Drug Decriminalization and Harm Reduction in Portugal:

Can policy innovation overcome stigma?

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Abstract

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This study compares the attitudes of Portuguese residents with three other European countries and the Europe-wide trend to ask if the Portuguese model of drug decriminalization policy of *de jure* decriminalization in 2000 and critical harm reduction measures has had an impact on stigma against drug users and drug use. This study uses the responses to two sets of questions from the European Values Survey (EVS): "On this list are various groups of people. Could you please sort out any that you would not like to have as neighbours?" and "Please tell me for each of the following whether you think it can always be justified, never be justified, or something in between, using this card." For "Neighbours," seven responses were selected: drug addicts, heavy drinkers, those with a criminal record, people with AIDS, emotionally unstable people, people of a different race, and homosexuals. For "Justified," five responses were selected: soft drugs (marijuana or hashish), homosexuality, prostitution, abortion, and divorce. While Portugal had the lowest negative response rate for "Neighbor: Drug Addict," it had the highest negative response rate for "Justifiable: Soft Drugs," higher than the Europe-wide percentage. These seemingly contradictory results could be interpreted as Portuguese

respondents believing that drug use is not acceptable, but that drug addiction does not make someone an undesirable member of the community. This is consistent with the current understanding of Portugal's shift in perception of drug use, and suggests a shift in type of stigma rather than an elimination of it entirely.

Introduction

Europe is understood to have a more lenient attitude towards drug use than in the United States, where anti-drug measures are loosening in some areas and remain quite punitive in others. This study asks: to what extent, if any, has Portugal's drug decriminalization policy reduced stigma against people who use drugs? It compares the attitudes of Portuguese residents with three other European countries, The Netherlands, Spain, and Italy, and the Europe-wide trend in order to understand if the Portuguese model of drug decriminalization policy, which combined *de jure* decriminalization of all drugs in 2000 with critical harm reduction measures, has had an impact on the social construction of stigma against drug users and drug use in the nation.

This study uses the responses to two sets of questions from the European Values Survey (EVS): "On this list are various groups of people. Could you please sort out any that you would not like to have as neighbours?" and "Please tell me for each of the following whether you think it can always be justified, never be justified, or something in between, using this card." From the "Neighbours" question set, seven responses were selected: drug addicts, as well as heavy drinkers, those with a criminal record, people with AIDS, emotionally unstable people, people of a different race, and homosexuals. From the "Justified" question set, five responses were selected: soft drugs (marijuana or hashish), as well as homosexuality, prostitution, abortion, and divorce. While Portugal had by far the lowest negative response rate for "Neighbor: Drug Addict," it had the highest negative response rate for "Justifiable: Soft Drugs," higher than the Europe-wide percentage. This is consistent with the current understanding of Portugal's shift in perception of drug use, and suggests a shift in type of stigma rather than an elimination of it entirely.

The question of to what extent the Portuguese model of drug decriminalization has impacted stigma against drug users and use is important because US jurisdictions are considering decriminalization as a solution to a range of policy problems, reflecting the broad range of social, economic, and political issues related to drug use and drug policy in the United States. A solution that

reduces stigmatization against drug users may create benefits that will cascade into other policy areas, including criminal justice reform, public health, economic development, foreign policy, and civil liberties. Though imperfect, Portugal demonstrates a true policy innovation that can be replicated and scaled to address persistent worldwide problems.

Background

Portugal joined the War on Drugs in the 70s, despite drug use not being a relevant social problem in Portugal at the time, and the concept of a drug-free society has been sustained by conservative discourses in the spheres of both health and law to this day. Portugal's parliament criminalized drug use in 1970 and emphasized the immorality of drug use, while traffickers were only moderately sanctioned; The next drug-related law passed in 1976 reflected only slight progress. An anti-drug law passed in 1983 in reaction to greater prevalence of cannabis and heroin affirmed the unequivocal criminalization of drug use and created a mixed criminal-medical system that resulted in a double stigma on the drug user that persists, with some variation, to this day (Rêgo et al., 2021). A 1993 law reaffirms the medical-penal model, but is overall a very ambiguous piece of legislation that is still partially in force to this day. By 1999, drug-related crimes were the main reason for effective prison sentences, creating a significant increase in imprisonment without an equivalent increase in crime rates (Rêgo et al., 2021). Meanwhile, Portugal was experiencing the highest rate of HIV/AIDS in the European Union: in 1999, Portugal had 104.2 new HIV cases per million residents (Ferreira, 2017)

In 2000, Portugal passed Law-Decree 30/2000, a groundbreaking drug policy law that decriminalized the possession of all drugs, including heroin, cocaine, and marijuana, for personal consumption. The policy represented a paradigm shift in approach to drug use in Portugal, emphasizing harm reduction and treatment over criminalization and punishment (Greenwald, 2009; Laqueur, 2015; Rego et al. 2021; Moury & Escada, 2022).

Under this law, possession and use of drugs for personal consumption is no longer a criminal

offense, but an administrative one. Individuals found in possession of a supply of a substance less than or equal to ten days' use are referred to the Commission for the Dissuasion of Drug Addiction, which evaluates their situation and may impose a range of sanctions, including fines, community service, or mandatory drug treatment. The law also provided funding for the expansion of drug treatment programs and harm reduction services, such as needle exchange programs, which have helped to reduce the spread of HIV and other infectious diseases among people who inject drugs (Rêgo et al., 2021; Moury & Escada, 2022).

Since the implementation of this policy, Portugal has seen a significant reduction in drug-related harm, including a decline in drug-related deaths, HIV and hepatitis C infections, and drug-related crime (Rêgo et al., 2021; Moury & Escada, 2022; EMCDDA, 2019c). The policy has also freed up law enforcement resources to focus on more serious drug offenses and has allowed people who use drugs to seek treatment without fear of criminal consequences (Laqueur, 2015). The Portuguese drug policy is considered a landmark in drug policy worldwide, and has been widely praised by public health experts, drug policy advocates, and international organizations such as the United Nations despite initial opposition. The policy has influenced drug policy debates and reforms in other countries, including the United States (Laqueur, 2015; Rêgo et al., 2021; Moury & Escada, 2022; see also Greenwald, 2009).

The United States is experiencing significant drug problems of its own that it is searching for solutions to. Opioid abuse has become one of the most important contemporary health issues in the US, and rivals nicotine smoking as a cause of death (Harvard, 2017). The rate of opioid overdose-related deaths rose over 200% between 2001-2016, and more than 12 million Americans reported misusing opioids in 2015 (Abraham et al., 2017). In 2016, the United States saw an estimated 40,000 drug-related deaths, an estimated 16,500 caused by opiates (Beneitez, 2017). Since the beginning of the COVID-19 Pandemic, these numbers have skyrocketed: the CDC (2020) estimates that over 81,000 drug overdose deaths occurred between May 2019 and May 2020, and more than 100,000 drug overdose deaths occurred between May 2020 and April 2021 (Peltz & Balsamo, 2022). The effects of

the COVID-19 pandemic on substance use and deaths from overdose have been felt disproportionately in communities of color (Khatri et al., 2021).

Research has shown that individuals who misuse prescription opioids are more likely to use other drugs, including currently-scheduled drugs like heroin. The NIH (2018) has noted that prescription opioid use is a risk factor for heroin use, and that 75% of users entering treatment for opioid abuse in the 2000s first began using prescription opioids before moving on to heroin. This is because prescription opioids and heroin both act on the same brain receptors and produce similar effects, so individuals who are addicted to prescription opioids may turn to heroin when they can no longer access or afford their prescribed medications. Heroin trafficking was reported in 99 countries in 2019, making it more commonly trafficked than morphine or opium (*World Drug Report 2021*), making it comparatively more accessible than other illicit substances. In addition, prescription opioid abuse can also increase the risk of developing a substance use disorder more generally. Individuals who misuse prescription opioids are more likely to develop an addiction to opioids and other drugs, which can lead to a range of negative consequences for their health, relationships, and overall well-being.

Patients often believe that prescribed medications are safe despite their potential for misuse. In a study done by Dr. Barnett of Harvard Medical School (2017), a team of researchers examined 380,000 Medicare recipients' medical records and found that patients were often prescribed opioids without asking for them, sometimes without even knowing the prescription was an opioid in the first place. This isn't only a problem in the United States; according to the World Drug Report 2021, the number of opioid users worldwide has nearly doubled over the last decade. The link between prescription opioid abuse and illegal substance use highlights the need for effective prevention and treatment strategies that address the underlying causes of substance use disorders and promote safe and responsible use of prescription drugs. These strategies include education and awareness campaigns, harm reduction strategies such as safe prescribing practices and medication-assisted treatment, and support services for individuals struggling with substance use disorders. Cristina Beneitez and Esther Gil-Alegre, from the

Department of Pharmacy and Pharmaceutical Technology, Complutense University of Madrid (2017), emphasized the need for education in hospitals to further understand the growing problem of opioid addiction, asserting that doctors need to better inform patients of the proper use, storage, and disposal of prescribed drugs. Beneitez and Gil-Alegre found that treatment for drug abuse is notably more effective when addiction is caught in its early stages. However, for substance abuse to be caught early, patient fear of stigmatization needs to be considered and addressed.

Stigmatization of substance use disorder can have a number of negative impacts on individuals who use drugs, including isolation, harm, and even death (Bos et al., 2013; Major & O'Brien, 2005; Pescosolido & Martin, 2015; Gage & Sumnall, 2018). For example, if a person is afraid to disclose their drug use to a healthcare provider for fear of being judged or discriminated against, they may not receive appropriate medical care or harm reduction services. This can lead to increased risk of overdose, infection, or other health complications (Beletsky et al., 2018**)**. Stigmatization can also lead to social isolation, as individuals who use drugs may be afraid to disclose their substance use or abuse to others for fear of being judged, ostracized from their social circles, or turned in to the police (Bos et al., 2013; Khatri et al., 2021). This can lead to the loss of support networks and social connections, which can exacerbate the harms associated with drug use and make it more difficult for individuals to access treatment and support services (Gage & Sumnall, 2018). Additionally, if a person is afraid to seek medical attention or call for emergency services during an overdose for fear of legal or social repercussions, they may not receive timely medical care, which can result in death.

By decriminalizing drug possession and use, Portugal has removed the fear of criminal sanctions that often accompanies drug use, allowing people who use drugs to seek help and treatment without fear of stigma or discrimination. The policy has also prioritized harm reduction strategies such as drug treatment and needle exchange programs, which have helped to reduce the spread of HIV and other infectious diseases among people who use drugs inside Portugal's borders (Rego et al. 2021; Moury & Escada, 2022). This approach recognizes that drug use is a complex and multi-dimensional

issue, influenced by social, economic, and environmental factors (Greenwald, 2009; Laqueur, 2015). By providing these services in a non-judgmental and supportive environment, Portugal has helped to reduce the social isolation and stigma that often accompanies drug use.

In the context of public policy, stigma matters because it is often constructed and perpetuated by the dominant groups in society (Bos et al., 2013). These groups have the power to define what is considered "normal" or "deviant" behavior and can use their power to enforce laws and policies that further stigmatize certain groups, such as drug users. Social construction theory suggests that these definitions are not inherent to the behaviors or individuals themselves, but rather are constructed through social processes and interactions. Therefore, the stigma against drug use is not based on objective, scientific facts, but rather on social constructions that have been created and perpetuated over time. When it comes to public policy, this stigma can have significant impacts. Therefore, it is important for policymakers to recognize and challenge the social constructions that underlie drug-related stigma, and to work towards policies that promote health, harm reduction, and social inclusion for all individuals, regardless of their drug use status.

In passing the Portuguese decriminalization law, Portuguese lawmakers encouraged a shift in public attitudes towards drug use and drug users. By emphasizing that drug use is a public health issue rather than a criminal one, the policy has helped to reduce the stigma and discrimination directed towards people who use drugs. By treating drug use as a public health issue, harm reduction efforts prioritize the health and well-being of drug users rather than punishing or stigmatizing them for their drug use (Beletsky et al., 2018; Moury & Escada, 2022). These efforts stand in stark contrast to the historical lens through which drug use and drug users have been constructed in the United States.

There are several differences in attitude towards drug use between Portugal and the US. Portugal has decriminalized drug use and possession, treating it as a public health issue, whereas the US continues to criminalize drug use and possession, resulting in mass incarceration and criminalization of drug users (Greenwald, 2009; Laqueur, 2015). In Portugal, public perception of drug

use has shifted towards a more compassionate and pragmatic approach, whereas in the US, drug use is often stigmatized as a moral failing or criminal activity. Portugal has prioritized treatment and harm reduction strategies, whereas in the US punishment is often prioritized over treatment, resulting in high rates of relapse and overdose (CDC, 2020). Portugal has implemented drug education programs that emphasize harm reduction and prevention, whereas in the US, drug education often takes a more punitive and abstinence-only approach. More recently however, American advocates of drug reform have pointed towards the Portuguese model of drug policy as a model for a more effective and humane approach to drug use, and attitudes towards drug use in the US are changing.

As of April 2023, a total of 19 US states, plus the District of Columbia, have legalized marijuana for adult recreational use. In addition, 36 states and the District of Columbia have legalized marijuana for medical use. However, the federal government still classifies marijuana as a Schedule I controlled substance, which means that it is illegal under federal law. Nevertheless, the growing number of states legalizing marijuana reflects a shift in public opinion towards greater acceptance of the drug, and has led to a growing industry of marijuana cultivation, processing, and retail. This legalization trend has helped to shift public opinion away from the hard-line War On Drugs and opened the door for alternatives to the punitive drug laws of the second half of the 20th century.

One proposed solution to the harm and damage that substance use disorder causes is decriminalization of these substances. Decriminalization is not the same as legalization: decriminalization typically means that possession of small amounts of a drug is no longer a criminal offense but that it may still be subject to civil penalties; legalization, on the other hand, means that the drug is fully legal and regulated (Laqueur, 2015). In addition to legalizing marijuana use and sale, several jurisdictions in the United States have already decriminalized or are considering decriminalizing other drugs. In 2020, Oregon became the first state to decriminalize the possession of small amounts of several federally illegal substances, including cocaine, heroin, and methamphetamine, as well as some prescription drugs such as oxycodone, hydrocodone, and benzodiazepines. Instead of

facing criminal charges, individuals caught with these drugs will be subject to a civil citation and a $100 fine, or they can choose to participate in a health assessment.

Fig. 1. Actions of other US Jurisdictions towards decriminalization (besides Oregon).

