

# Beyond the War on Drugs: Evidence from Portugal's Drug Decriminalization Reform and the *Retornados* Migration \*

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## Abstract

What are the consequences of decriminalizing heroin, meth, cocaine, and cannabis? In this paper, I estimate the political, health, and criminal effects of the 2001 drug decriminalization reform in Portugal. I proxy pre-reform regional variation in drug prevalence with the *retornados* migration. The *retornados* are 600,000 migrants who returned from the African colonies to Portugal in the aftermath of the 1974 Carnation Revolution and laid out the foundations of the Portuguese drug market. I then estimate a difference-in-differences model. Results point to a reduction in theft and burglary rates, while drug-related hospital admission rates remained unaffected. Political parties that supported the new policy saw a slight decrease in voting in the short run, but there is no evidence of long-term political effects. Altogether, I show that drug decriminalization positively impacts welfare, with limited backlash towards endorsing politicians, offering a promising avenue for future discussions surrounding this topic.

*Key words:* Drug Decriminalization, Return Migration

*JEL codes:* D72, F22, I18, K42

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# 1 Introduction

What are the effects of decriminalizing heroin, meth, cocaine, and cannabis? Five decades after American President Nixon declared war on drugs, left and right-wing politicians still dispute how to address drug abuse in our society. Proponents of drug decriminalization argue that treating drug use as a public health issue rather than a criminal offense would lead to reduced stigma and crime, increased access to treatment, improved public health outcomes, and more efficient allocation of resources. Opponents claim that undermining the deterrent effect of criminal penalties results in more drug use. This discussion gained more traction during the 2020 American elections, when the state of Oregon approved the Drug Addiction Treatment and Recovery Act known as “Measure 110”, becoming the first state to decriminalize all recreational drugs in the US. In 2021, the Canadian province of British Columbia approved a similar measure. So far, more than thirty countries have softened their stance on criminally prosecuting some form of recreative drug use, but new policies are typically restricted to soft drugs. One exception is Portugal.

Since 2001, the public and private use, acquisition, and possession of all recreational drugs in Portugal are no longer punishable by imprisonment, nor do they lead to criminal records. These cases are now considered administrative offenses and are usually dismissed or subject to non-mandatory treatment such as counseling and/or fines. The Portuguese legislation was a response to the significant drug abuse crisis that the country faced during the 1990s, with high rates of drug-related deaths, HIV/AIDS transmission through intravenous drug use, and overcrowded prisons filled with drug offenders. Under the new approach, persons caught with small amounts of drugs would meet with the “dissuasion commission”, a panel of experts comprised of legal, medical, and social work professionals, who would assess the individual’s drug use pattern, health status, and personal circumstances, and decide on whether to impose an administrative penalty.

The literature on the consequences of decriminalizing soft drugs is extensive, but less is known about the ramifications of a more comprehensive policy

reform like the one implemented in Portugal. In this paper, I investigate the health, criminal, and electoral effects of the 2001 Portuguese drug policy reform. I provide evidence on hospital admissions, arrest rates, and electoral outcomes according to the political parties' positions concerning the legislation before its approval. Results show that drug decriminalization decreased crime, while drug-related hospital admissions remained unaffected. The reform had no long-term electoral effects on the political parties that endorsed or opposed it.

In my empirical approach, I exploit the *retornados* migration as a source of exogenous geographical variation in pre-decriminalization drug use. The *retornados* were 600,000 Portuguese settlers who mostly lived in Angola, Mozambique, Cabo Verde, and Guinea-Bissau and returned to Portugal in the aftermath of the Carnation Revolution of 1974.<sup>1</sup> The revolution marked Portugal's transition from the authoritarian *Estado Novo* regime to democracy. In the African colonies, where violent independence movements had been taking place since the 1960s, the end of the *Estado Novo* government fueled the prospect of civil wars. Escaping the perils of an armed conflict, the *retornados* fled Africa leaving behind almost all possessions (Peralta, 2022), resulting in a return migration movement that increased the Portuguese population by 5%. There is evidence that the *retornados* from Angola and Mozambique (the two colonies with drug production) established the first routes to bring cannabis from the former colonies to Portugal, effectively laying down the foundations of the drug market in the country (Calado, 2016; Domoslawski and Siemaszko, 2011; Fernandes, 1990). Until the 1970s, the prevalence of drug use within the Portuguese population remained insignificant (Domoslawski and Siemaszko, 2011). However, after the 1974 revolution, marijuana brought by the *retornados* from Angola and Mozambique became readily available in the country (Fernandes, 1990; de Oliveira, 1997; Dias, 2007). I use drug prevalence surveys from 1999 and 2000 to provide evidence of persistence in the correlation between the presence of these *retornados* after 1974 and pre-2001 drug use levels.

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<sup>1</sup>A minority of *retornados* arrived from smaller colonies such as São Tomé and Príncipe and Timor, in Asia.

I find evidence that municipalities with more *retornados* arriving from Angola and Mozambique in 1974 had an up to 30% higher prevalence of hard-drug use and 17% more soft-drug users in the years before 2001.

I then proceed to estimate a difference-in-differences model, comparing localities with different levels of pre-reform drug use level (thus, exposure to treatment), before and after the implementation of the new policy. As a proxy for drug prevalence before 2001, I use the share of *retornados* that left Africa from Angola and Mozambique, the two colonies with drug production. Electoral results show that, in the short term, parties that supported the decriminalization of drugs had a small but statistically significant decrease in voting as a result. The opposite is true for pro-decriminalization parties. Although statistically significant, the effect is small in magnitude and only exists for the first election after decriminalization. In 2002, the vote share for parties in favor of the reform decreased by 0.2%, or 0.10 percentage points (p.p.), while parties that opposed the decriminalization experienced an increase in voting of the same magnitude. The effect was not large enough to change the results of any election in our sample and dissipated after 2002. Altogether, results provide no evidence that, in the long run, politicians are rewarded or punished because of their position concerning drug decriminalization. A second set of results show that drug-related hospital admission rates remained unaffected after the reform. Finally, I show that decriminalizing drugs succeeded in lowering crime in Portugal, leading to an overall reduction in arrest rates. Theft cases per 100,000 inhabitants fell by 9%, while burglary cases decreased by 5%. The results are statistically significant at the 1% and 5% levels, respectively.

With this paper, I contribute to the literature on the consequences of drug policy reforms and return migration. [Gavrilova et al. \(2019\)](#), [Morris et al. \(2014\)](#) and [Alford \(2014\)](#) find that Medical Marijuana Legislation (MML) led to a reduction in organized crime activity in the US, and [Dave et al. \(2023\)](#) report a positive effect of MML's on agricultural employment. [Adda et al. \(2014\)](#) show that decriminalizing cannabis possession decreased hospital admissions in the UK. Regarding the 2001 Portuguese decriminalization reform, [Félix and Portugal \(2017\)](#) found no effects on the prices of illicit drugs. In

a paper that is the most closely related to this one, [Félix et al. \(2017\)](#), using a synthetic control method, find that the Portuguese drug reform of 2001 lowered the number of offenses and drug-related deaths. I contribute to this literature by presenting results for all drugs, without restriction, on crime, and political outcomes, with an identification strategy that relies on the *retornados* migration as an instrument to drug use.

My results also speak to the growing literature on return migration. Previous evidence focuses on the determinants of return migration, its optimal duration, and migrants' activity upon arrival in their country of birth ([Borjas and Bratsberg, 1994](#); [Dustmann and Kirchkamp, 2002](#)). [Mayr and Peri \(2008\)](#) and [O'Connell and Barrett \(2000\)](#) show how return migration can reverse brain drain effects in the origin country, as high-skilled migrants return while still in their productive age. More recently, in a case similar to the *retornados* migration, [Edo \(2020\)](#) provides evidence that the return migration from Algeria to France led to a decrease in wages and a short-run increase in unemployment in the destination. [Remigereau \(2022\)](#) adds to the discussion by showing that it also increased support for right-wing parties in France. In the specific case of the Portuguese *retornados*, [Carrington and De Lima \(1996\)](#) reports a substantial adverse effect on Portuguese wages. [Mäkelä \(2017\)](#) also reports a decrease in wages caused by the *retornados* and adds to the discussion by arguing that an increase in the number of workers lowered average labor productivity. [Bohnet et al. \(2022\)](#), [Dimitrova \(2023\)](#) and [Fonseca \(2022\)](#) show that Portugal experienced higher levels of informality in the labor market, an increase in fertility, and an increase in voting for far-right parties. I contribute to this stream of literature by providing evidence on long-term preferences' change and cultural assimilation in the context of return migration and drug use.

The paper proceeds as follows: Section 2 summarises the political situation in Portugal and its African colonies before the 1974 revolution, details the *retornados* migration, and the changes introduced by the new law on drugs in 2001. Section 3 describes the datasets used. Section 4 describes how the *retornados* influenced drug use in Portugal and provides quantitative evidence

of their effect on the levels of drug consumption before 2001. Section 5 explain the empirical strategy and Section 6 presents the crime and political results. Section 7 concludes the paper.

## 2 Background

### 2.1 Portugal pre-1974 and The *Retornados* Migration

In the years leading up to the 1974 Carnation Revolution, Portugal completed four decades under the authoritarian regime of Antonio Salazar. This regime, known as the *Estado Novo*, was in power since 1933 and was characterized by political repression and censorship, as well as by strong conservatism and close ties with the Catholic church (Schmitter, 1999; Payne, 1973). Portugal experienced increasing economic difficulties in the late 1960s and early 1970s. In February 1974, inflation reached 30% at an annual rate (Krugman and de Macedo, 2019). In addition, the regime faced increasing opposition from various social groups, including students, workers, and intellectuals, demanding greater political freedoms and economic opportunities (Schmitter, 1999). In its African colonies, the Portuguese government was involved in armed conflicts with local independence movements. The Colonial War killed more than 38,000 soldiers and 6,000 civilians in Angola, Mozambique, and Guinea-Bissau over thirteen years (De Sousa, 2021). These factors, combined with the high costs of the Colonial War, led to a growing sense of discontent and instability in Portugal, which ultimately culminated in a military coup that deposed the *Estado Novo* government on April 25, 1974, and marked Portugal's transition to democracy (Kalter, 2022).

Following the Carnation Revolution, the Portuguese government withdrew its troops from Africa, and its colonies gained independence, triggering a mass return migration to Portugal. The majority of immigrants were Portuguese settlers who lived in Africa and their descendants. They were called “*retornados*”, the Portuguese word for “returnees”, and were escaping a scenario of

civil war and widespread violence in the former colonies (Peralta, 2022).<sup>2</sup> By 1975, around 600,000 *retornados* arrived in Portugal, corresponding to a 5% increase in the country’s population (Pires, 2003). From May to November 1975 alone, 174,000 Portuguese citizens arrived at Lisbon Airport in an air mass transportation effort that organized 905 flights (Matos and Melo, 2019). The *retornados* migration was marked by many challenges, including the resentment from those who had stayed in Portugal during the colonial era and regarded them as privileged people who benefited from colonialism while Portuguese soldiers were losing their lives in the war (Peralta, 2022). Moreover, from the beginning, Portugal associated the *retornados* with “deviant behaviors” such as drug use and prostitution (Marques, 2013).

As the recent literature on the effects of this return migration has been showing, the *retornados* migration has changed the Portuguese landscape, affecting the labor market, fertility rates, and voting preferences (Bohnet et al., 2022; Dimitrova, 2023; Fonseca, 2022). In Section 4, I detail and provide novel quantitative evidence on the connection between the *retornados* and drug consumption.

## 2.2 The 2001 Drug Policy Reform

Since July 2001, the public and private use, acquisition, and possession of small quantities of all drugs are no longer a crime in Portugal. Instead, it is considered an administrative offense. Since then, drug users are no longer punishable by imprisonment or receiving a criminal record — the reform aimed at treating drug addiction as a health issue rather than a criminal one. Portugal was the first European country to decriminalize all drugs in this fashion, without distinction between soft and hard drugs (Julien, 2019).

The reform was first outlined in the National Strategy for the Fight against Drugs (Estrategia Nacional de Luta contra as Drogas – ENLCD), in May 1999. During the 1990s, drug addiction reached concerning levels in Portugal. The

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<sup>2</sup>Technically, not all *retornados* were returnees, as the term also included migrants who were born in the former colonies and may have never been to Portugal before fleeing Africa (Ribeiro and Fonseca, 2022).

Portuguese society saw drug consumption, particularly heroin addiction, as its most pressing social issue (Ministry of Health, 2021a). In surveys conducted in 1989, 1991, and 1994, drug abuse was cited as a top concern by 41%, 41%, and 42% of all respondents, ahead of unemployment, crime, inflation, habitation, and health care (de Oliveira, 1997; Almeida, 1991, 1993; Almeida and Alão, 1995). Prepared as an answer to this situation, the ENLCD outlined a plan to tackle drug consumption, trafficking, and drug-related deaths during the five years from 1999 to 2004, with drug decriminalization at the core of the new strategy. The discussions took place relatively quickly and, in June 2000, the majority of the Portuguese Parliament voted for the decriminalization of drugs in the country, in what would become law number 30/2000, issued in November 2000, and implemented on July 1, 2001.<sup>3</sup>

The 2001 drug policy reform created the Commissions for the Dissuasion of Drug addiction (Comissões para a Dissuasão da Toxicodependência – CDT). The CDTs are district-level panels connecting drug users and the public health system. These panels comprise legal, health, and social work professionals who decide on the administrative penalty imposed on drug offenders. In practice, citizens caught consuming, buying, or possessing small quantities of drugs were taken to the district’s CDT, where their cases would be discussed. There, the panel of specialists would decide on sanctions to impose on the offenders. Possible outcomes include non-mandatory treatment (counseling, for example), fines, and community service, among others. Importantly, none of the sanctions would entail a criminal lawsuit, and the majority of cases (80%) are simply dismissed (Ministry of Health, 2021b).

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<sup>3</sup>Opposition Congressman Durão Barroso (PSD), when addressing the parliament, said “Never before has there been seen, in this Assembly, such an important legislation be dealt with so expeditiously and so irresponsibly” (Barroso, 2000).



## 3 Data

### 3.1 Migration Data

I identify the *retornados* migrants with microdata from the Portuguese Census of 1981. In that year, the Census asked the respondents' place of residence in 1973 and 1979, just before and a few years after the end of the Carnation Revolution. I follow [Pena Pires and Silva \(1987\)](#) and define as a *retornado* all respondents who migrated from Africa to Portugal during this period. I can observe individual records on the universe of 460,328 *retornados*, including their place of birth, which is reported at the municipality level for those who were born in Portugal and at the country level for migrants originally from overseas colonies. This, together with information on the parish of residence in 1981, make it possible to identify the total number of *retornados* from Angola and Mozambique, as well as the total number of *retornados* from other countries, at the parish level.<sup>4</sup>

### 3.2 Drug Use data

I use the first wave of the European Values Study ([EVS, 2012](#)), with data collected in 1999, and the National Survey on the Consumption of Psychoactive Substances in the Portuguese Population (NSPS) ([Balsa, 2004](#)), from 2000, as sources of data on geographic variation in drug use in the years leading up to the reform. I combine these surveys with data on the *retornados* migration to provide evidence of its influence on the prevalence of drug use before 2001. The EVS included the question, "How many of your compatriots do the following: take soft drugs?" which I use as a proxy for the prevalence of soft-drug consumption. From the NSPS, I have data on the prevalence of consumption of drugs other than cannabis, which I use as a proxy to hard-drugs use. Both

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<sup>4</sup>Continental Portugal is divided into 2,882 parishes nested in 278 municipalities and 18 districts.

surveys include information on participants' NUTS II region of residence.<sup>5</sup> All surveys are representative at the region level.

