews with experts in Swiss drug policy and public health, and medical professionals with high levels of expertise in opioid use in Switzerland and the United States.

I chose to interview Diane Steber Bächli, an expert in International Drug Policy who works at the Federal Office of Public Health in Switzerland. She also works in the Federal

Department of Home Affairs, specifically in the division of International Affairs. She is a senior advisor. Her knowledge of Swiss politics and drug policy enabled me to understand how and why drug policy changed as a result of the opioid epidemic. This interview was conducted virtually and was established through a personal referral. Oral consent to include her testimonial was obtained.

Additionally, I interviewed Gail D’Onofrio (M.D., M.S.), who is an Albert E. Kent Professor of Emergency Medicine at Yale School of Medicine, Professor of Public Health at Yale School of Public Health, and Chair of the Department of Emergency Medicine at Yale School of Medicine. Dr. D’Onofrio is known for her work with substance use disorder and specifically opioid use disorder. She is a researcher and advocate for better addiction treatment in the United States with a focus on opioid substitution therapy. This interview was valuable in my understanding of addiction treatment in the United States, and specifically in emergency departments - which are a focal point of contact for patients suffering with SUD. This interview was conducted virtually and oral consent to include her testimonial was obtained.

Finally, I interviewed Ambros Uchtenhagen, M.D., Ph.D., em. Professor of Social Psychiatry at Zürich University. He is the Founder and past President of the Swiss Research Institute for Public Health and Addiction, a World Health Organization collaborating center attached to Zürich University. Dr. Uchtenhagen was one of the leading pioneers for the four-pillar policy in Switzerland as a response to the opioid epidemic and HIV/AIDS crisis. In this interview, Dr. Uchtenhagen described first-hand experience before, during and after the opioid epidemic in Switzerland where he helped change the landscape for Swiss drug policy, addiction treatment, and prevention. Additionally, Dr. Uchtenhagen is an extensive researcher in this field and is cited numerous times in academic sources used in this paper. This interview

was conducted in person at the Swiss Research Institute for Public Health and Addiction, where oral consent to include his testimonials was obtained.

Academic literature was acquired through online journals and publications including but not limited to JSTOR, PubMed, NCBI, Catalyst, credible organizational articles written in the Drug Policy Alliance, Stanford Social Innovation Review, Emerald Psychology, and websites which obtain statistics from the CDC and the FOPH. My research is limited by the time constraint for this paper, as this topic is complex and each subtopic can be researched through many different lenses. My research has been limited by the changing dynamic of the COVID-19 pandemic which had a significant impact on the current opioid epidemic and which has yet to be fully researched and understood.

Literature Review

Opioid Crisis in the Past: Switzerland

According to the *European Drug Policies the Ways of Reform*, the development of the opioid epidemic in Switzerland emerged like many other countries - from counterculture youth experimenting with drug use. This youth movement in Switzerland led to the creation of youth centers, where different groups of youth gathered, including heroin users (4). As the number of heroin users grew, so did frequent visits of the police to these youth centers, resulting in their shut down. In response to the evident drug use occurring in Switzerland, in 1975 Parliament decided to harden the Swiss drug laws, making all possession and consumption illegal (5). While use and possession was a crime under Swiss law, there was considerable recognition that drug dependency required treatment, and thus treatment was available in an abstinence-only based approach (4). Despite this repressive approach, drug use, specifically intravenous drug use

(IVDU) continued to climb, and Swiss authorities established surveillance testing to evaluate the severity of the drug problem. National public health survey concluded that “In 1972, the estimation of IV drug users amounted to between 2000 and 4000. That estimate rose to 4000-6000 by 1978 and reached 15000-20000 by 1985” (5). While drug use was of major concern in Switzerland, the public health concern that initiated radical drug policy change was the spread of blood-borne diseases, mainly HIV/AIDS, through intravenous drug use and needle sharing. Data from surveillance testing of HIV/AIDS in the mid 1980’s revealed that a large portion of the Swiss population was infected, most of them being intravenous drug users (4). This reality began to slowly shift the public’s perspective of drug users, from criminality to vulnerability.

The true turning point in the Swiss opioid epidemic was the gathering of drug users at a centrally located park in Zürich-Platzspitz Park, or infamously referred to as ‘Needle-Park’ (4). People gathered as a result of the closing of the youth centers, and although law enforcement attempted to disperse the crowd, it resulted in increased crime, burglary and public nuisance (4). Eventually, the government of the city of Zürich declared a tolerance for IV drug users in Platzpitz in 1985 (5). Dr. Uchtenhagen recalls seeing hundreds to thousands of people gathered in this park across from Zürich’s main train station every day (6). Even more troubling, he recalls seeing people lying in the gutters, with citizens passing by them on daily commutes throughout the city (6). As a practicing psychiatrist in Zürich, Dr. Uchtenhagen ordered his staff to dispense clean needles to drug users at Platzspitz despite the illegality of needle and syringe exchange and threats from law enforcement to revoke their medical licenses (6). As it became clearer that HIV/AIDS and other infectious diseases were being spread through needle sharing, radical harm reduction measures were beginning to be accepted by the public and the government. Measures

like needle exchange and drug consumption rooms were established on a small scale throughout Switzerland. By 1988, because there were still thousands of infected IVDUs gathering in Plazpitz, Zürich's cantonal authorities ordered law enforcement to stop arresting drug users and confiscating needles despite federal law to do so (5). Law enforcement, university institutions, and Zürich's government health unit began to work together to reduce harm among IVDUs through needle and syringe exchange. The Federal Office of Public Health started funding needle exchange programs and the Zürich Intervention Pilot Project against AIDS (ZIPP-AIDS), requiring such projects to document their reach and efficacy (5). ZIPP-AIDS provided holistic care to drug users in Platzspitz, offering clean needles and syringes, alcohol pads, ointment for vein protection, Hepatitis B vaccinations, medical consultations, as well as warm clothes, hot tea, soup and wood for fires in the winter (5). This program helped demonstrate the need of harm reduction and prevention to the Swiss population and authorities. Small scale opioid substitution treatment with methadone also began scaling up. Despite opposition from repression-only supporters in Switzerland, in 1994 the Swiss government fully adopted the four-pillar approach to drug policy - prevention, treatment, harm reduction, law enforcement (5). As these pillars were being enforced by most drug programs, some began to experiment with heroin assisted treatment (HAT) for heavy heroin users where methadone substitution treatment was unsuccessful (5). This radical approach to drug policy proved successful, as "unpleasant street scenes disappeared, drug-associated social misery and criminality diminished, and new infections with HIV, HBV, and HCV in drug users fell steadily" (5). By 2000, Opioid Substitution Therapy (OST) with methadone had reached 19,000 of the estimated 25,000-30,000 IVDU's in Switzerland after its national acceptance (5). Additionally, since the 1990's, drug related mortality dropped from 350 deaths per year, to around 130 deaths in recent years (7).

