



Marijuana Legalization in Uruguay and Beyond

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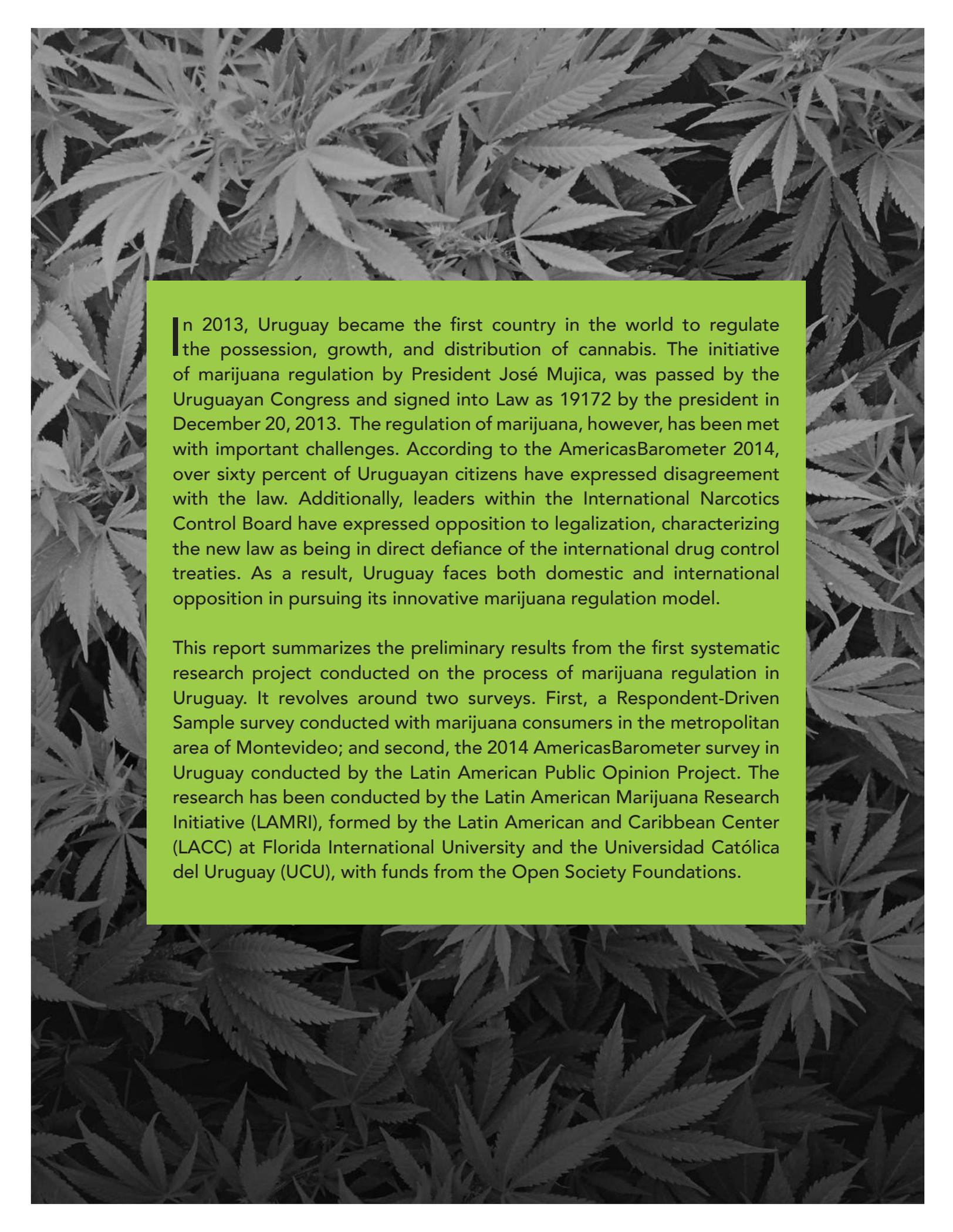
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In 2013, Uruguay became the first country in the world to regulate the possession, growth, and distribution of cannabis. The initiative of marijuana regulation by President José Mujica, was passed by the Uruguayan Congress and signed into Law as 19172 by the president in December 20, 2013. The regulation of marijuana, however, has been met with important challenges. According to the AmericasBarometer 2014, over sixty percent of Uruguayan citizens have expressed disagreement with the law. Additionally, leaders within the International Narcotics Control Board have expressed opposition to legalization, characterizing the new law as being in direct defiance of the international drug control treaties. As a result, Uruguay faces both domestic and international opposition in pursuing its innovative marijuana regulation model.

This report summarizes the preliminary results from the first systematic research project conducted on the process of marijuana regulation in Uruguay. It revolves around two surveys. First, a Respondent-Driven Sample survey conducted with marijuana consumers in the metropolitan area of Montevideo; and second, the 2014 AmericasBarometer survey in Uruguay conducted by the Latin American Public Opinion Project. The research has been conducted by the Latin American Marijuana Research Initiative (LAMRI), formed by the Latin American and Caribbean Center (LACC) at Florida International University and the Universidad Católica del Uruguay (UCU), with funds from the Open Society Foundations.