Year	City/State	Action
2019	Vermont	Created a task force to study the potential benefits and drawbacks of decriminalizing drugs
2019	Denver (Colorado)	Decriminalized psilocybin mushrooms, making possession, use, and cultivation the city's lowest law enforcement priority
2019	Oakland (California)	Passed a city ordinance making enforcement of laws against possession and use of entheogenic plants the city's lowest priority
2020	Ann Arbor (Michigan)	Decriminalized psychedelic plants and fungi, including psilocybin mushrooms, ayahuasca, and iboga
2020	Santa Cruz (California)[1]	Passed a resolution calling for the deprioritization of enforcement of state and federal laws against psychedelics
2021	California	Introduced a bill to decriminalize possession of certain controlled substances for personal use
2021	Connecticut	Decriminalized possession of drug paraphernalia and created a task force to study further drug decriminalization
2021	New Jersey	Decriminalized possession of up to six ounces of marijuana and created a commission to study the potential legalization of other drugs
2021	New Mexico	Legalized recreational marijuana and included provisions to help individuals affected by the war on drugs, including expungement of certain marijuana-related criminal records
2021	Washington	Introduced a bill to decriminalize personal use of drugs, including heroin, cocaine, and methamphetamine

While other US jurisdictions have already or are considering implementing decriminalization efforts (see table x), Oregon's decriminalization remains the most comprehensive. In addition to decriminalizing substance possession and use, Oregon's 2020 decriminalization law includes several harm reduction strategies designed to help individuals who struggle with substance use disorder. These strategies include: health assessments, addiction treatment, overdose prevention, and mental health services. Instead of facing criminal charges, individuals caught with small amounts of drugs will be given the option to participate in a health assessment. These assessments are meant to connect

1 It is worth noting that these two Californian cities have taken different paths towards decriminalization: while Oakland has passed a city ordinance making enforcement of laws against possession and use of entheogenic plants the city's lowest priority, Santa Cruz's city council passed a resolution calling for the deprioritization of enforcement of state and federal laws against psychedelics. This resolution does not carry force of law in the same way a city ordinance does, but still shows support from the city council for a shift away from punitive measures and towards harm reduction.

individuals with substance use disorder treatment services and other health care resources. The decriminalization law allocates a portion of the state's marijuana tax revenue to fund addiction treatment services, including residential treatment, outpatient treatment, and harm reduction services like syringe exchange programs. The law also provides funding for overdose prevention programs, such as the distribution of naloxone, a medication used to reverse opioid overdoses. The health assessments offered under the decriminalization law are also designed to connect individuals with mental health services. This is because substance use disorder is often linked to mental health conditions like depression, anxiety, and trauma (Degenhardt et al., 2017; WHO, 2023). Like Portugal, Oregon's approach to drug decriminalization is focused on treating drug use as a public health issue rather than a criminal justice issue. By providing individuals with access to addiction treatment and other health care resources, the state hopes to reduce the harms associated with drug use and help users on a path to recovery.

Theory

The Social Construction of Stigma

Social construction theory suggests that social reality is created through shared meanings, beliefs, and practices that are developed and reinforced through social interaction. In the case of drug use stigma, social construction theory argues that the negative attitudes and beliefs about drug users are not based on objective reality, but are instead the result of social processes that create and reinforce these negative stereotypes.

In the context of social construction theory, the acceptability of certain drugs is determined by the social norms, values, and beliefs of a given culture or society. These norms are shaped by a variety of factors, including historical, cultural, economic, and political forces. For example, alcohol and tobacco are widely accepted and legal substances in many societies, despite the fact that they can have negative health consequences and can be addictive. This is likely due to their historical and cultural

significance, as well as the fact that they are widely used and have a significant economic impact.

On the other hand, drugs such as marijuana, cocaine, and heroin are often stigmatized and criminalized, even though they may have medicinal properties or be used recreationally by some individuals. This is likely due to a variety of factors, including the historical and cultural construction of these drugs as deviant and dangerous, as well as their association with particular subcultures or marginalized groups. The stigmatization of drug users can be traced back to the historical and cultural construction of drug use as a deviant behavior that is associated with criminality, immorality, and a lack of self-control (Rêgo et al., 2021). These cultural beliefs have been reinforced through media portrayals of drug users as dangerous and unpredictable, and through the criminalization of drug use and possession.

Thus, social construction theory helps us to understand that the acceptability of certain drugs is not determined solely by their inherent properties or effects, but is instead shaped by broader social, cultural, and political forces. Furthermore, social construction theory would argue that the stigmatization of drug users is not a natural or inevitable outcome of drug use itself, but is instead the result of social processes that create and reinforce negative attitudes towards drug users. For example, the stigmatization of drug users may be linked to broader issues of class, race, and gender, with certain groups being disproportionately affected by drug use stigma.

Stigma as we understand it today is "not merely a physical mark but rather an attribute that results in widespread social disapproval" (Bos et al, 2013). Since Goffman's (1963) seminal work on stigma, the concept has evolved to comprise at least four distinct pieces: public stigma, self stigma, stigma by association, and structural stigma (Bos et al, 2013; Major & O'Brien, 2005; Pescosolido & Martin, 2015). These conceptualizations largely look at perception of and attitudes towards the stigmatized by the dominant group (or internalized versions of these in the case of self-stigma). These four distinct manifestations of stigma are all interrelated, but public stigma is understood to be the core from which the other three manifest, even as they reinforce both public stigma and each other. By

understanding the social and cultural factors that contribute to drug use stigma, we can work towards more informed and evidence-based drug policies that prioritize public health and harm reduction.

Public Stigma and Isolation

Bos et al. (2013) conceptualize public stigma as a negative social attitude toward individuals who are perceived as members of a stigmatized group. Specifically, they define public stigma as a "social identity threat" that arises from being a member of a stigmatized group, such as drug users. Public stigma can manifest in a number of ways, including social exclusion, discrimination, and labeling. A common narrative heard from friends and family members of drug users is that they need to be "cut off," or isolated, in order to overcome their drug abuse; in addition to reinforcing stigma, this strategy can, and often does, backfire.

The experiments known as the “rat park” are often used to argue that isolation and social alienation can actually increase the rate of drug use: in a series of experiments beginning in 1978, Alexander et al. show that rats kept in isolation are more likely to seek out opiate-laced water than those who are given the opportunity for social interactions with other individuals (Alexander et al. 1978; Alexander et al., 1981; Hadaway et al. 1979). One conclusion drawn from these studies is that the rats’ preference to this opiate solution is not purely a physical addiction, and that this addiction can be overcome by providing the rats with a more robust social network (Alexander et al. 1978; Alexander et al., 1981; Hadaway et al. 1979). This conclusion has been used by advocates of decriminalization and harm reduction to promote a more tolerant, accepting attitude toward drug use and drug users, in order to mitigate the effects of addiction and to lessen the impact that isolation may have on drug use (Gage & Sumnall, 2018). Today however, Alexander’s “rat park” experiments are contentious and no longer accepted by the scientific community for a myriad of reasons, including methodological flaws and being ethically suspect (Gage & Sumnall, 2018; Snodgrass, 2018). In addition to concerns of mixed replicability of the experiment results (Gage & Sumnall, 2018), the parallels between behavior

in rats versus behavior in humans is also questionable (Snodgrass, 2018). Beneitez (2017) echoes the sentiments of conclusions drawn from the Rat Park studies and of public officials like the CDC's Robert Redfield, arguing that “Drug addiction is a social problem caused by the continued necessity of taking regular doses of substances in order to […] avoid feeling bad." In essence, public stigma drives the user to continue using to ward off the negative feelings of being stigmatized for their drug use.

Bos et al. (2013) argue that public stigma is a major barrier to effective drug policy, as it can prevent drug users from seeking help and accessing the care they need. They also note that public stigma can lead to policy decisions that are based on moral judgments rather than scientific evidence, which can further stigmatize drug users and perpetuate harmful policies.

To address public stigma, Bos et al. suggest a number of strategies, including education campaigns that provide accurate information about drug use and addiction, the use of language that is respectful and non-stigmatizing, and the involvement of drug users in policy and decision-making processes. They also note the importance of developing policies and interventions that are evidence-based and focused on reducing harm, rather than punishing drug users.

This conceptualization of public stigma highlights the importance of addressing negative social attitudes toward drug users in order to develop effective drug policy and improve public health outcomes. By reducing public stigma, policymakers can create a more supportive and compassionate environment for drug users, and ensure that they have access to the care and support they need to manage their drug use in a safe and healthy way.

Self-stigma

Self-stigma is the process by which people who use drugs come to believe that they are morally deficient or inferior because of their substance use. Bos et al. (2013) define self-stigma as the internalization of negative attitudes and beliefs, which can be extended to drug use and addiction. A fundamental dimension of stigma is how readily the stigma can be concealed, though concealing

stigma often creates significant psychological distress in the stigmatized individual. Major & O'Brien focus on conceptualizations of the impact of stigma on the stigmatized, discussing "mechanisms of discrimination, expectancy confirmation, and automatic stereotype activation, and indirect... threats to personal and social identity" (pp. 393). Self-stigma can manifest from an awareness of public stigma, and has the same components as public stigma and operates at both the implicit and explicit level.

According to Bos et al., self-stigma is a key mechanism through which public stigma (negative attitudes and discrimination directed at drug users by society at large) affects the lives of people who use drugs. Self-stigma can lead to feelings of shame, guilt, and self-blame, as well as decreased self-esteem and self-efficacy. It can also contribute to social isolation, poor mental health outcomes, and reduced access to healthcare and social services.

Addressing self-stigma is an important component of efforts to reduce the harms associated with drug use and addiction. By challenging negative self-beliefs and promoting self-acceptance and self-compassion, individuals who use drugs can improve their well-being and reduce the negative impact of stigma on their lives.

Stigma by Association

Bos et al. (2013) define stigma by association as the process by which individuals are stigmatized based on, for example, their association with drug users or addiction. This can include family members, friends, or colleagues of people who use drugs, as well as healthcare providers or service providers who work with this population. Stigma can affect those associated with the stigmatized individual, even if the association is arbitrary.

Stigma by association can lead to social exclusion, discrimination, and negative stereotyping. For example, family members of people who use drugs may be viewed as enablers or codependent, while healthcare providers who specialize in addiction may be stigmatized as "addiction doctors" or "methadone clinics."

According to Bos et al., stigma by association can have a significant impact on the lives of individuals who are associated with drug use or addiction, and is related to lower self-esteem and psychological distress in the associated parties. It can lead to feelings of shame, guilt, and embarrassment, as well as reduced access to healthcare, social services, and employment opportunities. It can also perpetuate negative stereotypes and contribute to the cycle of stigma and discrimination directed at people who use drugs.

Addressing stigma by association requires a multifaceted approach that includes education and awareness-raising, as well as efforts to promote empathy and understanding among the general public. It also requires advocacy and policy change to ensure that individuals who are associated with drug use or addiction are not subject to discrimination or exclusion based on this association.

Structural Stigma and US influence

Contemporary stigma researchers, including Major & O'Brien as well as Bos et al., cite Goffman (1963) for their general definition of stigma as a concept, describing stigma as originally conceptualized as, "a mark of the body, of character, or of a status" (Pescosolido & Martin, 2015). Consistent with Social Construction Theory, social inequalities are perpetuated by hegemony and the exercise of power, but vary by social context. Thus, public stigma and structural stigma create a positive feedback loop with each other where the attitudes of the public are enshrined in law, and the law influences the attitudes of the public.

Knowing that addiction and substance use are stigmatized, fear of legal repercussions will often deter someone suffering from substance use disorder from seeking help. These fears may not be entirely unfounded. In an extreme case in 2016, Phillipine President Duterte openly made disparaging comments directed towards drug addicts, stating, “All of you who are into drugs, you sons of bitches, I will really kill you” (Nachtwey, 2016). This type of language from public officials can discourage those with substance use disorder from pursuing treatment, prolonging their struggle. While the language

used by public officials in the US may be less openly hostile, attitudes towards people who use drugs are often similarly antagonistic.

In 1999, the Congressional Subcommittee on Criminal Justice, Drug Policy, and Human Resources of the Committee on Government Reform held a “first-of-its-kind hearing with this sub-committee’s undertaking to provide new information and also solicit informed opinions from both the policymakers and the public on issues relating to drug legalization and decriminalization” (*Pros and cons,* 2000, pp. 2). The attitude towards drug decriminalization was largely hostile during this hearing, with speakers such as General Barry McCaffrey alleging that terms such as “decriminalization” and “harm reduction” are merely covert means to legalize illicit substances and further harm Americans, and that European models of decriminalization such as the model used in The Netherlands has created a tolerance for drug use that serves only to expand drug dependence, abuse, and trafficking (*Pros and cons,* 2000, pp. 33-72). Opening the congressional discussion on drug legalization and decriminalization in this manner served to entrench the status quo in the minds of policymakers, reinforcing the negative stereotypes towards drug use and users and setting back decriminalization and harm reduction movements by painting them as nefarious backdoors to legalizing stigmatized, criminalized behavior.

In juxtaposition to the Portuguese model of drug policy, Where the preamble to Law-Decree 70/2000 states "that occasional users ‘should, above all, not be labelled or marginalised'" (qtd. in Moreira et al., 2011, pp. 12), the US has its own set of drug policies and initiatives known as the War on Drugs. Even the name of this policy model reinforces stigma against drug use--that drugs and drug use are things that must be waged war against; things that necessitates a coordinated offensive to combat. The US War on Drugs has perpetuated stigma against drug users in a number of ways. The War on Drugs has also focused primarily on law enforcement and criminal justice responses to drug use, substantially limiting access to treatment and support for drug users. By criminalizing drug use, the War on Drugs has reinforced structural stigma that drug use is a moral failing or a criminal behavior,

rather than a health issue. The language and messaging used in the War on Drugs has often been stigmatizing and dehumanizing, portraying drug users as "addicts" or "junkies." This has further contributed to the stigmatization of drug users, who are often seen as criminals rather than individuals in need of support and treatment. The War on Drugs has also been marked by significant racial disparities in drug enforcement. People of color are more likely to be arrested and incarcerated for drug offenses, even though drug use rates are similar across racial and ethnic groups. This has contributed to the stigmatization of people of color as "criminals" or "drug users," reinforcing systemic racism in our legal system.

Due to the amount of power the US wields on the global stage, it is no surprise that public officials operating in the sphere of US influence like President Duterte offer hardline anti-drug messaging to their constituents. The War on Drugs was not limited to domestic affairs in the US, and US influence in the UN led to the passage of multiple UN conventions on substance use in the second half of the 20th century.

Fig. 2. UN conventions on Drug Use.

Convention	Description
Single Convention on Narcotic Drugs (1961)	The first international treaty to regulate the production, distribution, and use of narcotics, such as opium, heroin, and cocaine. It also established the International Narcotics Control Board (INCB) for monitoring compliance with the treaty.
Convention on Psychotropic Substances (1971)	Extended the framework established by the Single Convention to include a broader range of psychoactive substances, including hallucinogens, amphetamines, and other synthetic drugs. It established a system for regulating the production, distribution, and use of these substances, including provisions for medical and scientific use.
United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)	Addressed the problem of illicit drug trafficking, establishing a framework for international cooperation in the prevention, investigation, and prosecution of drug-related crimes. The convention also called for increased efforts to reduce the demand for drugs, including through prevention and treatment programs.