Opioid Crisis in the Past: Portugal

Similar to Switzerland, Portugal had repression focused drug policy prior to an opioid epidemic. Early Portuguese drug policy had two major focuses: law enforcement and treatment. 1987 marked Portugal's first campaign against drugs, using scare tactics to discourage youth from using drugs and promote abstinence from drugs (8). Later, around 1994-1995, there was a focus on treatment and reintegration with treatment centers established; however, the centers were abstinence-focused (8).

The late 1990's marked a significant change in Portugal's approach to addiction and drug policy. According to the American Psychological Association, the rising opioid epidemic in Portugal was growing so rapidly, that the capital city, Lisbon, was coined the "Heroin Capital" of Europe (9). Additionally, in 1999 "Portugal had the highest rate of drug-related AIDS in the European Union, the second highest prevalence of HIV among people who inject drugs, and drug overdose deaths were rapidly increasing" (10). The Portuguese government thus responded with an innovative approach to drug policy. In 1999, Portugal adopted its first national drug strategy named the National Strategy in the Fight Against Drugs which was built on eight principles centered around humanism and pragmatism (8). The main element of this new strategy and eventual law passed in 2001 included the decriminalization of all illicit drugs deemed for personal use. A person can have up to ten day's worth of a drug deemed for personal use before being criminalized, though there is still heavy law enforcement on trafficking and dealing drugs (9). Additionally, a person caught by police with less than ten day's supply is sent to a local three-person commission which includes a panel of a lawyer, and a combination of a physician, psychologist, social worker or other health care profession with a focus on drug addiction (9). This new strategy, often referred to as the 'Portugal Model' had positive results. The number of

heroin users in Portugal has decreased from 100,000 before the initiation of the law, to about 25,000 today (9). Additionally, Portugal now has the lowest mortality for drug-related death in Western Europe and IVDU related HIV diagnoses have decreased by over 90% (9). The opioid epidemic that was largely combatted in Switzerland and Portugal contrasts with current opioid epidemics occurring in the United States and Canada.

Opioid Crisis in the Present: The United States

The ongoing opioid crisis in the United States has different origins than of those in Switzerland and Portugal. In 1996, Purdue Pharma marketed the drug OxyContin as a highly effective, nonaddictive pain medication (11). There was a specific marketing strategy to target physicians who historically had high rates of prescribing medication to patients with chronic pain (11). Additionally, sales representatives for OxyContin were trained to report that the risk of addiction was less than one percent, even though this data came from situations inconsistent with the daily prolonged use physicians would prescribe it for (11). The massive marketing and promotion of OxyContin, which amounted to over 200 million U.S. dollars, infiltrated every area of American society (11). Unlike in Switzerland and Portugal, the majority of people dependent on opioids were not gathering in cities injecting heroin, but instead in rural American towns taking medication prescribed by local physicians for pain. Between the years of 1998-2000, states like Maine, West Virginia, and areas in Kentucky, Virginia and Alabama were being prescribed 2.5-5 Oxycodone and hydrocodone 2.5-5 times the national average (11). These rural communities were the first to see the drug abuse and addiction potential of OxyContin. Primary care physicians made up half of all physicians prescribing OxyContin in 2003, influencing rural communities who had trusted relationships with primary care physicians the most (11). While this was deeply affecting rural communities, this quickly became a national public health

problem. By 2004, OxyContin was the most prevalent prescription opioid abused in the United States (11). Additionally, according to *The Promotion and Marketing of OxyContin: Commercial Triumph, Public Health Tragedy*, “Among new initiates to illicit drug use in 2005, a total of 2.1 million reported prescription opioids as the first drug they had tried” (11).

The opioid epidemic in the United States that began with misuse of prescription opioids began to take on a life of its own. According to the National Survey on Drug Use and Health, in 2016, 11.8 million Americans aged 12 and older reported the misuse of opioids, 92% reported misusing pharmaceutical opioids, 5.4% reported misusing pharmaceutical opioids and heroin, and 2.6% report using heroin only (12). While the United States has attempted implementing reductions on prescription opioids as a way to combat this opioid epidemic, people have been filling this prescription opioid gap with illicit opioid use. In fact, today the majority of fatal opioid overdoses are due to heroin or new synthetic opioids like fentanyl (12). Between 1999-2016, there was a seven fold increase in heroin related deaths, and a 20 fold increase in synthetic opioid related deaths (12). In 2016, 42,000 Americans died from opioid overdose, and in 2017, over 17,000 Americans died specifically from pharmaceutical opioid overdose (12). These statistics describe the current widespread public health concern of both prescribed and illicit opioids in the United States and demonstrate the lack of options available for those suffering with opioid use disorder. Opioid substitution treatment mainly used with methadone and buprenorphine are FDA-approved medications used to treat OUD, however this service is underutilized in the United States. Specifically in rural areas, there are a limited number of physicians or treatment centers that are licensed to prescribe these medications (12). Despite the need for these life-saving treatments, the United States remains stagnant in adopting new drug policy.

Opioid Crisis in the Present: Canada

Canada is currently facing a parallel opioid epidemic to the United States. In the 1990s, Canada was prepared to protect populations of illicit drug users from risks associated with injection drug use through prevention tactics such as syringe and naloxone distribution, and treatment such as OST and drug consumption sites. However, they were not prepared for the opioid epidemic that occurred due to the over prescription of addictive opioids for pain relief (13). The article *The opioid death crisis in Canada: crucial lessons for public health* states that, “excessive prescription practices have rendered Canada’s opioid consumption second only to that of the USA” (13). Similar to the United States, Canada’s response to this crisis was to reduce medical supply by increasing monitoring of prescriptions and making guidelines for prescribing opioids more restrictive (13). An unintended consequence of this approach was the illicit opioid market increasing to fill the gap of the decreasing prescription market. A rise in heroin, fentanyl and other synthetic opioids began to plague the nation and resulted in additional overdose deaths due to the high potency of illicit opioids (13). In fact, opioid related deaths were up 400% from 1993-2017 (13).