I. The Legal Framework

Law 19172 provides three ways to legally obtain cannabis in Uruguay. The first alternative is *autocultivo*, which allows individuals to grow up to six marijuana plants per household and yield an annual crop of 480 grams per year, or 40 grams per month. All individuals must register with the IRCCA (*Instituto de Regulacion y Control del Cannabis*) to grow these plants in their home and no person may register more than one location for domestic growth. The second alternative is the Cannabis Club, which allows between 15 to 45 members of a duly-registered civil association to farm up to 99 marijuana plants in specific locations. Each club may not supply any individual with more than 480 grams of marijuana per year. The third alternative is sale through pharmacies. This has proven to be the most controversial and difficult regulation to implement. This alternative will allow a registered consumer to buy up to 40 grams of marijuana per month and 480 per year in person from pharmacies that are registered with the IRCCA and the Ministry of Public Health. The cannabis sold in pharmacies will be produced by a select number of private companies that obtain IRCCA approval.

As the first country in the world that has regulated the production, consumption, and sale of cannabis, Uruguay is technically in direct violation of the three main treaties that comprise the international drug control regime (IDCR). This has led to tensions in several international instances, particularly the International Narcotics Control Board. However, Uruguayan representatives have called for an “open and honest debate on the UN drug control system” in which the new Uruguayan framework could present a challenge. Moreover, the country will still abide by all its international agreements with regards to the control of other illicit substances, as mandated by the IDCRC.

As of early 2015, the marijuana law has only been partially implemented. While the registry for *autocultivo* and Cannabis Clubs is open, the process by which the government is selecting growers to implement the sale through pharmacies has been slow to yield results. Although the full implementation of cannabis sales in pharmacies was scheduled to begin in the first months of 2015, the companies have not even started the process of growing the first crop of marijuana for sale. Additionally, there have been some questions about whether the government may make it compulsory for pharmacies to sell marijuana, especially with the March 2015 government transition looming and the potential shift of priorities in the Tabaré Vázquez administration.

II. Attitudes toward Marijuana

Despite the seemingly smooth process of passing the law regulating marijuana in Uruguay, more than half of citizens were against the policy of marijuana regulation. According to the results of the 2014 AmericasBarometer survey in Uruguay, only 34% of Uruguayans approved the new regulations regarding the liberalization of marijuana use, while 60.7% showed their disapproval to the new policies. These attitudes are in marked contrast to the opinions found among U.S. citizens, who according to the 2014 AmericasBarometer results, exhibited far more positive attitudes to the regulation of marijuana use than Uruguayans. In fact, in the U.S., more than half of the population at the national level showed support for legalizing marijuana use, with widespread support for marijuana legalization among youth and those with a college or advanced degree.

