



# Cannalex



## Executive summary of the Cannalex study results

### The Cannalex project

■ Conducted at the initiative of a multidisciplinary team of researchers, the Cannalex project was born out of a partnership between the INHESJ (French National Institute for Advanced Studies in Security and Justice) and the OFDT (French Monitoring Center for Drugs and Drug Addiction) with financial support from the CSFRS (Council for Strategic Research and Training). The study results were presented by the research team on October 6, 2017, in Paris<sup>1</sup>.

The purpose of the study, initiated within the first few years of implementing cannabis regulation reforms in Colorado, Washington State and Uruguay (between 2015 and 2017), was to draw up a situational analysis based on encounters with stakeholders on the ground – whether falling within the scope of the public authorities, regulatory authorities, or civil society organizations – committed to the process for legalizing<sup>2</sup> recreational and personal cannabis use. Cannalex also aimed to measure the initial consequences of the reforms in terms of politics, economics, health, and crime. Given the recent and changing nature of the policies implemented in these three states, the conclusions drawn from the study may only be perceived as temporary in nature and exclude the impact of the reform, as this could only be determined in the longer term.

1. INHESJ: Nacer Lalam, Senior Research Associate, Head of the Research and Studies Department; David Weinberger, Senior Research Associate, Research and Studies Department; Deborah Alimi, Research Associate, Research and Studies Department.  
OFDT: Ivana Obradovic, Deputy Director; Michel Gandilhon, Senior Research Associate, Emerging Trends and New Drugs (TREND) Unit.

2. Authorization to possess, produce and distribute the substance, under certain conditions.

---

## A context conducive to the legalization of cannabis

- Prior to the change in the legal status of cannabis, Colorado, Washington State and Uruguay had a relatively "tolerant" policy with regard to cannabis: depenalization of recreational use (1974), and decriminalization of the possession of small quantities for personal use (1975) in Uruguay; legal recognition of "medical cannabis" in Colorado (2000), and the legalization of "medical cannabis" in Washington State (1998). Furthermore, in civil society within these states, the mobilization of organizations specializing in defending civil liberties and "user rights" has contributed to promoting this change.
- In the North American states, the introduction of a legal medical cannabis market approximately fifteen years ago was the first milestone in the reform process, raising the question of creating a framework for cannabis use and legal supply based on a professional market. It is a completely different story in Uruguay where the upsurge in drug trafficking and its (both actual and presumed) consequences on crime forced this small Latin American country to find a new approach to regulating cannabis.
- In the two North American states investigated here, the difficulty in regulating the medical cannabis market and the decision to expand the production thresholds for medical cannabis in Colorado from 6 to 99 plants, in 2009, encouraged an upsurge in the "gray market", contributed by recreational users. The same year, the Obama administration relaxed the federal prohibition on cannabis by inviting prosecutors to "deprioritize" the fight against the medical cannabis market, provided the states developed a system of regulations to protect public health. Hence, concrete questions raised by the introduction of a system for the distribution of medical cannabis, in practice, represented the first step in the process towards the legalization of recreational cannabis.
- Two regulation models can be distinguished: a bottom-up approach in the United States, supported by stakeholders from civil society and leading to popular approval (referendum); and a top-down approach resulting from political voluntarism in Uruguay, against public opinion. These three initiatives are contemporary with the rise in power of an international protest against the "war on drugs", which brought together civil rights and public health defenders in a context of declining state security.
- A "liberal" (for profit or business-friendly) approach to the cannabis market prevails in the United States, while Uruguay prefers a State-led role, which strictly governs production entrusted to only two authorized companies. In the two North American states, the chosen regulation model meets the objective of reducing costs related to prohibition and generating tax revenue associated with a new economy. Conversely, in Uruguay, the core objectives pursued correspond to the reduction in the black market, the consolidation of public health, user security and the protection of minors.

---

## A higher prevalence of use among adults and «new» emerging health problems

- The first finding is the stable prevalence of cannabis use among minors in both North American states investigated: the legalization of cannabis did not stimulate cannabis use in the younger generations, which, nonetheless, has remained at a high level.
- However, a higher prevalence of cannabis use is reported among adults. In the state of Colorado, which is already one of the American states with the highest levels of use, this rise particularly affects occasional and regular cannabis users aged 18 years or over. These changes are particularly noticeable among over 25s, for whom a rapid rise has been observed in last-month levels of use (+ 45% in Colorado). Colorado is now the leading American state in terms of recent use in all age groups (12-17 years; 18-25 years; 26 years and over). This trend shows more contrasts in Washington State: cannabis use has remained stable, except for over 25s whose prevalence is significantly rising.
- In Uruguay, the epidemiological situation has proven to be less nuanced: all indicators for use show a rising trend (lifetime use, last-year use, last-month use), including among younger populations. It should, however, be noted that one of the three supply channels stipulated by law (pharmacy sales) was not yet in operation. Moreover, the legislative changes in Uruguay have not decisively affected the problem relating to cocaine

paste or «pasta base»<sup>3</sup> use, which is a persistent concern for the public authorities. It will only be possible to thoroughly assess the effects of the reform once pharmacy sales are introduced (July 2017).