While Canada’s opioid crisis is similar to that of the United States, Canada is leaning toward a pragmatic approach to addiction and drug policy. Canada has established harm reduction measures as previously mentioned, though this crisis demonstrates the need to scale up such measures and address stigma that makes people with OUD reluctant to use these resources. Additionally, Canada’s federal government waived the barrier that limited physicians from prescribing methadone but OST remains underutilized, demonstrating a need to address additional barriers (14). Canada offers a unique case study as the opioid epidemic mirrors that of

the United States, but the response contains elements of both the moralistic and pragmatic approach.

Analysis

The pragmatic approach to drug policy requires the identification that drug use always has and will continue to exist in society. The goal of policies are then shifted from abstinence of drug use to mitigation of risks and harms associated with inevitable drug use. The other element associated with the pragmatic approach is the recognition of substance use disorders as a health condition that requires treatment rather than criminal activity that requires punishment. The United Nations General Assembly Special Session on drugs (UNGASS) recognizes “drug addiction as a complex multifactorial health disorder characterized by chronic and relapsing nature”, and World Psychology includes that “[drug addiction] is preventable and treatable and not the result of moral failure or criminal behavior” (15). These principles are the basis of the pragmatic approach which is recommended to improve quality of life for drug users, and reduce morbidity and mortality associated with drug use. Introducing evidence-based policy and treatment centered around compassion, humanism, and harm reduction has proven effective in countries that implement this approach.

The moralistic approach relies on past thought and ideology about drug use and addiction that drives policy. Historically, drugs, drug use, and addiction have been associated with crime and ‘moral failure’. From this perspective, law enforcement becomes the appropriate response. Often in this approach, drug use is seen as a choice, which limits compassion in the response. Understanding addiction as a disease is what tends to shift policy away from a moralistic approach to a pragmatic approach based on public health. It is important to mention, however,

that implementing a pragmatic approach is more possible for some countries than others due to complex dynamics that exist in each country - including but not limited to existing political systems, existing health care systems, and historical context around drug use.

View of Drugs in the Pragmatic Approach: Switzerland

Understanding how Switzerland developed a view about drug use through the lens of public health requires an understanding of Swiss politics and Swiss life. Switzerland is a small country, with around eight and half million inhabitants. Due to the country's vast and mountainous regions, almost 74% of Switzerland's population lives in urban areas (16). The opioid epidemic hit the city of Zürich hardest, which happens to be Switzerland's most populated city. With Zürich being such a major city, this drug problem was one that could not be ignored by the public (17). With thousands of drug users gathering in a central park, the public could visibly see people suffering (17). In fact, at the height of the opioid crisis, "surveys showed that the drug problems were also at the top of Swiss Citizens' concerns" (4). This social situation created a window of opportunity to rethink drug policy in Switzerland (17). In terms of political structure, Switzerland comprises 26 individual cantons, each which are individually responsible for healthcare, welfare, education, law enforcement and taxation. This crisis would have typically been managed by Zürich's cantonal authorities, but users were coming from all over the country to use drugs in Zürich where there were supplies and resources - overwhelming the canton (4). This created the opportunity for the Federal Office of Public Health to become more involved, eventually providing legal and financial support for new measures (4). Switzerland did face pushback from conservative sectors of the country for harm reduction measures, particularly from the French and Italian region who did not directly see the suffering caused by the opioid epidemic (4). However, those who directly saw the problem, were aware of the need to take a

new approach to addiction and drug policy. Switzerland began having pragmatic discussions between the public, law enforcement, political personnel, private institutions, and health care professionals on different ways to combat this epidemic. According to *European Drug Policies*, “this drug crisis led the country’s three main political parties to agree upon the need for a new policy in which the drug problem was seen as a public health, and not only a security, issue” (4). The key to Switzerland’s shift in perspective was the population being forced to see and face the misery of the opioid epidemic. This allowed a change in policy as the Swiss population, who vote directly for all legislatures, eventually voted to implement the four-pillar policy into national law.

View of Drugs in the Pragmatic Approach: Portugal

The shift in the Portuguese approach to drug policy can be viewed through multiple lenses. Prior to the opioid epidemic and the HIV/AIDS crisis in Portugal, drug policy was repressive, with law enforcement used to reduce the supply of drugs, and prevention tactics used to reduce the demand of drugs (8). Portugal introduced national campaigns against drug use and employed scare tactics to discourage youth from experimenting with drugs (8). Additionally, while prevention measures existed, they were focused specifically on drug-free recovery. However, the 1990s marked significant change for Portugal. One can evaluate this change first through a historical perspective. Until 1974, Portugal experienced military dictatorship which impacted the values of the nation (8). After liberation, the new Portuguese Constitution placed emphasis on human rights and ensuring punishments were proportional to crimes committed (8). Additionally, there was existing tension between criminalization for drug use, and wanting to help drug users (8). This tension, combined with a strong national emphasis on proper punishments and human rights, influenced the population to rethink the criminal approach to

drug use. Politically, there were early advocates, specifically from drug treatment professionals who mobilized support for harm reduction approaches within the government (8). There was high political dogma around addiction, drug use and drug policy, but these advocates encouraged the establishment of drug-experts as policy entrepreneurs (8). It was also clear that Portugal was facing a public health crisis. While Portugal had long been a location for drug trafficking into Europe, the population had historically low rates of illicit drug use (8). In the 1980s, illicit drug use, specifically intravenous heroin, became problematic, and the spread of infectious diseases like HIV/AIDS, tuberculosis, Hepatitis B and Hepatitis C followed (8). Similar to the way drug users gathered in Platzspitz Park in Zürich, thousands of people gathered in slums of Lisbon for open air drug use - many infected with HIV (8). This crisis gained daily national coverage and public attention. Similar to Switzerland, this problem could not be ignored and created a window of opportunity for change. Portugal's pragmatic drug policy initiative began with supporting local research to assess the drug problem in the nation (8). This was an important step because research in Portugal was previously limited (8). This research became one of the major drivers of change in Portugal. In fact, “institutional research, particularly from the European Monitoring Centre for Drugs and Drug Addiction (established in 1994) further contextualized the scale of the problem: it showed that preceding reform, Portugal had the highest rates of drug-related HIV and AIDS in Europe” (8). Additionally, the Portuguese government established expert bodies to evaluate drug use and the efficacy of drug policy (8). From 1995-1999, these experts concluded that all areas of Portuguese drug policy - including prevention, treatment, reintegration and supply reduction - was inadequate, that drug use had spread throughout all regions of the country, and that abstinence-oriented policy was too idealistic to support the population (8). They thus recommended expanding harm reduction resources, prevention tactics, social and treatment

responses (8). In addition, they showed that decriminalization policy was evidence-informed, possible, and in line with United Nations conventions (8). All of these factors changed the way the public, and the Portuguese government viewed drug use and addiction. This eventually led to the decriminalization of all drugs as a pragmatic approach to the public health crises posed by opioids and infectious diseases.