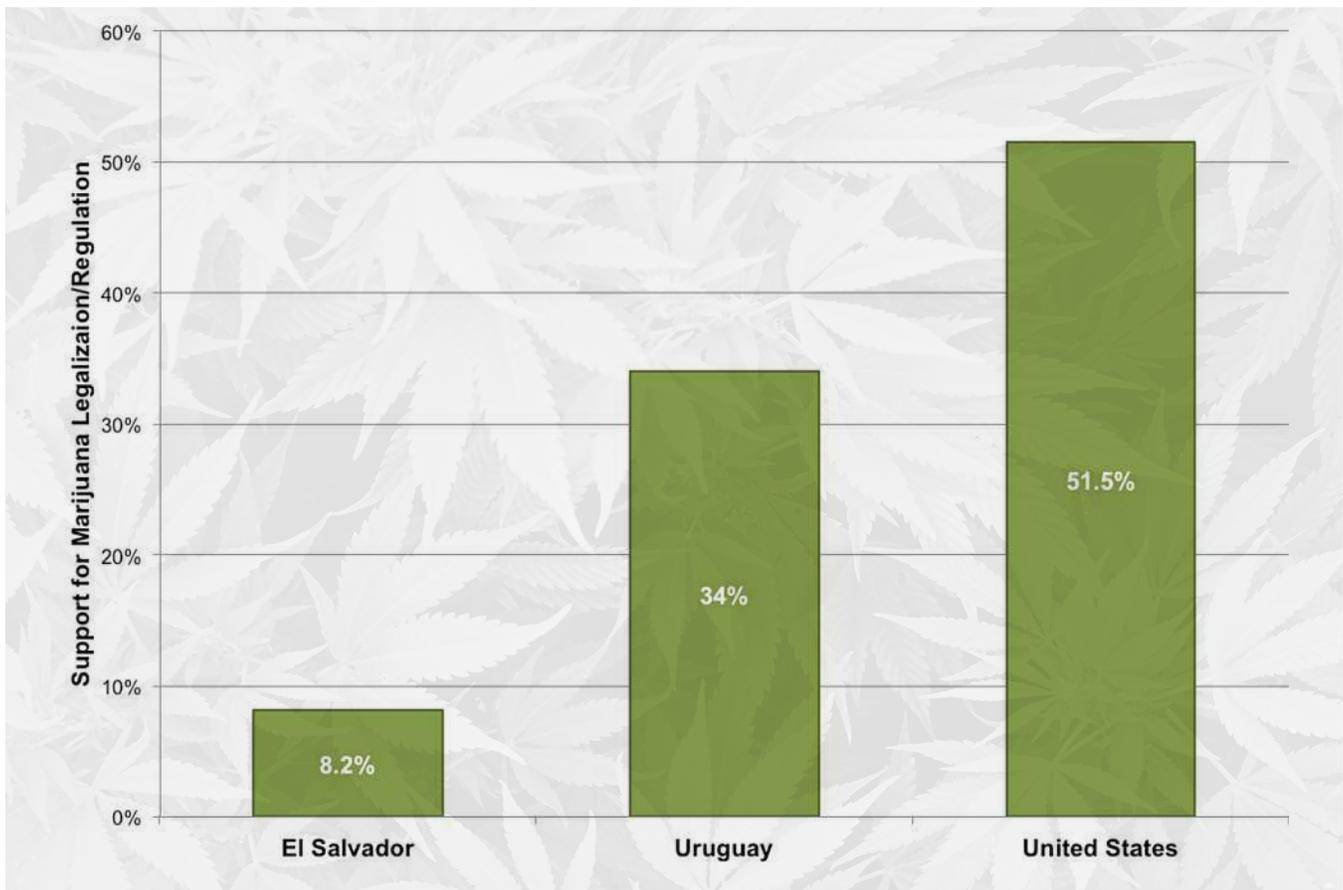


Figure 1. Approval of marijuana regulation/legalization in three countries of the Americas, 2014.

Source: AmericasBarometer by LAPOP.

In Uruguay, support for marijuana regulation seems to be related to a number of factors that range from demographics to the citizens' political and ideological stances. A series of regression analyses conducted on the results of the 2014 AmericasBarometer show that approval for the new regulation of cannabis is closely related to higher education, previous personal experimentation with marijuana and a history of marijuana consumption among relatives and close friends. Other related variables include heightened perceptions of insecurity and perceptions of personal economic distress. Yet, the most important factors that seem to predict positive attitudes toward marijuana regulation are political. As shown in Figure 2, approval for cannabis regulation is widespread among President Mujica's supporters and among people who position themselves in the political left within the ideological spectrum in Uruguay.¹

However, as of 2014, most Uruguayans remained skeptical about the benefits the new regulation will bring. For instance, 42% of Uruguayans considered that the general situation of the country would worsen as a result of regulation, while only 19% believed that the situation would improve. Among the most negative opinions expressed, 70% of Uruguayans stated that public safety and public health conditions would either worsen or remain the same. Interestingly the issue that seemed to generate the most positive opinions was related to the fight against drug trafficking organizations. According to the survey, nearly 38% of respondents believed that the law would have a positive impact on the fight against criminal organizations.

How to explain the apparent ease with which the regulation bill passed in Uruguay? Data point to two key factors among