### 3.3 Electoral Data

As opposed to the presidential election, Portuguese citizens do not elect Parliament members directly. Instead, they choose from lists of candidates. Each list is selected by a political party or, more commonly, a coalition of parties. For this reason, I choose to work with electoral outcomes from the election to the National Parliament. This way, I can follow the results of the main parties (usually the head of coalitions) over many elections with less interference from the personal popularity of actual candidates, in comparison with presidential elections. The *Comissão Nacional das Eleições* (CNE), or the National Elections Commission, a Government Agency that is part of the Legislative Branch, publishes the final official voting results for each party or coalition at the parish level. My dataset comprises all fifteen parliamentary elections in Portugal from 1976 to 2019. Nine of these elections happened before the decriminalization of drugs, and six happened afterward.

Finally, I observe each party's position concerning the 2001 drug policy reform in the discussions leading up to its approval on November 30, 2000. During the final voting in July 2000, the Socialist Party (PS), the Communist Party (PCP), the Left Bloc (BE), and the Ecologist Party ("*Os Verdes*") voted in favor of the legislation, while the Social Democratic Party (PSD) and the People's Party (CDS-PP) voted against it ([National Assembly Archive, 2000](#)). It was the first important legislation on drugs to be approved by the parliament without a consensus between the major political parties ([Costa, 2007](#)).

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<sup>5</sup>Nomenclature of Territorial Units for Statistics, as defined by the European Union. The five regions in continental Portugal are: North, Center, Greater Lisbon, Alentejo, and Algarve.

### 3.4 Health Data

The Portuguese National Health System (SNS) provided data on hospital admissions from 2000 until 2021, at the year and parish levels. The definition of medical conditions follows the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) and includes cases of cannabis, cocaine, opioid, hallucinogen, other stimulants, and sedative, hypnotic, or anxiolytic-related disorders. It also contains data on alcohol-related disorders, nicotine dependence, cases of newborns (suspected to be) affected by maternal use of drugs of addiction or by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV) disease, and viral hepatitis. For placebo analysis purposes, data on leukemia, ischemic heart diseases, and diabetes mellitus are also available. Importantly, hospital admissions are classified to parishes where the hospitals are located, not where patients reside. For this reason, I work with data aggregated at the municipality level in my main specification. This way, I minimize observations that include hospital admissions of patients that traveled to hospitals in localities other than the one they live in, affecting the results.

### 3.5 Crime Data

The Directorate-General for Justice Policy (DGPJ) provided the number of crimes committed in Portugal from 1993 until 2021, aggregated at the municipality level. The Portuguese Penal Code categorizes crimes into seven groups. There are crimes against persons, property, society, cultural identity, the state, companion animals, and other types of crime. In this paper, I restrict our analysis to the first two categories. Within “Crimes against Persons”, I further restrict the analysis to homicides, assault, and sexual assault, neglecting kidnapping, human trafficking, and other types of crime. Within “Crimes against Property” I work with theft and robbery, ignoring financial frauds, crimes against intellectual property, and others. The final dataset includes (i) homicides, (ii) assault, (iii) theft, (iv) burglary, (v) robbery, and (vi) sexual

assault.<sup>6</sup>

### 3.6 Control Variables

To account for variables that are potential confounders in the relationship between the share of *retornados* from Angola and Mozambique and drug use in a parish or municipality, I include pre-1974 parish-level data on population and educational attainment (interacted with year fixed effects) in my difference-in-differences specification (details in Section 5). This data is obtained from the Portuguese Census of 1960, published by Statistics Portugal (INE).<sup>7</sup> Specifically, I observe, at the parish level, the number of individuals in 1960 with a degree and who are illiterate by age group, and the total number of persons with complete and incomplete primary (6 to 14 years old), secondary (15 to 17 years old) and higher education. Whenever necessary, I aggregate the data at the municipality or region levels.

## 4 The *Retornados* Migration and Pre-Reform Drug Use

Drug abuse only became a concern in Portugal starting in the 1970s (Domoslawski and Siemaszko, 2011). Portugal was a relatively closed country and did not have drug production. Only a few elite people, who could travel abroad, primarily to other European countries, had access to drugs. That, however, never occurred on a large scale while the country was under the Salazar regime (Fernandes, 1990). With the end of the Colonial War, *retornados* from Africa (including the military), where marijuana was not only consumed but also produced, met a society that was rapidly opening up to the world. In this unique

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<sup>6</sup>The data also contains arrest records at a finer level of crime definition. However, reclassifications across these more detailed crime categories during the period covered in this study make it only possible to work with the more aggregate categories without making additional assumptions.

<sup>7</sup>The XI General Population Census (1970) published results covering only 20% of the original individual forms due to computational issues – Statistics Portugal (INE) (Accessed in Feb 27, 2023).

setting, drug consumption started in Portugal (Domoslawski and Siemaszko, 2011).

In the first few years after the Carnation Revolution, hashish and cannabis brought in large quantities by the *retornados* started to be used broadly for the first time (Fernandes, 1990). In 1976, the media broadcasted the first governmental campaign against “the marijuana plague” (Dias, 2007). According to Poiares (1998), the campaign was designed to tackle the consumption of drugs brought by the *retornados* from the overseas colonies in 1975 and 1976. In 1976, the Judiciary Policy reported that there was not enough technical capacity or human resources to deal with the rapid increase in the supply of drugs caused by the *retornados* (Costa, 2007). In fact, during the period from 1974 and 1977, the *retornados* were the main suppliers of drugs to the metropolis (Calado, 2016). Altogether, the historical evidence depicts the *retornados* as responsible for establishing the foundations of the drug market in Portugal. It is worth pointing out that only the *retornados* from Angola or Mozambique (which were the majority) played a role in this phenomenon because these were the colonies with marijuana production. Accounts from the period of the Colonial Wars already reported that in Angola and Mozambique – but, importantly, not in Guinea-Bissau – marijuana consumption was an old practice for part of the population (Valentim 2012; Silva 2003; Fabian 2000; Toit 1976). Calado (2016) surveys Portuguese soldiers who fought in Africa, and out of 210 respondents, none reported having used or seen marijuana or hashish in Guinea-Bissau. On the other hand, 40% of the soldiers stationed in Angola or Mozambique have used or seen other people using soft drugs while in Africa. This distinction will be crucial for my empirical strategy, as I define the share of *retornados* from Angola and Mozambique relative to the total universe of *retornados* in a parish or municipality as my instrument for drug use before the 2001 drug policy reform (see details in Section 5).

While historical accounts paint a clear picture of the role of *retornados* as important determinants of drug consumption in Portugal, less is known about the long-term effect of their arrival. I provide evidence on the correlation between the share of *retornados* from Angola and Mozambique in a locality and

the local prevalence of soft and hard drug use around the time of the 2001 reform. I first use the National Survey on the Consumption of Psychoactive Substances in the Portuguese Population – NSPS (Balsa, 2004) to show that, where *retornados* from Angola and Mozambique made up a larger share in the total universe of *retornados* after 1974, the consumption of hard drugs was up to 30% higher in 2001. The survey’s measure of drug prevalence use is representative at the region (NUTS II) level.<sup>8</sup> Column (1) of Table 1 shows that controlling for population level in 1960, when the share of *retornados* from Angola and Mozambique was 1 percentage point (p.p.) higher, the share of the population using hard drugs in 2001 was 0.069 p.p. larger. This result, although not statistically significant, means that an increase in the share of *retornados* from Angola and Mozambique from its 25<sup>th</sup> to its 75<sup>th</sup> percentile is associated with a 23% increase in the prevalence of soft-drug use in 2001. Column (3) shows the same interquartile variation in treatment is associated with a 17% increase in hard drug use. Both results are statistically insignificant, which is possibly due to a lack of statistical power, as each regression has only 5 observations. In order to work with more statistical power, I estimate other two regression equations, this time at the municipality level. This way, I exploit the dependent variable’s variation at this finer geographic level, even though the treatment still varies at the region level. As can be seen in columns (2) and (4), the results show that the interquartile increase in the Angola-Mozambique share of *retornados* is associated with a 17% and a 30% increase in soft and hard drug consumption, respectively. These results are significant at the 1% level. Next, I provide additional evidence of the influence of the *retornados* from Angola and Mozambique on soft drug consumption using the European Values Study (EVS, 2012), with data from 1999. As part of this survey, respondents were asked, “How many of your compatriots do the following: take soft drugs?”. The possible answers were “almost none”, “some”, “many”, and “almost all”. I use this question as a proxy for soft drug prevalence use in the region where respondents lived in 1999 and estimate an ordered pro-

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<sup>8</sup>Continental Portugal has 5 NUTS II regions: North, Central, Lisbon, Alentejo, and Algarve.

bit model using the share of *retornados* from Angola and Mozambique as the independent variable, controlling for the population level in 1960. The positive coefficient shows that a larger Angola-Mozambique share is associated with a higher perception of soft drug use by compatriots. Specifically, a 1% increase in that share represents an increase of 1.1% and 0.2% in the probability that a respondent believes that “many” or “almost all” compatriots use soft drugs, respectively, and a decrease of 0.9% and 0.5% in the probability of the respondents answering “some” or “almost none”, respectively, to the same question. All results are significant at the 1% level.

Altogether, the results provide evidence that a higher presence of *retornados* from Angola and Mozambique after 1974 corresponds to higher levels of drug consumption prior to the 2001 decriminalization. This long-term relationship is in line with the short-term historical accounts.

## 5 Empirical Strategy

Having provided evidence on the effect of the *retornados* - or, more precisely, of the share of *retornados* from Angola and Mozambique - on pre-2001 drug use levels, I use the former to proxy the latter and estimate a difference-in-differences model. In other words, the pre-legislation level of drug use (thus, exposition to treatment) at each parish or municipality is predicted by the share of return migrants arriving from Angola and Mozambique, the two drug-producing colonies, in the total universe of *retornados* in that locality. I choose this measure of the intensity of treatment because any unobserved characteristics of localities that may correlate with the total number of *retornados* who choose them as their destiny is arguably less likely to correlate to the composition of migrants – with respect to their country of origin – that move there. I then compare localities with larger and smaller shares of *retornados* from Angola and Mozambique before and after the decriminalization of drugs in 2001 and estimate the following equation:

**Table 1:** Effect on Pre-Reform Drug Use

|                           | OLS              |                     |                  |                     | O. Probit            |
|---------------------------|------------------|---------------------|------------------|---------------------|----------------------|
|                           | Soft Drugs       |                     | Hard Drugs       |                     | Soft Drugs           |
|                           | (1)              | (2)                 | (3)              | (4)                 | (5)                  |
| Share Ret. ANG-MOZ        | 0.500<br>(2.036) | 0.365***<br>(0.097) | 0.069<br>(0.748) | 0.126***<br>(0.034) | 0.006***<br>(0.001)  |
| Marginal Effects:         |                  |                     |                  |                     |                      |
| Almost none               |                  |                     |                  |                     | -0.001***<br>(0.000) |
| Some                      |                  |                     |                  |                     | -0.002***<br>(0.001) |
| Many                      |                  |                     |                  |                     | 0.002***<br>(0.000)  |
| Almost all                |                  |                     |                  |                     | 0.000***<br>(0.000)  |
| Population 1960 × Year FE | ×                | ×                   | ×                | ×                   | ×                    |
| Region Level              | ×                |                     | ×                |                     |                      |
| Municipality Level        |                  | ×                   |                  | ×                   |                      |
| Individual Level          |                  |                     |                  |                     | ×                    |
| Mean Outcome              | 7.44             | 7.44                | 1.42             | 1.42                | 2.43                 |
| 25p-to-75p Effect         | 12%              | 9%                  | 9%               | 16%                 |                      |
| R <sup>2</sup>            | 0.402            | 0.121               | 0.131            | 0.463               |                      |
| Observations              | 5                | 278                 | 5                | 278                 | 907                  |

Note: Each column reports coefficients and standard errors (in parentheses) from a separate regression. The independent variable is the proportion of *retornados* from Angola and Mozambique in percentage terms. Column (1) displays the results of an OLS regression in which the dependent variable is the percentage of the population who has experimented with soft drugs (Balsa, 2004). The unit of observation is the NUTS II region. Column (2) displays the results of an OLS regression with the same variables, but the unit of observation is the municipality. Columns (3) and (4) follow the same specifications of columns (1) and (2), but for hard drugs. Column (5) displays the results of an ordered probit regression in which the dependent variable is the answer to the question, “How many of your compatriots do the following: take soft drugs?”. The possible answers were: “almost none”, “some”, “many”, and “almost all” (EVS, 2012). The observations are at the individual level. All regressions include the population in 1960 as a control variable. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

$$y_{i,t} = \beta_0 + \beta_1 \frac{Ret.Ang.Moz_{.i}}{Ret.Total_i} \times Post2001_t + X'_i \mu_t + District_i \mu_t + \lambda_i + \mu_t + \varepsilon_{i,t} \quad (1)$$



in which  $y_{l,t}$  are the outcome variables at locality (parish or municipality)  $l$  and year  $t$ ,  $Ret.Ang.Moz.l$  is the number of *retornados* from Angola and Mozambique at locality  $l$ ,  $Ret.Total_l$  is the total number of *retornados* at locality  $l$ ,  $X_{l,1960}$  is a set of variables controlling for population and average educational level in 1960 at locality  $l$ ,  $District_l$  is the locality  $l$ 's district,  $\lambda_l$  is locality fixed effects and  $\mu_t$  is year fixed effects. Standard errors are clustered at the municipality level to account for serial autocorrelation of the error term over the years. The electoral and health analyses are carried out at the parish level, and the crime analysis is conducted at the municipality level because of data availability.

My identification strategy relies on the assumption that, conditional on controls, the share of *retornados* from Angola and Mozambique is not correlated with unobserved characteristics that also affect the outcomes. Satisfying this condition means that, absent the 2001 reform, the crime rates and voting outcomes would have developed similarly between localities with different shares of *retornados* from Angola and Mozambique. I provide evidence supporting the parallel-trend assumption by reporting event studies of all results. A unstable trend before treatment in the event study would be an indication of a violation of this condition.

I also estimate an alternative specification in which equation (1) is modified with the inclusion of an interaction term between the total number of *retornados* in a locality and year dummies. By including this term, the effect captured by the coefficient multiplying the share of *retornados* from Angola and Mozambique is net of the magnitude of the *retornados* immigration in each locality; that is, I estimate the effect of an additional percentage point (p.p.) in the share of *retornados* from Angola and Mozambique in a given municipality, holding the overall number of *retornados*, the pre-migration educational levels and the population size in that municipality fixed. This specification makes sense if we believe, for example, that in two different parishes with the same Angola-Mozambique share, the decriminalization of drugs would have different effects according to the total number of *retornados* in each place. This could result from economies of scale in drug trafficking, for example. While

this is possible, I choose a simpler approach without this additional term as my preferred specification and report the results for this alternative approach in the appendix section (see Table A5). The two specifications deliver similar results, as reported in Section 6.