Source: United Nations (n.d.).

The three most important United Nations drug conventions are discussed in Figure 1. All of these conventions are important international agreements that have had a significant impact on drug policy and drug control efforts around the world. They have provided a framework for international cooperation and collaboration, and have helped to shape the development of drug control policies and

programs in many countries (United Nations, n.d.). However, they have also been subject to criticism and debate, particularly around issues related to human rights, public health, and the effectiveness of drug control efforts (Rêgo et al., 2021).

Decriminalization and Harm Reduction as Policy Innovation

In 2001, in response to ballooning rates of HIV and substance use disorder, Portugal's parliament passed a law that decriminalized all previously illicit substances. This law, Law-decree 30/2000, has been hailed a radical and groundbreaking policy innovation (Moury & Escada, 2022), especially in English-language media (Greenwald, 2009; Ferreira, 2017; Lacquer, 2015). From 1933 to 1974, Portugal was controlled by an authoritarian regime and closed off to the outside world. After a military coup abruptly opened the country to new markets, it was inundated with both legal and illegal goods, including illicit substances like marijuana and heroin (Moreira et al., 2011; Rêgo et al., 2021). The country was unprepared for this influx, and did not have the infrastructure or social services to handle the rise in substance use: by 1999, Portugal had the highest rate of HIV in the European Union, at 104.2 new cases per million (Ferreira, 2017). These staggering numbers necessitated a novel approach.

A policy innovation is a new policy idea or approach that seeks to address a particular problem or issue in a novel or creative way. It is a departure from the status quo and often involves the development and implementation of new policies, programs, or practices (Moury & Escalada, 2022). Policy innovations can take many forms and can be implemented at various levels of government, from local to national. They can be driven by a range of factors, including changes in societal attitudes, advances in technology, and evolving economic and political conditions.

Successful policy innovation requires overcoming a range of obstacles and challenges, and requires sustained effort and commitment from policymakers, stakeholders, and citizens alike. See

Figure 2 for a list of common obstacles to policy innovation. Moury & Escalada (2022) argue that true policy innovation is rare, and that special attention should be paid to the Portuguese Model of Drug Decriminalization for this reason.

Fig. 3. Barriers to successful policy innovation.

Obstacles to Successful Policy Innovation	Description
Political resistance	Policy innovation may face resistance from politicians and other stakeholders who are invested in the status quo, making it difficult to gain support for new policy ideas and slowing down the process of innovation.
Limited resources	Developing and implementing new policies can be resource-intensive, requiring significant financial, human, and technological resources. Governments and other organizations may be hesitant to allocate resources to untested or experimental policy ideas, limiting the potential for innovation.
Lack of data and evidence	Access to reliable data and evidence is necessary to develop effective policies. However, in many cases, the data required to support policy innovation may be scarce or difficult to obtain, making it challenging to develop evidence-based policies.
Institutional barriers	Policy innovation may require changes to existing institutions and systems, which can be difficult to achieve. Existing institutional structures may be resistant to change or may not be well-suited to support new policy ideas, hindering innovation.
Stakeholder opposition	Policy innovation may face opposition from stakeholders who are adversely affected by the proposed changes. These stakeholders may include interest groups, industry associations, or other organizations that have a vested interest in maintaining the status quo.

Source: Moury & Escalada, 2022.

In a widely-cited white paper released by the CATO Institute, Greenwald (2009) discusses the Portuguese model of decriminalization and how successful it has been since its introduction in 2001. Importantly, after the passage of Law 30/2000, drugs were decriminalized, not legalized, and remain prohibited–however, drug possession and drug use became administrative violations rather than criminal offenses (Moreira et al., 2011). While several other states in the European Union have *de facto* decriminalized substances, Portugal became the first country worldwide to decriminalize all substances with the passage of Law 30/2000 (Greenwald, 2009). After the passage of Law 30/2000, the rate of new HIV infections fell from the 1999 rate to 4.2 cases per million by 2015 (Ferreira, 2017).

Contrary to the attention that Portugal's drug decriminalization policy received, including Greenwald's 2009 white paper, Laqueur (2015) asserts that the reforms implemented by Portugal in 2001 were relatively modest, and that the *de jure* legal change largely codified *de facto* legal practices already in place. Additionally, Portugal's model of decriminalization is in line with an overall trend towards liberalization of drug policy in Europe and beyond: Spain and Italy ceased imposing criminal sanctions for possession of small quantities of psychoactive substances in the 1990s, thus Portugal's actions are consistent with a global trend towards the reduction of penalties associated with drug use (Lacquer, 2015); Portugal's earlier 1993 law that 30/2000 modified explicitly names both Italy and Spain in its preamble as other jurisdictions where "'the drug user is sanctioned… in a quasi-symbolic manner'" (qtd. in Moreira et al., 2011, pp. 12). Laqueur also critiques how often decriminalization and legalization are used interchangeably, echoing the concerns of General McCaffrey and others in the 1999 congressional hearing (*Pros and cons,* 2000), particularly how Portugal's decriminalization model was used to promote Marijuana legalization in the early 2010s. Ferreira (2017) asserts that the liberalization of drug policy described by Lacquer must be preceded by a shift in cultural attitude towards drug use, and that without that shift in cultural attitude, drug decriminalization in Portugal would not have been successful. In this same vein, Portugal's socioeconomic transformation mirrors trends seen broadly across Europe, and research has established several patterns of drug use beyond mere "recreation" (Rêgo et al., 2021).

Rêgo et al. (2021) argue that decriminalization has not been effective in shifting stigma globally or in promoting a human rights-guided attitude towards drug use and decriminalization in other nations, but that the potential exists. Rego et al. provide ambivalent evidence as to whether stigma against drug users or substance use disorder has decreased since the implementation of decriminalization; Rego et al. also argue, however, that decriminalization in Portugal would not have succeeded at all without the robust harm reduction strategies implemented concurrently with Law 30/2000. Moury & Escalada (2022) also highlight the efficacy of Portugal's harm reduction strategies in supporting the

implementation of decriminalization, pointing specifically to the Portuguese government's delegation of harm reduction strategies to NGOs as a guarantee of full implementation.

Harm reduction is the most controversial part of the Portuguese drug policy model, and was largely developed by civil society rather than political will (Rêgo et al., 2021; Moury & Escada, 2022). Several harm reduction measures seen elsewhere in the world are noticably absent from the PDPM: drug checking services, drug consumption rooms (also called safe injection sites), needle and syringe programs in prisons, and outpatient/prescription naloxone use (Rêgo et al., 2021). Some consider harm reduction to be the medicalization of political and social issues; by only implementing uncontroversial measures the status quo is maintained and perpetuates attitudes sustained by the War on Drugs (Rêgo et al., 2021). There is a long-standing tension between the will to criminalize drug use (and comply with UN conventions) and the aspiration to support users, which has only heightened as the excitement around the initial act of decriminalization has faded (Rêgo et al., 2021; Moury & Escada, 2022).

Drug Policy in Neighboring Countries

Portugal shares some similarities in their approach to drug policy with other European nations (EMCDDA, 2019c), including Spain (EMCDDA, 2019d), The Netherlands (EMCDDA, 2019b), and Italy (EMCDDA, 2019a). Overall, Europe tends to have a more public health-oriented approach to drug policy than the United States, with a greater emphasis on harm reduction and treatment over criminalization and punishment. At the European Union level, the EU drug strategy aims to reduce drug use and dependence, limit drug-related harm to individuals and society, and disrupt drug trafficking and organized crime (United Nations, n.d.; United Nations, 2021). This strategy is based on four pillars: demand reduction, supply reduction, coordination, and international cooperation (United Nations, n.d.; United Nations, 2021). Despite these efforts, drug policy remains a contentious issue in Europe, with debates over the appropriate balance between criminal justice and public health approaches, and varying levels of implementation and enforcement of harm reduction measures across

different countries.

In Spain, drug use is not a criminal offense; instead, drug possession and use are considered administrative offenses. Spain has not fully decriminalized drug use, but it has decriminalized personal possession and consumption of drugs for private use (EMCDDA, 2019d). This was enacted through a reform of the Spanish Penal Code in 1995, which established a distinction between drug trafficking and drug use for personal consumption. However, as in Portugal, drug trafficking and possession of large amounts of drugs are still considered criminal offenses in Spain. In 2015, Spain's Supreme Court ruled that smoking cannabis in private spaces was legal, as long as it did not create a public nuisance (EMCDDA, 2019d). Like Portugal, Spain has also implemented harm reduction measures such as needle exchange programs and methadone maintenance programs.

Unlike Portugal, Spain has implemented several safe consumption or supervised injection sites, also known as drug consumption rooms or "salas de veneno". These sites are intended to reduce the harm associated with drug use and provide a safer environment for drug users, as well as offering access to health and social services (Beletsky et al., 2018). The first such site was opened in 2000 in Barcelona, and several others have since been established in cities such as Madrid, Valencia, and Bilbao (Valencia et al., 2021). However, it's important to note that the legal status of these sites remains somewhat unclear and controversial, as the national government has not officially authorized them. Spain's drug policy is largely controlled by regional governments, leading to some variation in approaches across different regions.

Both Portugal and the Netherlands have implemented harm reduction approaches to drug policy, emphasizing public health interventions over criminal justice interventions. Both countries have also decriminalized drug possession for personal use, although the specifics of the laws differ. The Netherlands has never formally decriminalized drugs (EMCDDA, 2019b). However, the country has a policy of "gedogen," which means that while certain drugs are technically illegal, the authorities tolerate their use in designated areas like coffee shops; this policy has been in place since the 1970s

(Uitermark, 2004). In the Netherlands, possession of up to 5 grams of cannabis is decriminalized under the "gedogen" policy, but possession of other drugs is still illegal. In Portugal, possession of up to a 10-day supply of any drug is decriminalized. Both countries also have implemented harm reduction strategies such as needle exchange programs, drug consumption rooms, and methadone maintenance treatment (EMCDDA, 2019b). Additionally, both countries have seen reductions in drug-related harms and an increase in access to addiction treatment services.

In Italy, drug policy is based on the principle of treatment and rehabilitation. The use of drugs is not a criminal offense, but drug possession is still considered a criminal offense (EMCDDA, 2019a). The focus of Italian drug policy is on providing treatment to drug users and reducing drug-related harm, including overdose and the spread of blood-borne diseases; the Italian government has established a network of drug treatment centers throughout the country to provide services to those in need. Italy and Portugal both focus on harm reduction strategies in their respective drug policies, such as providing drug treatment and social support to those struggling with substance abuse, and both have decriminalized drug possession for personal use.

There are some differences between the two countries' policies. For example, Italy's drug laws are more strict in some regards, such as their classification of certain substances as "hard drugs" and the harsher penalties associated with their possession and sale (EMCDDA, 2019a). Additionally, while Portugal has largely shifted its drug policy towards a public health approach, Italy has had more of a mixed approach that includes both criminal justice and public health measures.

Methods

Portugal's drug decriminalization policy has been lauded globally for its unique approach to drug use and addiction. In 2001, Portugal decriminalized the possession and use of all illicit drugs, focusing on treatment and harm reduction instead of punishment. This policy shift was aimed at reducing drug-related harms, including addiction, overdose, and the spread of blood-borne diseases like

HIV and Hepatitis C. However, it is unclear whether this policy has also reduced the stigma associated with drug use, which can have significant negative impacts on the individuals affected, including social isolation, discrimination, and barriers to accessing healthcare and other support services. This research aims to investigate the extent to which Portugal's drug decriminalization policy has reduced stigma against people who use drugs, using data from the European Values Survey (EVS). The findings of this research can help inform future drug policy reform efforts in other countries and contribute to a better understanding of the relationship between drug policy and stigma. I predict that Portugal's drug decriminalization policy has reduced stigma against people who use drugs to a significant extent, and this will be reflected in a downward trend in negative responses to the chosen drug-related questions from the EVS after the year 2000. Furthermore, a splash effect may be visible in the data trends of the other selected countries after this date.

This study used the European Values Survey (EVS), a large-scale longitudinal survey on European residents' thoughts about social affairs including, but not limited to, family, work, religion, and politics. The EVS Trend File 1981-2017 dataset is constructed from four separate survey waves taken roughly every nine years (1990, 1999, 2008, and 2017), though the exact year varies by country. This trend file includes only questions that occurred on at least two individual EVS Surveys.

In addition to European-wide trends, this study considers the EVS survey data from four specific countries: Portugal, Spain, Italy, and The Netherlands. Portugal is the primary country of interest; the other three states are included for comparison because of similar but not identical drug policy present in those states and to identify any overall liberalization trend seen in Europe over time. Response data depicting attitudes towards other stigmatized groups and actions have been included as well. Survey responses from the following questions were used :

> **Question:** On this list are various groups of people. Could you identify any that you would not like to have as neighbours?
>
> **Responses:** Neighbours: Drug addicts, Neighbours: People with a

criminal record; Neighbours: People of a different race; Neighbours: Heavy drinkers; Neighbours: Emotionally unstable people; Neighbours: People who have AIDS; and Neighbours: Homosexuals.

Question: Please tell me for each of the following whether you think it can always be justified, never be justified, or something in between, using this card.

Responses: v151: Taking the drugs marijuana or hashish; v153 homosexuality; v154 Abortion; v155 Divorce; v160 Prostitution.

Two sets of questions were chosen for comparison. "Neighbour: Drug Addict" was chosen as a measure of stigma against drug users because it reflects the attitudes and beliefs of individuals towards drug users who live in close proximity to them. The European Values Survey (EVS) is a large-scale survey that aims to capture the attitudes and values of individuals across Europe, and the "Neighbor: Drug Addict" question is one of several items included in the survey that relate to attitudes towards drug use. By asking individuals about their attitudes towards drug addicts who live nearby, the EVS is able to capture more subtle and localized forms of stigma that may not be captured by other measures. For example, it is possible that individuals may hold negative attitudes towards drug users in general, but may be more accepting of drug users who are not part of their immediate community, or vice versa. Conversely, individuals may be more stigmatizing towards drug users who live nearby, even if they are generally supportive of drug policy reform. The "Neighbor: Drug Addict" response is a good measure of stigma against drug users because it captures the attitudes and beliefs of individuals towards drug users in their immediate community, which is a crucial aspect of understanding the social and cultural factors that contribute to drug-related stigma.