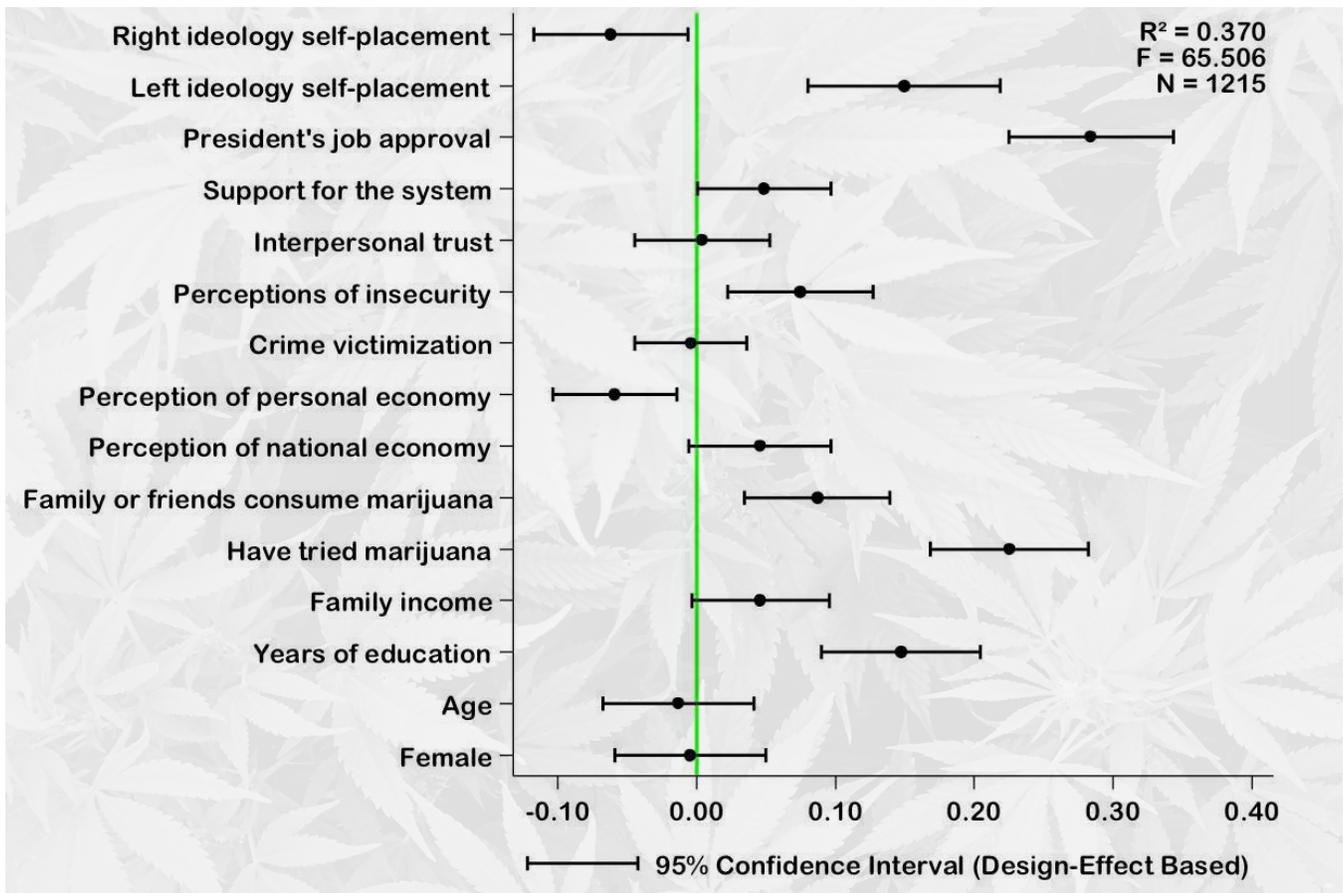


Figure 2. Variables associated with opinions toward marijuana regulation in Uruguay, 2014.
Source: AmericasBarometer by LAPOP.

others. First, the President's popularity seems to have played an important role in galvanizing support for marijuana regulation and neutralizing resistance from forces opposing the measure. Second, despite the debate generated by the initiative, marijuana regulation was not a salient issue for most Uruguayans and the government was successful in presenting the initiative as an alternative way to confront mounting problems posed by drug trafficking and criminal organizations.

III. Who Consumes and Who Does Not Consume Marijuana in Uruguay?

Evolution in Consumption. Marijuana consumption in Uruguay has been increasing since its prevalence has been

measured. In 2001, 5.3% of the population admitted to having consumed marijuana. Life prevalence had quadrupled by 2014, with 22.1% of Uruguayans acknowledging some consumption.² The starting age of consumption in 2011, which is the most recent data available, was 18.3.

In 2011, 8.3% of Uruguayans admitted to having consumed marijuana during the previous year; among them: 8.7% only once, 29.9% sometimes, 25.2% several times per month, 21.1% several times per week, and 14.6% daily. If we project the data to the adult population, this 14.6% represents nearly 18,700 Uruguayans consuming marijuana daily.³

The 2014 AmericasBarometer survey in Uruguay includes several questions regarding the new marijuana regulation, and it also asks about consumption. Of the 22.1% that

reported to have consumed marijuana, 45% tried it just once, 36% consumed it sometimes, and 19% indicated frequent consumption.⁴

Secondary school students' prevalence increased yearly from 2003 to 2014, but with lower intensity than in the general population. In 2003, 8.4% of students had consumed marijuana during the previous twelve months, in 2014, 17% had. From 2003 to 2014, prevalence doubled among students and quadrupled for the Uruguayan population as a whole.⁵

Marijuana prevalence in Uruguay is higher among men than women; those who live in Montevideo have a higher prevalence than those who live outside the capital; and prevalence is also higher among 18-25 year-olds than other age categories. These differences exist regardless of the kind

of prevalence (lifetime, yearly or monthly prevalence).⁶

Consumer's Profile. What are the main characteristics of the 22.1% of Uruguayans that have tried marijuana? Are they different from the rest of the population who have not experimented with cannabis?

According to data collected through the 2014 AmericasBarometer, there are several factors that significantly increased the probability of using or, at least, experimenting with marijuana in Uruguay: being young, being male, living in Montevideo, having a higher household income, being "leftist" in ideology and a low level of religiosity.

As shown above in Figure 3, all the variables in the vertical axis have a significant impact on marijuana consumption with the exception of