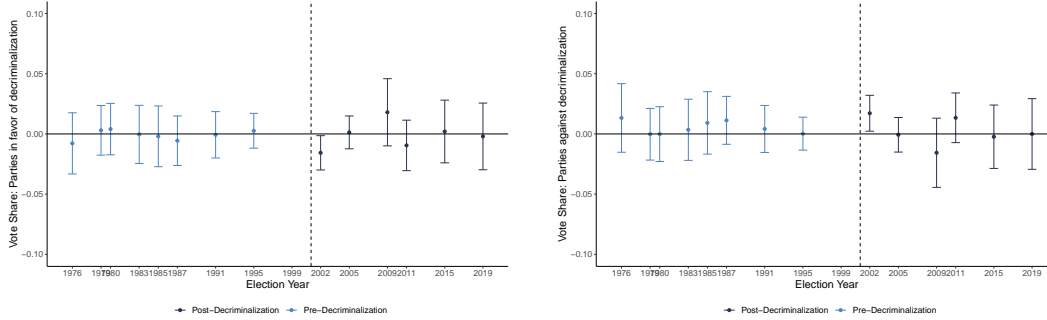
Equation (1) also includes district fixed effects (interacted with year dummies). Recall that each district has its own Commission for the Dissuasion of Drug Addiction (CDT), the panels of legal, health, and social work professionals that decide on each case’s administrative penalty case. This means that the districts have the discretion to apply the legislation with different levels of severity. By including district fixed effects, I estimate the impact of the new legislation within districts rather than across districts. Finally, I restrict my sample to continental Portugal. The Autonomous regions of Madeira and Azores are islands located 1,100 and 1,500 kilometers away from Portugal’s mainland. For this reason, the nature of persons and goods transportation from the two islands and Africa is arguably not comparable with that between the mainland and the former colonies.

## 6 Results

### 6.1 Voting Outcomes

I investigate whether political parties are punished or rewarded according to their positions concerning the new legislation. I classify parties as “In favor” when they voted for the approval of the decriminalization of drugs or “Against” when they voted against it. Neutral parties represent approximately 5% of the votes in my dataset. Columns (1) and (2) of Table 2 display the results for “In favor” and “Against” parties in the main specification, with standard errors clustered at the parish level, the same as the variation in treatment. The results are not statistically significant at the 10% level and the point estimates are very small in magnitude. Given one additional percentage point in the Angola-Mozambique share in a locality, “In favor” parties received 0.003 p.p. fewer votes after its approval, and “Against” parties received 0.001 p.p. more

**Figure 1.** Effect on the share of voting for parties that supported and opposed the decriminalization



Note: The figure represents the results of two event studies where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable voting shares in national assembly elections in percentage terms. The left figure displays the results for parties that voted in favor of the legislation, and the right figure shows the results of parties that opposed it. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where parishes are located, and the total number of *retornados*. Parish and year fixed effects are included. Standard errors are clustered at the municipality level.

votes. When considering the interquartile variation (from the 25<sup>th</sup> to the 75<sup>th</sup> percentile) of the independent variable, the estimates of supporting and opposing parties represent 0.007% and 0.024% of the respective outcome mean. Table A3 reports the results of the specification with an additional term for the total number of *retornados* interacted with year fixed effects, as detailed in Section 5. The results are similar across both specifications. Altogether, there is no evidence of the public punishing parties for decriminalizing drugs or rewarding parties for opposing the reform.

The picture changes in the short run when allowing for dynamic treatment effects. Figure 1 shows event studies corresponding to “In Favor” and “Against” parties, respectively. The two event studies display a statistically significant short-term effect at the 1% level. In the first election after the decriminalization of drugs in Portugal, in 2002, pro-decriminalization parties received fewer votes in parishes with a higher share of *retornados* from Angola and Mozambique, while parties against the decriminalization received more votes in the same locations. It is worth mentioning that, although the results seem to be mirrored, they did not necessarily need to be, as the voting shares for

**Table 2:** Effect on Voting

|                                          | Voting share      |                  |
|------------------------------------------|-------------------|------------------|
|                                          | In favor          | Against          |
|                                          | (1)               | (2)              |
| Share Ret. ANG-MOZ                       | -0.003<br>(0.008) | 0.001<br>(0.009) |
| Population 1960 $\times$ Year FE         | $\times$          | $\times$         |
| Education 1960 $\times$ Year FE          | $\times$          | $\times$         |
| <i>Retornados</i> Total $\times$ Year FE |                   |                  |
| District $\times$ Year FE                | $\times$          | $\times$         |
| Parish FE                                | $\times$          | $\times$         |
| Year FE                                  | $\times$          | $\times$         |
| Mean Outcome                             | 42.32             | 52.03            |
| 25p-to-75p Effect                        | 0%                | 0%               |
| Adjusted R <sup>2</sup>                  | 0.923             | 0.916            |
| Parishes                                 | 3527              | 3527             |
| Observations                             | 47,503            | 47,503           |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the parish. The outcome variables are voting shares in national assembly elections in percentage terms. Columns (1) displays the results for parties that supported the decriminalization of drugs, and column (2) concerns parties that opposed it. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people who initiated and/or completed the basic, secondary, and higher levels of education, and the districts where parishes are located. All controls are interacted with year fixed effects. Parish and year fixed effects are included. Standard errors are clustered at the parish level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

the two types of parties do not sum to one (5.7% of the votes in that sample are for neutral parties). Additionally, the estimates from the period before the introduction of the new law are stable and centered around zero, which indicates not only that there were no differential pre-trends but also that “In favor” and “Against” parties did not have differential levels of voting before 2001.

Finally, Table A6 shows that, in parishes with higher levels of drug prevalence, voters in fact rewarded politicians who advocated for the decriminalization of drugs. In this heterogeneity analysis, I create dummy variables to identify observations falling into the top 25-percentile values of the share of *retornados*, into its 50-to-75-percentile group, and into its 25-to-50 percentile group. Then, I estimate a modified model regressing each of these variables with a post-treatment dummy. The results show that “In Favor” parties received more votes after decriminalization in parishes with a high share of *retornados* from Angola and Mozambique. The opposite is true for “Against” parties. The results are statistically significant at the 1% level.

Taking all results together, voters seem to punish parties for advocating hard recreational drug decriminalization initially, but the evidence suggests that the effect is short-lived, and already at the second election voting results are back to baseline. This indicates that, on average, voter’s memory is limited and other topics dominate the public discourse. Moreover, in places where drug use was more prevalent, politicians advocating for drug decriminalization performed better in the following elections, suggesting that voters view the drug decriminalization topic differently according to how big of an issue drug addiction is where they live.

## 6.2 Health Outcomes

Decriminalizing recreational drugs could influence public health through various channels. The shift from a punitive approach toward a health-oriented one may encourage drug users to seek help and treatment. With reduced legal consequences and stigma, individuals might be more open to seeking information about safe drug use and harm reduction. This could result in fewer instances of dangerous behaviors associated with drug use, decreasing the number of hospitalizations due to overdoses, infections, or other drug-related health complications. On the other hand, some argue that drug decriminalization could lead to an increase in drug use, thereby potentially exacerbating public health concerns. Table 3 presents the results of the 2001 new legislation on hospital

**Table 3: Effect on Hospital Admission Rates**

| Panel A: Drug Use                          | Hospital Admission rate per 100.000 inhabitants |                     |                    |                      |                       |                     |
|--------------------------------------------|-------------------------------------------------|---------------------|--------------------|----------------------|-----------------------|---------------------|
|                                            | Cannabis<br>(1)                                 | Cocaine<br>(2)      | Opioid<br>(3)      | Hallucinogen<br>(4)  | Ot. Stimulants<br>(5) | Ot. Sedative<br>(6) |
| Share Ret. ANG-MOZ                         | -0.732<br>(0.509)                               | -0.157<br>(0.129)   | -0.091<br>(0.099)  | 0.022<br>(0.024)     | 0.237<br>(0.624)      | -0.056<br>(0.123)   |
| Mean Outcome                               | 5.89                                            | 2.44                | 0.34               | 0.15                 | 15.34                 | 3.65                |
| 25p-to-75p Effect                          | -42%                                            | -22%                | -91%               | 51%                  | 5%                    | -5%                 |
| Adjusted R <sup>2</sup>                    | 0.870                                           | 0.796               | 0.055              | 0.199                | 0.726                 | 0.678               |
| Panel B: Substitution<br>and Contamination | Alcohol<br>(7)                                  | Nicotine<br>(8)     | Newborn Mom<br>(9) | Newborn Milk<br>(10) | HIV<br>(11)           | Hepatitis<br>(12)   |
| Share Ret. ANG-MOZ                         | -5.005<br>(3.661)                               | -13.506*<br>(7.572) | -0.052<br>(0.069)  | 0.360<br>(0.390)     | -0.166<br>(1.353)     | -1.958<br>(1.824)   |
| Mean Outcome                               | 207.34                                          | 177.92              | 0.29               | 1.23                 | 26.59                 | 40.2                |
| 25p-to-75p Effect                          | -8%                                             | -26%                | -61%               | 99%                  | -2%                   | -17%                |
| Adjusted R <sup>2</sup>                    | 0.860                                           | 0.816               | 0.033              | 0.162                | 0.711                 | 0.759               |
| Population 1960 × Year FE                  | ×                                               | ×                   | ×                  | ×                    | ×                     | ×                   |
| Education 1960 × Year FE                   | ×                                               | ×                   | ×                  | ×                    | ×                     | ×                   |
| <i>Retornados</i> Total × Year FE          | ×                                               | ×                   | ×                  | ×                    | ×                     | ×                   |
| District × Year FE                         | ×                                               | ×                   | ×                  | ×                    | ×                     | ×                   |
| Municipality FE                            | ×                                               | ×                   | ×                  | ×                    | ×                     | ×                   |
| Year FE                                    | ×                                               | ×                   | ×                  | ×                    | ×                     | ×                   |
| Municipalities                             | 271                                             | 271                 | 271                | 271                  | 271                   | 271                 |
| Observations                               | 4,687                                           | 4,687               | 4,687              | 4,687                | 4,687                 | 4,687               |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are hospital admission rates per 100,000 inhabitants caused by: cannabis, cocaine, opioid, hallucinogen, other stimulants, other sedatives, alcohol, and nicotine use, newborns (suspected to be) affected by maternal use of drugs of addiction, newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV), and hepatitis. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

admissions rates, divided into direct and indirect drug-induced cases. Direct causes are cannabis, cocaine, opioid, hallucinogen, other stimulants, and sedative, hypnotic, or anxiolytic-related disorders, and are presented in Panel A. Instances of substitution (alcohol-related disorders and nicotine dependence) and contamination (newborns affected by maternal use of drugs of addiction or by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV) disease, and viral hepatitis) are shown in Panel B. With the exception of nicotine dependence, which shows a reduction significant at the 10% level, all outcomes are non-statistically significant.

### 6.3 Crime Outcomes

Proponents and critics of drug decriminalization offer different views regarding its effects on crime rates. The first group argues that a comprehensive definition of drug costs includes not only the monetary price but also the potential legal and social costs associated with acquiring drugs through illegal means. For example, having a criminal record for drug use might limit employment opportunities and lead individuals down a path of continued criminal behavior. If drugs are less costly after decriminalization, users are more likely to be able to afford them without having to resort to illegal activities such as theft and burglary. Additionally, police personnel could shift their focus from low-level drug offenses to more serious crimes, potentially lowering violent crime rates. Increased access to health care can also reduce the desperation that often drives drug-related crimes. On the other hand, critics of such policies claim that easier access to drugs leads to an increase in the overall number of users, who might turn to crime in order to finance their dependence. An upsurge in drug use can also exacerbate instances of drug trafficking and violent crimes associated with it.

Table 4 displays the effect of drug decriminalization on homicide, assault, theft, burglary, and sexual assault rates per 100,000 inhabitants. The definition of homicides includes murder, voluntary and involuntary manslaughter; assault includes simple and aggravated assault, as well as different types of domestic violence; theft covers pickpocketing, motor vehicle theft, and other types of non-violent crimes such as art and fuel theft; burglary comprises residence and commercial burglary; robbery includes street robberies, as well as bank and gas station robberies; and sexual assault includes rape, pedophilia, and other forms of sexual abuse. The dataset covers arrest rates from 1993 to 2021 at the municipality level. Standard errors are clustered at the municipality level, and the set of controls and fixed effects is included as specified in Section 5. Results from columns (3) and (4) indicate that, for a one p.p. higher share of *retornados* from Angola and Mozambique in a municipality, theft and burglary rates decrease by 15.185 and 5.240 cases per 100,000 inhabitants, or 9% and 5% of the outcome mean, respectively. The estimate for theft is sta-

tistically significant at the 1% level, while the result for burglary is significant at the 5% level. Conversely, there is no evidence that drug decriminalization affects violent crime. Columns (1), (2), (5), (6) report non-statistically significant estimates for homicide, assault, robbery and sexual assault rates.

Figures A14 to A19 in the Section A show the event studies relative to columns (1) to (6) in Table 4. The plots support the parallel-trends assumption validity. Pre-intervention coefficients are stable and centered around zero, suggesting that there are no differential crime trends between municipalities with distinct levels of *retornados* from Angola and Mozambique as a proportion of total migrants. All results are robust to the alternative specification controlling for the total number of *retornados* in each municipality (see Table A5).

**Table 4:** Effect on Crime Rates

|                                   | Crime rate per 100.000 inhabitants |                   |                       |                     |                  |                       |
|-----------------------------------|------------------------------------|-------------------|-----------------------|---------------------|------------------|-----------------------|
|                                   | Homicide<br>(1)                    | Assault<br>(2)    | Theft<br>(3)          | Burglary<br>(4)     | Robbery<br>(5)   | Sexual Assault<br>(6) |
| Share Ret. ANG-MOZ                | -0.205<br>(0.181)                  | -3.195<br>(2.576) | -15.185***<br>(5.715) | -5.240**<br>(2.236) | 0.659<br>(0.427) | 0.023<br>(0.114)      |
| Population 1960 × Year FE         | ×                                  | ×                 | ×                     | ×                   | ×                | ×                     |
| Education 1960 × Year FE          | ×                                  | ×                 | ×                     | ×                   | ×                | ×                     |
| <i>Retornados</i> Total × Year FE |                                    |                   |                       |                     |                  |                       |
| District × Year FE                | ×                                  | ×                 | ×                     | ×                   | ×                | ×                     |
| Municipality FE                   | ×                                  | ×                 | ×                     | ×                   | ×                | ×                     |
| Year FE                           | ×                                  | ×                 | ×                     | ×                   | ×                | ×                     |
| Mean Outcome                      | 5.54                               | 416.92            | 563.55                | 335.1               | 27.06            | 6.44                  |
| 25p-to-75p Effect                 | -13%                               | -3%               | -9%                   | -5%                 | 8%               | 1%                    |
| Adjusted R <sup>2</sup>           | 0.278                              | 0.568             | 0.807                 | 0.758               | 0.846            | 0.336                 |
| Municipalities                    | 271                                | 271               | 271                   | 271                 | 271              | 271                   |
| Observations                      | 7,859                              | 7,859             | 7,859                 | 7,859               | 7,859            | 7,859                 |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are homicide, assault, theft, burglary, robbery, and sexual assault rates per 100,000 inhabitants. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, and the districts where municipalities are located. All controls are interacted with year fixed effects. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

The results align with the arguments in favor of decriminalization and improved access to addiction treatment. They show a decrease in rates of non-violent property crimes, which can be a result of users being able to finance their drug use without resorting to criminal activities. Possible factors con-



tributing to this decrease include reduced social costs and stigma associated with drug use, which encourage individuals to seek help and support rather than turning to criminal behavior and allow them easier access to the formal labor market.