View of Drugs in the Pragmatic Approach: The Netherlands

The Netherlands, too, take a pragmatic approach to drug use. However, their policies are not a result of an overwhelming public health crisis such as an opioid epidemic. Nonetheless, they provide an interesting account for pragmatic drug policy and view on drug use. In the Netherlands, psychoactive drug use gained popularity in the 1960's-1970's with the same counterculture youth movement occurring in many parts of the world. Originally, this drug use was met with aggressive law enforcement, however, it was eventually recognized that prosecution was difficult, time consuming, and did not reduce consumption (18). One of the important factors in changing policy and the view about drugs in the Netherlands was the demographic of drug users. These offenders were not one's typical criminals, but instead teenagers who came from wealthy, middle and upper class families (18). Additionally, the youth in the Netherlands had a particular vice for cannabis - a dramatically different substance with less harm potential than other illicit drugs. The youth used cannabis at youth centers, where law enforcement tolerated it due to fear that if they closed these venues, it would lead to cannabis dealing in less controllable areas (18). A shift thus occurred from prosecution of consumption, to a focus on prosecution of trafficking, and controlled selling became tolerable at these youth centers. When heroin did eventually reach the Netherlands in 1972, it became the drug of concern to the public which diverted the attention away from cannabis use. As heroin use

increased, there was a growing recognition among government advisory committees that heroin and cannabis had drastically different risk profiles, and they began to reject the gateway drug theory, once believing that the use of the first would eventually lead to the use of the other (18). The government then had the idea to separate the subcultures that had different drug scenes of different risk - recognizing that young people using cannabis did not pose the same risk as scenes with more harmful substances (18). This led to the revision of the Opium Act in 1976, which separated “substances with an unacceptable risk” and “cannabis products” (18). This effectively decriminalized cannabis for personal use. Additionally, the ‘drug problem’ in the Netherlands was always seen as a public health and a local issue which was handled by the Ministry of Health and which required local responses. The Ministry of Justice did not dispute the Ministry of Health on decisions and interventions because criminality and prosecution are considered *ultimum remedium*, or the last resort of law enforcement (18). While law enforcement began to tolerate small-scale, controlled cannabis selling and consumption, they also began to tolerate indoor dealing of hard drugs, namely heroin (18). Heroin use, which was first met with law enforcement and criminality, continued to exist in society, especially among their new Surinamese immigrant population. Many young people were suffering as a result of the growing heroin problem, which provoked civil anxiety, fear, lack of safety and civil unrest (18). The police responded by cracking down on street heroin markets, where users and dealers eventually moved from city centers to working class neighborhoods where they set up shop in empty houses called ‘house addresses’ (18). Local authorities then realized that these indoor-dealing scenes were less problematic and created less public nuisance than street dealing, and many cities decided to tolerate it. Additionally, something that was fundamentally Dutch, was the early use of comprehensive treatment and harm reduction that existed in the 1980’s (18). There were

abstinence-only treatment centers, as well as services that provided care for housing, social support, income and health care (18). Additionally, in response to the rising opioid use, methadone maintenance programs were established in 1977, with OST models eventually being finalized (18). Additionally, in response to rising infectious diseases in the 1970's, small organizations distributed clean syringes and needles in the street. The government eventually scaled up this practice with Needle and Syringe Exchange Programs introduced after first detections of HIV/AIDS as a result of IV drug use (18). In general, the Netherlands responded pragmatically to most issues as they arose. While they originally used law enforcement in attempt to control drug use, when it became clear that these interventions were not enough to support the population using cannabis and later heroin, they took an approach to reduce and prevent harms of drug use through early decriminalization of cannabis and early efforts to support drug users in a comprehensive way.

View of Drugs in the Moralistic Approach: The United States

Drug use in the United States is extremely complex, which may explain why a moralistic approach is still taken despite evidence that the pragmatic approach is effective. The United States' view on drug use can be evaluated through a historical and political perspective. In the period before the 1960's, the United States both prescribed drugs, and criminalized them. Amphetamines were prescribed to soldiers during WWII and the Korean war to improve alertness (19). After the wars, people continued to use these drugs which were not heavily restricted until 1965 (19). Additionally, new efforts to control borders came with aggressive penalties for drug use, possession and sales - specifically the 1951 Boggs Act, and the 1956 Narcotics Control Act which enacted minimum penalties for narcotics violations (19). Drug use was stigmatized during the Cold War as well. Drug users were considered to be 'especially

susceptible' to communist propaganda, and people who opposed United States drug policy were questioned for their patriotism (19). This being said, the demonization of drugs and the roots of the moralization of drug use that continues to exist in America began in the 1960s-1970s. In the time of social movements against racism, poverty, and the Vietnam war, the youth began to experiment with drugs like LSD, PCP, barbiturates, amphetamines, heroin, and marijuana (19). This rise of new substance use set the stage for the United States' infamous drug policy.

The War on Drugs marks the most significant campaign in United States drug policy history, a campaign that effectively criminalized and stigmatized drug use. The War on Drugs, launched by President Nixon in 1971, "is characterized by a punitive approach to drug control, concentrating resources primarily in law enforcement with comparably less attention given to education, prevention, and treatment (DiNitto, 2002)" (20). The war on drugs did not reduce drug use, but instead expanded the United States prison population due to minimum sentencing laws enforced by the Reagan Administration in the 1980s (20). Today, the United States now has the highest prison population in the world and around half of all prisoners are in jail for drug offenses (20). The War on Drugs is deeply political and condemned by many for its racially discriminatory impacts. President Nixon claimed, without evidence, that heroin users were responsible for 2 billion U.S. dollars in crime annually, ingraining in the public that drug use is equivalent to criminal activity (21). Additionally, he enforced the idea of 'voodoo pharmacology' - the idea that taking drugs can change a person's behavior and turn them into 'chemical zombies' - to demonize drugs to the public to promote his abstinence only policies. Drugs were additionally demonized through claims that drug trafficking comes from foreign places, and that they are primarily consumed by minority groups (20). This created an idea that the drug user, typically a person a part of a marginalized group was an 'other', and someone to fear in a

political landscape that already had prejudices against minority populations. While it was suspected that the War on Drugs was deeply moralistic with a specific agenda rooted in racism instead of an evidence-based policy aimed to protect the population, the Anti-Drug Abuse Act of 1986 confirmed this for many.

