



ILLICIT DRUG POLICIES AND SOCIAL OUTCOMES: A CROSS- COUNTRY ANALYSIS

Final report

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CATOLICA
CATÓLICA PORTO BUSINESS SCHOOL

PORTO

Illicit drug policies and social outcomes: a cross-country analysis

Research project funded by the European Research Area Network on Illicit Drugs (ERANID)

Project team

Principal Investigator (PI) and co-Principal Investigators (co-PI)

Ricardo Gonçalves (PI), Católica Porto Business School, Universidade Católica Portuguesa, Portugal

Pierre Kopp (co-PI), Université Paris I Panthéon-Sorbonne, France

Dirk Korf (co-PI), Faculty of Law, University of Amsterdam, Netherlands

Carla Rossi (co-PI), Consorzio per lo sviluppo delle metodologie e delle innovazioni nelle pubbliche amministrazioni (MIPA), Italy

Research team

France: **Marysia Ogrodnik** (Université Paris I Panthéon-Sorbonne)

Italy: **Alessio Canzonetti**, **Dario Cirillo**, **Francesca de Marinis**, **Francesco Fabi** and **Fabio Massimo Lanzoni** (MIPA)

Netherlands: **Annemieke Benschop**, **Nienke Liebrechts** and **Kostas Skliamis** (University of Amsterdam)

Portugal: **Ana Lourenço** and **Hélia Marreiros** (Católica Porto Business School, Universidade Católica Portuguesa)

Advisors

Cláudia Costa Storti, EMCDDA

Paul de Grauwe, London School of Economics

Mathias Siems, Durham University

Jenny Williams, University of Melbourne

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Porto, 19th March 2021

Ricardo Gonçalves

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1. Introduction

1.1. Overview of the research project

1.1.1. Goal and funding

The “Illicit drug policies and social outcomes: a cross country analysis (IDPSO)” project is an international 3-year (2017-2020, with a six-month extension due to the COVID-19 pandemic) research project in the illicit drug field, with the goal of measuring the impact that different drug-related legal frameworks have on society in seven different countries: Portugal, France, Italy, Netherlands, United Kingdom, Canada and Australia. This research project was selected for financing by ERANID (European Research Area Network on Illicit Drugs), following an international call for proposals in 2016.

1.1.2. Research team

Católica Porto Business School (Portugal) is the leading institution in an international research consortium that also includes Université de Paris I (France), University of Amsterdam (Netherlands) and MIPA (Italy), and advisors from the EMCDDA (European Monitoring Centre for Drugs and Drug Addiction), London School of Economics, Durham University and University of Melbourne. The main researchers involved in our research consortium are: Ricardo Gonçalves (PI), Ana Lourenço and Hélia Marreiros, from Católica Porto Business School, Universidade Católica Portuguesa; Pierre Kopp (co-PI) and Marysia Ogrodnik (Paris School of Economics, Université Paris I); Dirk Korf (co-PI), Annemieke Benschop, Nienke Liebrechts and Kostas Skliamis (University of Amsterdam); and Carla Rossi (co-PI), Alessio Canzonetti, Dario Cirillo, Francesca de Marinis, Francesco Fabi and Fabio Massimo Lanzoni (MIPA). The project’s advisors are Mathias Siems (Durham Law School, Durham University), Cláudia Costa Storti (European Monitoring Centre for Drugs and Drugs Addiction - EMCDDA), Paul de Grauwe (London School of Economics) and Jenny Williams (University of Melbourne). For more information on the project please go to <https://www.eranid.eu/projects/idps/>.

1.1.3. Structure of the research project

The objective of this project is to assess how differences in national drug laws and policies related to illicit drug production, distribution and consumption impact on key drug-related social indicators, with a particular focus on cannabis. In a nutshell, in order to achieve this objective, this research projects aims, first, to translate into quantitative indicators the different ‘written’ policies, typically approved and enacted by law, as well as the perceptions, by stakeholders, of policies ‘in action’. Second, this research project aims to measure their impact on key indicators for drug use.

To do so, this project involves four steps: (i) the use of leximetrics to allow cross-country comparison of national drug policies (measuring ‘law in the books’); (ii) a quantitative and qualitative study to assess the perceptions of key actors regarding those policies (capturing perceptions of ‘law in books’ and ‘law in action’); (iii) a careful analysis of key social indicators directly or indirectly related to illicit drug use (e.g., health indicators, such as HIV or hepatitis infection rates; demand indicators, such as illicit drug consumption rates; or justice system indicators, such as number of drug-law offences or imprisonments); and (iv) an in-depth understanding of the relationship between national drug laws and policies (steps (i) and (ii)) and social indicators (step (iii)).