## 7 Conclusion

This paper investigates the political, health, and criminal consequences of decriminalizing all recreational drugs, including cannabis, cocaine, heroin, and methamphetamine. It carries big implications for the public debate around the topic following the recent approval of Measure 110 in the American state of Oregon, which made personal non-commercial possession of a controlled substance a non-criminal violation and established a drug addiction treatment and recovery program funded in part by the state's marijuana tax revenue and state prison savings. A similar policy was first implemented in Portugal, as a response to the country's high levels of drug addiction. In 2001, Portugal was the first country to officially decriminalize the private use, acquisition, and possession of small quantities of any drug. Studying the Portuguese case allows us to understand the potential impacts of drug decriminalization on crime rates, public health, and the political landscape on the national level, and over a period of more than two decades.

In my empirical strategy, I use the proportion of the *retornados* that emigrated from drug-producing African countries in each locality as a source of exogenous geographical variation in drug prevalence, thus exposure to treatment. First, I present evidence on the influence of the *retornados* arriving from Angola and Mozambique on drug use at the time of the law change. The findings show higher levels of soft and hard drug use before decriminalization in localities where *retornados* emigrating from countries from these countries accounted for a larger proportion of all repatriates. I then proxy pre-2001 drug-use levels with this proportion and estimate a difference-in-differences model. The results indicate that, in the long run, political parties' voting shares were unaffected by whether they supported or opposed the policy reform. However,

in the elections taking place in 2002, the year after decriminalization, there is evidence of backlash towards drug-decriminalization proponent parties, who experienced a decrease in their share of votes. This effect vanished already in the following election. While there is no evidence of public health effects, the study points to decreased non-violent property crime due to the new legislation. This can be explained by the reduced social costs and stigma associated with drug use after decriminalization. As a result, individuals are more inclined to seek professional assistance and have better opportunities for formal employment.

Altogether, the effects on public health and criminal activity indicate that taking a softer stance with regard to drug use improves the welfare of society as a whole. Moreover, politicians who wish to follow that route can do so with very little backlash, contrary to a common view dominating public debate. In fact, in regions where drug addiction poses a bigger challenge, voters have rewarded those advocating for drug decriminalization. Future research will include investigating the mechanisms that explain the results, such as reduced stigma, increased access to treatment, and better opportunities in the formal labor market.

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# Appendix

## A Figures and Tables



**Table A1:** Effect on Pre-Reform Drug Use – Ordered Logistic Specification

|                    | Soft Drugs           |
|--------------------|----------------------|
|                    | O. Logit             |
|                    | (1)                  |
| Share Ret. ANG-MOZ | 0.011***<br>(0.001)  |
| Marginal Effects:  |                      |
| Almost none        | -0.001***<br>(0.000) |
| Some               | -0.002***<br>(0.001) |
| Many               | 0.002***<br>(0.000)  |
| Almost all         | 0.000***<br>(0.000)  |
| Population 1960    | ×                    |
| Individual Level   | ×                    |
| Mean Outcome       | 2.43                 |
| Observations       | 907                  |

The table displays the reports coefficients and standard errors (in parentheses) of an ordered logistic regression in which the independent variable is the proportion of *retornados* from Angola and Mozambique in percentage terms, and the dependent variable is the answer to the question, “How many of your compatriots do the following: take soft drugs?”. The possible answers were: “almost none”, “some”, “many”, and “almost all” (EVS, 2012). The observations are at the individual level. The regression include the population in 1960 as a control variable. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A2:** Effect on Pre-Reform Drug Use – Alternative Specification

|                                   | OLS              |                     |                  |                     | O. Probit         |
|-----------------------------------|------------------|---------------------|------------------|---------------------|-------------------|
|                                   | Soft Drugs       |                     | Hard Drugs       |                     | Soft Drugs        |
|                                   | (1)              | (2)                 | (3)              | (4)                 | (5)               |
| Share Ret. ANG-MOZ                | 0.575<br>(2.826) | 0.384***<br>(0.105) | 0.154<br>(0.731) | 0.104***<br>(0.027) | -0.003<br>(0.002) |
| Marginal Effects:                 |                  |                     |                  |                     |                   |
| Almost none                       |                  |                     |                  |                     | -0.005<br>(0.000) |
| Some                              |                  |                     |                  |                     | -0.009<br>(0.001) |
| Many                              |                  |                     |                  |                     | 0.011<br>(0.000)  |
| Almost all                        |                  |                     |                  |                     | 0.002<br>(0.000)  |
| Population 1960 × Year FE         | ×                | ×                   | ×                | ×                   | ×                 |
| <i>Retornados</i> Total × Year FE | ×                | ×                   | ×                | ×                   | ×                 |
| Region Level                      | ×                |                     | ×                |                     |                   |
| Municipality Level                |                  | ×                   |                  | ×                   |                   |
| Individual Level                  |                  |                     |                  |                     | ×                 |
| Mean Outcome                      | 7.44             | 7.44                | 1.42             | 1.42                | 2.56              |
| 25p-to-75p Effect                 | 14%              | 9%                  | 19%              | 13%                 |                   |
| R <sup>2</sup>                    | 0.464            | 0.145               | 0.731            | 0.655               |                   |
| Observations                      | 5                | 278                 | 5                | 278                 | 907               |

Note: Each column reports coefficients and standard errors (in parentheses) from a separate regression. The independent variable is the proportion of *retornados* from Angola and Mozambique in percentage terms. Column (1) displays the results of an OLS regression in which the dependent variable is the percentage of the population who has experimented with soft drugs (Balsa, 2004). The unit of observation is the NUTS II region. Column (2) displays the results of an OLS regression with the same variables, but the unit of observation is the municipality. Columns (3) and (4) follow the same specifications of columns (1) and (2), but for hard drugs. Column (5) displays the results of an ordered probit regression in which the dependent variable is the answer to the question, “How many of your compatriots do the following: take soft drugs?”. The possible answers were: “almost none”, “some”, “many”, and “almost all” (EVS, 2012). The observations are at the individual level. All regressions include the population in 1960 and the total number of *retornados* as control variables. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A3:** Effect on Voting – Alternative Specification

|                                          | Voting share      |                  |
|------------------------------------------|-------------------|------------------|
|                                          | In favor          | Against          |
|                                          | (1)               | (2)              |
| Share Ret. ANG-MOZ                       | -0.003<br>(0.008) | 0.001<br>(0.009) |
| Population 1960 $\times$ Year FE         | $\times$          | $\times$         |
| Education 1960 $\times$ Year FE          | $\times$          | $\times$         |
| <i>Retornados</i> Total $\times$ Year FE | $\times$          | $\times$         |
| District $\times$ Year FE                | $\times$          | $\times$         |
| Parish FE                                | $\times$          | $\times$         |
| Year FE                                  | $\times$          | $\times$         |
| Mean Outcome                             | 42.32             | 52.03            |
| 25p-to-75p Effect                        | 0%                | 0%               |
| Adjusted R <sup>2</sup>                  | 0.923             | 0.916            |
| Parishes                                 | 3527              | 3527             |
| Observations                             | 47,503            | 47,503           |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the parish. The outcome variables are voting shares in national assembly elections in percentage terms. Columns (1) displays the results for parties that supported the decriminalization of drugs, and column (2) concerns parties that opposed it. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people who initiated and/or completed the basic, secondary, and higher levels of education, the districts where parishes are located, and the total number of *retornados*. All controls are interacted with year fixed effects. Parish and year fixed effects are included. Standard errors are clustered at the parish level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A4:** Effect on Hospital Admission Rates – Alternative Specification

| Panel A: Drug Use                          | Hospital Admission rate per 100.000 inhabitants |                   |                     |                      |                       |                     |
|--------------------------------------------|-------------------------------------------------|-------------------|---------------------|----------------------|-----------------------|---------------------|
|                                            | Cannabis<br>(1)                                 | Cocaine<br>(2)    | Opioid<br>(3)       | Hallucinogen<br>(4)  | Ot. Stimulants<br>(5) | Ot. Sedative<br>(6) |
| Share Ret. ANG-MOZ                         | -0.832<br>(0.528)                               | -0.161<br>(0.138) | -0.087<br>(0.106)   | 0.024<br>(0.025)     | 0.236<br>(0.683)      | -0.083<br>(0.127)   |
| Mean Outcome                               | 5.89                                            | 2.44              | 0.34                | 0.15                 | 15.34                 | 3.65                |
| 25p-to-75p Effect                          | -48%                                            | -23%              | -87%                | 55%                  | 5%                    | -8%                 |
| Adjusted R <sup>2</sup>                    | 0.393                                           | 0.183             | 0.075               | 0.068                | 0.725                 | 0.418               |
| Panel B: Substitution<br>and Contamination | Alcohol<br>(7)                                  | Nicotine<br>(8)   | Newborn Mom<br>(9)  | Newborn Milk<br>(10) | HIV<br>(11)           | Hepatitis<br>(12)   |
|                                            | Share Ret. ANG-MOZ                              | -5.716<br>(3.866) | -15.252*<br>(7.937) | -0.088<br>(0.083)    | 0.376<br>(0.417)      | -0.222<br>(1.407)   |
| Mean Outcome                               | 207.34                                          | 177.92            | 0.29                | 1.23                 | 26.59                 | 40.2                |
| 25p-to-75p Effect                          | -9%                                             | -29%              | -105%               | 105%                 | -3%                   | -18%                |
| Adjusted R <sup>2</sup>                    | 0.879                                           | 0.796             | 0.058               | 0.200                | 0.730                 | 0.678               |
| Population 1960 × Year FE                  | ×                                               | ×                 | ×                   | ×                    | ×                     | ×                   |
| Education 1960 × Year FE                   | ×                                               | ×                 | ×                   | ×                    | ×                     | ×                   |
| <i>Retornados</i> Total × Year FE          | ×                                               | ×                 | ×                   | ×                    | ×                     | ×                   |
| District × Year FE                         | ×                                               | ×                 | ×                   | ×                    | ×                     | ×                   |
| Municipality FE                            | ×                                               | ×                 | ×                   | ×                    | ×                     | ×                   |
| Year FE                                    | ×                                               | ×                 | ×                   | ×                    | ×                     | ×                   |
| Municipalities                             | 271                                             | 271               | 271                 | 271                  | 271                   | 271                 |
| Observations                               | 4,687                                           | 4,687             | 4,687               | 4,687                | 4,687                 | 4,687               |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are hospital admission rates per 100,000 inhabitants caused by: cannabis, cocaine, opioid, hallucinogen, other stimulants, other sedatives, alcohol, and nicotine use, newborns (suspected to be) affected by maternal use of drugs of addiction, newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV), and hepatitis. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A5: Effect on Crime Rates – Alternative Specification**

|                                   | Crime rate per 100.000 inhabitants |                   |                      |                     |                  |                  |
|-----------------------------------|------------------------------------|-------------------|----------------------|---------------------|------------------|------------------|
|                                   | Homicide                           | Assault           | Theft                | Burglary            | Robbery          | Sexual Assault   |
|                                   | (1)                                | (2)               | (3)                  | (4)                 | (5)              | (6)              |
| Share Ret. ANG-MOZ                | -0.185<br>(0.181)                  | -3.195<br>(2.660) | -14.172**<br>(5.870) | -4.873**<br>(2.265) | 0.686<br>(0.444) | 0.102<br>(0.121) |
| Population 1960 × Year FE         | ×                                  | ×                 | ×                    | ×                   | ×                | ×                |
| Education 1960 × Year FE          | ×                                  | ×                 | ×                    | ×                   | ×                | ×                |
| <i>Retornados</i> Total × Year FE | ×                                  | ×                 | ×                    | ×                   | ×                | ×                |
| District × Year FE                | ×                                  | ×                 | ×                    | ×                   | ×                | ×                |
| Municipality FE                   | ×                                  | ×                 | ×                    | ×                   | ×                | ×                |
| Year FE                           | ×                                  | ×                 | ×                    | ×                   | ×                | ×                |
| Mean Outcome                      | 5.54                               | 416.92            | 563.55               | 335.1               | 27.06            | 6.44             |
| 25p-to-75p Effect                 | -11%                               | -3%               | -9%                  | -5%                 | 9%               | 5%               |
| Adjusted R <sup>2</sup>           | 0.278                              | 0.568             | 0.807                | 0.758               | 0.845            | 0.337            |
| Municipalities                    | 271                                | 271               | 271                  | 271                 | 271              | 271              |
| Observations                      | 7,859                              | 7,859             | 7,859                | 7,859               | 7,859            | 7,859            |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are homicide, assault, theft, burglary, robbery, and sexual assault rates per 100,000 inhabitants. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A6:** Effect on Voting – Heterogeneity Analysis: Treatment Intensity

|                                          | Voting share        |                      |
|------------------------------------------|---------------------|----------------------|
|                                          | In favor<br>(1)     | Against<br>(2)       |
| Share Ret. ANG-MOZ: High                 | 1.236***<br>(0.326) | -0.945***<br>(0.340) |
| Share Ret. ANG-MOZ: Medium-High          | -0.223<br>(0.278)   | 0.083<br>(0.285)     |
| Share Ret. ANG-MOZ: Medium-Low           | -0.510*<br>(0.262)  | 0.198<br>(0.271)     |
| Population 1960 $\times$ Year FE         | $\times$            | $\times$             |
| Education 1960 $\times$ Year FE          | $\times$            | $\times$             |
| <i>Retornados</i> Total $\times$ Year FE |                     |                      |
| District $\times$ Year FE                | $\times$            | $\times$             |
| Parish FE                                | $\times$            | $\times$             |
| Year FE                                  | $\times$            | $\times$             |
| Mean Outcome                             | 42.32               | 52.03                |
| Adjusted R <sup>2</sup>                  | 0.923               | 0.916                |
| Municipalities                           | 3527                | 3527                 |
| Observations                             | 47,503              | 47,503               |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the parish. The outcome variables are voting shares in national assembly elections in percentage terms. Columns (1) displays the results for parties that supported the decriminalization of drugs, and column (2) concerns parties that opposed it. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people who initiated and/or completed the basic, secondary, and higher levels of education, the districts where parishes are located, and the total number of *retornados*. All controls are interacted with year fixed effects. Parish and year fixed effects are included. Standard errors are clustered at the parish level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A7:** Effect on Hospital Admission Rates – Heterogeneity Analysis: Treatment Intensity