The United States faced a ‘crack epidemic’ in the 1980’s as cocaine use became more widely used in society. In the mid to late 1980’s, major media outlets presented stories with false claims, relating cocaine use to violent crime, and that smokable crack was more addictive than powder cocaine (21). The media also promoted the idea that crack cocaine was primarily used by African Americans, which evoked fear and panic of crack cocaine in the white American public and policy makers. As a result, crack cocaine was stigmatized which led the Reagan Administration to enact the Anti-Drug Abuse act of 1986 - stating that 5 grams of crack cocaine, and 500 grams of powder cocaine result in a minimum of a 5 year prison sentence (21). This infamous 100:1 ratio specifically affected the black population in America. Despite knowledge that crack cocaine and powder cocaine are pharmacologically identical, this law resulted in a high incarceration rate for black Americans. In fact, “According to a report by the U.S. Sentencing Commission (1995), in the mid 1990s almost 90% of those sentenced for crack offenses were African American, even though two thirds of regular crack users were White or Latino” (21). Drug criminality laws disproportionately affect low income and minority populations in the United States, and they do not decrease drug use. Many argue that the United States uses drug use as a public scapegoat for deeper problems plaguing the country. In fact, calling the cocaine problem an ‘epidemic’, “allows legislators to shift the blame for many of the social problems of the 1980s including relatively high rates of unemployment and crime, from the actions of the government to the drug-taking and trafficking of individuals” (21). The United

States continued to push the War on Drugs agenda, influencing the public to think of drugs as evil substances, and those who take them to be criminals. These beliefs about drugs and drug use which persist today in the United States offer a moralistic perspective rather than one based on evidence. This mentality restricts countries like the United States from implementing life saving measures for people currently suffering with SUD. Additionally, it is worth mentioning that this perception of a drug user as a 'criminal' is slowly changing, as a majority of those suffering from OUD in America today are white as opposed to minorities. Finally, unlike Switzerland, the general public of the United States has not had to directly face those suffering from addiction - instead relying on the media for information that is often biased. There are many factors that influence how the United States arrived at its current condition when it comes to drug use and drug policy, but a lack of humanity and understanding continues to be a key theme in what holds this country back from combatting the current epidemic.

Drug Policy in the Pragmatic Approach: Switzerland

Swiss Drug policy, which is currently implemented through the four-pillar approach in response to the opioid epidemic, was able to be implemented because of Switzerland's unique political landscape. According to Dr. Uchtenhagen, implementing pragmatic drug policy was a bottom-up process (6). It required pioneers of new thought and professionals willing to break laws to implement harm reduction measures - like needle and syringe exchanges in Zürich - to initiate drug policy change (6). Once harm reduction measures were in place and it was clear that they were improving the public situation, they were expanded at local levels, eventually getting city administration approval, then working toward achieving cantonal and federal policy. In Switzerland's direct democracy, Swiss citizens can submit laws for initiatives or request referendums for legislation to be adopted (for local, cantonal, or federal level) (4). These laws

can be voted on by the general public with a specific number of citizen signatures agreeing to vote. At the local level, drug consumption rooms were the first harm reduction measure to be voted on. This initiative was rejected by the population in Zürich, Sankt Gallen, and Luzern but accepted by Schaffhausen (4). The rejection of these sites specifically in Zürich demonstrated the need to educate and convince the public of the benefits of harm reduction measures, as well to mitigate fear that specific measures will promote drug use. Prior to the four-pillar policy being implemented into federal law, but when harm reduction was taking place throughout Switzerland, there were two groups requesting drug policy ballot initiatives in 1993 and 1994 (4). The first group called 'Youth Without Drugs' came from the conservative population and wanted to reduce the already-in-place harm reduction measures like opioid maintenance treatment and replace them with abstinence only measures (4). The other was called 'Droleg', a group from the opposite side of the political spectrum which called for the legalization of all illicit drugs and a regulation of the market (4). The existence of two political extremes on this topic created an opportunity for a pragmatic conversation about middle ground drug policy - which would eventually be the four-pillar policy. Dr. Uchtenhagen, who contributed to the cultivation of the four-pillar policy, was not only responsible for building up harm reduction services but also for informing the public to generate support for this approach (6). Through compiling texts and materials for the print press as well as doing televised interviews, Dr. Uchtenhagen was a key factor in influencing the public to support this new policy (6). In 1997 and 1998 the two extreme political initiatives were defeated by the public in significant margins - demonstrating positive support for a middle ground approach (4). Additionally, in 1999, a national referendum to stop heroin assisted treatment was defeated by the public showing public favor for harm reduction (4). It was not until 2008 that the Swiss population voted to officially

institutionalize harm reduction and implement heroin maintenance treatment into law. This took many years to enter law because of a desire and recommendation by experts to include the decriminalization of drugs and legality of cannabis into this law. Eventually in 2008, harm reduction and cannabis were voted on separately, in which the harm reduction and HAT policies were adopted, and the legalization of cannabis was denied (4).

The four-pillar policy, which is the standard approach to Swiss drug policy and implementation includes prevention, treatment, harm reduction and law enforcement (22). Prevention - which includes general health promotion, and early detection of health issues or risk factors for addiction takes into account a person's environment and situation which may put that person in a vulnerable position (23). Treatment includes opioid substitution treatment with buprenorphine and methadone, heroin assisted therapy as a last resort for people who did not have success with OST, and therapy and counseling services (23). Harm reduction includes services like drug consumption rooms where people can use under medical supervision in a safe and unstigmatized place, drug checking services where people can test the contents of their drugs prior to use, and needle and syringe exchanges to prevent the spread of infectious diseases (23). Law enforcement is the fourth pillar which is under the jurisdiction of each canton and which is responsible for executing the details of the Swiss Narcotics Law (23). While the four-pillar policy marked a major change for Switzerland in drug policy - drug laws continue to evolve. In 2012 the country voted to decriminalize personal use and possession of cannabis, resulting in an administrative fine rather than a criminal charge if caught by law enforcement (4).