The other "neighbor" questions in the European Values Survey (EVS) were included for comparison because they provide a distinction between stigma against drug users specifically and general attitudes towards different social groups. By comparing the responses to these groups with the

responses to the "Neighbor: Drug Addict" question, I can compare for any pre-existing biases or attitudes that individuals may hold towards certain social groups. By controlling for these other factors, I can more accurately assess the extent to which stigma against drug users specifically is present in a given population. This is important for understanding the drivers of drug-related stigma and for developing effective strategies for reducing stigma and promoting harm reduction. Additionally, using multiple "neighbor" questions also allows me to assess the extent to which different forms of stigma may be related to each other. For example, if individuals who hold stigmatizing attitudes towards drug users also tend to hold stigmatizing attitudes towards other social groups, this may suggest that there are broader cultural or social factors that contribute to stigma more generally. The inclusion of other "neighbor" questions as controls in the EVS provides a more comprehensive approach to studying drug-related stigma and its relationship to other forms of social bias.

The "Justifiable: soft drugs" response from the EVS was selected as a measure of stigma because it reflects individuals' attitudes towards the acceptability of drug use, particularly of the drugs marijuana or hashish. In the case of drug use, stigma may involve negative beliefs or attitudes towards people who use drugs, regardless of the type or severity of drug use. The "Justifiable: soft drugs" question asks individuals whether they believe that the use of soft drugs such as marijuana can ever be justified. This question assesses individuals' attitudes towards drug use, and can be used as a measure of drug-related stigma. If an individual answers "never justifiable" to this question, it suggests that they hold a stigmatizing attitude towards drug use, particularly towards users of soft drugs. Conversely, if an individual answers "always justifiable" or "sometimes justifiable," it suggests that they hold more accepting attitudes towards drug use, and may be less likely to stigmatize drug users. Overall, the "Justifiable: soft drugs" question is a good measure of stigma because it assesses individuals' attitudes towards drug use, which is a key driver of drug-related stigma.

The other "Justifiable" questions in the European Values Survey (EVS) were included for comparison because they help to distinguish between attitudes towards drug use specifically and

attitudes towards other types of behavior that may be considered morally or socially unacceptable. By comparing the responses to these questions with the responses to the "Justifiable: soft drugs" question, I can consider and identify any pre-existing biases or attitudes that individuals may hold towards behaviors that are considered taboo or controversial. This is important for understanding the drivers of drug-related stigma and for developing effective strategies for reducing stigma and promoting harm reduction. Using multiple "justifiable" questions also allows me to assess the extent to which different forms of stigma may be related to each other. Ultimately, the inclusion of other "justifiable" questions provides a more comprehensive approach to studying drug-related stigma and its relationship to other forms of social bias.

The target population of the EVS in 2017 is defined as "individuals aged 18 or older (with no upper age limit) that have address of residence (not residential) in [country] within private households at the date of beginning of fieldwork (or in the date of the first visit to the household, in case of random-route selection)" (EVS, 2022). Earlier versions of the data simply define the target population as the adult population of the country over 18 years of age.

The EVS used a combination of Simple Random and Multistage sampling procedures. The sample size varies by country and survey year, but the target sample was always at least 1000 every survey year. Surveys were carried out in each country by experienced professional survey organizations. See figure 3 for a list of survey organizations by country. The EVS Trend File 1981-2017 has been anonymized and does not include any identifying or sensitive data. There were no further ethical considerations.

Using Stata, I identified variables of interest from each data subset (Europe-wide, Portugal, Spain, Italy, and The Netherlands), then transferred them to Microsoft Excel and Visual Paradigm to create tables and graphs for visual analysis. I also performed correlation tests of variables of interest in Stata.

Fig. 4. Survey organizations by country.

Country	Survey Organizations
Portugal	TNS Euroteste - Marketing E Opinião, Lisbon GfK-Metris, Lisbon
The Netherlands	Survey data, Tilburg; TNS NIPO, Amsterdam I&O Research B.V., Enschede, Netherlands CentERdata, Tilburg, Netherlands
Spain	Data SA, Madrid Metroscopia, Madrid MyWord Research SL, Madrid
Italy	Centro Ricerche Sociali di Moncomo G. e C. SaS, Milan Doxa Spa, Milan

A full list of survey organizations is available on the GESIS website.

Survey responses in an individual country in a single wave number as low as 1,000 for some groups--this is a somewhat small sample size. Portugal was not included in the first survey wave at all; therefore, wave one was omitted from the analysis entirely. Additionally, a roughly nine-year gap between survey results makes it difficult to pinpoint when changes occurred within that time span. Furthermore, not all survey data within a given wave was taken at the same time, or even in the same year; for example, Portuguese EVS 2017 results are actually from 2020. Please see figure 5 for a list of all survey dates by country.

Fig. 5. Date of each EVS Survey wave, by country.

Country	2nd wave	3rd wave	4th wave	5th wave
Portugal	11.05.1990-13.07.1990	01.10.1999-31.12.1999	26.05.2008-31.08.2008	11.01.2020-01.03.2020
The Netherlands	01.06.1990-30.09.1990	01.03.1999-31.08.1999	21.05.2008-21.10.2008	31.08.2017-28.02.2018
Spain	09.04.1990-14.05.1990	01.03.1999-30.04.1999	28.05.2008-15.07.2008	28.11.2017-22.01.2018
Italy	26.10.1990-26.11.1990	01.03.1999-31.05.1999	02.10.2009-30.12.2009	24.09.2018-30.01.2019

While the EVS data provides valuable point-in-time snapshots of attitudes in European nations that can then be considered over time, there are limitations to what can be done with the data collected. Self-reported survey data limits the usefulness of complex calculations, and holds the potential for many types of bias. Please see figure 6 for a description of common types of survey bias.

Many specific variables in the EVS came with limitations. There was no equivalent to to the Justifiable: Soft Drugs question for "hard drugs" in the EVS trend data, which is a limitation because a

respondent may find marijuana or hashish unobjectionable but have a stronger reaction to other drugs that is thus not captured by the survey.

Fig. 6. Common types of survey bias.

Type of Bias	Description
Social Desirability Bias	Respondents may provide answers that they think are socially acceptable, rather than truthful answers. This bias can affect the validity and reliability of the data.
Sampling Bias	The sample of respondents may not be representative of the population being studied, leading to inaccurate conclusions.
Nonresponse Bias	The respondents who choose not to participate in the survey may differ systematically from those who do participate, leading to inaccurate conclusions.
Misinterpretation of Questions	Respondents may misunderstand or misinterpret survey questions, leading to inaccurate responses.
Response Bias	Respondents may provide responses that are influenced by factors such as mood, context, or interviewer characteristics.

Source: Suchman, 1962.

For the answers to the "Justifiable" questions, the 10-point Likert scale was condensed into three categories: Never Justifiable, 2, and 3 were condensed into "Never or Almost Never"; 4, 5, 6, and 7 were condensed into "Sometimes"; and 8, 9, and Always Justifiable were condensed to "Always or Almost Always". While this strategy does obfuscate some of the nuance between the answers, it is unlikely that respondents' answers would be significantly different if they had been surveyed with a three point scale--that is, a respondent who answered "2" would likely agree with "never or almost never" over "sometimes". The distinction between Never and Almost Never is small both in scope and in number of respondents. The answers No Answer or Don't Know were condensed into a single category, "No Answer or Don't Know".

For the group of Neighbors answers, some groups (AIDS patients, Emotionally Unstable persons, and those with a criminal record) were not included in the EVS fifth wave, so data for those groups is not available. EVS wave three did not include "Prostitution" in its set of justifiable questions, so there is no data available for that response type from that wave.

Results

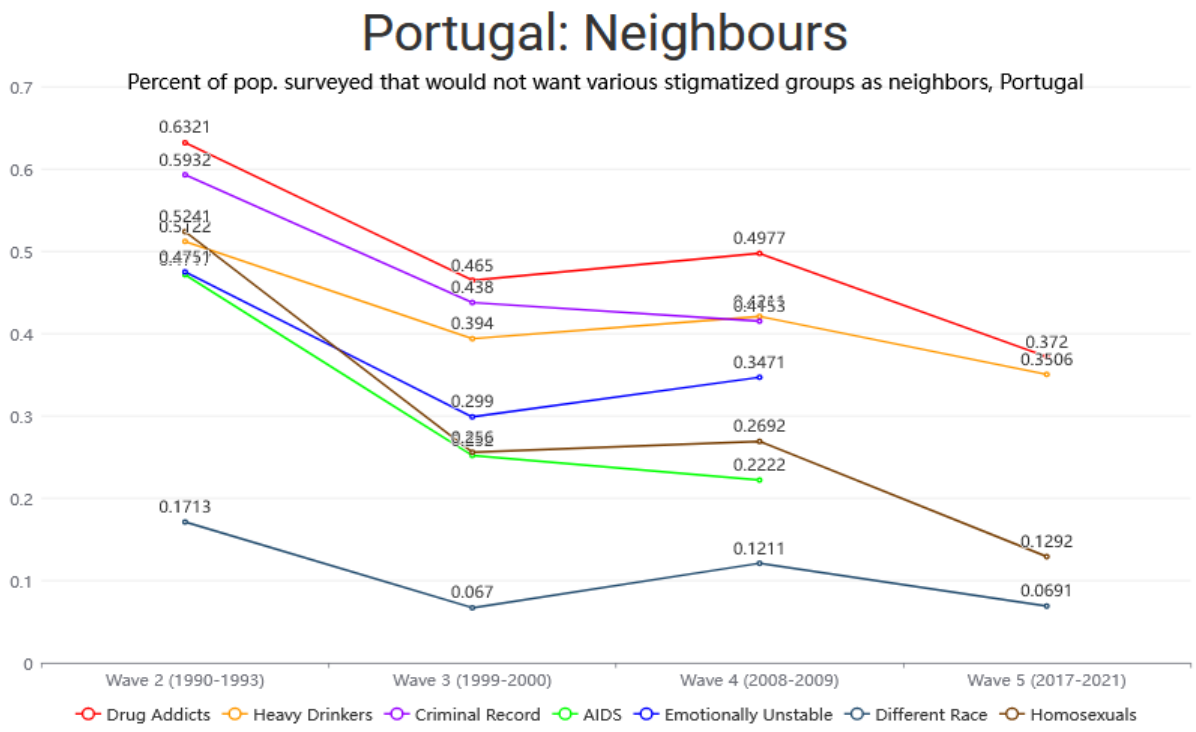
For demographic data of the samples, as well as their selection process, see appendices A-F.

Fig. 7. Portuguese responses to selected 'Neighbours' questions (N=4,953).

	Wave 2		Wave 3		Wave 4		Wave 5	
Neighbours: Drug Addicts (A124_08)	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Mentioned	749	63.21%	465	46.50%	773	49.77%	452	37.20%
Not Mentioned	436	36.79%	535	53.50%	728	46.88%	734	60.41%
Don't Know					45	2.90%	13	1.07%
No Answer					7	0.45%	16	1.32%
Neighbours: Heavy drinkers (A124_03)								
Mentioned	607	51.22%	394	39.40%	654	42.11%	426	35.06%
Not Mentioned	578	48.78%	606	60.60%	868	55.89%	760	62.55%
Don't Know					27	1.74%	13	1.07%
No Answer					4	0.26%	16	1.32%
Neighbours: Criminal record (A124_01)							*	
Mentioned	703	59.32%	438	43.80%	645	41.53%		
Not Mentioned	482	40.68%	562	56.20%	871	56.08%		
Don't Know					31	2.00%		
No Answer					6	0.39%		
Neighbours: AIDS (A124_07)							*	
Mentioned	559	47.17%	252	25.20%	345	22.22%		
Not Mentioned	626	52.83%	748	74.80%	1,148	73.92%		
Don't Know					56	3.61%		
No Answer					4	0.26%		
Neighbours: Emotionally Unstable (A124_04)							*	
Mentioned	563	47.51%	299	29.90%	539	34.71%		
Not Mentioned	622	52.49%	701	70.10%	980	63.10%		
Don't Know					29	1.87%		
No Answer					5	0.32%		
Neighbours: Different Race (A124_02)								
Mentioned	203	17.13%	67	6.70%	188	12.11%	84	6.91%
Not Mentioned	982	82.87%	933	93.30%	1,341	86.35%	1,100	90.53%
Don't Know					21	1.35%	15	1.23%
No Answer					3	0.19%	16	1.32%
Neighbours: Homosexuals (A124_09)								
Mentioned	621	52.41%	256	25.60%	418	26.92%	157	12.92%
Not Mentioned	564	47.59%	744	74.40%	1,093	70.38%	1,029	84.69%
Don't Know					37	2.38%	11	0.91%
No Answer					5	0.32%	18	1.48%
Sum	*1,185*		*1,000*		*1,553*		*1,215*	

**Neighbors: Criminal Record, Neighbors: AIDS, and Neighbors: Emotionally Unstable were not asked in the fifth survey wave (2017-2021).*

Fig. 8. Portuguese responses to selected 'Neighbours' questions.



Figures 7 and 8 show the results for the percent of Portuguese population surveyed that would not want the selected stigmatized groups as neighbors. In the data for the Portuguese responses to the Neighbors questions, there is an overall downward trend between wave two (1990-1993) and wave five (2017-2021), meaning that over time, fewer Portuguese residents mentioned each of these groups as undesirable neighbors. The sharpest decrease in mentions for all groups occurs between wave two and wave three (1999-2000), while there is an increase in mentions of most groups as undesireable neighbors between waves three and four (2008-2009); the only groups that did not see this increase were those with a criminal record and AIDS patients. From waves four to five, a second overall decrease in mentions occurs, though the fifth wave did not include criminal record, emotionally unstable, or AIDS as answer options.

While "Drug Addicts" were mentioned as undesirable neighbors more than any other selected group in Portugal, there is still a noticeable downward trend over time. The percentage of Portuguese

respondents who mentioned drug addicts as undesirable neighbors decreased by 26 percentage points, from 63 percent to 37 percent, from the EVS second wave to the fifth wave, which is a larger decrease than any other group besides homosexuals. The decrease in respondents who mentioned drug addicts as undesirable neighbors (from just under 50 percent down to 37 percent) between waves four and five is eclipsed only by the decrease in mention of homosexuals (from just under 30 percent to 13 percent). By the fifth wave, there is only about a two percent difference between mentions of drug addicts as undesirable neighbors and of heavy drinkers as undesirable neighbors (37 percent versus 35 percent).

Fig. 9. Correlation of Neighbors responses with Neighbors: Drug Addicts in Portugal, by wave.