As outlined in our research proposal, each of these steps in our analysis corresponds to a Work Package (WP), led by a consortium member, and ultimately results in a chapter of this final report:

- Chapter 2 (WP2): Cross-country comparison of national drug policies using leximetrics
 - WP leader: Ana Lourenço (Portugal);
 - Objective: to build indices of laws regarding drug production, distribution and use in the countries selected – Portugal, France, Italy, the Netherlands, England, Canada and Australia – and over a time-frame of twenty years (1996-2016)
- Chapter 3 (WP3): Qualitative and quantitative study of drug policy perceptions
 - WP leader: Dirk Korf (Netherlands);
 - Objective: to ascertain the perception of drug policy and its evolution in the selected countries. This involves empirical data gathering (qualitative expert interviews to gather actors’ perceptions on legal evolution and its impact on social indicators, and surveys on perceptions of law in action)
- Chapter 4 (WP4): Key social indicators for drug policy analysis
 - WP leader: Pierre Kopp (France);
 - Objective: to review, develop and collect information on key social indicators directly or indirectly related to illicit drug use
- Chapter 5 (WP5): Assessing the impact of drug policies on key social indicators
 - WP leader: Ricardo Gonçalves (Portugal);
 - Objective: to develop a cross-country analysis of drug policies and their impact on social indicators.

1.2. Executive summary

There is worldwide diversity in national drug laws and policies. A brief analysis of the EMCDDA’s European Legal Database on Drugs reveals a variety of laws and inherent paradigms, ranging from crime-centred perspectives to health centred ones. Outside Europe, this diversity is even more salient, as countries with a legalisation approach coexist with countries where drug use is severely punished (UK Home Office, 2014). This diversity in national drug policies, as well as their evolution, is somewhat to be expected, insofar as they reflect each country’s social, economic and cultural drivers. Nonetheless, given that illicit drugs undoubtedly generate social costs, changes in national drug policies should be followed by a systematic method for measuring their impact on key drug-related indicators.

EMCDDA works since nineties on relation drugpolicy-indicators, "little" is not correct

And yet little is known about the relationship between key drug indicators and the applicable drug policy framework. Naturally, this is a complex issue. Drug policy (as other policies) has various relevant dimensions: 'written' policy is typically approved and enacted by law; policy 'in action' relates to the practical implementation of 'written policy'; and 'perceived' policy refers to how stakeholders perceive the 'written' policy as well as the policy 'in action'. Each country probably has a unique drug law and policy, resulting from the combination of these three different dimensions, built and/or changed over time depending on its society evolution or ideological position. Such policy should clearly have an impact on illicit drug production, distribution or use.

Therefore, understanding the relationship between drug law and policy and key drug-related indicators is essential to inform the ongoing debate and provide scientific evidence to the discussion surrounding drug policy regimes, especially (but not only) in what concerns cannabis. Such an understanding requires an in-depth cross-country interdisciplinary approach involving stakeholders that would ultimately make a significant and impactful contribution to the field, as well as for future policy discussions. This is the goal of our research project: to assess how differences in national drug laws and policies related to illicit drug production, distribution and consumption impact on key drug-related social indicators, with a particular focus on cannabis.

Our research project looks at seven different countries – Portugal, France, Italy, Netherlands, United Kingdom, Canada and Australia – over a relatively long timeframe (1996-2016). The first step in our analysis proposes to answer the following research questions: how has the illicit drug policy evolved between 1996 and 2016 in each of the seven countries under analysis? And (ii) how can the illicit drug policy be converted into numbers, so as to allow for intertemporal and international comparison?