■ A major rise in hospital admissions related to presumed cannabis intoxication in the two North American states is one of the most striking social/health consequences. This trend is notably explained by the poorly controlled use of edibles (edible cannabis), which has led to a dramatic rise in hospital emergency room visits, particularly among tourists and, to a lesser extent, the younger population (under 10s) and older populations (surprised by some very potent forms of cannabis).

■ The study also reveals a reduction in the perceived risk related to cannabis use, an increase in cases of driving after cannabis use, and a decline in treatment demand among the younger population in Colorado and Washington State: these findings suggest the growing social acceptability of cannabis, particularly among the younger populations.

■ Diversification of the cannabis supply is also reported in the North American states, both in forms accessible to the public (food products or beverages, hybrid varieties of herbal cannabis, products with a high active substance content, etc.), and in the consumption patterns, with a decline in smoking among young people and an upsurge in high-risk behaviors involving use of substances with a very high THC content, such as BHO (Butane Hasch Oil) and wax. This rapidly growing multifaceted legal cannabis supply, increasingly attractive and visible due to advertising and marketing (theoretically prohibited, but often circumvented), has led to some uncertainty as to the effects of this expanding, emerging industry in terms of protecting young people's health.

■ Environmental and health risks related to pesticides developed in industrial agriculture have become an acute issue owing to the continued federal prohibition of cannabis in the United States. The institution governing food safety standards (*Food and Drug Administration*) is struggling to define a framework with the departments of agriculture in the two states, to such an extent that legally grown cannabis continues to escape quality control.

---

## Significant economic and fiscal effects in Colorado and Washington State, compared to Uruguay

■ In the two North American states considered, recreational cannabis sales have risen constantly, reaching 1 thousand million dollars per year in each state. Thousands of jobs were created in 2016, although official figures are not yet available.

■ Limited access to the banking system, owing to the federal prohibition, has significantly encouraged self-investment, contributing to the accelerated economic development in the industry. However, there is a major difference between the models for regulation implemented in the two states: while Colorado allows private operators to intervene on three levels of the market (production, packaging, sales), Washington State has prohibited the combination of licenses at the higher levels of the market (production or processing) and distribution. This separation of the industry, inspired by the microbrewery model, attempts to avoid the vertical concentration of the companies in this new sector to promote local organizations.

■ The cannabis industry which, in three years, has emerged in the first North American states to have legalized recreational cannabis is generating increasingly significant resources, with recognized high-return investors in the legal economics sectors, often originating in the new technology field. The potential of the cannabis sector (cannabusiness) in terms of profitability was rapidly detected by stakeholders in the digital economy, to such an extent that this sector now generates high profits for the operators (20% to 30% markup rate).

■ The tax receipts related to the legalization of recreational cannabis in Washington and Colorado states exceeded the amount of taxes collected for tobacco. A part is allocated to prevention, information and communication action targeting the younger populations. This system which aims to inject tax resources taken from activities related to cannabis in general interest programs has not been considered in Uruguay.

---

3. «Pasta base», sometimes known as «poor man's cocaine», is widely used among low-income populations in South America, and is now a major challenge in terms of social and security governance in Uruguay and in other South American countries.

■ In Uruguay, the decision to fix the retail price of cannabis accessible in pharmacies at a very low level (USD 1.30 per gram, i.e., the equivalent to the black market price) aims to neutralize the profitability issue in this production sector. Unlike the US models, the concern to maximize tax resources was ruled out in Uruguay in favor of the goal of drying up illegal trafficking. However, Uruguay wishes to massively invest in the rapidly developing industrial hemp sector (textiles, insulation materials, pharmaceuticals, etc.).

---

## First marginal repercussions on crime and more substantial impact on police and judicial actions

■ Three years after opening up the market in Colorado and Washington State, and the implementation of two of the three legal access channels for cannabis in Uruguay, the illegal markets are still surviving, although to an unequal extent, at each of the three sites studied: in Uruguay, legal production is far from meeting user demand (between 10% and 20% according to estimates). In the two North American states, while the business-friendly approach has generated a cannabis volume consistent with demand, a segment of the black market still persists owing to the price difference compared to the legal market.