Drug Policy in the Pragmatic Approach: Portugal

Current Portuguese drug policy based on humanism and pragmatism was first established in 1999 with the National Strategy in the Fight Against Drugs (8). Because of the social and political landscape mentioned above, this strategy received 160 million euro in funding and included guaranteed access to drug treatment, promotion of social integration, more harm reduction services, free testing, shelters, and pill testing programs (8). This strategy also included support for the Law 30/2000 which decriminalized all illicit drugs (8). With the implementation of Law 30/2000 in 2001, additional laws have surfaced to define this decriminalization law. Specifically, if a person is caught with drugs but has less than a 10 day supply as defined in Portaria 94/96 Law, their drugs are seized and they are referred to the local Commissions for the Dissolution of Drug Addiction (CDTs) (8). This administrative system includes professionals, social workers, and lawyers, and they offer comprehensive care through a broad network. This network includes but is not limited to treatment, child protection, primary care services, mental health services, and employment services, and each of the 18 Portuguese regions has one central CDT (8). Additionally, there remain strict laws for drug trafficking and manufacturing (8). In recent years, the National Plan for the Reduction of Addictive Behaviors and Dependencies is implementing strategies targeted toward gambling and internet addiction as well as illicit drug use with core principles of humanism and pragmatism still in place (8).

Drug Policy in the Pragmatic Approach: The Netherlands

Dutch drug policy is seen as 'tolerant'. As previously mentioned, Dutch drug policy change began with the 1976 revision of the Opium Act which classified cannabis products separately from substances with an unacceptable risk (18). This was done with public health benefits in mind - to hopefully separate the 'hard drug market' with the 'soft drug market' that

posed less of a threat to health (18). Dutch drug policy implements the expediency principle, or the idea prosecution would only occur if it was in the public interest (24). This being said, law enforcement agreed to tolerate thirty grams worth of cannabis possession (24). This policy is founded on the basic idea that “users should be treated from a medical point of view with adequate social assistance, whereas the criminal justice system should be used only against criminal entrepreneurs” (24). This tolerance policy allows for the existence of ‘coffee shops’ which are regulated under the expediency principle and left alone if they do not advertise, do not sell hard drugs, don’t contribute to public nuisance, do not sell to minors, and do not have large stocks of cannabis (24). However, in 78% of Dutch municipalities, coffee shops are not tolerated at all (24). Additionally, in 1993, other substances joined this list which was renamed ‘other substances’ (24). In response to the growing heroin use and public nuisance in the street, law enforcement decided to tolerate small scale heroin markets and consumption in empty houses because it decreased heroin use presence in the streets during the height of opioid use. The regulations afforded to the coffee shops were quietly applied to these spaces, including no advertising, nuisance, no youth inside, and consumer amounts only (4). Additionally, the Netherlands has a history of implementing harm reduction measures where necessary. Small scale needle exchange existed in the early 1970s, but the official Needle and Syringe Exchange Programmes was introduced after the first reports of HIV among injecting drug users (18). In response to opioid addiction, methadone detoxification was introduced in 1968, and the methadone maintenance program was officially pioneered in 1997 (18). Heroin assisted treatment, which was introduced in 1996, was registered as legal medication for treatment of ‘chronic, treatment-resistant heroin-dependent patients’ in 2006 (18). Additionally, consumption rooms were opened after 1995 in most major cities. All of this being said, drug use in the

Netherlands is not legal, but it is more tolerated than other countries, with a focus on comprehensive care rather than criminality.

Drug Policy in the Moralistic Approach: The United States

Moralistic drug policy in the United States begins with the War on Drugs policy. The Comprehensive Drug Abuse Prevention and Control Act of 1970 included the important Controlled Substance Act in Title II (25). This Act classifies all drugs under five schedules according to their supposed risk factors, potentials for abuse, and medical purpose. Unlike the Netherlands, the United States opted to schedule marijuana and heroin into the same Schedule I category with the highest potential for abuse, risk to public health, and no legitimate medical purpose (25). Cocaine and methamphetamines were placed in Schedule II. Additionally, in 1973, the Drug Enforcement Administration was established, which derives its authority from the legal framework of drug scheduling (25). While heroin use was of main concern to the United States in the 1960s and 1970s, the ‘crack epidemic’ of the 1980s provided an opportunity for new drug policy for the federal government. President Raegen, perhaps the leader of the moralistic approach, publicly stressed the importance of law enforcement and criminal justice in handling drug abuse (25). The Anti-Drug Abuse Act of 1986 allowed for certain controlled substance analogues to be treated as Schedule I substances, and established a minimum prison sentencing for possession, as mentioned previously (25). This Act, which criminalized crack cocaine 100 times harsher than powder cocaine was eventually reduced to an 18:1 ratio in the Fair Sentencing Act of 2010 (25). Additionally, the Anti-Drug Abuse Act of 1988 created new criminal penalties, including minimum prison sentence penalties for drug offenses involving minors (25).

Current policies differ depending on the drug in question, each state, and the political affiliation of each state. Most drug policies include increased criminalization of drugs, including

the Comprehensive Methamphetamine Control Act of 1996 which targeted methamphetamine use, and the Illicit Drug Anti-Proliferation Act of 2003 which targeted MDMA use in party scenes, which was added to Schedule I (25). In response to the new manufacturing of synthetic drugs, the DEA has responded by temporarily placing 33 synthetic substances on the Schedule I list since 2002 - increasing their authority to criminalize and punish drug users (25). In 2012, the Synthetic Drug Abuse Prevention Act of 2012 was passed by Congress to permanently schedule synthetic substances as Schedule I drugs. No new laws have been implemented in response to the opioid crisis, however, due to expert opinions, Congress is beginning to recognize the connection between law enforcement crackdown on prescription drugs, and the growing heroin abuse (25). Marijuana policy offers a demonstration for the vast differences that exist in the United States for drug policy. Even though Marijuana is a Schedule I drug, which prohibits the manufacturing, distribution, dispensing and possession of the drug, many states have chosen to deviate from federal law and decriminalize or legalize marijuana for recreational and or medical use (25).