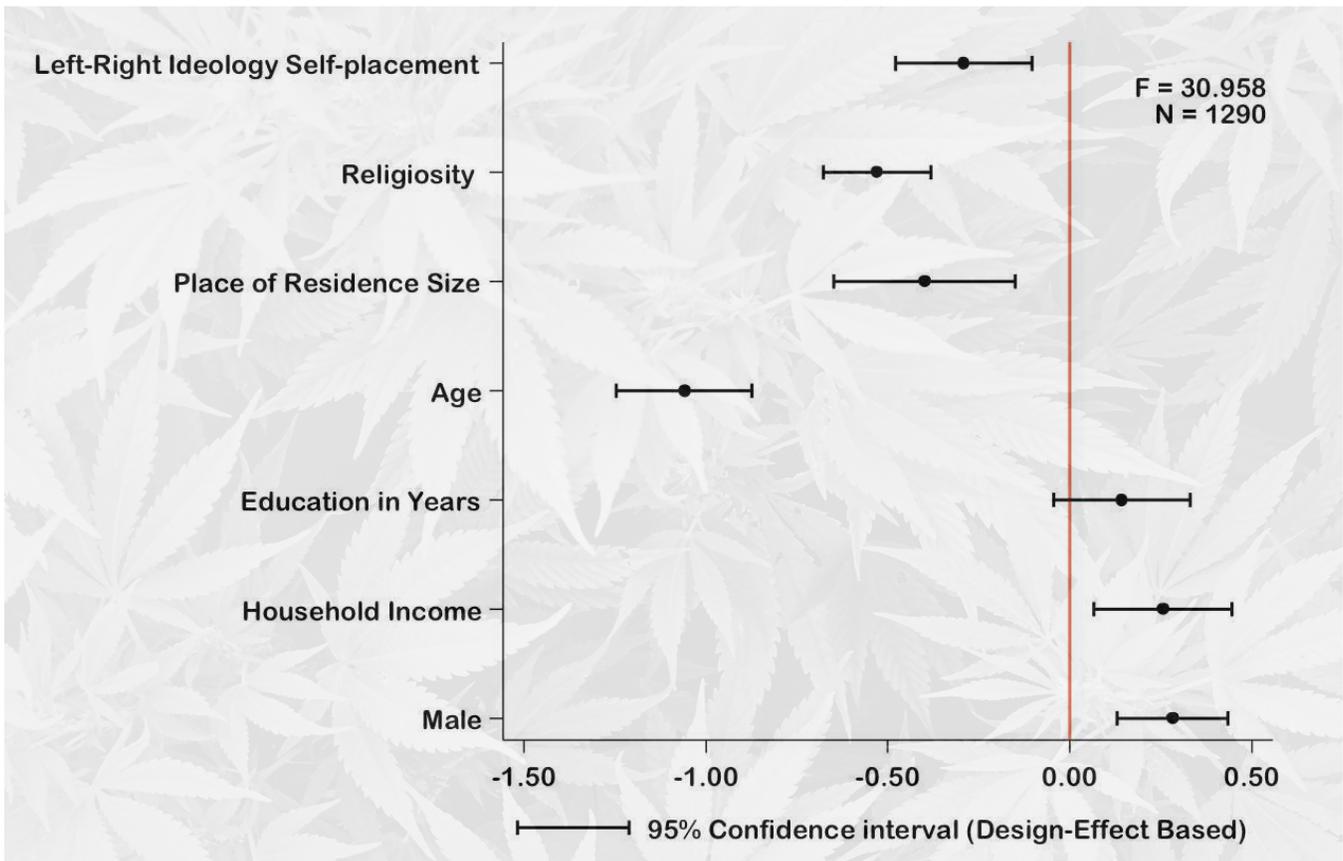


Figure 3. Variables associated with marijuana consumption in Uruguay, 2014.

Source: AmericasBarometer by LAPOP.

education. The horizontal bars indicate 95 percent confidence intervals around these point estimates, if they do not cross the vertical line, the variables have a significant effect.⁷ Figure 4 below shows for example, someone who is 20 years-old has a 0.49 probability of trying marijuana, while a 48 year-old's probability is reduced to 0.14 percent, holding all other variables controlled.

In the context of the new law regulating the cannabis market, we questioned if there was underreporting of marijuana consumption or not. In order to test that, we ran a list experiment. The prevalence obtained from the direct question is almost equal to the prevalence obtained from the list experiment. No underreporting is currently present in Uruguayan society.

IV. The Marijuana Consumers in Montevideo

Who are the frequent consumers of marijuana in Montevideo? To establish the characteristics and behavior of recurrent marijuana consumers in Uruguay, we conducted a respondent driven sample (RDS) study of frequent consumers, namely, residents of the Montevideo metropolitan area (from now on, the RDS-MC). The target population is defined as individuals age 18 and older, who live in the Montevideo metropolitan area and consume marijuana at least once a week. Thus, this is a study of *frequent consumers* only and therefore is not representative of all marijuana consumers.