| Panel A: Drug Use                          | Hospital Admission rate per 100.000 inhabitants |                       |                    |                      |                       |                     |
|--------------------------------------------|-------------------------------------------------|-----------------------|--------------------|----------------------|-----------------------|---------------------|
|                                            | Cannabis<br>(1)                                 | Cocaine<br>(2)        | Opioid<br>(3)      | Hallucinogen<br>(4)  | Ot. Stimulants<br>(5) | Ot. Sedative<br>(6) |
| Share Ret. ANG-MOZ: High                   | -3.131<br>(2.397)                               | -0.569<br>(0.845)     | -0.928<br>(0.775)  | 0.082<br>(0.116)     | 0.095<br>(4.623)      | -0.690<br>(0.994)   |
| Share Ret. ANG-MOZ: Medium-High            | -3.936<br>(2.492)                               | -0.749<br>(0.823)     | -0.403<br>(0.452)  | 0.159<br>(0.130)     | 4.957<br>(3.060)      | -1.030<br>(0.948)   |
| Share Ret. ANG-MOZ: Medium-Low             | -4.640*<br>(2.580)                              | -0.509<br>(0.940)     | -0.245<br>(0.433)  | 0.030<br>(0.115)     | 5.692*<br>(3.134)     | -1.543<br>(1.223)   |
| Mean Outcome                               | 5.89                                            | 2.44                  | 0.34               | 0.15                 | 15.34                 | 3.65                |
| Adjusted R <sup>2</sup>                    | 0.393                                           | 0.182                 | 0.076              | 0.070                | 0.725                 | 0.417               |
| Panel B: Substitution<br>and Contamination | Alcohol<br>(7)                                  | Nicotine<br>(8)       | Newborn Mom<br>(9) | Newborn Milk<br>(10) | HIV<br>(11)           | Hepatitis<br>(12)   |
| Share Ret. ANG-MOZ: High                   | -20.012<br>(19.839)                             | -69.024*<br>(40.146)  | -0.826<br>(0.895)  | 1.452<br>(2.120)     | -4.739<br>(7.060)     | -5.261<br>(10.728)  |
| Share Ret. ANG-MOZ: Medium-High            | -23.609<br>(18.804)                             | -84.077**<br>(41.507) | 0.433<br>(0.332)   | 2.135<br>(1.947)     | 1.520<br>(6.211)      | -12.946<br>(9.875)  |
| Share Ret. ANG-MOZ: Medium-Low             | -25.258<br>(17.702)                             | -78.552**<br>(39.814) | -0.216<br>(0.425)  | 1.308<br>(1.709)     | 1.160<br>(5.959)      | -15.374<br>(9.394)  |
| Mean Outcome                               | 207.34                                          | 177.92                | 0.29               | 1.23                 | 26.59                 | 40.2                |
| Adjusted R <sup>2</sup>                    | 0.870                                           | 0.795                 | 0.057              | 0.198                | 0.726                 | 0.678               |
| Population 1960 × Year FE                  | ×                                               | ×                     | ×                  | ×                    | ×                     | ×                   |
| Education 1960 × Year FE                   | ×                                               | ×                     | ×                  | ×                    | ×                     | ×                   |
| <i>Retornados</i> Total × Year FE          |                                                 |                       |                    |                      |                       |                     |
| District × Year FE                         | ×                                               | ×                     | ×                  | ×                    | ×                     | ×                   |
| Municipality FE                            | ×                                               | ×                     | ×                  | ×                    | ×                     | ×                   |
| Year FE                                    | ×                                               | ×                     | ×                  | ×                    | ×                     | ×                   |
| Municipalities                             | 271                                             | 271                   | 271                | 271                  | 271                   | 271                 |
| Observations                               | 4,687                                           | 4,687                 | 4,687              | 4,687                | 4,687                 | 4,687               |

Note: **UPDATE** Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are hospital admission rates per 100,000 inhabitants caused by: cannabis, cocaine, opioid, hallucinogen, other stimulants, other sedatives, alcohol, and nicotine use, newborns (suspected to be) affected by maternal use of drugs of addiction, newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV), and hepatitis. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A8:** Effect on Crime Rates – Heterogeneity Analysis: Treatment Intensity

|                                   | Crime rate per 100.000 inhabitants |                     |                        |                        |                     |                   |
|-----------------------------------|------------------------------------|---------------------|------------------------|------------------------|---------------------|-------------------|
|                                   | Homicide                           | Assault             | Theft                  | Burglary               | Robbery             | Sexual Assault    |
|                                   | (1)                                | (2)                 | (3)                    | (4)                    | (5)                 | (6)               |
| Share Ret. ANG-MOZ: High          | -1.257<br>(2.078)                  | -27.971<br>(22.010) | -94.014**<br>(43.030)  | -28.071<br>(18.978)    | 2.290<br>(4.019)    | -0.529<br>(0.864) |
| Share Ret. ANG-MOZ: Medium-High   | 0.042<br>(1.722)                   | -14.683<br>(21.945) | -120.988**<br>(48.442) | -77.035***<br>(20.699) | 10.200**<br>(4.107) | 0.353<br>(0.912)  |
| Share Ret. ANG-MOZ: Medium-Low    | 0.935<br>(1.568)                   | -8.558<br>(22.021)  | -71.829*<br>(38.542)   | -49.493**<br>(19.184)  | 7.718**<br>(3.810)  | 0.406<br>(0.908)  |
| Population 1960 × Year FE         | ×                                  | ×                   | ×                      | ×                      | ×                   | ×                 |
| Education 1960 × Year FE          | ×                                  | ×                   | ×                      | ×                      | ×                   | ×                 |
| <i>Retornados</i> Total × Year FE |                                    |                     |                        |                        |                     |                   |
| District × Year FE                | ×                                  | ×                   | ×                      | ×                      | ×                   | ×                 |
| Municipality FE                   | ×                                  | ×                   | ×                      | ×                      | ×                   | ×                 |
| Year FE                           | ×                                  | ×                   | ×                      | ×                      | ×                   | ×                 |
| Mean Outcome                      | 5.54                               | 416.92              | 563.55                 | 335.1                  | 27.06               | 6.44              |
| Adjusted R <sup>2</sup>           | 0.278                              | 0.568               | 0.807                  | 0.760                  | 0.846               | 0.335             |
| Municipalities                    | 271                                | 271                 | 271                    | 271                    | 271                 | 271               |
| Observations                      | 7,859                              | 7,859               | 7,859                  | 7,859                  | 7,859               | 7,859             |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are homicide, assault, theft, burglary, robbery, and sexual assault rates per 100,000 inhabitants. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.



**Table A9:** Effect on Hospital Admission Rates – Multiple Hypothesis Testing

| Panel A: Drug Use                          | Hospital Admission rate per 100.000 inhabitants |                   |                    |                      |                       |                     |
|--------------------------------------------|-------------------------------------------------|-------------------|--------------------|----------------------|-----------------------|---------------------|
|                                            | Cannabis<br>(1)                                 | Cocaine<br>(2)    | Opioid<br>(3)      | Hallucinogen<br>(4)  | Ot. Stimulants<br>(5) | Ot. Sedative<br>(6) |
| Share Ret. ANG-MOZ                         | 0.128**<br>(0.059)                              | -0.024<br>(0.062) | -0.018<br>(0.014)  | 0.006<br>(0.004)     | 1.155<br>(1.133)      | 0.058<br>(0.055)    |
| Steinmayr (2020)                           | ∥                                               | ∥                 | ∥                  | ∥                    | ∥                     | ∥                   |
| List et al. (2019)                         | ∥                                               | ∥                 | ∥                  | ∥                    | ∥                     | ∥                   |
| Holm (1979)                                | [0.360]                                         | [1.000]           | [1.000]            | [1.000]              | [1.000]               | [1.000]             |
| Benjamini and Hochberg (1995)              | [0.360]                                         | [0.898]           | [0.615]            | [0.615]              | [0.618]               | [0.618]             |
| Benjamini and Yekutieli (2001)             | [1.000]                                         | [1.000]           | [1.000]            | [1.000]              | [1.000]               | [1.000]             |
| Mean Outcome                               | 9.89                                            | 3.88              | 0.55               | 0.27                 | 25.49                 | 5.59                |
| 25p-to-75p Effect                          | 0%                                              | -2%               | -11%               | 7%                   | 16%                   | 4%                  |
| Panel B: Substitution<br>and Contamination | Alcohol<br>(7)                                  | Nicotine<br>(8)   | Newborn Mom<br>(9) | Newborn Milk<br>(10) | HIV<br>(11)           | Hepatitis<br>(12)   |
| Share Ret. ANG-MOZ                         | -0.508<br>(1.548)                               | 0.141<br>(2.590)  | -0.016<br>(0.013)  | -0.007<br>(0.048)    | 0.394<br>(0.592)      | -0.113<br>(0.351)   |
| Steinmayr (2020)                           | ∥                                               | ∥                 | ∥                  | ∥                    | ∥                     | ∥                   |
| List et al. (2019)                         | ∥                                               | ∥                 | ∥                  | ∥                    | ∥                     | ∥                   |
| Holm (1979)                                | [1.000]                                         | [1.000]           | [1.000]            | [1.000]              | [1.000]               | [1.000]             |
| Benjamini and Hochberg (1995)              | [0.898]                                         | [0.957]           | [0.615]            | [0.957]              | [0.869]               | [0.898]             |
| Benjamini and Yekutieli (2001)             | [1.000]                                         | [1.000]           | [1.000]            | [1.000]              | [1.000]               | [1.000]             |
| Mean Outcome                               | 405.52                                          | 306.7             | 0.54               | 1.93                 | 44.47                 | 68.97               |
| 25p-to-75p Effect                          | 0%                                              | 0%                | -10%               | -1%                  | 3%                    | -1%                 |
| Population 1960 × Year FE                  | ×                                               | ×                 | ×                  | ×                    | ×                     | ×                   |
| Education 1960 × Year FE                   | ×                                               | ×                 | ×                  | ×                    | ×                     | ×                   |
| <i>Retornados</i> Total Year FE            |                                                 |                   |                    |                      |                       |                     |
| District × Year FE                         | ×                                               | ×                 | ×                  | ×                    | ×                     | ×                   |
| Municipality FE                            | ×                                               | ×                 | ×                  | ×                    | ×                     | ×                   |
| Year FE                                    | ×                                               | ×                 | ×                  | ×                    | ×                     | ×                   |
| Parishes                                   | 2763                                            | 2763              | 2763               | 2763                 | 2763                  | 2763                |
| Observations                               | 46,062                                          | 46,062            | 46,062             | 46,062               | 46,062                | 46,062              |

Note: **UPDATE** Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are hospital admission rates per 100,000 inhabitants caused by: cannabis, cocaine, opioid, hallucinogen, other stimulants, other sedatives, alcohol, and nicotine use, newborns (suspected to be) affected by maternal use of drugs of addiction, newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV), and hepatitis. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A10:** Effect on Crime Rates – Multiple Hypothesis Testing

|                                   | Crime rate per 100.000 inhabitants |                   |                       |                     |                  |                  |
|-----------------------------------|------------------------------------|-------------------|-----------------------|---------------------|------------------|------------------|
|                                   | Homicide                           | Assault           | Theft                 | Burglary            | Robbery          | Sexual Assault   |
|                                   | (1)                                | (2)               | (3)                   | (4)                 | (5)              | (6)              |
| Share Ret. ANG-MOZ                | -0.205<br>(0.181)                  | -3.195<br>(2.576) | -15.185***<br>(5.715) | -5.240**<br>(2.236) | 0.659<br>(0.427) | 0.023<br>(0.114) |
| Steinmayr (2020)                  | ∅                                  | ∅                 | ∅                     | ∅                   | ∅                | ∅                |
| List et al. (2019)                | ∅                                  | ∅                 | ∅                     | ∅                   | ∅                | ∅                |
| Holm (1979)                       | [0.651]                            | [0.651]           | [0.054]               | [0.100]             | [0.500]          | [0.838]          |
| Benjamini and Hochberg (1995)     | [0.310]                            | [0.310]           | [0.054]               | [0.060]             | [0.250]          | [0.838]          |
| Benjamini and Yekutieli (2001)    | [0.761]                            | [0.761]           | [0.132]               | [0.147]             | [0.612]          | [1.000]          |
| Population 1960 × Year FE         | ×                                  | ×                 | ×                     | ×                   | ×                | ×                |
| Education 1960 × Year FE          | ×                                  | ×                 | ×                     | ×                   | ×                | ×                |
| <i>Retornados</i> Total × Year FE |                                    |                   |                       |                     |                  |                  |
| District × Year FE                | ×                                  | ×                 | ×                     | ×                   | ×                | ×                |
| Municipality FE                   | ×                                  | ×                 | ×                     | ×                   | ×                | ×                |
| Year FE                           | ×                                  | ×                 | ×                     | ×                   | ×                | ×                |
| Mean Outcome                      | 5.54                               | 416.92            | 563.55                | 335.1               | 27.06            | 6.44             |
| 25p-to-75p Effect                 | -13%                               | -3%               | -9%                   | -5%                 | 8%               | 1%               |
| Municipalities                    | 271                                | 271               | 271                   | 271                 | 271              | 271              |
| Observations                      | 7,859                              | 7,859             | 7,859                 | 7,859               | 7,859            | 7,859            |

Note: Each column reports coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are homicide, assault, theft, burglary, robbery, and sexual assault rates per 100,000 inhabitants. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A11:** Effect on Voting – Inverse Probability Weighted Estimation (Abadie, 2005)

|                                   | Voting share     |                   |
|-----------------------------------|------------------|-------------------|
|                                   | In favor         | Against           |
|                                   | (1)              | (2)               |
| Share Ret. ANG-MOZ                | 0.981<br>(0.619) | -0.415<br>(0.658) |
| Population 1960 × Year FE         | ×                | ×                 |
| Education 1960 × Year FE          | ×                | ×                 |
| <i>Retornados</i> Total × Year FE |                  |                   |
| District × Year FE                | ×                | ×                 |
| IPW                               | ×                | ×                 |
| Mean Outcome                      | 42.23            | 51.69             |
| Effect                            | 2%               | -1%               |
| Parishes                          | 2,459            | 2,459             |
| Observations                      | 4,918            | 4,918             |