The United States is a unique political landscape, where states have individual autonomy to enforce current, or implement new laws through public vote. Because of this, and the wide differences in political ideology, many states differ from each other in terms of drug policy and harm reduction techniques - the same trend is seen even within states at local levels between urban and rural communities. For example, Oregon has some of the most pragmatic approaches to drug policy seen in the United States. The state, which legalized regulated cannabis use, was the first state to legalize psilocybin for mental health treatment and decriminalize personal use of hard drugs (26). This being said, Oregon has some of the most progressive policies for harm reduction and prevention of OUD. Specifically for syringe possession and distribution as of 2019, possession of drug paraphernalia is not criminalized under law (27). In fact, syringes are

excluded from the law that punishes the selling or distribution of drug paraphernalia through a civil fine (27). This being said, there are no laws permitting needle exchange, but the ambiguity allows for needle exchange to exist in Oregon (27). Additionally, naloxone, which is used to temporarily reverse opioid overdose symptoms and improve overdose outcomes, allows pharmacists to prescribe naloxone (27). Finally, under the Good Samaritan Law in Oregon, the person who overdoses has the same protections as the person who reports an overdose - neither can be arrested or prosecuted because of affiliation with drug use (27). In contrast, in Alabama, which tends to take a moralistic, and conservative approach to drug policy states that the use, possession and delivery of drug paraphernalia including syringes are illegal (27). Additionally, there are no laws that authorize syringe exchange programs (27). The Naloxone standing order in Alabama allows for pharmacists to give naloxone to people who are at risk of an overdose or their family or friends, but it requires a written explanation on the need for the drug (27). Finally, Alabama does have a Good Samaritan law, but this law does not provide immunity to the person who has overdosed (27). Nationally, the United States allows for OST with methadone and buprenorphine, however prescription for buprenorphine requires physicians to have a licensed waiver, a requirement most do not have, which creates gaps in treatment (28).

This range in law creates a range in availability and services. In an interview with Dr. D'onofrio, she describes the environment at her emergency department for patients who come in with OUD. At the physician level, her department expects that providers should be able to identify those suffering with OUD, treat them if possible, and provide harm reduction strategies to patients and their families (29). Providers are expected to educate patients about where to get safe needles and the dangers of needle sharing. Additionally, the hospital provides vans to travel around New Haven, Connecticut engaging in needle exchange in vulnerable areas (29). While

New Haven and other cities provide some harm reduction services, rural areas, which were particularly hit by the opioid epidemic, lack many of these resources.

Outcomes in the Pragmatic Approach

The opioid epidemic experienced in Switzerland and Portugal, as well as the overall drug crisis in the Netherlands were improved through their pragmatic approach to drug policy. In Switzerland, “between 1991 and 2010, overdose deaths in the country decreased by 50 percent, HIV infections decreased by 65 percent, and new heroin users decreased by 80 percent” (30). In Portugal, decriminalization had dramatic effects on health outcomes as well. In fact, after decriminalization, “overdose deaths decreased by over 80%”, “prevalence rate of people who use drugs that account for new HIV/AIDS diagnoses fell from 52% to 6%”, and “incarceration for drug offenses decreased by over 40%” (31). Portugal could continue to improve these numbers with increased access to harm reduction techniques including take-home naloxone, drug consumption rooms, and heroin assisted therapy (31). The Netherlands, who has continued to adopt different pragmatic approaches as they seem necessary also have had positive results associated with their strategy. Along with Belgium, the Netherlands has the lowest HIV incidence rates in Europe, and less than 5% of HIV infections are associated with intravenous drug use (18). Additionally, because there are low rates of injection drug use, there is a lower risk for overdose and HIV infection, which contributes to high survival rates of people who use heroin or cocaine in the Netherlands (18). The pragmatic approach these countries took were successful for many reasons. One reason is that it takes the medical, rather than criminal approach to drug addiction. With the recognition that SUD is a disease which requires medical intervention, patients are able to receive treatment and begin the process of reintegration into society. This view reduces stigma against drug use and encourages people to seek help.

Additionally, a key factor in the success of the pragmatic approach is offering options to people who suffer from substance abuse disorder (6). While some people aim to live a drug-free life and therefore need detoxification services, others do not feel they can survive without opioids and should have access to services like HAT that support their needs. All approaches are important in ensuring the population's needs are met (6). Finally, comprehensive services and access to these services was extremely important in ensuring the efficacy of these strategies. In the Netherlands for example, Rainbow Foundation in Amsterdam is a site that cares for the homeless and drug addicted population where they offer tea, coffee, food, showers, and clean clothes, as well as drop in centers, user rooms, easy access to connect with a social worker, guidance to users families, needle exchange, work projects and daytime activities (32). These types of service support people beyond their addiction by helping people reintegrate into society through different means. Having available and affordable access to healthcare and addiction treatment is essential in reaching affected populations. Moreover, by implementing humanity into approaches to drug abuse and policy, the outcomes benefit society as a whole.

Outcomes in the Moralistic Approach

As a result of the moralistic approach which favors criminality over public health in response to drug use and addiction, the United States has seen increases in mass incarceration and opioid use. The Drug Policy Alliance records numerous statistics as a result of Drug War policy (33). They record that in 2020, over 1 million arrests were for drug law violations, a majority of which were for personal possession (33). Additionally, despite that black people make up 13% of the United States population and use drugs at similar rates as white people, they make up 24% of those arrested (33). The number of people currently incarcerated in the United States is 2.3 million, and 20% of that number are there for drug offenses (33). Moreover, less

than 1% of prisons in the United States offer buprenorphine or methadone substitution treatment, demonstrating the gap in access to healthcare for this population (33). In terms of harm reduction for OUD, only 27% of outpatient treatment programs offer buprenorphine, methadone or naltrexone for addiction treatment (33). Additionally, 50% of drug courts require that these programs discontinue medication treatment after 30 days (33). This demonstrates that despite evidence that OST works to improve health outcomes for patients with OUD, the United States is hesitant toward implementing programs and long term prescription of these medications. This may be explained due to fear that patients will become ‘addicted’ to opioids in OST, a fear that may be due to the over prescription of opioids that kickstarted the opioid epidemic in the United States. All of these factors contribute to the growing drug overdose deaths occurring in the United States - with the pandemic only exacerbating these statistics. Between 2019 and 2020, all drug overdose deaths increased from 71,130, to 92,425 (33). Per drug, fentanyl and fentanyl analogues currently contribute to a majority of overdose deaths (33). In 2020, heroin resulted in 13,252 overdose deaths, and prescription opioids resulted in 13,505 deaths (33). Illicitly manufactured fentanyl and fentanyl analogues, however, resulted in 56,865 drug overdose deaths (33). As mentioned previously, the rise in fentanyl, which began in 2014-2015, filled the gap that occurred as a result of restrictions on prescription opioids and now dominates the illicit market (33).