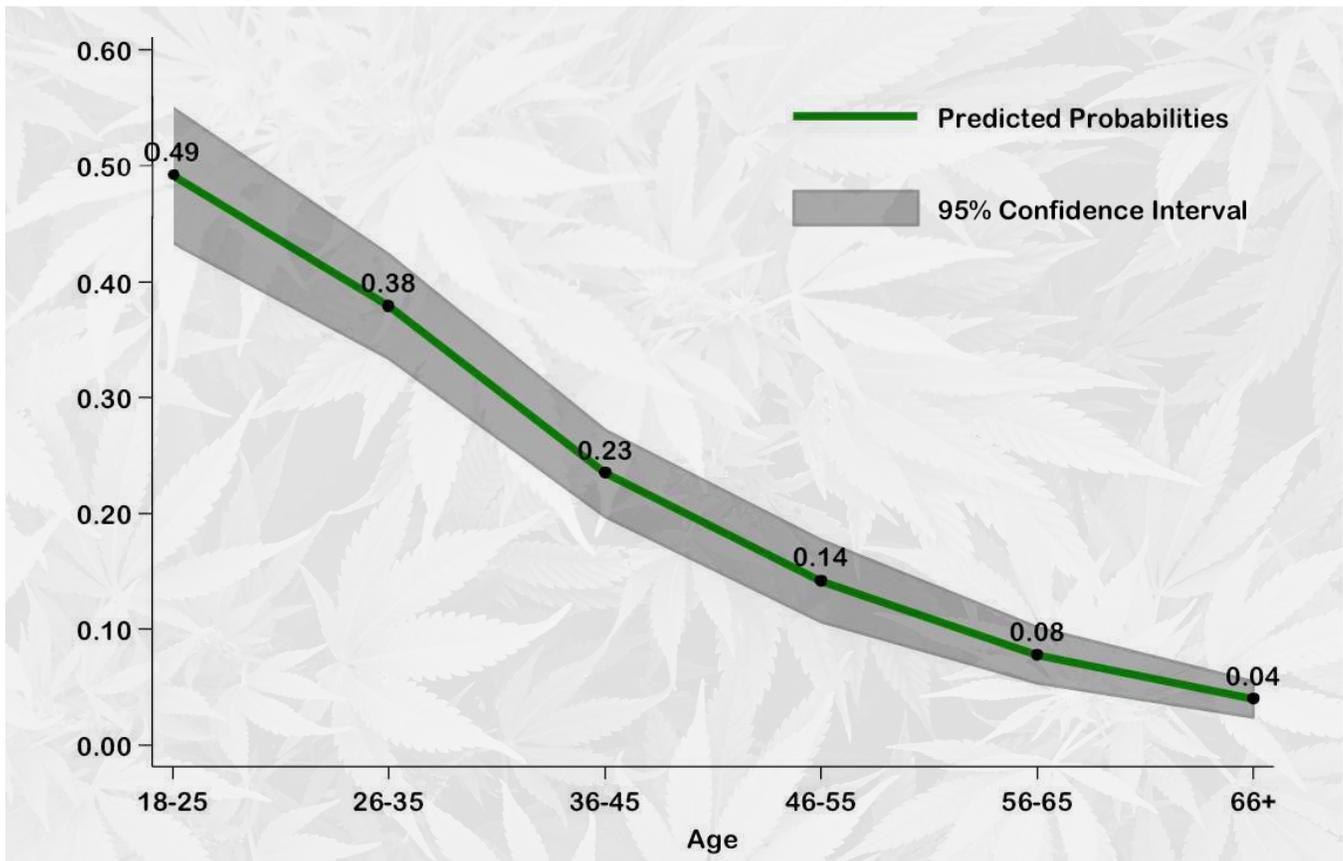


Figure 4. Predicted probabilities of marijuana consumption by age in Uruguay, 2014.

Source: AmericasBarometer by LAPOP.

Evidence from various studies points to the fact that frequent consumers account for most of the marijuana consumed (as with any other drug); frequent consumers are also the most vulnerable to risks that may derive from heavy consumption. Therefore, they constitute a very important group to study.

RDS is a method that combines snowball recruitment (whereby one participant is asked to recruit other participants) with a system of weights that compensates for the non-random nature of the sample. It was originally developed by Douglas Heckathorn,⁸ and it is regarded as the gold standard sampling method for hard-to-reach populations. Even though marijuana consumption has been legal in Uruguay since the early 1970s and the marijuana market is fully regulated by the government, other studies have found

that some reticence to openly admitting to marijuana consumption still exists,

The Mechanics of the RDS. To properly function, RDS requires that the individuals sampled form a social network; they must know each other and interact with each other. The formative stage of the research confirmed that frequent consumers of marijuana comprised social networks. The success of the study depends on the ability of the participants to recruit more participants, and therefore, the first set of participants –called “seeds”– needs to be carefully selected. We started with five seeds who guaranteed sufficient variation in terms of socio-economic background, age, gender and marijuana consumption patterns. Another defining feature of the RDS method is its incentive structure for