	Heavy Drinkers (A124_03)	**Criminal Record** (A124_01)	**AIDS** (A124_07)	**Emotionally Unstable** (A124_04)	**Different Race** (A124_02)	**Homosexuals** (A124_09)
Wave 2 (1990-1993)	**0.43**	**0.42**	**0.54**	0.34	0.11	**0.56**
Wave 3 (1999-2000)	0.35	0.29	**0.45**	0.2	0.14	**0.42**
Wave 4 (2008-2009)	**0.45**	**0.41**	**0.42**	0.37	0.17	0.38
Wave 5 (2017-2021)	**0.76**	N/A	N/A	N/A	**0.4**	**0.51**
Across all Waves**	**0.53**	0.39	**0.48**	0.33	0.23	**0.48**

**Rounded to the nearest hundredth.*
***Waves in which the question was not asked are omitted from this average*

Figure 9 shows the correlation of other Neighbors responses with Neighbors: Drug Adict. There is a medium to high correlation between most of the neighbors answers with the neighbors: drug addict question. This is consistent with the idea that stigma of one group often carries over into stigmatization of other groups or behaviors also considered deviant (Major & O'Brien, 2005; Bos et al., 2013). Of particular note is the correlation between Neighbors: Drug Addicts and Neighbors: Heavy Drinkers, which started off moderately strong (0.43) in wave two and became very strong (0.76) by wave five. Alcohol consumption is closely related to other substance use and can cause similar physical, emotional, and social problems when abused. The correlation between Drug Addicts and AIDS is also of note: while there is a slight downward trend over time, this correlation remained moderate through

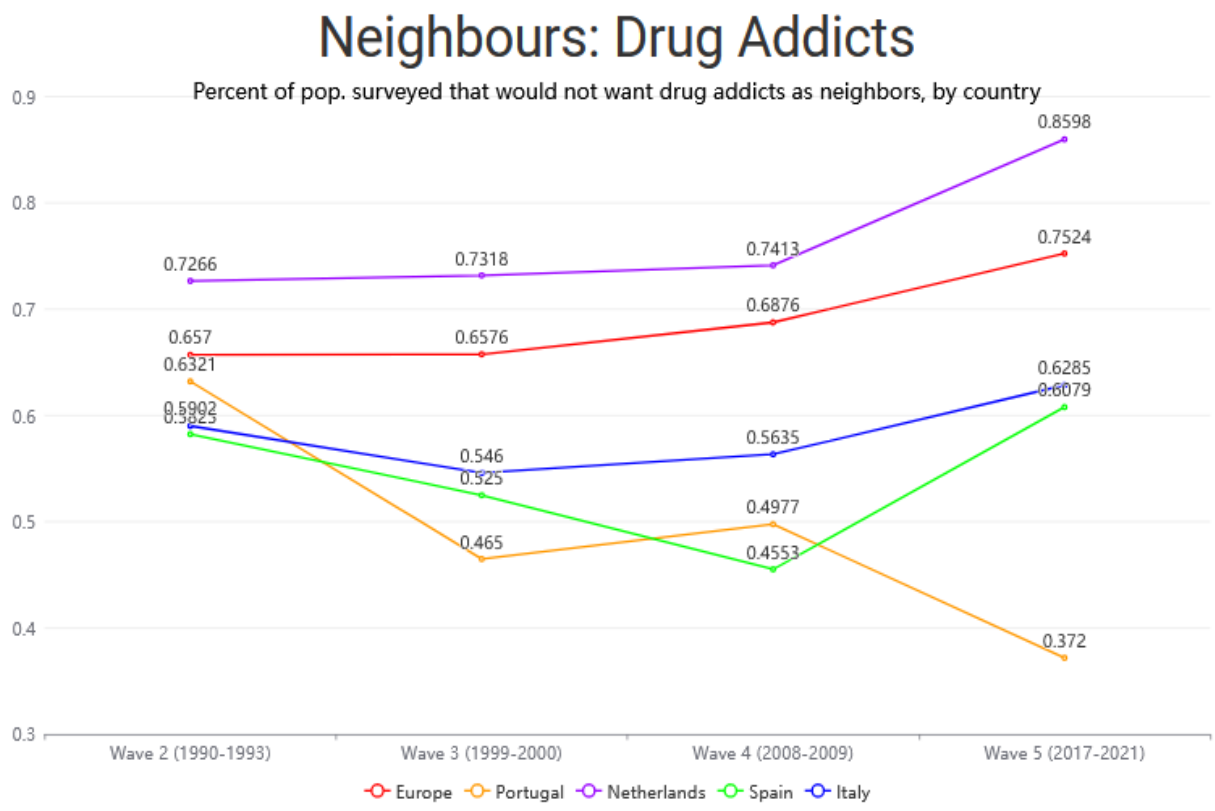
EVS wave four, the last time Neighbors: AIDS appeared on the survey. This is consistent with the understanding that the AIDS crisis of the 90s spurred the creation of Portugal's decriminalization policy model (Moreira et al., 2011; Rêgo et al., 2021; Moury & Escada, 2022).

Fig. 10. Responses of Selected Countries to 'Neighbours: Drug Addicts' (N=205,056).

Neighbours: Drug Addicts (A124_08)	**Wave 2**		**Wave 3**		**Wave 4**		**Wave 5**	
Europe (All)	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Mentioned	25,107	65.70%	27,044	65.76%	45,577	68.76%	44,719	75.24%
Not Mentioned	13,093	34.26%	12,846	31.24%	18,895	28.51%	13,528	22.76%
Don't Know			196	0.48%	1,105	1.67%	535	0.90%
No Answer	13	0.03%	39	0.09%	703	1.06%	610	1.03%
Not Asked in Survey			1,000	2.43				
Missing: Other							46	0.08%
Sum	38,213		41,125		66,280		59,438	
Portugal								
Mentioned	749	63.21%	465	46.50%	773	49.77%	452	37.20%
Not Mentioned	436	36.79%	535	53.50%	728	46.88%	734	60.41%
Don't Know					45	2.90%	13	1.07%
No Answer					7	0.45%	16	1.32%
Sum	1,185		1,000		1,553		1,215	
The Netherlands								
Mentioned	739	72.66%	734	73.18%	1,152	74.13%	2,067	85.98%
Not Mentioned	278	27.34%	269	26.82%	377	24.26%	310	12.90%
Don't Know					16	1.03%	14	0.58%
No Answer					9	0.58%	13	0.54%
Sum	1,017		1,003		1,554		2,404	
Spain								
Mentioned	1,536	58.25%	630	52.50%	683	45.53%	735	60.79%
Not Mentioned	1,101	41.75%	570	47.50%	778	51.87%	456	37.72%
Don't Know					27	1.80%	13	1.08%
No Answer					12	0.80%	5	0.41%
Sum	2,637		1,200		1,500		1,209	
Italy								
Mentioned	1,191	59.02%	1,092	54.60%	856	56.35%	1,431	62.85%
Not Mentioned	827	40.98%	908	45.40%	592	38.97%	763	33.51%
Don't Know					24	1.58%	56	2.46%
No Answer					47	3.09%	27	1.19%
Sum	2,018		2,000		1,519		2,277	

*Missing answers were omitted from the table; numbers may not total 100%.

Fig. 11. Responses of Selected Countries to 'Neighbours: Drug Addicts'.



Figures 10 and 11 show the results for the percent of population from each country and Europe-wide surveyed that would not want drug addicts as neighbors. There is a noticeable difference in trend between Portugal and the other selected groups. The overall upward trend between waves three (1999-2000) and four (2008-2009) seen in Table x and Chart 1 is noticeable across countries, not just in Portugal, and is present in the Europe-wide trend as well.

Compared to the other included countries and the Europe-wide results, Portugal is the only country where mentions of drug addicts as undesirable neighbors decreased from wave two (1990-1993) to wave five (2017-2021). In all others, there was an increase: the overall trend across Europe increased from 66 percent in the second wave to 75 percent by the fifth wave. Spain had a decrease in mentions of drug addicts as undesireable neighbors from the second to third and third to fourth waves, but the trend reversed itself from the fourth to fifth wave, with Spanish respondents mentioning drug

addicts as undesireable neighbors slightly more in the fifth wave than the second (61 percent in wave five versus 58 percent in wave two). Italy also saw a modest decrease from the second to third wave that reversed itself by the fourth; similar to Spain, Italy's respondents mentioned drug addicts as undesirable neighbors more in wave five than in wave two (63 percent in wave five versus 59 percent in wave two). The Netherlands had by far the highest rate of mentions, higher even than the European average. Portugal is the only country whose residents mentioned drug addicts as undesirable neighbors less than 60 percent of the time by wave five.

Fig. 12. Portuguese responses to selected 'Justifiable' questions (N=4,953).

	Wave 2		Wave 3		Wave 4		Wave 5	
Justifiable: Soft Drugs (F126)	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Never or Almost Never Justifiable	1080	91.13%	808	80.80%	1290	83.07%	997	82.06%
Sometimes	64	5.40%	139	13.90%	208	13.40%	154	12.67%
Always or Almost Always Justifiable	24	2.03%	30	3.00%	14	0.91%	41	3.37%
No Answer or Don't Know	5	0.42%	3	0.30%	3	0.19%	8	0.66%
Justifiable: Homosexuality (F118)								
Never or Almost Never Justifiable	925	78.06%	537	53.70%	740	47.65%	469	38.59%
Sometimes	173	14.59%	320	32.00%	483	31.10%	469	38.61%
Always or Almost Always Justifiable	53	4.48%	85	8.50%	168	10.81%	217	17.86%
No Answer or Don't Know	34	2.87%	58	5.80%	162	10.43%	60	4.94%
Justifiable: Prostitution (F119)								
Never or Almost Never Justifiable	982	82.88%	N/A	N/A	1114	71.74%	890	73.26%
Sometimes	143	12.06%	N/A	N/A	324	20.87%	253	20.82%
Always or Almost Always Justifiable	34	2.87%	N/A	N/A	29	1.87%	39	3.21%
No Answer or Don't Know	26	2.20%	N/A	N/A	86	5.54%	33	2.72%
Justifiable: Abortion (F120)								
Never or Almost Never Justifiable	582	49.11%	503	50.30%	689	44.37%	508	41.81%
Sometimes	457	38.57%	336	33.60%	551	35.48%	487	40.09%
Always or Almost Always Justifiable	130	10.98%	115	11.50%	206	13.27%	191	15.72%
No Answer or Don't Know	16	1.35%	46	4.60%	107	6.89%	29	2.38%
Justifiable: Divorce (F121)								
Never or Almost Never Justifiable	396	33.42%	261	26.10%	314	20.21%	194	15.97%

Sometimes	481	40.59%	460	46.00%	730	47.01%	606	49.87%
Always or Almost Always Justifiable	289	24.39%	263	26.30%	415	26.72%	399	32.84%
No Answer or Don't Know	19	1.60%	16	1.60%	94	6.05%	16	1.32%

Figure 12 contains Portuguese responses to the selected "Justifiable" questions: *Please tell me for each of the following whether you think it can always be justified, never be justified, or something in between: Taking the drugs marijuana or hashish (soft drugs); Homosexuality; Abortion; Divorce; Prostitution.*

Fig. 13. Portuguese responses to 'Justifiable: Taking Soft Drugs'.

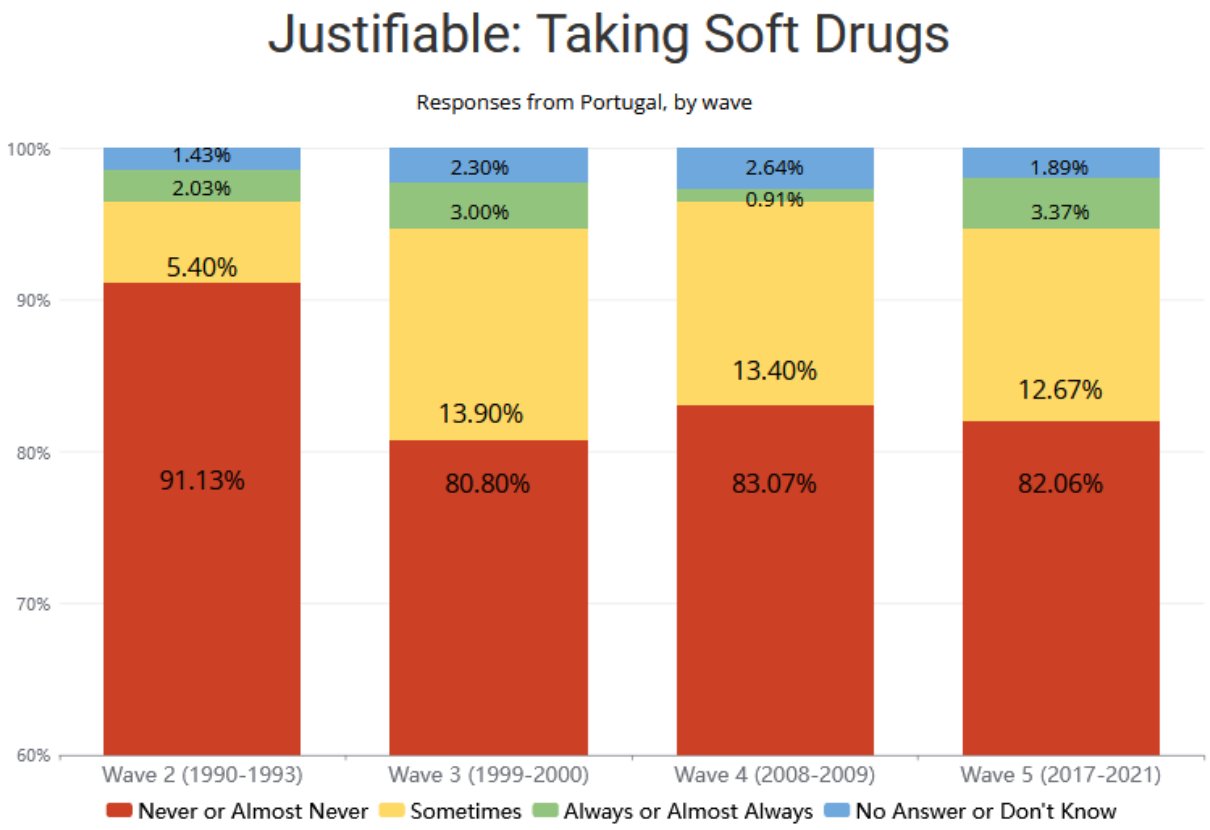


Figure 13 provides a bar graph of Portuguese responses to "Justifiable: Taking Soft Drugs" by survey wave; Figure 14 provides a line graph of Portuguese "Never or Almost Never Justifiable" responses to each of the selected Justifiable questions by survey wave. Figures 12, 13, and 14 show that

while stigma against the selected behaviors has declined over time, it is still very much present in Portugal. The vast majority of the Portuguese population surveyed believes that taking soft drugs is never or almost justifiable; this percentage of the population was lowest in wave three (1999-2000) at 81 percent, and climbed back to 82 percent by wave five (2017-2021). Of note is that the highest percentage of always or almost always justifiable responses to soft drug use occurred in wave five (just over 3 percent), slightly higher than in wave five.

Fig. 14. Portuguese responses to selected "Justifiable" questions.