High rates of opioid use and overdose deaths in the United States are a result of multidimensional factors which the pandemic illustrated. Scientists speculate that the rise in opioid use and overdose during the pandemic is a result of the combination of a dangerous drug supply, disruption in treatment and support during the pandemic, social isolation, and increased social and economic stress (34). The Recovery Research Institute evaluated the data released by

the Center of Disease Control and found disparities in the United States for those particularly affected during the pandemic. They found that the East-South-Central census division (for example Alabama and Kentucky) had the highest increases in overdose deaths in 2020, while the New England region had the lowest (34). Additionally, they found that for example West Virginia - a rural state with minimal access to harm reduction services like needle exchange and OST - had a 178% increase in overdose deaths from May 2019 to May 2020, while Connecticut - where Dr. D'onofrio practices - saw an increase of only 14% (34). Additionally, this institute addresses that only 20% of people with OUD receive specialty treatment, and of these people, only a third receive evidence based treatment such as OST (34). These statistics represent that while the United States as a whole has a gap in resources compared to some European countries, gaps in resources occur at state and local levels as well. Rates of opioid use and overdose will continue to plague the United States until substantial change is made.

Call to Action

It is clear that evidence-based pragmatic approaches to drug use and drug policy fair better outcomes than law enforcement-favored moralistic approaches. While it may take countries like the United States a long time to approve programs like heroin assisted treatment due to distrust of prescribing opioids, let alone heroin, there are smaller steps that can be taken to prevent harm for people who use drugs. The first step could include improving treatment and outcomes at the emergency service level. Stigma about drug use reduces the likelihood that people struggling with addiction will seek help. In fact, 5% of patients that are treated for nonfatal overdose deaths die within one year (35). Dr. D'onofrio credits this high number to provider stigma, noting how patients report that providers don't treat them as if they have a

disease (29). Since emergency departments are typically the first point of access where people struggling with addiction connect with providers, improving care in emergency departments could be a promising first step. Specifically, “through reforms such as eliminating the burdensome regulatory requirement for obtaining a DATA 2000 waiver to prescribe, allowing prescriptions for buprenorphine, and requiring naloxone distribution, we can overcome barriers to treatment” (36). Stigma about the use of medication to treat patients with OUD at the patient, provider, and community level, coupled with gaps in comprehensive education about OST and myths about the role medication serves in the treatment process limits access to treatment for patients who are suffering (36). While change is important at the emergency department level, comprehensive change is needed outside of this level to reduce the number of patients who enter the emergency department for OUD. Specifically, harm reduction services in the United States need to be expanded. Funding for these services could be provided by reallocating War on Drug funds. It is estimated that taxpayers in the United States will spend 3.5 billion dollars in 2021 funding the Drug Enforcement Agency (33). Moreover, each year the United States spends approximately 47 billion dollars enforcing drug prohibition (33). With a stricter focus on evidence-based interventions rather than incarceration, the United States could improve quality of life for people suffering with SUD and reduce overdose deaths. Additionally, high rates of drug use and addiction often represent deeper challenges within society which need to be addressed at the root level to improve outcomes. Social and economic factors including access to affordable housing, education, employment and healthcare influence how vulnerable populations are affected by drug use and addiction. Specifically in the Netherlands, a focus on comprehensive care by investing in sheltered housing, integration of drug treatment, services for public mental health care and homelessness as well as criminal justice interventions, improved

rates for drug use and addiction (18). While this would require major social interventions in the United States, recognizing that improving OUD outcomes requires comprehensive care is an essential step in changing the conversation about drug use and addiction.

Conclusion

Opioid use in society is complex. While it was originally used medicinally in history, the perception shifted as populations began to become dependent and addicted to the substance. Counterculture drug use influenced many European countries, eventually causing some to develop opioid epidemics. Specifically in Switzerland and Portugal, high rates of public heroin use were accompanied by growing rates of HIV/AIDS as a result of intravenous drug use and needle sharing. Recognizing this public health crisis, these countries who historically responded to drug use with law enforcement decided to take a pragmatic approach to these crises. In Switzerland, harm reduction practices occurred first at local levels where people were visibly suffering in the streets of Zürich. Once it was clear that harm reduction techniques like needle and syringe exchange improved outcomes and reduced public nuisance, the prevention and harm reduction approach to drug use began to be adopted at the city, cantonal, then federal level. The four-pillar policy, which includes prevention, treatment, harm reduction and law enforcement has helped Switzerland overcome their opioid epidemic, dramatically lower rates of HIV/AIDS, and approach drug use and addiction in a public health oriented way. Portugal, who too experienced visible heroin use and growing rates of HIV/AIDS as a result of intravenous drug use, decided to decriminalize all illicit drug use in response to these crises. Decriminalization, which was recommended to the Portuguese government by expert panels, was coupled with harm reduction strategies including the referral of those caught with drugs to a team for addiction evaluation and

comprehensive treatment. Portugal was able to combat their opioid and HIV/AIDS crisis through this public health and humanism oriented approach. Notably, the Netherlands responded to rising drug use pragmatically by implementing harm reduction services as needed, tolerating certain controlled and regulated drug use, and focusing law enforcement resources on trafficking rather than personal consumption. In each of these countries, drug use was able to be controlled through a change in policy that focused on evidence-based public health interventions.

Alternatively, opioid epidemics are being currently experienced in the United States and Canada for example. The current epidemic stems from over prescribing of opioids for chronic pain. Physicians, who were misinformed of the addiction potential of OxyContin, began prescribing this drug at high rates. This led to widespread dependence on prescription opioids. After knowledge of the effects of overprescribing, efforts were made to scale back on prescription opioids, which resulted in the rise of an illicit, synthetic opioid market. Prescription opioids, heroin, and specifically fentanyl are the current culprits of rising opioid use and overdose deaths. The United States, who take a moralistic approach to drug use, have not been able to contain this epidemic. With an extensive history of incarcerating people - specifically minority populations - for drug use, law enforcement is still the United States' first response to drug use and addiction. Despite evidence that a public health approach improves outcomes of opioid epidemics, the United States continues to struggle with implementation of prevention and harm reduction strategies. Additionally, the United States struggles with stigma about drug use and addiction - with many still seeing addiction as a moral failure rather than a disease. These factors, coupled with specific social and economic factors that affect susceptibility to drug use and addiction, have been exacerbated by the pandemic. The scale of suffering has demonstrated a need for a change in approach to drug use and addiction in the United States. Many call for a

pragmatic and evidence-based approach to drug policy as opposed to current policy rooted in goals of abstinence. A shift in how the population and policy makers view addiction will reduce stigma and promote evidence-based policy. Federal policy should then reflect a pragmatic approach in which prevention and harm reduction is prioritized if it hopes to achieve goals of ending the current opioid epidemic.

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