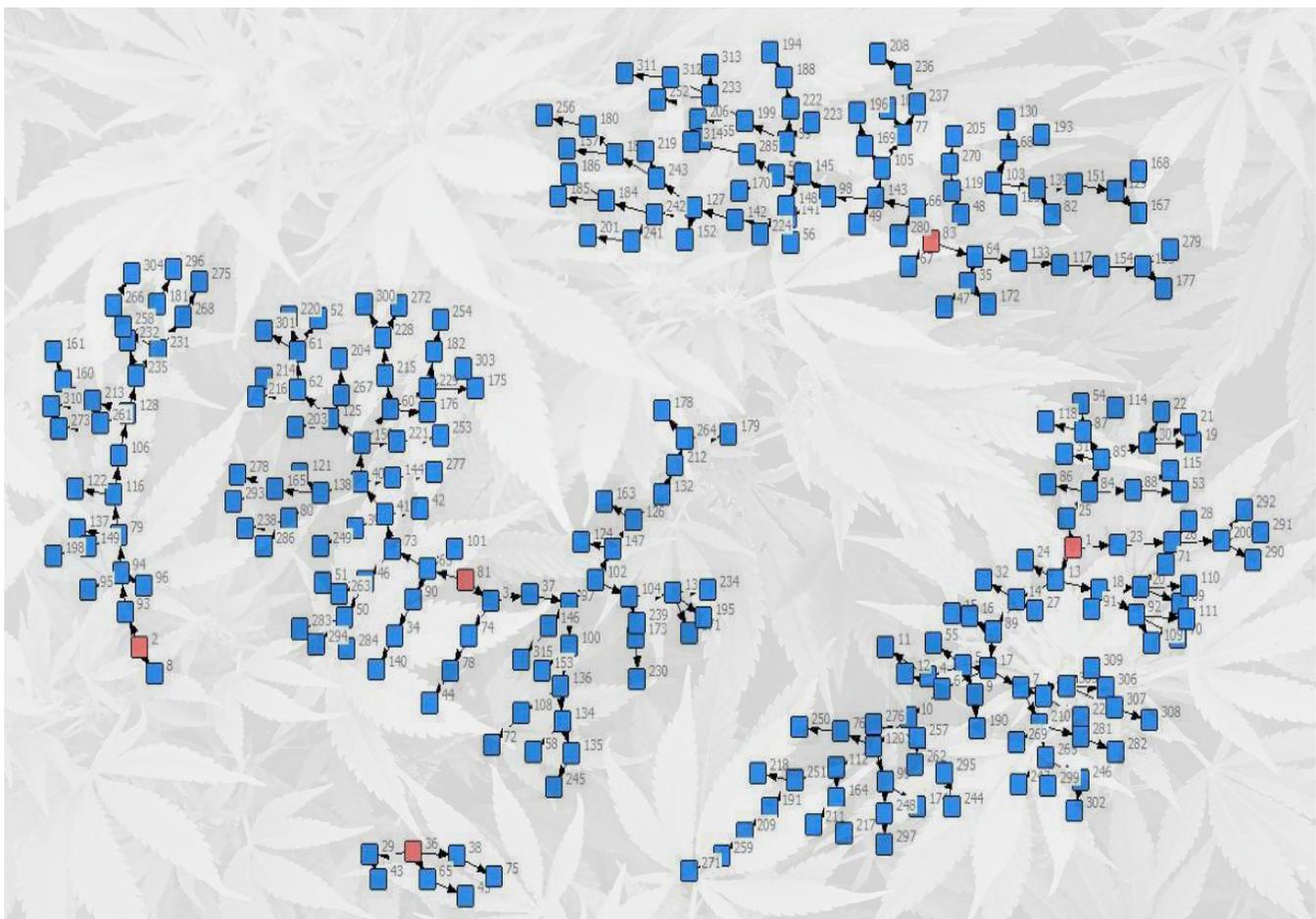


Figure 5. Respondent Driven Sample recruitment tree for marijuana consumers, Montevideo, 2014

participation and recruiting. Participants were offered primary and secondary incentives. Primary incentives were given immediately upon completion of the personal interview, whereas secondary incentives were granted upon recruitment of new participants to the study. In the RDS-MC study, each participant was given three coupons to recruit new participants. Each coupon had a unique code identifier to indicate the recruiter and enable the identification of the chains created from each seed. Of course, not every participant recruited three new participants, and therefore, the evolution of recruitment varied depending on the success of each seed. The whole recruitment chain is shown by the recruitment tree (see Figure 5).

The Sample. The RDS-MC project completed 294 valid cases. The sample of respondents is rather heterogeneous, including men (58.8%) and women (41.2%), individuals ranging from ages 15 to 62, and it also varies in the way in which individuals primarily access marijuana. Results indicate that 72.3% of respondents accessed marijuana through the informal market, whereas 10.6% did it by engaging in home-grown practices; other means of access represented 17.2% of the sample.

Key Findings According to RDS Estimates.

First experiences with marijuana

- First experiences with marijuana for frequent consumers occurred at a young age. 71.24% of respondents started consuming before reaching the legal age of 18. The RDS estimates the average age for first consumption is 17.
- 82.7% of respondents were with a friend when their first tried marijuana.
- The overall evaluation of the first experience with marijuana is positive for 55% of the respondents. About one in six (18.5%) described the first experience as negative.

Current consumption

- The distribution of frequency of consumption among marijuana frequent

consumers is bimodal: 47.1% consume marijuana up to three days a week; 45% consume marijuana five or more times a week. Nearly three out of every ten respondents (29.1%) consume marijuana every day.

- In the days they consume marijuana, a wide majority of respondents consume less than a gram (26.0%) or one gram (34.7%). Another quarter of respondents consume between one and three grams (26.3%).
- The most frequent form of consuming marijuana is in a joint, either prepared by the individual (67%) or by someone else (24.5%).
- Despite this clear preference for smoking marijuana, respondents report to having had consumed it in several different ways during the past year.
 - ✓ Joint prepared by respondent (92.5%)
 - ✓ Joint prepared by someone else (84.5%)
 - ✓ Pipe (40%)
 - ✓ Vaporizers (15.7%)
 - ✓ Edibles, such as brownies, cakes, cookies (26.4%)
 - ✓ Drinks, such as mate, milkshakes, daiquiris (9.4%)
 - ✓ Tinctures or medical preparations (7%)
 - ✓ Creams and lotions (2.2%)

Risk Behavior

One aspect open to debate following the implementation of the new cannabis regulation law in Uruguay is the role that prevention should play in policy implementation. According to the RDS research, there seems to be a very low perception of risk associated with undertaking several activities while under the influence of marijuana. For instance:

- ✓ 21.4% of respondents drove a car under the influence of marijuana
- ✓ 28.4% rode a motorcycle
- ✓ 54.0% rode a bike
- ✓ 98.6% walked in public places under the effects
- ✓ 11.2% operated heavy equipment

In addition, more than half of the respondents (55.4%) declared that they consumed marijuana and went to work before four hours had passed, meaning that they went to work while likely still under the influence. Those who went to work after consuming marijuana reported that their job performance was either enhanced (36.1%), equal (30.1%) or worse (33.5%), when compared to job performance while sober. The RDS-MC questionnaire did not include questions about the types of jobs, a variable that should shed light on the different experiences respondents had related to job performance. Also, more than six out of every ten respondents (62.7%) reported to having had attended classes within a time frame of four hours after consuming marijuana. Unlike the case of going to work, there is a moderate consensus about the fact that class performance diminishes when under the effects of marijuana: 63.8% of respondents felt that way.

Women constitute 41.2% of the sample. Forty percent of them reported being pregnant. More than one in every four of those women who were pregnant (26.1%) reported to having continued consuming marijuana while pregnant. However, nearly all of them (98.2%) reported to having consumed less during pregnancy. Three quarters (76.2%) of the female respondents who had been pregnant also breastfed, and 17% of those who breastfed did so while still consuming marijuana.

