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Research paper

Cannabis consumption patterns among frequent consumers in Uruguay☆

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ABSTRACT

Background: In 2013, Uruguay became the first country to fully regulate the cannabis market, which now operates under state control. Cannabis can be legally acquired in three ways: growing it for personal use (self-cultivation), cannabis club membership, and from pharmacies (not yet implemented). Users must be entered into a confidential official registry to gain access.
Methods: This article presents findings of a Respondent Driven Sample survey of 294 high-frequency cannabis consumers in the Montevideo metropolitan area.
Results: Frequent consumers resort to more than one method for acquiring cannabis, with illegal means still predominating after 1 year of the new regulation law. Cannabis users overwhelmingly support the current regulation, but many of them are reluctant to register.
Conclusions: Some of the attitudes and behaviors of the high-frequency consumers pose a challenge to the success of the cannabis law. Individuals relying on more than one method of access defy the single access clause, a prerequisite for legal use, while the maximum amount of cannabis individuals can access monthly seems too high even for most frequent consumers, which might promote the emergence of a grey market. Reluctance to register among a significant proportion of high-frequency consumers raises doubts about the law's ability to achieve its stated objectives.

Introduction

In 2013, Uruguay became the first country in the world to regulate the possession, growth and distribution of cannabis. The initiative, introduced by then president José Mujica, was passed by the Uruguayan Congress and signed into law on December 20, 2013. Although there seems to be no consensus in the literature about the effects of reforming cannabis laws on cannabis consumption (Chu, 2014; Pacula & Sevigny, 2014; Single, 1989), studies in several locations have pointed to the importance of cannabis legalization on the way people use cannabis, whether recreational or medical (Cerdá, Wall, Keyes, Galea, & Hasin, 2012; Hasin et al., 2015; Khatapoush & Hallfors, 2004; Pacula, Powell, Heaton, & Sevigny, 2015). Learning about consumers' habits prior to the full enactment of the regulation provides a baseline upon which we can evaluate the new cannabis policy. Independent assessments might contribute to inform and even reshape policy implementation.

Legalization of cannabis has several potential policy implications (Caulkins, Lee, & Kasunic, 2012; Caulkins et al., 2014; Singleton & Rubin, 2014). Commercialization involves issues of retail price and tax revenues. Availability impacts issues of health and unintended consequences, such as spill-over effects in neighboring states where cannabis remains illegal. The decision of the Uruguayan government to regulate the cannabis market chain, from production to retail, implies a titanic effort in terms of policy making, regulation and evaluation.

The innovative drug policy approach on which Uruguay has embarked has been met with great enthusiasm by the civil

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movements that clamored for legal cannabis in Uruguay[1] and were a key part of the current policy design (Garat, 2015). However, the legislation has also faced important challenges. According to the AmericasBarometer 2014 survey, more than 60% of Uruguayan citizens disagree with the law (Cruz, Queirolo, & Boidi, 2016). Leaders of the International Narcotics Control Board also oppose legalization on the grounds that the new law violates international drug control treaties.[2] Uruguay, therefore, faces both domestic and international opposition in pursuing its innovative cannabis regulation model.

In this context, the Latin American Marijuana Research Initiative (LAMRI) is conducting a series of studies about different aspects of the new drug policy environment in Uruguay.[3] This article focuses on one of our most recent studies: a Respondent Driven Sample (RDS) survey of frequent cannabis consumers in Montevideo and its metropolitan area. The main goals of this research are to describe the attitudes and behaviors of recurrent cannabis users, especially in light of the new regulations, and to elaborate on the implications of such attitudes and behaviors for policy implementation. Collecting this information early in the cannabis policy implementation process is crucial, providing a baseline for policy impact evaluation.

Law 19.172 provides three ways for consumers to legally obtain cannabis: *growing it*, participating in *cannabis clubs*, or *purchasing cannabis at a pharmacy*. Users must first register with the state-run office for the control and regulation of cannabis: The Institute for Regulation and Control of Cannabis (IRCCA). Currently, the three channels for obtaining cannabis are mutually exclusive: individuals can register for only one mode of access, and are entitled to a maximum of 40 g of cannabis per month. Only citizens, age 18 or older can become registered users.

To register as cannabis growers, individuals must present at a National Post Office branch, with their national identification card and a utility bill as proof of residence.[4] Those planning to acquire cannabis in pharmacies need to present proof of citizenship. And for club members, the club completes the registration on their behalf. The registry is free and confidential; individuals acquiring cannabis without being registered are considered to be violating the law.