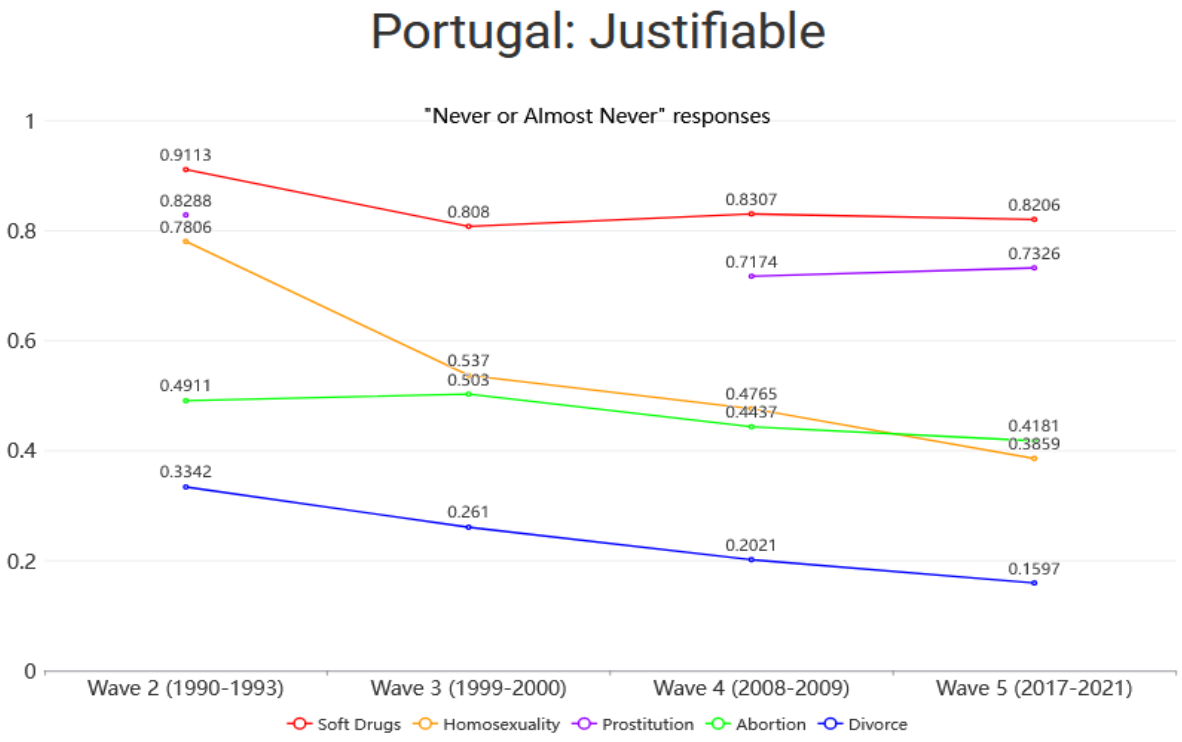
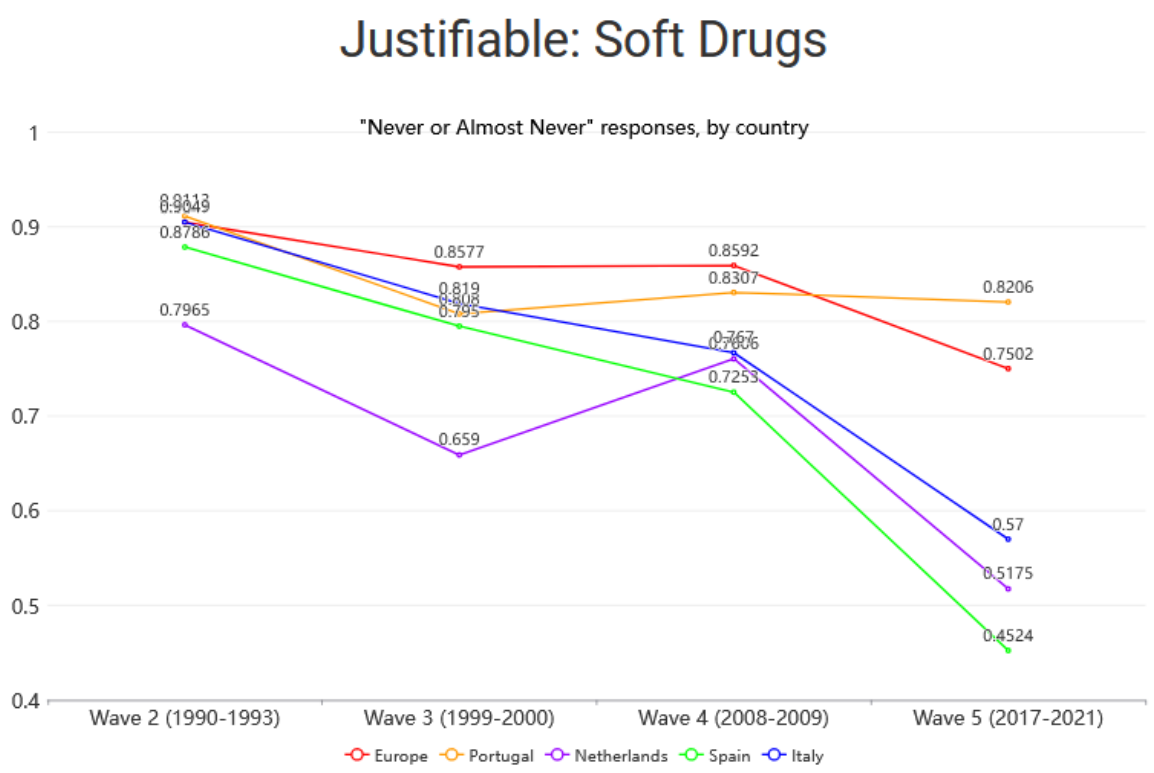


Figure 14 shows that of the selected response types, soft drug use by far the most stigmatized in Portugal. The slight increase in anti-drug attitudes in wave three seen in the Neighbours responses and the Justifiable: Soft Drugs response is absent from other Portuguese responses.

Fig. 15. Responses of Selected Countries to 'Justifiable: Soft Drugs' (N=205,056).

Justifiable: Soft Drugs	**Wave 2**		**Wave 3**		**Wave 4**		**Wave 5**	
Europe (All)	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Never or Almost Never Justifiable	34571	90.47%	35275	85.77%	56950	85.92%	44590	75.02%
Sometimes	2429	6.35%	3851	9.36%	6754	10.20%	10161	17.09%
Always or Almost Always Justifiable	814	2.13%	1279	3.11%	1558	2.35%	3691	6.21%
No Answer or Don't Know	399	1.05%	717	1.74%	1017	1.54%	996	1.67%
Missing: Other			3	0.01%	1	0.00%		
Sum	*38213*		*41125*		*66280*		*59438*	
Portugal								
Never or Almost Never Justifiable	1080	91.13%	808	80.80%	1290	83.07%	997	82.06%
Sometimes	64	5.40%	139	13.90%	208	13.40%	154	12.67%
Always or Almost Always Justifiable	24	2.03%	30	3.00%	14	0.91%	41	3.37%
No Answer or Don't Know	5	0.42%	3	0.30%	3	0.19%	8	0.66%
Sum	*1185*		*1000*		*1553*		*1215*	
The Netherlands								
Never or Almost Never Justifiable	810	79.65%	661	65.90%	1182	76.06%	1244	51.75%
Sometimes	154	15.14%	262	26.12%	284	18.28%	811	33.74%
Always or Almost Always Justifiable	47	4.62%	79	7.88%	84	5.41%	295	12.27%
No Answer or Don't Know	6	0.59%	1	0.10%	4	0.26%	54	2.25%
Sum	*1017*		*1003*		*1554*		*2404*	
Spain								
Never or Almost Never Justifiable	2,317	87.86%	954	79.50%	1088	72.53%	547	45.24%
Sometimes	242	9.18%	170	14.17%	282	18.80%	349	28.87%
Always or Almost Always Justifiable	43	1.63%	49	4.08%	91	6.07%	255	21.09%
No Answer or Don't Know	35	1.33%	27	2.25%	39	2.60%	58	4.80%
Sum	*2637*		*1200*		*1500*		*1209*	
Italy								
Never or Almost Never Justifiable	1,826	90.49%	1,638	81.90%	1165	76.70%	1,298	57.00%
Sometimes	125	6.19%	241	12.05%	265	17.45%	698	30.65%
Always or Almost Always Justifiable	55	2.73%	87	4.35%	49	3.23%	215	9.44%
No Answer or Don't Know	12	0.59%	34	1.70%	40	2.63%	66	2.90%
Sum	*2018*		*2,000*		*1,519*		*2,277*	

Fig. 16. Responses of Selected Countries to 'Justifiable: Soft Drugs'.



Figures 15 and 16 depict the responses of the selected countries and the European average to the Justifable: Soft Drugs question. While Portugal, Italy, and Spain's initial responses to Justifiable: Soft Drugs was very close to the European average in wave two (1990-1993) (90 percent Europe-wide; 91 in Portugal; 90 percent in Italy, and 88 percent in Spain, respectively), by wave five (2017-2021) the attitudes towards soft drug use had diverged significantly. There is a wave four (2008-2009) increase in never or almost never answers present in responses from The Netherlands, Portugal, and the European average, consistent with other wave four drug question responses, but this trend was absent from Spain and Italy's responses. By wave five (2017-2021), the uptick in negative responses had reversed itself in The Netherlands (52 percent), and Spain (46 percent), Italy (57 percent), and The Netherlands had pulled away from both the European average (75 percent) and Portugal (82 percent). Across all waves, Portugal's percentage of negative answers remained highest of all selected countries and the European average.

Fig. 17. Negative Portuguese responses to selected drug-related questions over time.

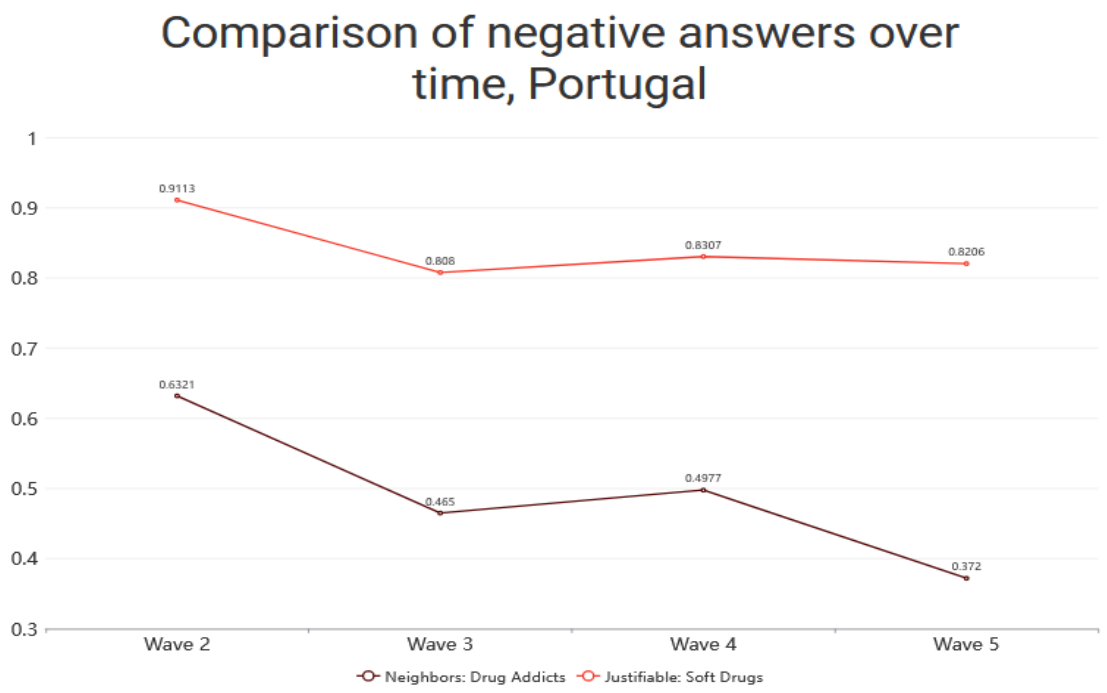


Figure 17 shows that while the Portuguese attitude towards having drug addicts as neighbors has been consistently accepting overall, that the attitude towards the actual use of what are considered soft drugs in other countries is very negative in Portugal and has remained so through decriminalization. Additionally, while both questions saw a decrease in negative responses in wave five (2017-2021), the decrease was much larger for Neighbors: Drug addicts (from 50 percent to 37 percent) than it was for Justifiable: soft drugs (from 83 percent to 82 percent).

Fig. 18. Correlation of Justifiable: Soft Drugs with Neighbors: Drug Addicts in Portugal, by wave.

Neighbors: Drug Addicts (A124_08)	**Justifiable: Soft Drugs** (F126)
Wave 2 (1990-1993)	-0.1
Wave 3 (1999-2000)	0.03
Wave 4 (2008-2009)	-0.09
Wave 5 (2017-2021)	-0.03
Across all Waves	-0.06

**Rounded to the nearest hundredth.*

Figure 18 explores correlations between the Portuguese Neighbors: Drug Addicts responses and

Justifiable: Soft Drugs responses. There is an overall weak negative correlation between responses to Justifiable: Soft Drugs and Neighbors: Drug Addicts. This is a intriguing finding, suggesting little correlation between whether a respondent thought a drug addict would be an undesirable neighbor and how justifiable the respondent found the use of soft drugs. The negative correlation is potentially due to the negative wording of the Neighbors: Drug Addicts question (i.e. Please mention any groups you would *not* like to have as a neighbor) and the positive Likert scale used for Justifiable: Soft Drugs (where a higher score indicates that the respondent found the act more justifiable). Thus, mentioning drug addicts as undesireable neighbors is very weakly correlated with a lower soft drug justifiability score.

Analysis and Discussion

The purpose of this study is to examine how Portugal's drug decriminalization policy has impacted the level of stigma against individuals who use drugs, utilizing data obtained from the European Values Survey (EVS). The results of this study can be valuable in guiding drug policy reform initiatives in other countries and advancing our understanding of the correlation between drug policy and stigma. It is expected that the implementation of Portugal's drug decriminalization policy has significantly diminished the amount of stigma directed towards drug users, which will be apparent in a decrease in negative responses to drug-related questions in the EVS data after the year 2000. Additionally, it is possible that this positive impact may also be evident in the trends of other selected countries after this period.

Key findings

While "Drug Addicts" were mentioned as undesirable neighbors more than any other selected group in Portugal, there is still a noticeable downward trend over time, both before and after decriminalization was implemented. The percentage of Portuguese respondents who mentioned drug

addicts as undesirable neighbors decreased by 26 percentage points (from 63 percent to 37 percent) between the EVS second wave to the most recent fifth wave, which is a larger decrease in mentions for any other group besides homosexuals.