Note: Each column reports the inverse probability weighted (Abadie, 2005) coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the parish. The outcome variables are voting shares in national assembly elections in percentage terms. Column (1) displays the results for parties that supported the decriminalization of drugs, and column (2) concerns parties that opposed it. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people who initiated and/or completed the basic, secondary, and higher levels of education, the districts where parishes are located, and the total number of *retornados*. All controls are interacted with year fixed effects. Parish and year fixed effects are included. Standard errors are clustered at the parish level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A12:** Effect on Hospital Admission Rates – Inverse Probability Weighted Estimation (Abadie, 2005)

| Panel A: Drug Use                       | Hospital Admission rate per 100.000 inhabitants |                    |                    |                      |                       |                     |
|-----------------------------------------|-------------------------------------------------|--------------------|--------------------|----------------------|-----------------------|---------------------|
|                                         | Cannabis<br>(1)                                 | Cocaine<br>(2)     | Opioid<br>(3)      | Hallucinogen<br>(4)  | Ot. Stimulants<br>(5) | Ot. Sedative<br>(6) |
| Share Ret. ANG-MOZ                      | 2.898<br>(2.350)                                | 0.265<br>(1.677)   | -0.775<br>(0.510)  | 0.027<br>(0.331)     | 34.758<br>(28.615)    | 0.480<br>(1.443)    |
| Mean Outcome Effect                     | 5.15<br>56%                                     | 2.31<br>12%        | 0.48<br>-161%      | 0.19<br>14%          | 25.83<br>134%         | 3.22<br>14%         |
| Panel B: Substitution and Contamination | Alcohol<br>(7)                                  | Nicotine<br>(8)    | Newborn Mom<br>(9) | Newborn Milk<br>(10) | HIV<br>(11)           | Hepatitis<br>(12)   |
| Share Ret. ANG-MOZ                      | -4.292<br>(43.643)                              | 11.010<br>(74.801) | -0.089<br>(0.657)  | -0.131<br>(1.571)    | 21.747<br>(19.256)    | 1.258<br>(12.660)   |
| Mean Outcome Effect                     | 325.40<br>-1%                                   | 180.84<br>3%       | 0.772<br>-11%      | 2.29<br>-5%          | 39.01<br>55%          | 50.50<br>2%         |
| Population 1960                         | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| Education 1960                          | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| <i>Retornados</i> Total                 |                                                 |                    |                    |                      |                       |                     |
| District                                | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| IPW                                     | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| Parishes                                | 1,899                                           | 1,899              | 1,899              | 1,899                | 1,899                 | 1,899               |
| Observations                            | 3,798                                           | 3,798              | 3,798              | 3,798                | 3,798                 | 3,798               |

Note: Each column reports the inverse probability weighted (Abadie, 2005) coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are hospital admission rates per 100,000 inhabitants caused by: cannabis, cocaine, opioid, hallucinogen, other stimulants, other sedatives, alcohol, and nicotine use, newborns (suspected to be) affected by maternal use of drugs of addiction, newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV), and hepatitis. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A13:** Effect on Crime Rates – Inverse Probability Weighted Estimation (Abadie, 2005)

|                         | Crime rate per 100.000 inhabitants |                    |                        |                       |                  |                   |
|-------------------------|------------------------------------|--------------------|------------------------|-----------------------|------------------|-------------------|
|                         | Homicide                           | Assault            | Theft                  | Burglary              | Robbery          | Sexual Assault    |
|                         | (1)                                | (2)                | (3)                    | (4)                   | (5)              | (6)               |
| Share Ret. ANG-MOZ      | -1.181<br>(1.669)                  | 66.425<br>(54.330) | -83.425***<br>(29.112) | -35.115**<br>(16.073) | 1.540<br>(3.052) | -0.401<br>(0.924) |
| Population 1960         | ×                                  | ×                  | ×                      | ×                     | ×                | ×                 |
| Education 1960          | ×                                  | ×                  | ×                      | ×                     | ×                | ×                 |
| <i>Retornados</i> Total |                                    |                    |                        |                       |                  |                   |
| District                | ×                                  | ×                  | ×                      | ×                     | ×                | ×                 |
| IPW                     | ×                                  | ×                  | ×                      | ×                     | ×                | ×                 |
| Mean Outcome            | 6.39                               | 386.22             | 482.05                 | 299.29                | 18.01            | 4.73              |
| Effect (%)              | -20%                               | 15%                | -10%                   | -6%                   | 0%               | -9%               |
| Municipalities          | 182                                | 182                | 182                    | 182                   | 182              | 182               |
| Observations            | 364                                | 364                | 364                    | 364                   | 364              | 364               |

Note: Each column reports the inverse probability weighted (Abadie, 2005) coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are homicide, assault, theft, burglary, robbery, and sexual assault rates per 100,000 inhabitants. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A14:** Effect on Voting – Doubly Robust Improved Estimation (Sant’Anna and Zhao, 2020)

|                                   | Voting share     |                   |
|-----------------------------------|------------------|-------------------|
|                                   | In favor         | Against           |
|                                   | (1)              | (2)               |
| Share Ret. ANG-MOZ                | 0.924<br>(0.592) | -0.360<br>(0.633) |
| Population 1960 × Year FE         | ×                | ×                 |
| Education 1960 × Year FE          | ×                | ×                 |
| <i>Retornados</i> Total × Year FE |                  |                   |
| District × Year FE                | ×                | ×                 |
| Doubly Robust                     | ×                | ×                 |
| Mean Outcome                      | 42.32            | 52.03             |
| Effect                            | 2%               | -0%               |
| Parishes                          | 2,459            | 2,459             |
| Observations                      | 4,918            | 4,918             |

Note: Each column reports the doubly robust improved (Sant’Anna and Zhao, 2020) coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the parish. The outcome variables are voting shares in national assembly elections in percentage terms. Columns (1) displays the results for parties that supported the decriminalization of drugs, and column (2) concerns parties that opposed it. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people who initiated and/or completed the basic, secondary, and higher levels of education, the districts where parishes are located, and the total number of *retornados*. All controls are interacted with year fixed effects. Parish and year fixed effects are included. Standard errors are clustered at the parish level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

**Table A15:** Effect on Hospital Admission Rates – Doubly Robust Improved Estimation (Sant’Anna and Zhao, 2020)

| Panel A: Drug Use                          | Hospital Admission rate per 100.000 inhabitants |                    |                    |                      |                       |                     |
|--------------------------------------------|-------------------------------------------------|--------------------|--------------------|----------------------|-----------------------|---------------------|
|                                            | Cannabis<br>(1)                                 | Cocaine<br>(2)     | Opioid<br>(3)      | Hallucinogen<br>(4)  | Ot. Stimulants<br>(5) | Ot. Sedative<br>(6) |
| Share Ret. ANG-MOZ                         | 2.754<br>(2.358)                                | 0.304<br>(1.585)   | -0.781<br>(0.505)  | 0.067<br>(0.302)     | 32.271<br>(26.663)    | 0.717<br>(1.500)    |
| Mean Outcome<br>Effect                     | 5.15<br>53%                                     | 2.31<br>126%       | 0.48<br>-162%      | 0.19<br>35%          | 25.83<br>124%         | 3.22<br>22%         |
| Panel B: Substitution<br>and Contamination | Alcohol<br>(7)                                  | Nicotine<br>(8)    | Newborn Mom<br>(9) | Newborn Milk<br>(10) | HIV<br>(11)           | Hepatitis<br>(12)   |
| Share Ret. ANG-MOZ                         | -6.298<br>(41.722)                              | 11.870<br>(72.716) | -0.011<br>(0.670)  | 0.127<br>(1.710)     | 18.311<br>(17.016)    | 0.070<br>12.477     |
| Mean Outcome<br>Effect                     | 325.40<br>-2%                                   | 180.84<br>6%       | 0.772<br>-1%       | 2.29<br>5%           | 39.01<br>46%          | 50.50<br>0%         |
| Population 1960                            | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| Education 1960                             | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| <i>Retornados</i> Total                    |                                                 |                    |                    |                      |                       |                     |
| District                                   | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| Doubly Robust                              | ×                                               | ×                  | ×                  | ×                    | ×                     | ×                   |
| Parishes                                   | 1,899                                           | 1,899              | 1,899              | 1,899                | 1,899                 | 1,899               |
| Observations                               | 3,798                                           | 3,798              | 3,798              | 3,798                | 3,798                 | 3,798               |

Note: Each column reports the doubly robust improved (Sant’Anna and Zhao, 2020) coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are hospital admission rates per 100,000 inhabitants caused by: cannabis, cocaine, opioid, hallucinogen, other stimulants, other sedatives, alcohol, and nicotine use, newborns (suspected to be) affected by maternal use of drugs of addiction, newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV), and hepatitis. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

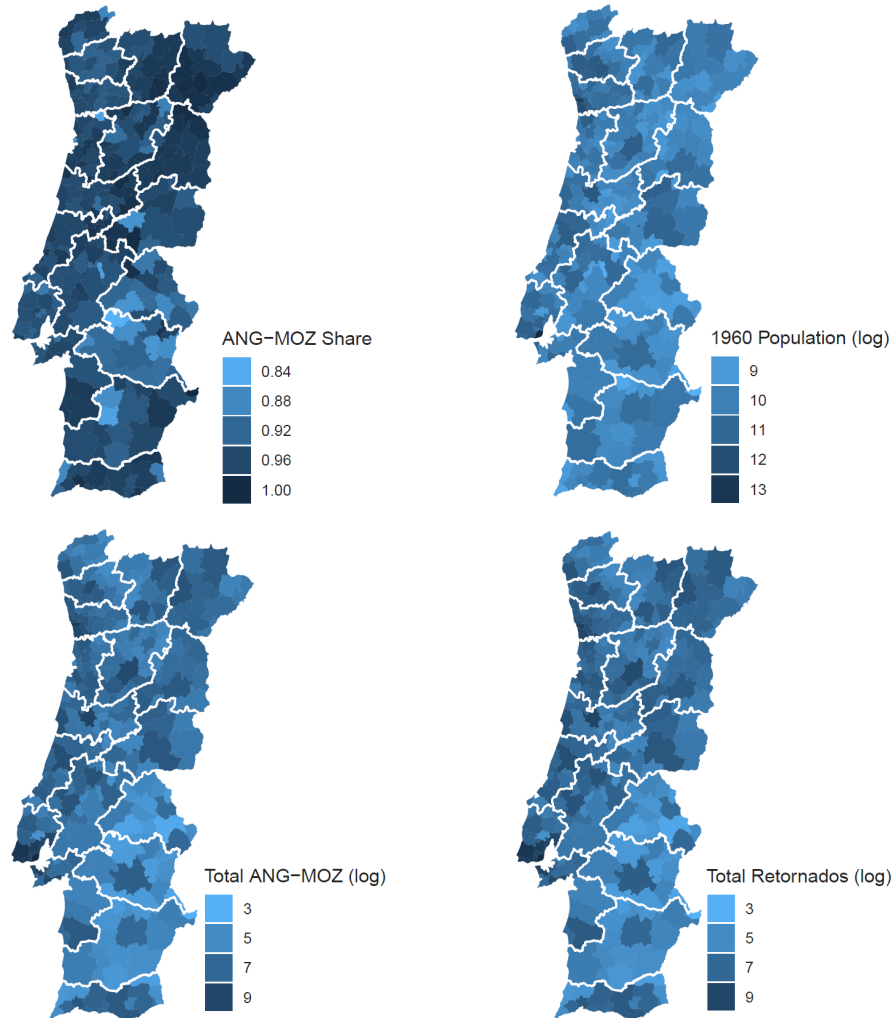
**Table A16:** Effect on Crime Rates – Doubly Robust Improved Estimation (Sant’Anna and Zhao, 2020)

|                         | Crime rate per 100.000 inhabitants |                    |                     |                     |                  |                   |
|-------------------------|------------------------------------|--------------------|---------------------|---------------------|------------------|-------------------|
|                         | Homicide                           | Assault            | Theft               | Burglary            | Robbery          | Sexual Assault    |
|                         | (1)                                | (2)                | (3)                 | (4)                 | (5)              | (6)               |
| Share Ret. ANG-MOZ      | -1.295<br>(1.859)                  | 58.699<br>(45.583) | -45.968<br>(34.729) | -16.888<br>(14.058) | 0.226<br>(3.998) | -0.584<br>(0.920) |
| Population 1960         | ×                                  | ×                  | ×                   | ×                   | ×                | ×                 |
| Education 1960          | ×                                  | ×                  | ×                   | ×                   | ×                | ×                 |
| <i>Retornados</i> Total |                                    |                    |                     |                     |                  |                   |
| District                | ×                                  | ×                  | ×                   | ×                   | ×                | ×                 |
| Doubly Robust           | ×                                  | ×                  | ×                   | ×                   | ×                | ×                 |
| Mean Outcome            | 6.39                               | 386.22             | 482.05              | 299.29              | 18.01            | 4.73              |
| Effect (%)              | -20%                               | 15%                | -10%                | -6%                 | 0%               | -9%               |
| Municipalities          | 182                                | 182                | 182                 | 182                 | 182              | 182               |
| Observations            | 364                                | 364                | 364                 | 364                 | 364              | 364               |

Note: Each column reports the doubly robust improved (Sant’Anna and Zhao, 2020) coefficients and standard errors (in parentheses) from the regression displayed in equation (1). The unit of observation is the municipality. The outcome variables are homicide, assault, theft, burglary, robbery, and sexual assault rates per 100,000 inhabitants. The independent variable is the proportion of *retornados* who emigrated from Angola and Mozambique in percentage terms. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level. One, two, and three stars indicate significance at the 10%, 5%, and 1% levels, respectively.

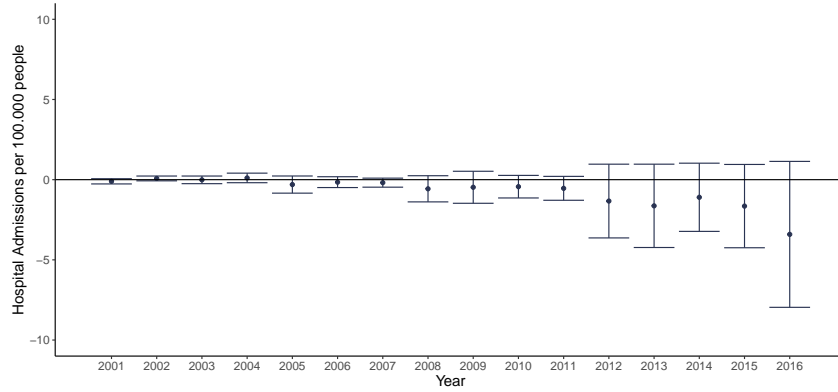


Figure A1. *Retornados* and population distribution



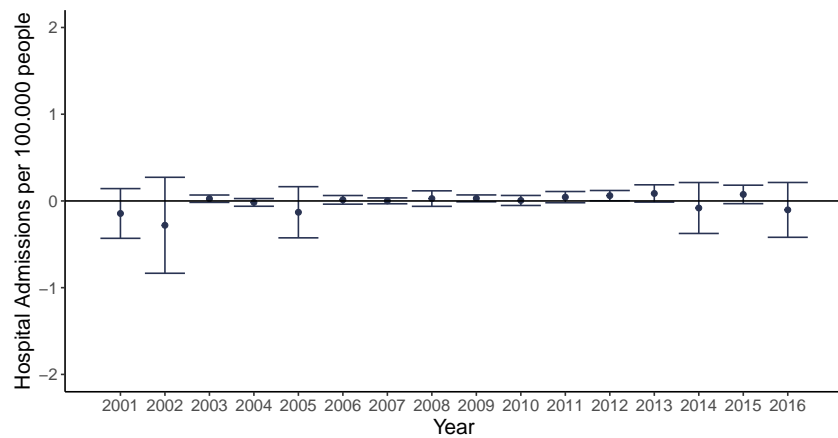
Note: The figures represent the *retornados* and the population's geographical distribution in Portugal. The top left figure shows the proportion of the *retornados* that emigrated from Angola and Mozambique in each municipality. The top-right figure displays the logarithm transformation of the population level in 1960 per municipality. The bottom-left figure shows the logarithm transformation of the total number of *retornados* that emigrated from Angola and Mozambique per municipality. The bottom-right figure represents the logarithm transformation of the total number of *retornados* per parish. The white lines represent district borders.