This regulation was essentially designed for recreational consumers. Although medical users can grow their own plants and become members of cannabis clubs, the market for medical cannabis in Uruguay is embryonic and clubs have none or very limited offers in terms of strains for medical use (Queirolo, Boidi, & Cruz, forthcoming). Individuals wishing to purchase cannabis for medical purposes would need a doctor's prescription to buy it at a pharmacy, and will be part of a separate registry designed to control and limit the amount of cannabis dispensed for medical use.[5]

The implementation of the cannabis policy is uneven. According to the most recent accounts, the registry for growers comprises 3150 individuals[6]; the registration process for cannabis clubs is under way, with about 17 clubs in the process of obtaining IRCCA approval. Pharmacy sales have been deferred several times, mostly due to the complexity of implementation (including an open call for companies interested in cultivating cannabis for this purpose and the negotiations with pharmacies for the instrumentation of sales through them). This and many other aspects of cannabis regulation policy implementation are still being drafted.

Methods

Our research team conducted a Respondent Driven Sample (RDS) study of frequent cannabis consumers in Uruguay's capital and largest city, Montevideo, and its metropolitan area. The target population was defined as individuals aged 18 or older who live in the capital area and consume cannabis at least once a week. Frequent consumers are a portion of all cannabis users and therefore they are not necessarily representative of all cannabis consumers. Nevertheless, evidence from several studies shows that frequent consumers account for most of the cannabis consumed by a given population (Burns, Caulkins, Everingham, & Kilmer, 2013; Looby & Earleywine, 2007), and that they are most exposed to risks associated with heavy consumption (Looby & Earleywine, 2007). For all of these reasons, frequent consumers represent an important study group.

The RDS methodology requires for individuals studied to form a social network and interact face to face (to encourage recruitment of new participants). Therefore, the study needed to be geographically circumscribed to allow for this interaction. Montevideo occupies a small area (530 sq. km) (COMM, 2014), but the metropolitan area is home to more than 1.6 million inhabitants, roughly half the entire population of the country (Instituto Nacional de Estadística, 2012). Thus, Montevideo and its area of influence were the location of choice for the investigation.

The study surveyed 294 individuals between November 14 and December 28, 2014, following a lengthy formative stage (August–October 2014) during which the authors assessed the suitability of the RDS; developed, polished and tested questions; and identified the initial interviewees, called "seeds".

RDS is a method that combines snowball recruitment (a strategy by which participants are asked to recruit other subjects for the study) with a system of weights to compensate for the non-random nature of the sample. RDS was originally developed by Heckathorn (1997), and it is regarded as the gold standard sampling method for hard-to-reach populations. A hard-to-reach or hidden population is one for which there is no sampling frame or a population whose members might resist publicly admitting membership (Heckathorn, 1997).

Cannabis consumption has been legal in Uruguay since 1974 and the market has been fully regulated since 2013. According to the most recent information available at the time of designing our study – the 2011 National Household Survey on Drug Consumption[7] – Uruguay was home to an estimated 45,000 high-frequency consumers. The most recent national survey, collected at the same time our study was in the field and recently published, found 55,200 high-frequency consumers: 21,355 who consume cannabis every day and 33,845 who report using it at least once a week (OUD, 2015).

[1] It is worth mentioning that cannabis consumption has been legal in Uruguay since 1974, under Law 14.294. Acquisition of the substance, however, remained illegal, meaning that consumers needed to violate the law to incur in a behavior that was legal. This result was judicial insecurity, giving police officers and, ultimately, judges, great discretion to penalize users. See Garat (2015) for more details.

[2] http://www.newsweek.com/un-says-us-marijuana-legalization-violates-international-law-283912.

[3] LAMRI was created with the objective of monitoring regulation of the cannabis market in Uruguay, as well as ongoing debate and developments in this area across the Americas. As its name indicates, LAMRI is an academic endeavor; its ultimate goal is to collect, analyze and distribute data obtained and analyzed according to strict quality standards. LAMRI members include the Latin American and Caribbean Center (LACC) at Florida International University, Universidad Católica del Uruguay, and Insights Research and Consulting.

[4] While IRCCA is the office in charge of everything related to cannabis, the registry takes place at National Post Office branches given their widespread presence through the national territory.

[5] Decree 46/2015 established the basis for the regulation of the market and consumption of medical cannabis, but its implementation is at a very early stage.

[6] http://www.elobservador.com.uy/aun-el-cultivo-legal-la-incautacion-plantas-marihuana-se-duplica-n691120.

[7] The National Drug Board (Junta Nacional de Drogas) is the official institution in charge of drug policy in Uruguay. It is a presidential office, with links and connections to several ministries.