To answer these research questions, a state-of-the-art comparative law technique is used: leximetrics. This is a method of comparative law that relies on a systematic quantitative methodology (Cooter & Ginsburg, 2003), turning the law into numbers and therefore allowing intertemporal and international comparison of legal change. The analysis was carried out in two steps: in a first step, we have identified and collected relevant legislation, court decisions and drug policy documents for each of the 7 countries in the period 1996-2016. This has allowed the construction of detailed drug policy timelines for each country under analysis. In a second step, we have developed a leximetrics coding methodology which, on the basis of each country's drug policy timelines, effectively allows us to 'transform the law into numbers'. In doing so, we have explicitly acknowledged the multidimensional nature of drug policy. Therefore, rather than focus on the construction of a single index for drug policy, we have developed a coding methodology encompassing six different dimensions of drug policy: consumption, possession, traffic (including cultivation, production and distribution), harm reduction, treatment and prevention. In addition, we have also explicitly considered the nature of the drugs: the first three dimensions – consumption, possession and traffic – have a different coding methodology based on the type of drug: cannabis or hard drugs. For each dimension (and for each type of drug), our coding methodology 'classifies' countries in a scale of '0' (a health-oriented/liberal country) to '1' (a criminal-oriented/prohibitionist country) for each year in the period 1996-2016.

In a nutshell, we identify various turning points in each of the various drug policy dimensions over time. Typically (but not always) these turning points are in the direction of a more health oriented/liberal (or less criminal-oriented/prohibitionist) approach

many international papers are available on qualitative and quantitative analyses but not following the leximetric approach

I believe that a scale of 0 to 1 is less easy for politicians making decisions about drug laws to understand than a scale of 0 to 100. For politicians, probability is also expressed in percentages to facilitate understanding. In any case, a scale based on natural numbers is better understood.

towards drug policy. Comparisons across countries show that these shifts were not uniform: some countries took larger steps than others in that direction, thus changing their relative position for each dimension of drug policy.

A second step in our analysis is dedicated to answering the following research question: how is drug policy perceived in each of the selected countries? And how has this perception changed over time?

In order to answer these research questions, we have followed an empirical approach: we have implemented surveys on perceptions of law in action and we have carried out qualitative expert interviews to gather actors' perceptions on legal evolution and its impact on social indicators.

Starting with the former, two quantitative surveys were conducted to capture citizens' perceptions regarding the actual operation of drug policies in their country: a general population survey and a survey among current drug users (user survey). The focus of these surveys was on the perceived legal status of cannabis, perceptions of drug policy (perceived approach towards drug users or drug dealers, as well as perceived priorities of drug policy), perceptions of drug law in action and perceptions of drug availability and supply. In addition, the user survey also looked into perceptions of treatment, social norms and self-regulation regarding drug use.

Regarding the latter, we carried out 66 expert interviews across the seven countries which resulted in concise country reports presenting information about changes in drug policy, the law in action and access and barriers to treatment during the years under study (1996-2016); explanations for/interpretations of changes; and perceptions of the reactions of drug producers and suppliers to drug laws/drug law enforcement.

By integrating the main findings from the seven country reports, we concluded that there are similarities regarding interventions to combat the heroin epidemic of the late 1980s and early 1990s. Policy changes then focused on prevention, treatment and harm reduction, mostly following a health rather than a crime approach. In general, the health approach interventions in response to the heroin epidemic had positive results for drug users and for society. However, despite these successes, later steps towards a return to the crime approach were observed when treatment and harm reduction were placed in the spotlight of political debates, and when drug policy was a feature of electoral campaigns, reflecting the conservative reflexes of voters. In the same period that countries were winning the first battles against the heroin epidemic, significant changes in the production and supply of other drugs started to become apparent in drug markets: the experts agree that changes in drug supply methods and the availability of different drugs are associated with the demand for higher quality, greater variety, and lower prices.

Regarding cannabis, experts suggest that despite the changes in the fields of law enforcement, prevention, treatment and harm reduction, cannabis users were never the target of these changes. In general, experts perceive that the laws did not change for them (except in Canada, where cannabis was legalized in 2018), but the opinion and behaviour of the police and the criminal justice system towards cannabis users changed significantly, to a more decriminalized approach. There was no cross-national alignment regarding cannabis policy changes, namely whether a country's drug policy focussed on crime or health. Each country in this project more or less followed its own policy, although this was

not always in the same direction as the other countries and in some cases, the same change in different countries were many years apart.

A third step in our analysis consisted of the review, development and collection of information on key social indicators directly or indirectly related to illicit drug use. Putting together a database of social indicators between 1996-2016 for the seven countries proved to be more difficult than initially anticipated because for some variables: (i) there was a large number of missing observations, either over time or across countries; (ii) often (but not always) the large number of missing observations is related to changes in variable definitions (or data collection methodology), which essentially renders impossible the task of collecting data for the same variable throughout the period under analysis; (iii) although EU countries largely follow the data collection methodologies and variable definitions stipulated by the EMCDDA, the same is not true for Canada and Australia – both of which collect statistics on variables that are similar in nature to those collected by the EMCDDA, but not exactly the same; and (iv) whilst data collection for EU countries was made comparatively easier by relying on a single data source – the EMCDDA –, data collection for Australia and Canada was typically not possible from a single source, thus increasing comparability problems.