In Portugal, there is a slight increase in mentions of nearly all groups between the third and fourth waves, followed by a decrease in mentions across all groups for which data is available from the fourth to fifth waves. Again, the decrease in respondents who mentioned drug addicts as undesirable neighbors (from just under 50 percent down to 37 percent) is eclipsed only by the decrease in mention of homosexuals (from just under 30 percent to 13 percent). In the fifth wave, there is only about a 2 percent difference in mentions of drug addicts as undesirable neighbors as there is of heavy drinkers as undesirable neighbors (37 percent versus 35 percent).

Compared to the other included countries and the Europe-wide results, Portugal is the only country where mentions of drug addicts as undesirable neighbors decreased. In all others, there was an increase: the overall trend across Europe increased from 66 percent in the second wave to 75 percent by the fifth wave.

In Portugal, the number of respondents who answered No Answer or Don't Know to the Justifiable: Soft Drugs question is comparable in size to the percentage of respondents who answered Always or Almost Always. This number also saw an increase over time.

While Portugal had by far the lowest percentage for "Neighbor: Drug Addict," it had the highest score for "Justifiable: Soft Drugs," higher than the Europe-wide percentage. While the Portuguese attitude towards having drug addicts as neighbors has been consistently accepting overall, the attitude towards the actual use of what are considered soft drugs in other countries is very negative in Portugal and has remained so through decriminalization. Both questions saw a decrease in negative responses in wave five, though the decrease was much larger for Neighbors: Drug addicts than it was for Justifiable: soft drugs.

There is an overall very weak negative correlation between responses to Justifiable: Soft Drugs

and Neighbors: Drug Addicts. This is a intriguing finding, suggesting little correlation between whether a respondent thought a drug addict would be an undesirable neighbor and how justifiable the respondent found the use of soft drugs.

Interpretation

Laqueur (2015), Ferreira (2017), Rêgo et al. (2021) suggest that Portugal's decriminalization is consistent with a global trend towards the reduction of penalties associated with drug use and users. Ferreira asserts that the liberalization of drug policy described by Lacquer must be preceded by a shift in cultural attitude towards drug use, while Rêgo et al. argue that Portugal's decriminalization policy mirrored trends already seen across the continent; at the same time, Rêgo et al. assert that Portugal's decriminalization has not had a substantial impact on stigma against drug use or users globally, and are ambivalent about whether it has had a substantial impact inside of Portugal.

The rest of the European community had a much more lenient attitude towards drugs in their "Justifiable: Soft Drugs" responses than in their "Neighbour: Drug Addict" responses. While Portugal had by far the lowest percentage of mentions for "Neighbor: Drug Addict" of any group, it had the highest "Never or almost never justifiable" response rate for "Justifiable: Soft Drugs," higher even than the Europe-wide percentage. These seemingly contradictory results could be interpreted as Portuguese respondents believing that drug use is not acceptable, but that drug addiction does not make someone an undesirable member of the community. This is consistent with Moury & Escada (2022)'s understanding of Portugal's shift in perception of drug use, and suggests a shift in type of stigma (Bos et al., 2013) rather than an elimination of it entirely. These results do complicate Ferreira (2017)'s assertion that drug policy liberalization must be preceded by a shift in cultural attitude towards drug use, because Portugal has a clear split in attitude towards drug use--and its trend is the reverse of its neighbors in this regard.

The sharpest decrease in mentions of drug addicts as undesireable neighbors for all groups

occurs between wave two and wave three, suggesting that the 1990s was a period of relatively substantial social change in Portugal and consistent with Ferreira (2017), Rêgo et al. (2021), and Moury & Escada's (2022) assertions that social change must precede policy change. It is also consistent with Laqueur's (2015) assertions that there has been an overall trend towards liberalization in Europe, at least in the 90's. However, Lacqueur's assertion of liberalization, at least in public attitude towards drug addiction, appears to stall and even reverse itself after 2000.

By the fifth EVS survey wave (2017-2021), drug addicts were considered hardly worse than heavy drinkers as neighbors in Portugal--this could be attributed to Portugal's abolishment of the distinction between "hard" and "soft" drugs in its drug policy. Portugal was the only country to see a decrease in the rate of mentions of drug addicts from the second (1990-1993) to the fifth waves. While Rêgo et al. (2021) claim mixed or ambivalent evidence that Portuguese drug policy has shifted attitudes towards drug use in Portugal, it is clear that the Portuguese respondents were at least tolerant of "drug addicts" in their community, far more so than their peer nations.

Critically, there does not seem to be any indication of a splash effect from decriminalization in Portugal in the data from the other countries or in Europe more broadly. Spain, Italy, and the Netherlands all have forms of *de facto* decriminalization, while Portugal is the only country to implement *de jure* decriminalization. The lack of splash effect, as well as the overall difference in attitude trends, could be attributed at least in part to the difference between the legal distinction between *de facto* and *de jure*. Notably, there is an overall *increase* in mentions of drug addicts as undersireable neighbors across Europe, suggesting a wider trend of unrest or distrust, and contradicting Laqueur (2015)'s assertion that Portugal was part of a larger European trend. This trend is most noticeable in wave three (2008-2009) where even Portugal experienced an uptick in mentions of drug addicts (and some other groups) as undesireable neighbors, but figure 11 (pp. 35) shows that of all groups measured, only Portugal had an overall decrease in mentions between wave two (1990-1993) and wave five (2017-2021). These findings do support Rêgo et al. (2021)'s position that Portugal's

decriminalization did not have a noticeable impact in other countries, at least in Europe.

In the Portuguese responses, there is a medium to high correlation between most of the neighbors answers with the neighbors: drug addict question. This is consistent with the idea that stigma of one group often carries over into stigmatization of other groups or behaviors also considered deviant (Major & O'Brien, 2005; Bos et al., 2013).

Limitations and future research

These findings open the door for substantial further research, both qualitative and quantitative. More robust quantitative methods could be used to assess the European Values Survey (EVS) data. A two-way fixed effects model could be used to compare attitudes towards drug use between Portugal and other European countries using data from the EVS, using a regression equation such as $\alpha + \beta1\text{Portugal} + \beta2\text{Year} + \varepsilon$, where α is the intercept, $\beta1$ and $\beta2$ are the coefficients for Portugal and Year, respectively, and ε is the error term. Additional t-tests between variables could also be considered for future analysis, particularly between mentions of drug addicts as undesireable neighbors and demographic data.

There are drawbacks to using EVS survey questions to measure stigma. The EVS survey questions only ask about attitudes towards drug users and do not capture the full range of experiences related to drug use stigma. Further research could expand the scope of questions to cover different aspects of stigma such as discrimination, social exclusion, and labelling. Respondents may not always report their true attitudes towards drug users and drug use due to social desirability bias. They may be hesitant to express their true feelings, which can lead to underreporting of stigmatizing attitudes. Future research could explore alternative ways to measure stigma such as implicit measures or experimental methods. Further research could explore the cultural variations in stigma between countries (or even between different internal communities within a country) towards drug use and develop appropriate measures to capure this variation. To improve the measurement of stigma related to drug use, further

research could explore the use of mixed methods approaches, including qualitative interviews and focus groups to gain a more comprehensive understanding of stigma. Additionally, researchers could use multiple measures of stigma to cross-validate findings and increase the validity of the results. Finally, studies could focus on developing standardized measures of stigma that are suitable for use across different cultural contexts.

US attitudes towards decriminalization beyond what can be interpreted by the passage of recent drug policies is beyond the scope of this paper. Response data from surveys similar to the EVS, such as the World Values Survey or the General Social Survey, for US residents could provide a more concrete grounds for comparison.

The trends seen in the EVS data also suggest a deeper dive into the events of the late 2000's for further analysis--for example, did the 2008 financial crisis have anything to do with the overall increase in stigma (e.g. the increase in mention of various groups as undesireable neighbors, both inside Portugal and out) seen across Europe? Were there other events that may have had an impact, such as an increase in radical politics, extremism, ore renewed anti-drug campaigns? In 2008, the Portuguese Supreme Court of Justice reestablished the crime of drug use when the quantity detected exceeds the average use for a period of 10 days (Laqueur, 2015; Rêgo et al., 2021). This might explain some of the increase in stigma inside of Portugal, but is unlikely to have impacted attitudes in other countries. Instead, this is likely part of a larger global trend and merits further research.

This analysis is also limited by the data available from the EVS about Portugal. Supplementing the EVS data with other surveys or qualitative data would serve to narrow the multi-year gap between EVS survey waves. Additionally, that the second EVS survey was begun in what Rêgo et al. (2021) and Moury & Escada (2022) argue was the beginning of the paradigm shift that allowed for the passage of Portuguese decriminalization in 2000 means that there is no data available from before this movement for social change began; additional data sources would help to rectify that.

Harm reduction is also a topic of further investigation that would be benefitted by both

qualitative and quantitative research. A better understanding of how each type of harm reduction seen in Portugal and elsewhere contributes to a reduction of stigma against drug users and use would be invaluable to those looking to implement such policies in the future--especially when funding or policial will is limited. A quantitative route could include an estimation of numbers associated with each type of harm reduction, such as a decrease of HIV infections due to the availability of needle exchanges; a qualitative analysis could consider whether and how healthcare workers, families, or even users themselves experienced a reduction or shift in stigma over time.

As more data becomes available, a comparative analysis of Portugal and the State of Oregon would provide deeper insight into the opportunities and constraints presented by a complete *de jure* decriminalization policy combined with harm reduction strategies, as opposed to the partial and/or *de facto* decriminalization seen elsewhere. In Canada, Vancouver, B.C.'s recent 2023 decriminalization policy combined with its long history of harm reduction practices may provide additional insight as well.

Implications:

Ultimately, the key findings and interpretations from this research can be applied in several ways, depending on the context and the specific goals of the stakeholders involved. These findings promote an increase in awareness and understanding of the factors that contribute to drug use and addiction; this can help reduce stigma and promote empathy towards those struggling with addiction. Targeted interventions that address the underlying causes of drug use, such as poverty, trauma, or mental health issues, can be more effective in reducing drug use and preventing addiction, as well as addressing stigma and stereotypes against drug users and use. Improved access to evidence-based treatments and harm reduction strategies, such as medication-assisted treatment and syringe exchange programs, can help mitigate the negative health consequences of drug use and reduce the likelihood of overdose. Policymakers can use these findings as further evidence to inform the development of more

effective drug policies that prioritize prevention, treatment, and harm reduction over punitive measures.

These benefits come with drawbacks and challenges. Some stakeholders, such as law enforcement agencies or advocates of abstinence-only approaches to drug use, may resist the implications of these findings and continue to promote stigmatizing or punitive policies. The implementation of evidence-based interventions and harm reduction strategies may require significant resources and political will, which could be a barrier to their widespread adoption. Some individuals or groups may perceive the reduction of stigma against drug use as a tacit endorsement of drug use itself, which could lead to backlash or resistance. There is also a risk that interventions designed to reduce drug use could have unintended consequences, such as increased policing and surveillance of marginalized communities or the displacement of drug use to more dangerous or hidden locations.

Conclusion

In many societies, drug use is sanctioned or legal if it is considered to serve a legitimate purpose, such as medical treatment or recreational use of alcohol and tobacco. The social norms and institutions that surround these forms of drug use shape how they are perceived and regulated, often leading to different consequences for different types of drug use. For example, while alcohol and tobacco are legal and widely used in many societies, they are also subject to regulations and restrictions around issues such as advertising, taxation, and public use.

On the other hand, illegal drug use is often stigmatized and subject to harsh criminal penalties, even if the drugs themselves are not inherently more dangerous or harmful than sanctioned drugs. This reflects the social construction of drugs as deviant and morally suspect, and the ways in which drug use is often associated with other forms of social deviance, such as poverty, crime, and minority status.

The key findings of this research suggest that there has been a noticeable decrease in the percentage of Portuguese respondents who mentioned drug addicts as undesirable neighbors over time, both before and after decriminalization was implemented. The sharpest decrease in mentions of drug

addicts as undesirable neighbors for all groups occurred between wave two and wave three, lending credence to the idea that social change facilitates policy change. By the fifth EVS survey wave, drug addicts were considered hardly worse than heavy drinkers as neighbors in Portugal, which could be attributed to Portugal's abolishment of the distinction between "hard" and "soft" drugs in its drug policy.

There is a clear split in attitude towards drug use among Portuguese respondents. Compared to other included countries and Europe-wide results, Portugal is the only country where mentions of drug addicts as undesirable neighbors decreased. However, Portugal's attitude towards the actual use of what are considered soft drugs in other countries is very negative and has remained so through decriminalization. These results suggest a shift in type of stigma towards drug use rather than an elimination of it entirely.

Ultimately, the Portuguese model of drug policy has helped to illuminate the policy window for drug policy reform in the United States by providing a concrete example of a successful policy innovation that includes harm reduction approaches to drug use. By decriminalizing drug possession and use, and shifting resources towards treatment and harm reduction services, Portugal has demonstrated that it is possible to reduce drug-related harm without resorting to criminalization and punishment.

While Portugal's harm reduction strategies have been largely successful in reducing drug-related harm and improving public health outcomes, there are still some drawbacks and challenges associated with these policies. Portugal's harm reduction programs rely on a significant investment of resources, including funding for treatment and support services, as well as education and prevention efforts. While Portugal has made a commitment to these programs (Moury & Escada, 2022), there are limitations to the amount of resources that can be devoted to this area, and there are still some challenges in ensuring that all individuals who need these services are able to access them.

Despite the success of Portugal's harm reduction policies, there are still some individuals and

groups who are resistant to change and continue to promote punitive drug policies (Moury & Escada, 2022). This can make it difficult to sustain and expand harm reduction programs, as well as to shift public attitudes and beliefs about drug use and addiction. There is some concern, particularly from conservative and law enforcement groups (Rêgo et al., 2021) that harm reduction policies may lead to an increase in drug use or risky behavior, as individuals may feel that they can use drugs more safely due to the availability of harm reduction resources.

A substance use disorder solution gaining popularity globally but conspicuously absent from the Portuguese model is the safe injection site, or SIS. In 2003, a SIS named Insite opened in Vancouver, BC. Insite was the first legally sanctioned supervised injection site in North America, and it was the first to operate under an exemption from Canadian drug laws. The site is in an area of town that is colloquially labeled "The poorest postal code in Canada," which in 1997 had the highest HIV infection rate in the developed world (Maguder, 2013). The Vancouver Police Department estimates that these few city blocks are home to over 5,000 intravenous drug users, and the Insite clinic offers these individuals clean, clinical conditions to inject in, with medical staff standing by in the event of an overdose. A few US jurisdictions have sought to copy the Insite model, such as New York City and the City of Seattle; while New York City has successfully opened two such sites (Peltz, 2022), efforts to open official SIS in Seattle have stalled despite the support of the City Council (Markovich, 2021). In lieu of official SIS, several informal, illegal SIS operate in the area (Jama, 2018).