**Figure A2.** Event Study – Effect on hospital admission rates due to cannabis-related disorders



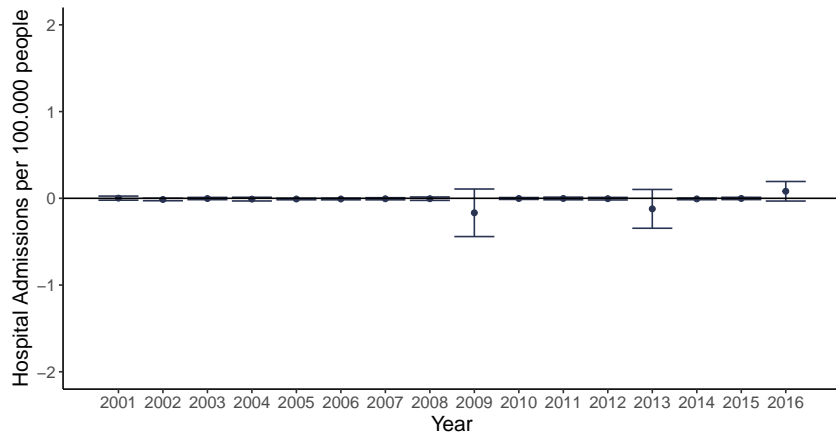
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by cannabis-related disorders. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A3.** Event Study – Effect on hospital admission rates due to cocaine-related disorders



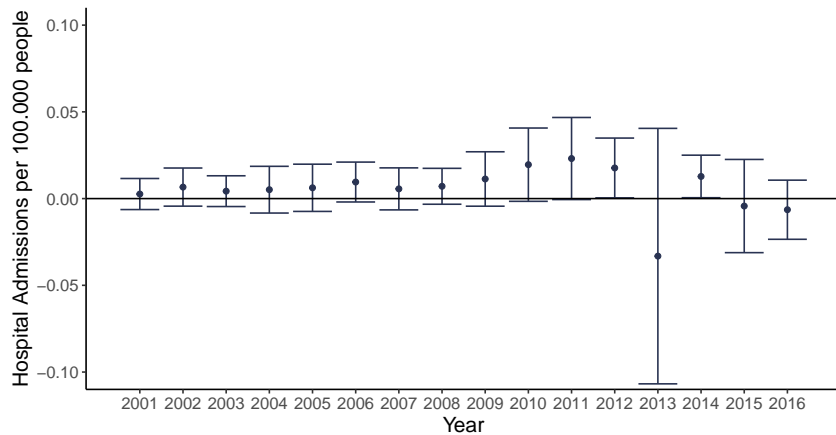
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by cocaine-related disorders. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A4.** Event Study – Effect on hospital admission rates due to opioid-related disorders



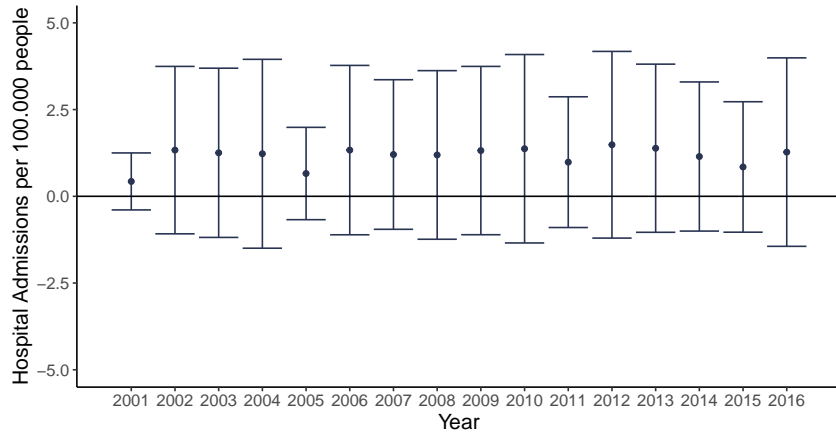
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by opioid-related disorders. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A5.** Event Study – Effect on hospital admission rates due to hallucinogen-related disorders



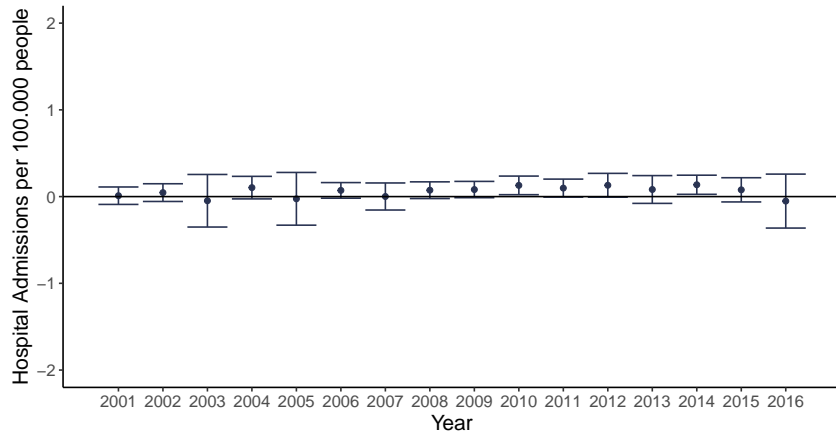
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by hallucinogen-related disorders. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A6.** Event Study – Effect on hospital admission rates due to other stimulant-related disorders



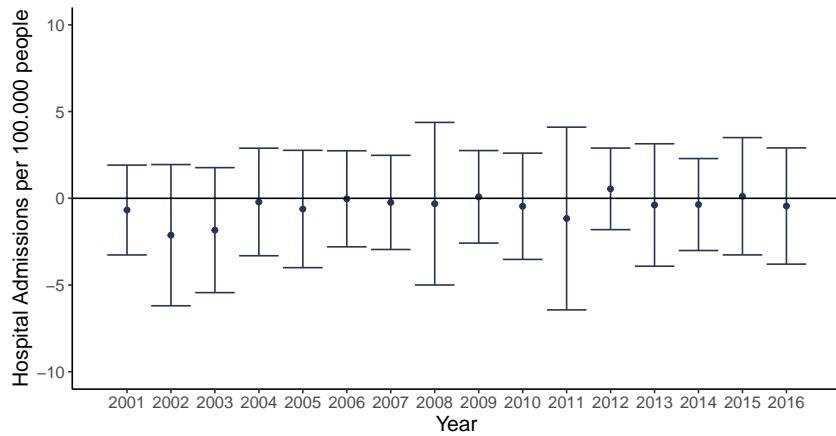
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by other stimulant-related disorders. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A7.** Event Study – Effect on hospital admission rates due to other sedative-related disorders



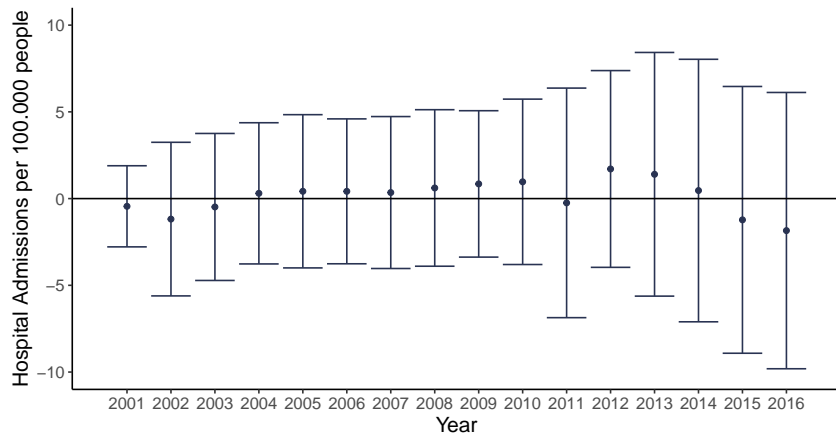
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by other sedative-related disorders. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A8.** Event Study – Effect on hospital admission rates due to alcohol-related disorders



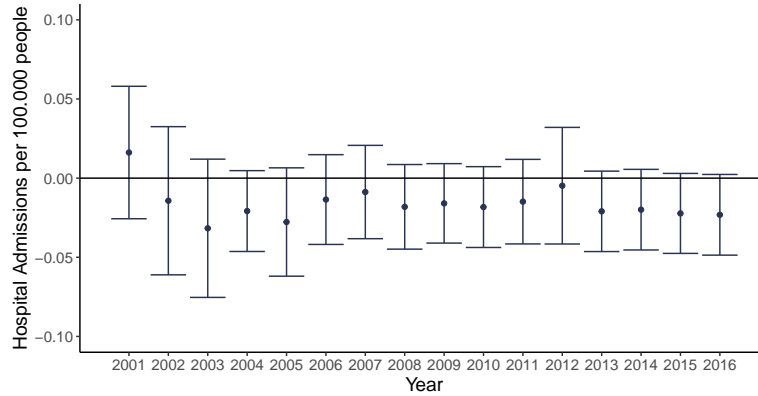
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A9.** Event Study – Effect on hospital admission rates due to nicotine dependence



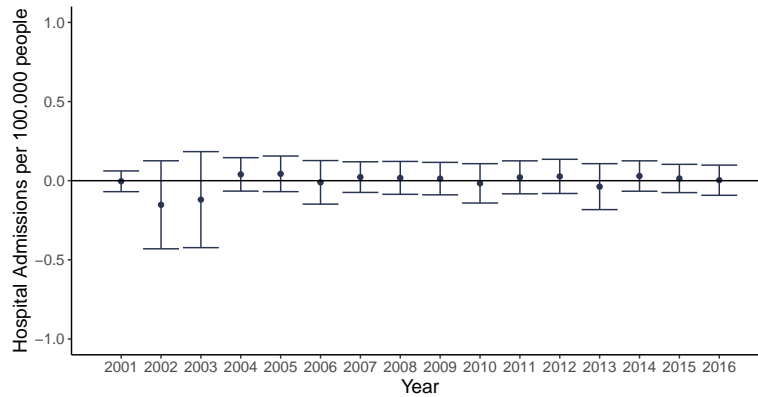
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by nicotine dependence. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A10.** Event Study – Effect on hospital admission rates of newborns (suspected to be) affected by maternal use of drugs of addiction



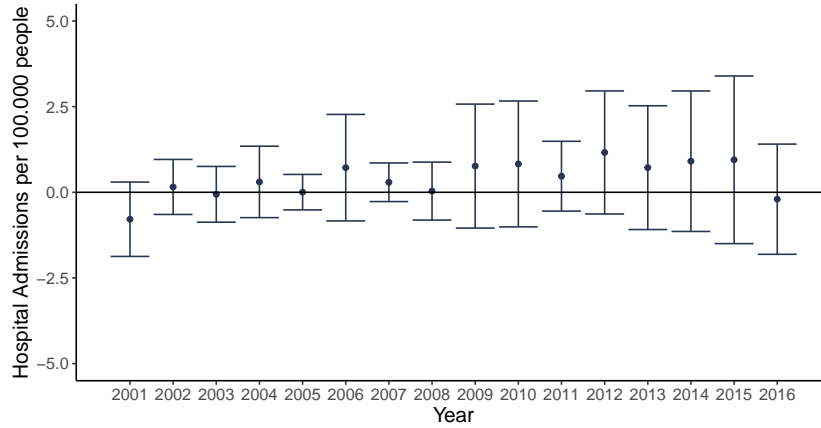
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants of newborns (suspected to be) affected by maternal use of drugs of addiction. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A11.** Event Study – Effect on hospital admission rates of newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk



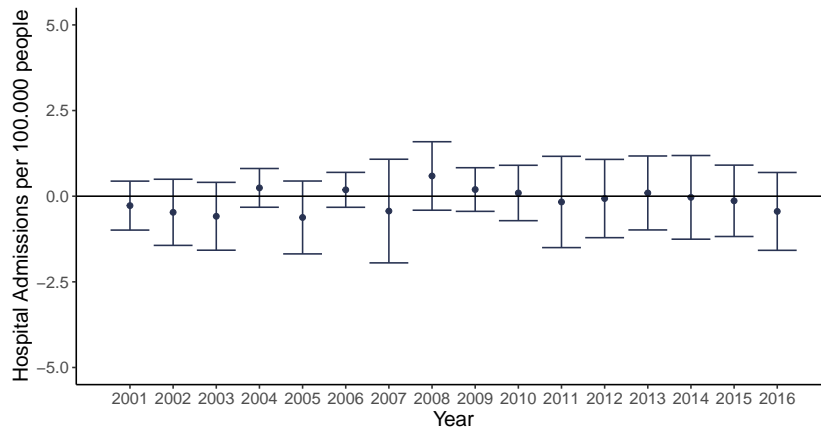
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants of newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A12.** Event Study – Effect on hospital admission rates due to human immunodeficiency virus (HIV)



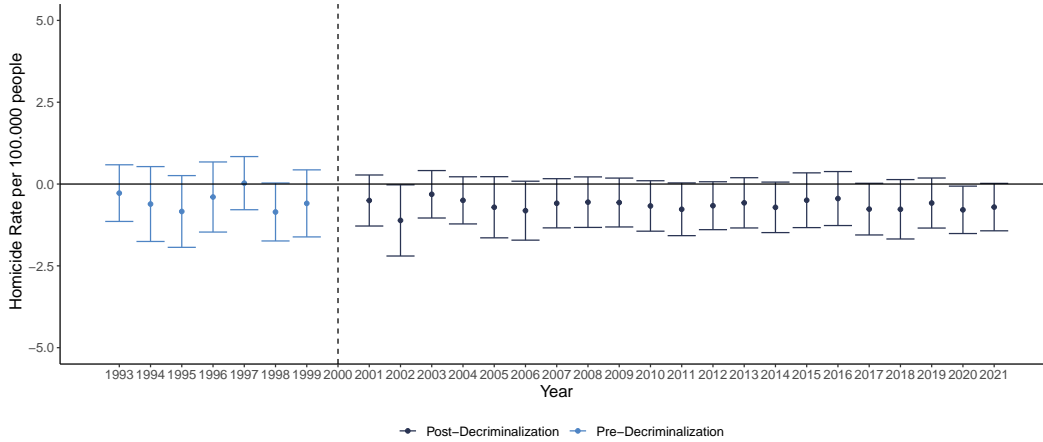
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by human immunodeficiency virus (HIV). The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A13.** Event Study – Effect on hospital admission rates due to virus hepatitis