Despite this, we have constructed a database, for the seven countries under analysis and for the 1996-2016 period, which includes variables on the prevalence of drug use, overdose deaths, infectious diseases, treatment demand, problem drug use, seizures of drugs, price, purity and potency, drug law offenses and health and social responses.

In the fourth and final step of our analysis, we have focused on the following research question: for the countries under analysis, in the period 1996-2016, what is the impact of each dimension of drug policy on prevalence rates for (i) cannabis, (ii) cocaine and (iii) ecstasy? Understanding the effect of national drug policies on social indicators is a central question for policymakers. Assessing this effect in the long run requires an evaluation of social indicators before and after drug policy changes. However, this is a complex issue, as changes in drug policies may have an impact in more than one indicator. Notwithstanding, studies on the impact of drug policies changes are not uncommon. Ritter et al. (2016) provide a broad overview of the literature on comparative policy analysis in the field of alcohol and drugs. Our work differs from previous literature in three somewhat interrelated dimensions. First, ours is a cross-country study focusing on social outcomes associated with illicit drug use at an aggregate (national) level. Second, we use a new approach to specify drug policies, based on leximetrics. Third, we use separate indexes to to ‘measure’ different drug policy dimensions over time and across countries.

We follow an econometric approach and obtain results that are both interesting and intriguing. In the case of cannabis, we find that drug policy changes in the direction of a less criminally-oriented approach towards consumption and possession contribute to a *decrease* in prevalence rates. This is a very interesting result which contradicts those of Simon-Morton et al. (2010), Kotlaja and Carson (2018), Grucza et al. (2018) and Stevens (2019), who all find there to be no evidence of a causal association between cannabis drug policy and adolescent cannabis use. We also find that a less criminally-oriented approach towards the traffic of cannabis is associated with increases in prevalence rates. We further find that a more health-oriented approach towards harm reduction and treatment (in this case, only for the overall population) also leads to a reduction in prevalence rates.

since the most harmful substances for health and that cause more deaths are opiates, and in particular heroin, it is absurd not to include the study of the prevalence of these substances that is also better evaluated in the PDU indicator, at least for EU countries.

Our results for cocaine suggest that drug policy changes in the direction of a less criminally-oriented approach towards consumption *decrease* prevalence rates, but the *opposite* is true for possession. In what concerns possession, our results for cocaine are in stark contrast to those obtained for cannabis and suggest differential impacts on prevalence rates for (otherwise similar in nature) drug policy changes. In addition, our results contradict those of Vuolo (2013). We also find that (similarly to cannabis) increased harm reduction efforts induce reductions in prevalence rates – a result which is in line with that of Vuolo (2013). Unlike cannabis, however, we find no effect of increased treatment efforts on cocaine prevalence rates.

Finally, in what concerns ecstasy, we did not find evidence of a relationship between a country's drug policy dimensions and the ecstasy prevalence rates.

It is our hope that our work contributes towards the opening of new research avenues into this topic, possibly using other approaches (e.g., qualitative or mixed methods approaches), and ultimately contributing to a more comprehensive view of how drug policy impacts on illicit drug use.

in particular it is necessary to use better indicators not just GPS. It is not a reliable indicator.

2. Cross-country comparison of national drug policies using leximetrics

[final version of WP2 to appear here]

3. Qualitative and quantitative study of drug policy perceptions

[final version of WP3 to appear here]

4. Key social indicators for drug policy analysis

[final version of WP4 to appear here]

5. Assessing the impact of drug policies on key social indicators

[final version of WP5 to appear here]

6. Discussion and conclusions

The objective of this project was to assess how differences in national drug laws and policies related to illicit drug production, distribution and consumption impact on key drug-related social indicators, with a particular focus on cannabis. In a nutshell, in order to achieve this objective, this research project aimed, first, to translate into quantitative indicators the different ‘written’ policies, typically approved and enacted by law, as well as the perceptions, by stakeholders, of policies ‘in action’. Second, this research project aimed to measure their impact on key indicators for drug use.