The Insite SIS model doe face a great amount of criticism. David Berner, who opened Canada's first-ever treatment center for addicts in 1967, opposes Insite, arguing that abstinence-based harm reduction strategies are the most effective. In 2011 the Canadian Supreme Court ruled to keep Insite open, despite major opposition from then-Prime Minister Stephen Harper. After the 2011 ruling, a four-year study recommended three safe-injection sites for Toronto and two more in Ottawa; these sites were quickly shot down by the Toronto City Administration despite Toronto's over 9,000 estimated daily intravenous users. More than 50% of the public supported the building of these sites (Maguder, 2013).

In New York, Rep. Nicole Malliotakis (R-NY) has argued for the closure of the NYC sites, calling them “heroin shooting galleries that only encourage drug use and deteriorate our quality of life” (Peltz, 2022). Liane, an Insite patient from Vancouver, argued that users would inject drugs whether safe injection sites were available or not. She called out the stigma that she and other users face, saying:

> We have to stop making it a moral issue and realise that this is a medical problem. Remember us addicts, we're somebody's mothers, we're somebody's sister, we're somebody's daughter ... the next time you pass me on the street and shake your head. I'm entitled to healthcare, and being treated like a human being, and not being looked at as somebody that isn't, somebody you don't want to talk about, like a dirty little secret. (qtd. in Maguder, 2013)

Some harm reduction advocates believe that Portugal should establish safe injection sites, where individuals can use drugs under medical supervision in a controlled environment (Rêgo et al., 2021). This can help to prevent overdose deaths, reduce the spread of infectious diseases, and connect individuals with treatment and support services. Some harm reduction organizations in Portugal do provide clean needles and other supplies to people who inject drugs, and there are mobile harm reduction units that travel to areas where drug use is common to provide education, counseling, and support services (Rêgo et al., 2021, Moury & Escada, 2022).

The overall success of the Portuguese drug policy has also helped to shift the global conversation on drug policy, with international organizations such as the United Nations acknowledging the importance of harm reduction strategies and calling for an end to punitive drug policies (Moreira et al., 2011). As drug policy reform continues to gain momentum in the United States and around the world, the Portuguese drug policy serves as a powerful example of what is possible when policymakers prioritize public health and harm reduction over criminalization and punishment.

Appendices:

Appendix A. Demographic characteristics of study participants, Europe-wide (N=205,056)

Demographic Characteristic	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Total Participants	38213		41125		66280		59438	
Gender (X001)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Male	18,124	47.43%	18,916	46.00%	29,406	44.37%	26,293	44.24%
Female	20,022	52.40%	22,198	53.98%	36,863	55.62%	33,119	55.72%
Age (X003R2)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
15-29 Years	9,454	24.74%	9,224	22.43%	14,016	21.15%	9,840	16.56%
30-49 Years	14,913	39.03%	15,886	38.63%	23,285	35.13%	19,342	32.54%
50 or More	13,744	35.97%	15,853	38.55%	28,689	43.28%	29,931	50.36%
Income (X047R_EVS)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Low	9,271	24.26%	11,537	28.05%	18,889	28.50%	16,939	28.50%
Medium	13,465	35.24%	12,402	30.16%	19,475	29.38%	17,318	29.14%
High	9,739	25.49%	10,860	26.41%	15,787	23.82%	16,441	27.66%
Education Level (X025R)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Lower			14,906	36.25%	19,873	29.98%	12,127	20.40%
Middle			18,112	44.04%	30,681	46.29%	26,836	45.15%
Upper			7,790	18.94%	15,112	22.80%	20,003	33.65%
Size of Town (x049a)								
Under 5,000	10,389	27.19%	11,370	27.65%	19,001	28.67%	15,227	25.62%
5,000-20,000	7,285	19.06%	7,497	18.23%	11,388	17.18%	11,767	19.80%
20,000-100,000	8,370	21.90%	8,492	20.65%	14,095	21.27%	11,065	18.62%
100,000-500,000	5,197	13.60%	6,511	15.83%	9,259	13.97%	8,494	14.29%
500,000 and more	4,378	11.46%	6,416	15.60%	7,835	11.82%	6,891	11.59%
Religious Person (F034)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
A Religious Person	22,349	58.49%	25,758	62.63%	44,592	67.28%	37,038	62.31%
Not a Religious Person	11,011	28.81%	10,872	26.44%	14,844	22.40%	15,580	26.21%
A Convinced Atheist	1,631	4.27%	2,080	5.06%	3,372	5.09%	4,464	7.51%

Note: Missing, Not asked, No answer, and Don't know responses omitted. Numbers may not add up to 100%.

Appendix B. Demographic characteristics of study participants, Portugal (N=4,953)

Demographic Characteristic	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Total Participants	1185		1000		1553			1215
Gender (X001)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Male	565	47.68%	386	38.60%	628	40.44%	501	41.23%
Female	620	52.32%	614	61.40%	925	59.56%	714	58.77%
Age (X003R2)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
15-29 Years	371	31.31%	223	22.30%	189	12.17%	145	11.93%
30-49 Years	379	31.98%	303	30.30%	523	33.68%	304	25.02%
50 or More	435	36.71%	474	47.40%	841	54.15%	763	62.80%
Income (X047R_EVS)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Missing: Other	61	5.15%	324	32.40%	746	48.04%	1,215	100.00%
Low	341	28.78%	144	14.40%	218	14.04%		
Medium	419	35.36%	295	29.50%	332	21.38%		
High	364	30.72%	237	23.70%	257	16.55%		
Education Level (X025R)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Lower	N/A		523	52.30%	1,174	75.60%	758	62.39%
Middle	N/A		376	37.60%	235	15.13%	277	22.80%
Upper	N/A		101	10.10%	140	9.01%	180	14.81%
Size of Town (x049a)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Under 5,000	774	65.32%	592	59.20%	887	57.12%	595	48.97%
5,000-20,000	139	11.73%	140	14.00%	303	19.51%	260	21.40%
20,000-100,000	164	13.84%	141	14.10%	208	13.39%	186	15.31%
100,000-500,000	34	2.87%	51	5.10%	114	7.34%	102	8.40%
500,000 and more	74	6.24%	76	7.60%	41	2.64%	72	5.93%
Religious Person (F034)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
A Religious Person	864	72.91%	856	85.60%	1,266	81.52%	914	75.23%
Not a Religious Person	245	20.68%	91	9.10%	200	12.88%	200	16.46%
A Convinced Atheist	47	3.97%	30	3.00%	57	3.67%	76	6.26%

Note: Missing, Not asked, No answer, and Don't know responses omitted, except where they accounted for a significant number of responses. Numbers may not add up to 100%.

Appendix C. Demographic characteristics of study participants, The Netherlands (N=5,978)

Demographic Characteristic	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Total Participants	1017		1003		1554			2404
Gender (X001)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Male	441	43.36%	491	48.95%	701	45.11%	1,120	46.59%
Female	576	56.64%	510	50.85%	853	54.89%	1,284	53.41%
Age (X003R2)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
15-29 Years	251	24.68%	134	13.36%	109	7.01%	283	11.77%
30-49 Years	433	42.58%	486	48.45%	495	31.85%	708	29.45%
50 or More	333	32.74%	382	38.09%	948	61.00%	1,413	58.78%
Income (X047R_EVS)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Missing: Other	227	22.32%	69	6.88%	244	15.70%		
No Answer							191	7.95%
Don't Know							209	8.69%
Low	218	21.44%	289	28.81%	495	31.85%	681	28.33%
Medium	323	31.76%	363	36.19%	387	24.90%	674	28.04%
High	249	24.48%	282	28.12%	428	27.54%	649	27.00%
Education Level (X025R)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Lower			308	30.71%	670	43.11%	715	29.74%
Middle			351	35.00%	386	24.84%	656	27.29%
Upper			344	34.30%	480	30.89%	998	41.51%
Size of Town (x049a)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Under 5,000	37	3.64%	10	1.00%	132	8.49%	N/A	
5,000-20,000	287	28.22%	185	18.44%	338	21.75%	N/A	
20,000-100,000	410	40.31%	420	41.87%	688	44.27%	N/A	
100,000-500,000	172	16.91%	243	24.23%	272	17.50%	N/A	
500,000 and more	99	9.73%	120	11.96%	122	7.85%	N/A	
Religious Person (F034)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
A Religious Person	606	59.59%	609	60.72%	987	63.51%	1,039	43.22%
Not a Religious Person	339	33.33%	319	31.80%	447	28.76%	1,038	43.18%
A Convinced Atheist	52	5.11%	64	6.38%	90	5.79%	252	10.48%

Note: Missing, Not asked, No answer, and Don't know responses omitted. Numbers may not add up to 100%.

Table D. Demographic characteristics of study participants, Spain (N=6,546)

Demographic Characteristic	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Total Participants	2637		1200		1500		1209	
Gender (X001)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Male	1,247	47.29%	584	48.67%	658	43.87%	539	44.58%
Female	1,390	52.71%	616	51.33%	842	56.13%	670	55.42%
Age (X003R2)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
15-29 Years	835	31.66%	299	24.92%	302	20.13%	172	14.23%
30-49 Years	952	36.10%	399	33.25%	569	37.93%	439	36.31%
50 or More	850	32.23%	502	41.83%	626	41.73%	598	49.46%
Income (X047R_EVS)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Low	852	32.31%	234	19.50%	326	21.73%	407	33.66%
Medium	866	32.84%	375	31.25%	312	20.80%	267	22.08%
High	556	21.08%	196	16.33%	308	20.53%	225	18.61%
Education Level (X025R)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Lower	N/A		514	42.83%	746	49.73%	654	54.09%
Middle	N/A		512	42.67%	479	31.93%	282	23.33%
Upper	N/A		174	14.50%	260	17.33%	266	22.00%
Size of Town (x049a)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Under 5,000	430	16.31%	197	16.42%	103	6.87%	43	3.56%
5,000-20,000	541	20.52%	246	20.50%	283	18.87%	360	29.78%
20,000-100,000	469	17.79%	224	18.67%	527	35.13%	332	27.46%
100,000-500,000	690	26.17%	313	26.08%	351	23.40%	271	22.42%
500,000 and more	494	18.73%	220	18.33%	235	15.67%	203	16.79%
Religious Person (F034)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
A Religious Person	1,622	61.51%	675	56.25%	816	54.40%	596	49.30%
Not a Religious Person	770	29.20%	396	33.00%	489	32.60%	419	34.66%
A Convinced Atheist	112	4.25%	74	6.17%	155	10.33%	161	13

Note: Missing, Not asked, No answer, and Don't know responses omitted. Numbers may not add up to 100%.

Appendix E. Demographic characteristics of study participants, Italy (N=7,814)

Demographic Characteristic	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Total Participants	2018		2000		1519		2277	
Gender (X001)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Male	965	47.82%	959	47.95%	731	48.12%	1,143	50.20%
Female	1,053	52.18%	1,041	52.05%	788	51.88%	1,134	49.80%
Age (X003R2)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
15-29 Years	635	31.47%	445	22.25%	300	19.75%	346	15.20%
30-49 Years	739	36.62%	738	36.90%	533	35.09%	692	30.39%
50 or More	644	31.91%	817	40.85%	686	45.16%	1,239	54.41%
Income (X047R_EVS)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Missing: Other	594	29.44%	487	24.35%	563	37.06%		
No Answer							523	22.97%
Low	222	11.00%	527	26.35%	401	26.40%	635	27.89%
Medium	899	44.55%	474	23.70%	274	18.04%	593	26.04%
High	303	15.01%	512	25.60%	281	18.50%	402	17.65%
Education Level (X025R)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Lower	N/A		873	43.65%	564	37.13%	875	38.43%
Middle	N/A		829	41.45%	684	45.03%	1,024	44.97%
Upper	N/A		298	14.90%	235	15.47%	365	16.03%
Size of Town (x049a)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
Under 5,000	354	17.54%	364	18.20%	332	21.86%	380	16.69%
5,000-20,000	507	25.12%	495	24.75%	456	30.02%	680	29.86%
20,000-100,000	481	23.84%	657	32.85%	385	25.35%	671	29.47%
100,000-500,000	279	13.83%	228	11.40%	168	11.06%	297	13.04%
500,000 and more	393	19.47%	256	12.80%	178	11.72%	249	10.94%
Religious Person (F034)	**Wave 2 Freq.**	**Percent**	**Wave 3 Freq.**	**Percent**	**Wave 4 Freq.**	**Percent**	**Wave 5 Freq.**	**Percent**
A Religious Person	1,626	80.57%	1,663	83.15%	1,238	81.50%	1,673	73.47%
Not a Religious Person	234	11.60%	224	11.20%	145	9.55%	352	15.46%
A Convinced Atheist	65	3.22%	51	2.55%	71	4.67%	147	6.46%

Note: Missing, Not asked, No answer, and Don't know responses omitted. Numbers may not add up to 100%.

Appendix F: Methods for selection of Demographic variables

For income, I included the harmonized variable X047R_EVS, which recoded income for each country into three categories, "Low," "Medium," and "High," and divided the results from each country roughly into equal thirds (EVS, 2022). Additionally, Portugal was missing income data for wave five. There were no race or ethnicity questions in the EVS; the closest analog was "Respondent's country of birth". This question was only asked in the fourth and fifth survey waves, and so was omitted.

Education level provided some difficulty. While the variable X025A (Educational level respondent: ISCED 97 - one digit) was the preferable variable for its use of the UNESCO-created ISCED 97 framework that allowed cross-country comparison while maintaining a suitable amount of distinction between education levels, X025A only had data from the two most recent survey waves. While the harmonized variable X025R offered only "High," "Medium," or "Low" education level, it was asked in the third, fourth, and fifth survey waves. X025 could have been used instead, but ultimately the data from X025 would have been condensed into fewer categories; utilizing X025R saved time and effort. Additionally, The Missing: Other and Not Applicable categories of Education Level were combined.

I included the variable x049a over X049 for urbanization/size of town as the data from the two most recent surveys was missing from X049; the EVS Trend File codebook states that, "EVS 2008, EVS 2017: For data protection reasons the eight answer categories in X049 'Size of town' have been aggregated into five coarser population intervals" (EVS, 2022).

There were many options to explore religiosity. the variable F034: Are you a religious person? was chosen; areas for further research include religious upbringing or denomination of religion. These were omitted from the scope of this analysis due to the high percentage of Catholics in Portugal and the control countries Spain and Italy; therefore, it seemed more meaningful to consider whether a respondent considered themselves to be religious at the time of survey rather than to consider their upbringing or which denomination they belonged to.

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