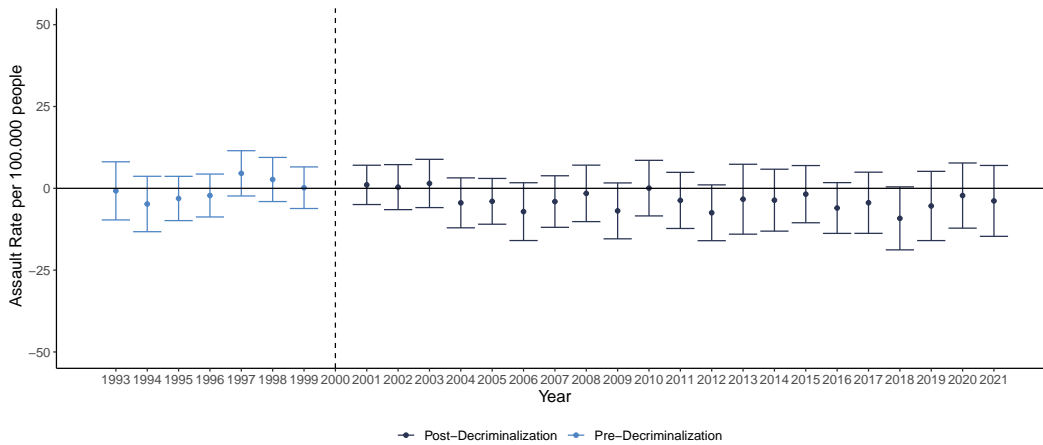
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is hospital admission rate per 100,000 inhabitants caused by hepatitis. The unit of observation is the parish. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A14.** Event Study – Effect on homicide rates



Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is homicide rate per 100,000 inhabitants. The unit of observation is the municipality. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

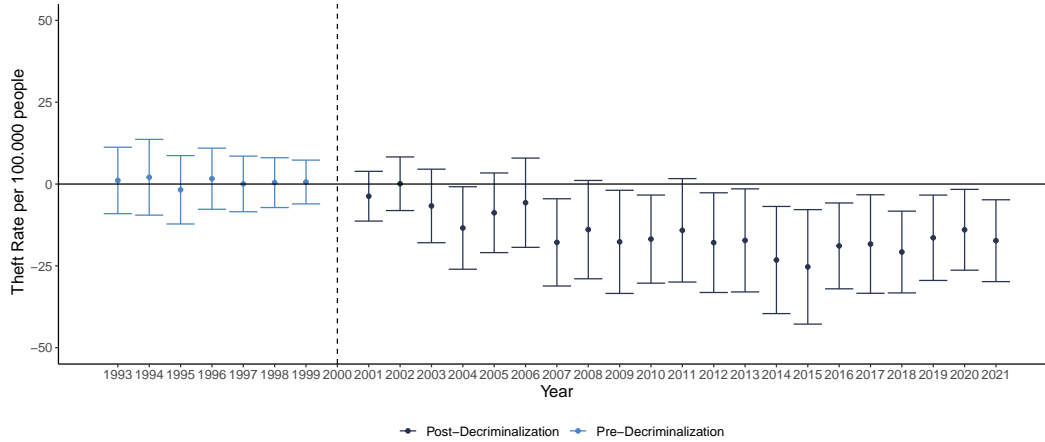
**Figure A15.** Event Study – Effect on assault rates



Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is assault rate per 100,000 inhabitants. The unit of observation is the municipality. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

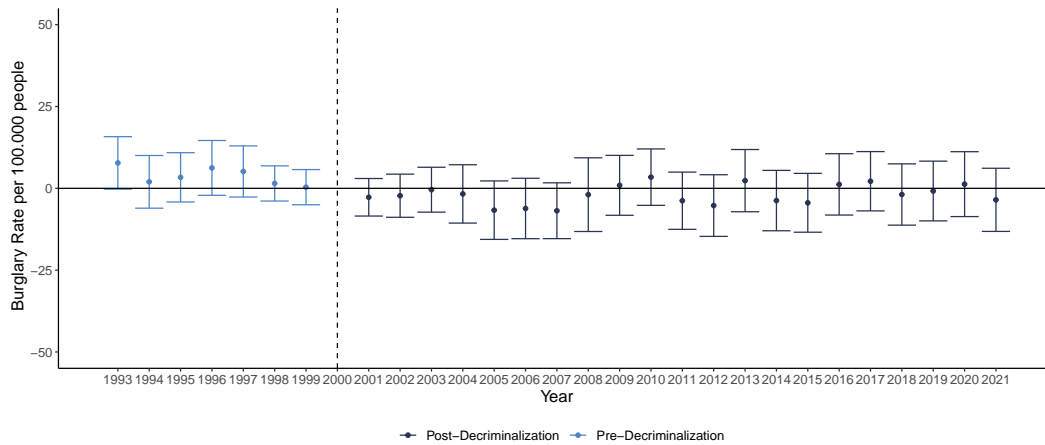


**Figure A16.** Event Study – Effect on theft rates



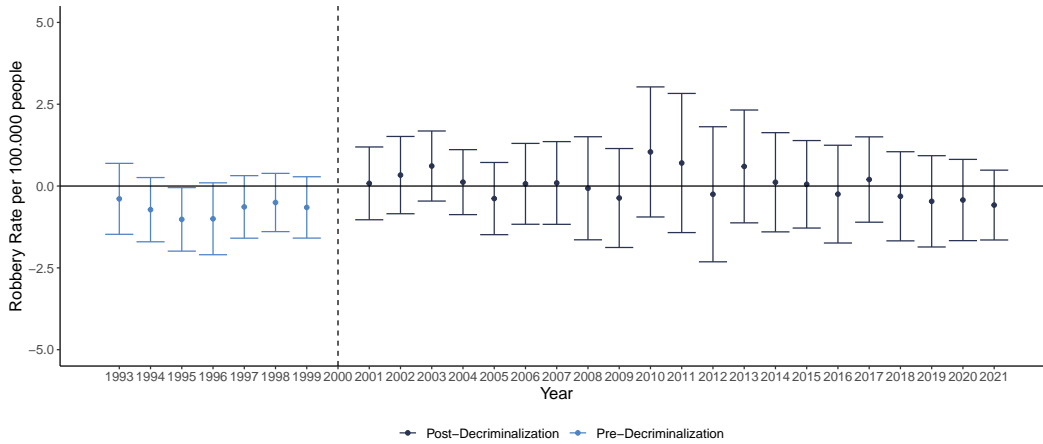
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is theft rate per 100,000 inhabitants. The unit of observation is the municipality. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A17.** Event Study – Effect on burglary rates



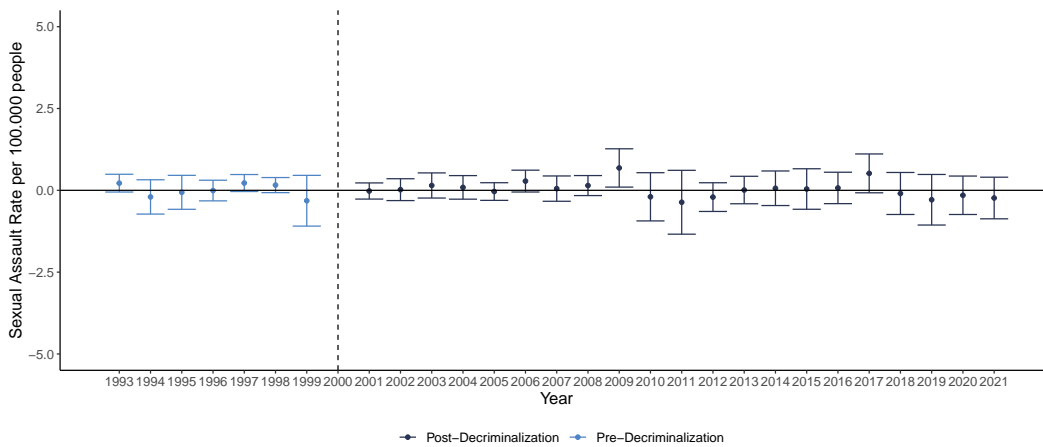
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is burglary rate per 100,000 inhabitants. The unit of observation is the municipality. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A18.** Event Study – Effect on robbery rates



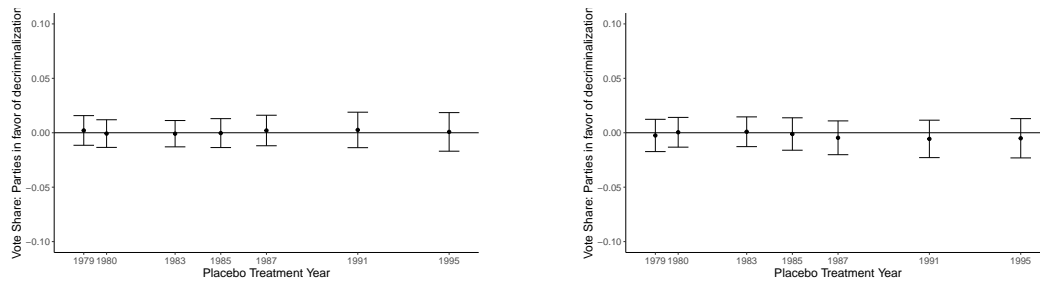
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is robbery rate per 100,000 inhabitants. The unit of observation is the municipality. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A19.** Event Study – Effect on sexual assault rates



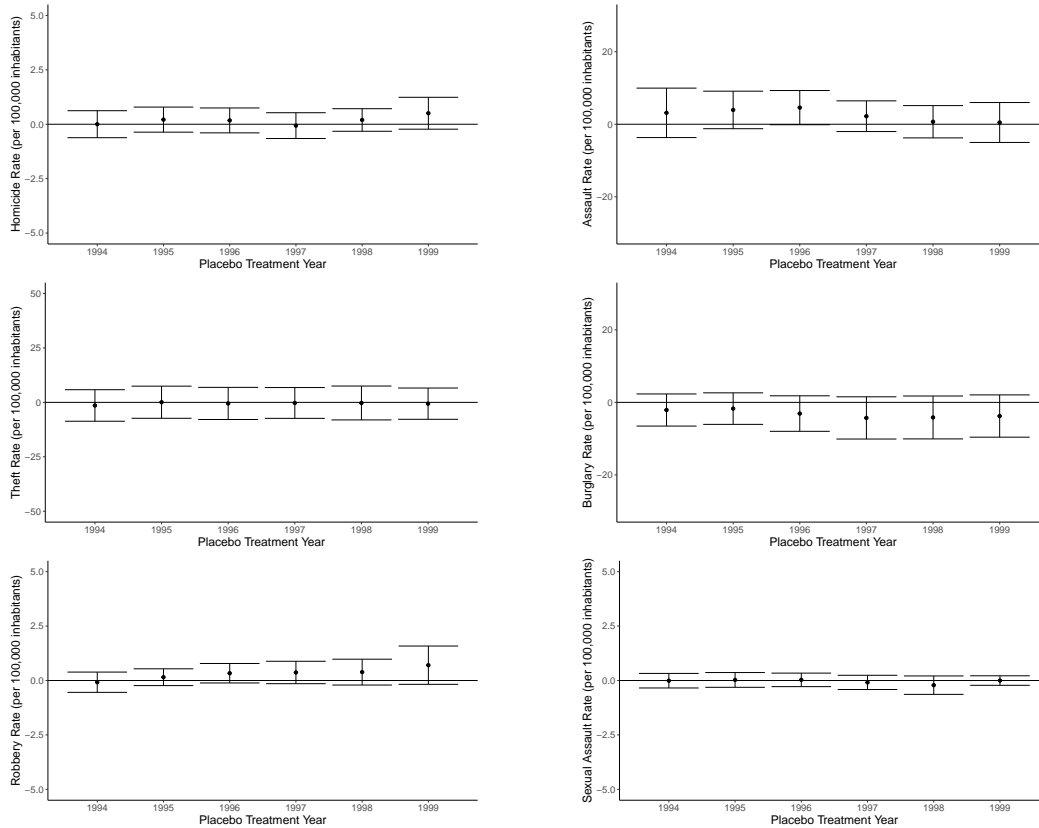
Note: The figure represents the results of an event study where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5, and the year of reference is 2000. The dependent variable is sexual assault rate per 100,000 inhabitants. The unit of observation is the municipality. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A20.** Placebo Regressions – Electoral Outcomes



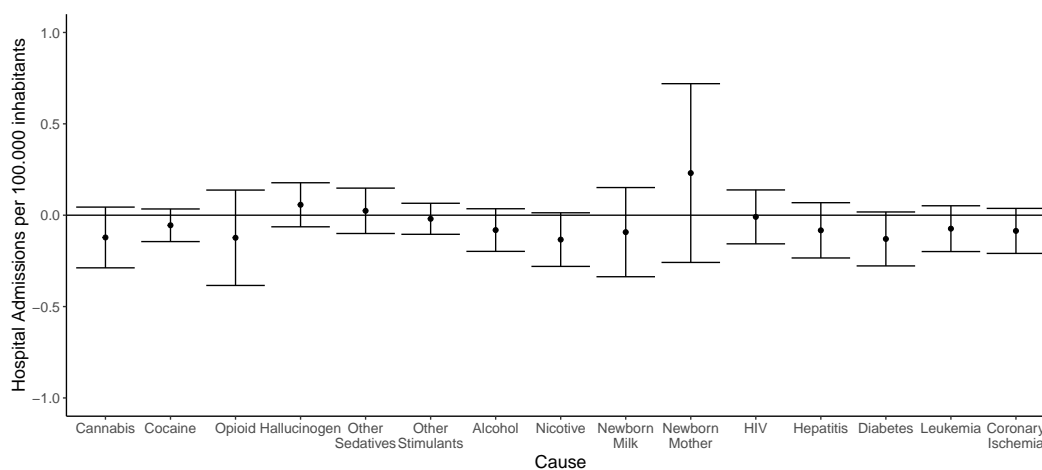
Note: The figures represent the results of placebo regressions where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5. Each estimate is the result of a separate regression. The placebo year of treatment varies across all elections in the sample prior to the 2001, year of the real treatment. The sample is restricted to observation prior to 2001. The dependent variable is voting shares in national assembly elections in percentage terms. The left figure displays the results for parties that voted in favor of the legislation, and the right figure shows the results of parties that opposed it. The unit of observation is the parish. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where parishes are located, and the total number of *retornados*. Parishes and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A21. Placebo Regressions – Crime Outcomes**



Note: The figures represent the results of placebo regressions where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5. Each estimate is the result of a separate regression. The placebo year of treatment varies across all years in the sample prior to the 2001, year of the real treatment. The sample is restricted to observation prior to 2001. The dependent variables are homicide, assault, theft, burglary, robbery and sexual assault rates per 100,000 inhabitants. The unit of observation is the municipality. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.

**Figure A22.** Hospital Admission Estimates – Magnitude



Note: The figure represents the results of regressions where the treatment is the share of *retornados* from Angola and Mozambique, as defined in Section 5. Each estimate is the result of a separate regression, each for a different dependent variable. The dependent variables are hospital admission rates per 100,000 inhabitants caused by: cannabis, cocaine, opioid, hallucinogen, other stimulants, other sedatives, alcohol, and nicotine use, newborns (suspected to be) affected by maternal use of drugs of addiction, newborns (suspected to be) affected by noxious substances transmitted via placenta or breast milk, human immunodeficiency virus (HIV), and hepatitis. The unit of observation is the municipality. The independent variable is the proportion of the *retornados* that emigrated from Angola and Mozambique in percentage terms, which is interacted with year fixed effects. Control variables are population in 1960, the number of people that initiated and completed the primary, secondary, and higher levels of education, the districts where municipalities are located, and the total number of *retornados*. Municipality and year fixed effects are included. Standard errors are clustered at the municipality level.