The focus was on seven different countries – Portugal, France, Italy, Netherlands, United Kingdom, Canada and Australia – over a relatively long timeframe: 1996-2016.

To do so, this project involved four steps: (i) the use of leximetrics to allow cross-country comparison of national drug policies (measuring ‘law in the books’); (ii) a quantitative and qualitative study to assess the perceptions of key actors regarding those policies (capturing perceptions of ‘law in books’ and ‘law in action’); (iii) a careful analysis of key social indicators directly or indirectly related to illicit drug use (e.g., health indicators, such as HIV or hepatitis infection rates; demand indicators, such as illicit drug consumption rates; or justice system indicators, such as number of drug-law offences or imprisonments); and (iv) an in-depth understanding of the relationship between national drug laws and policies (steps (i) and (ii)) and social indicators, namely prevalence rates (step (iii)).

In step (i), we identified various turning points in each of the various drug policy dimensions over time. Typically (but not always) these turning points were in the direction of a more health oriented/liberal (or less criminal-oriented/prohibitionist) approach towards drug policy. Comparisons across countries show that these shifts were not uniform: some countries took larger steps than others in that direction, thus changing their relative position for each dimension of drug policy.

In step (ii), based on the opinions of experts, we concluded that there were similarities regarding interventions to combat the heroin epidemic of the late 1980s and early 1990s. However, later steps towards a return to the crime approach were observed when treatment and harm reduction were placed in the spotlight of political debates, and when drug policy was a feature of electoral campaigns, reflecting the conservative reflexes of voters. Regarding cannabis, there was no cross-national alignment regarding cannabis policy changes, namely whether a country's drug policy focussed on crime or health. Each country more or less followed its own policy, although this was not always in the same direction as the other countries and in some cases, the same change in different countries were many years apart. These findings were consistent with those of step (i).

In step (iii), we have reviewed, developed and collected information on key social indicators directly or indirectly related to illicit drug use and put together a (somewhat

incomplete, due to various data availability limitations) database of social indicators for the seven countries between 1996 and 2016.

Finally, in step (iv), in the case of cannabis, we find that drug policy changes in the direction of a less criminally-oriented approach towards consumption and possession contribute to a decrease in prevalence rates – a result which contradicts earlier literature. We also find that a less criminally-oriented approach towards the traffic of cannabis is associated with increases in prevalence rates whilst a more health-oriented approach towards harm reduction and treatment (in this case, only for the overall population) leads to a reduction in prevalence rates. For cocaine, drug policy changes in the direction of a less criminally-oriented approach towards consumption decrease prevalence rates, but the opposite is true for possession – a result which also contradicts earlier literature. We also find that (similarly to cannabis) increased harm reduction efforts induce reductions in prevalence rates. Unlike cannabis, however, we find no effect of increased treatment efforts on cocaine prevalence rates.

This research project was financed by ERANID in its transnational call for research projects on ‘society and responses to drug use: policy and society’. It is therefore important to discuss our contribution in this context. First, we have identified, analysed and compared drug policies enacted by laws (‘hard’ and ‘soft’ laws) across countries and over a long timeframe using a state-of-the-art method – leximetrics – which had not yet been used in the illicit drugs field. Each country’s response to drug use is inherently different and it changes over time. Therefore, the use of the leximetric method, which allows for cross-country as well as temporal comparisons of drug policy, is an important contribution for policy makers. We quote Kilmer et al. (2015, p. 227) who say that “cross-national analysis is part of the twenty-first-century zeitgeist. Nations anxiously compare themselves with their peers to see how they are doing”. Second, we recognize that perceptions of drug policy – and not just drug policy itself – may also constitute an important explanatory factor for drug-related behaviour. For example, drug users’ behaviour may be explained by their perception of the applicable drug policy (‘law in the books’), as well as by their perceptions of ‘law in action’ (e.g., how likely they are to be arrested if they choose to use a certain drug). And third, we hope to have contributed to a more comprehensive understanding of the relationship between drug policy and prevalence rates – which may ultimately help policy makers in making (often difficult) decisions in increasingly complex and fast-changing societies.

As usual, our contributions also have limitations, some of which identify avenues for further research. It is our hope that our work contributes towards further research into this topic, possibly exploring other approaches (e.g., qualitative or mixed methods approaches), and ultimately contributing to a more comprehensive view of how drug policy impacts on illicit drug use.



References

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