Consumer's Attitudes toward the Marijuana Law.

Support for the law clearly triumphs among frequent consumers, with nearly 89% of respondents stating that they agree with it. Asked about their plans regarding the mandatory registration for marijuana consumption, law-abiding behavior receives the most responses: 31.1% says they will register for sure, and 26.9% say they will probably register. However, there is a

significant amount of frequent consumers who do not plan to sign up in the registry: 19.6% state that it is not probable that they will register, and another 19.6% said that they are certain that they will not register. Less than 1% of respondents have already registered.

Those who say they will surely or probably not register express lack of trust in the registry (28.9%), rejection of the existence of a registry (18.8%), the fact that they see no benefit in deviating from their current situation (36.6%), and other varied reasons (22.9%) as the basis for not wanting to register. Among those who said they will surely or probably register, the preferred method of accessing marijuana is through pharmacies (55.9%), followed by self-cultivation (30.1%) and Cannabis Clubs (12.8%).

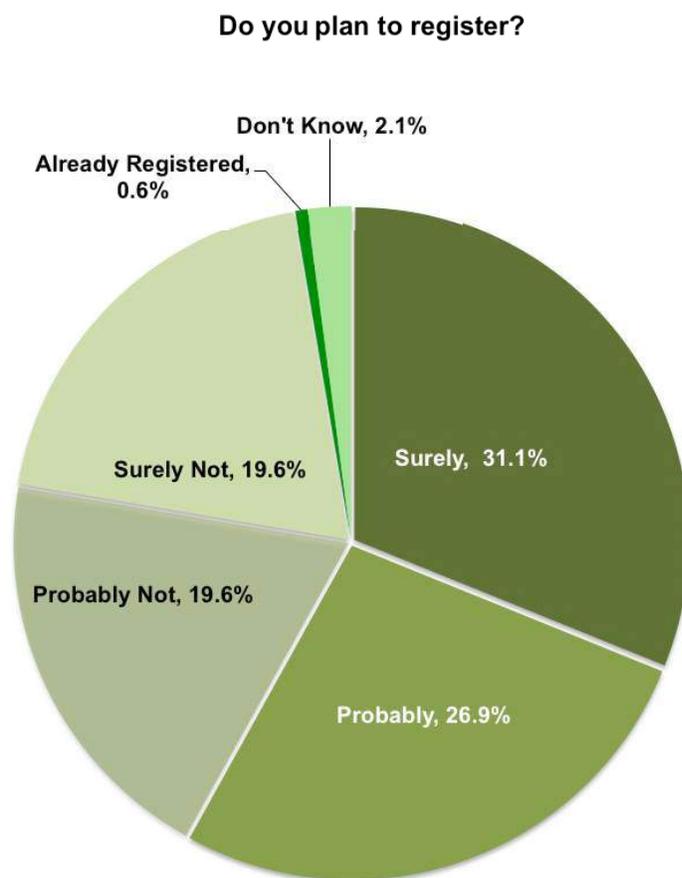


Figure 6. Frequent marijuana consumers who plan to register, Montevideo 2014

In Sum

Preliminary results of this research show that there are still important challenges to the implementation of marijuana regulation in Uruguay. Public opinion remains skeptical about the law and its repercussions on society. Although the new government administration has pledged support for the overall process, the legitimacy of the initiative will largely depend on the results in dealing with the problems of security and organized crime, especially after President Mujica, the main promoter of the law, finishes his term. Marijuana consumption is higher among young adults, which also poses a challenge related to control and regulation. Data indicate that among regular consumers, frequency of consumption has significantly increased. It is reasonable to assume, thus, that risk behaviors have also increased with the frequency of consumption. Finally, registration among consumers is also an important challenge facing authorities in Uruguay, with only one-third of regular consumers pledging to sign-up in the registry.

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¹The horizontal bars indicate 95 percent confidence intervals around these point estimates, if they do not cross the vertical line, the variables have a significant effect. Each dot in the figure represents the estimated standardized coefficient. If a dot falls to the right of the vertical line at 0, its estimated effect on attitudes is positive; if a dot falls to the left of the line, its estimated effect is negative.

²Source: “5ta Encuesta nacional en hogares sobre consumo de drogas” Junta Nacional de Drogas. Montevideo, 2012, and AmericasBarometer 2014.

³Source: “5ta Encuesta nacional en hogares sobre consumo de drogas” Junta Nacional de Drogas. Montevideo, 2012. The most recent national survey was run in 2014 but data is not public yet.

⁴AmericasBarometer 2014.

⁵Source: “6ta Encuesta nacional sobre consumo de drogas en estudiantes de educación media” Junta Nacional de Drogas. Montevideo, 2014.

⁶Source: “5ta Encuesta nacional en hogares sobre consumo de drogas” Junta Nacional de Drogas. Montevideo, 2012 and AmericasBarometer 2014.

⁷Each dot in the figure represents the estimated coefficient, or the effect of the identified factor on marijuana consumption. If a dot falls to the right of the vertical line at 0, its estimated effect on consumption is positive; if a dot falls to the left of the line, its estimated effect is negative.

⁸“Respondent-Driven Sampling: A New Approach to the Study of Hidden Populations.” By Douglas D. Heckathorn. *Social Problems*, 1997. For more information on the nature and scope of RDS, visit www.respondentdrivensample.org.

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