■ The price of recreational cannabis fell considerably in Washington State (- 67% since legalization, i.e., USD 7.36 in 2017), which should greatly dry up the fringes of the illegal market which still persists. In Uruguay, the pricing issue is presented differently: the most regular users (moreover reluctant to be included in an official register, associated with the memories of the military dictatorship) appear to have limited awareness of the legal cannabis supply, preferring cannabis with a higher active substance concentration. Furthermore, a «gray» cannabis supply targets tourists who are not legally authorized to procure cannabis.

■ In the United States, while there has been a logical fall in arrests for use and possession, certain niches still remain, in which the crackdown on drug-related offenses has not weakened: minors and the more underprivileged members of the population (particularly ethnic minorities).

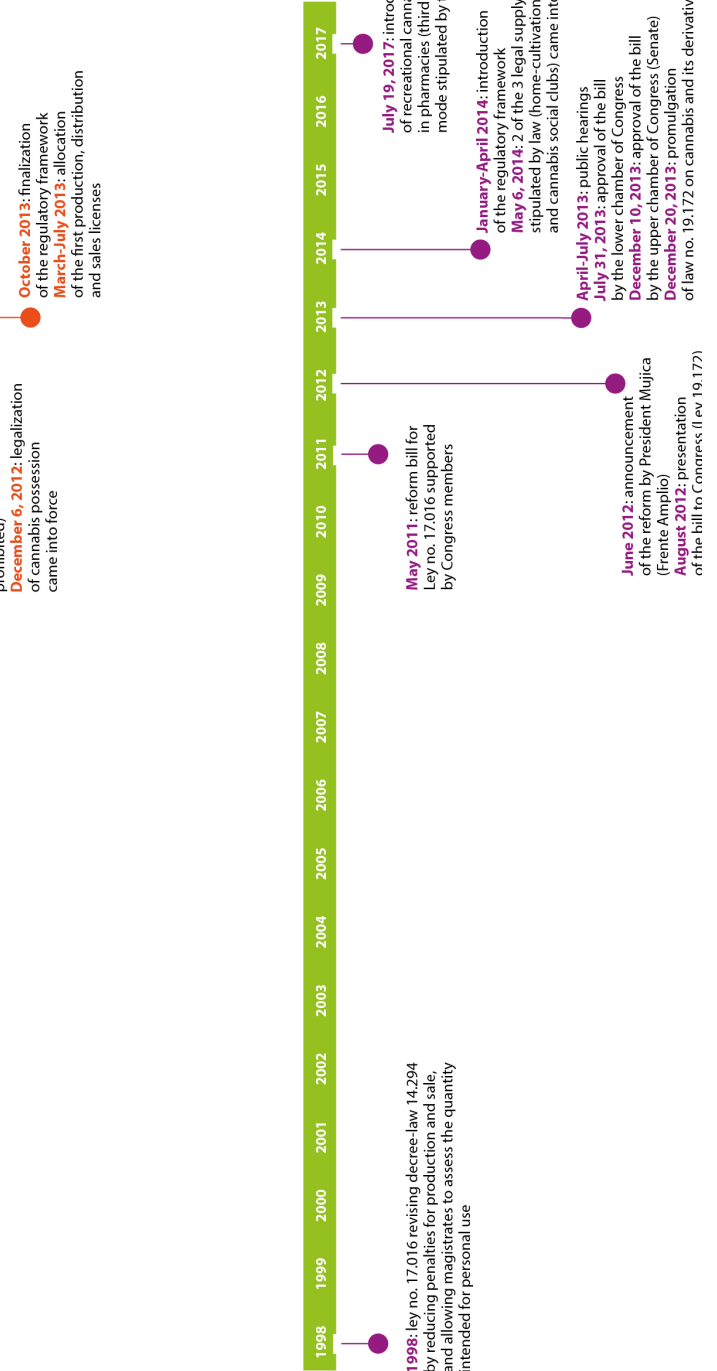
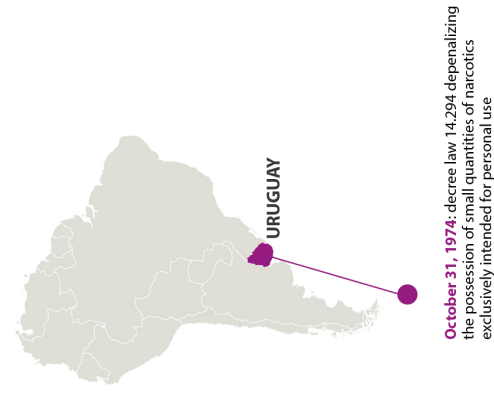
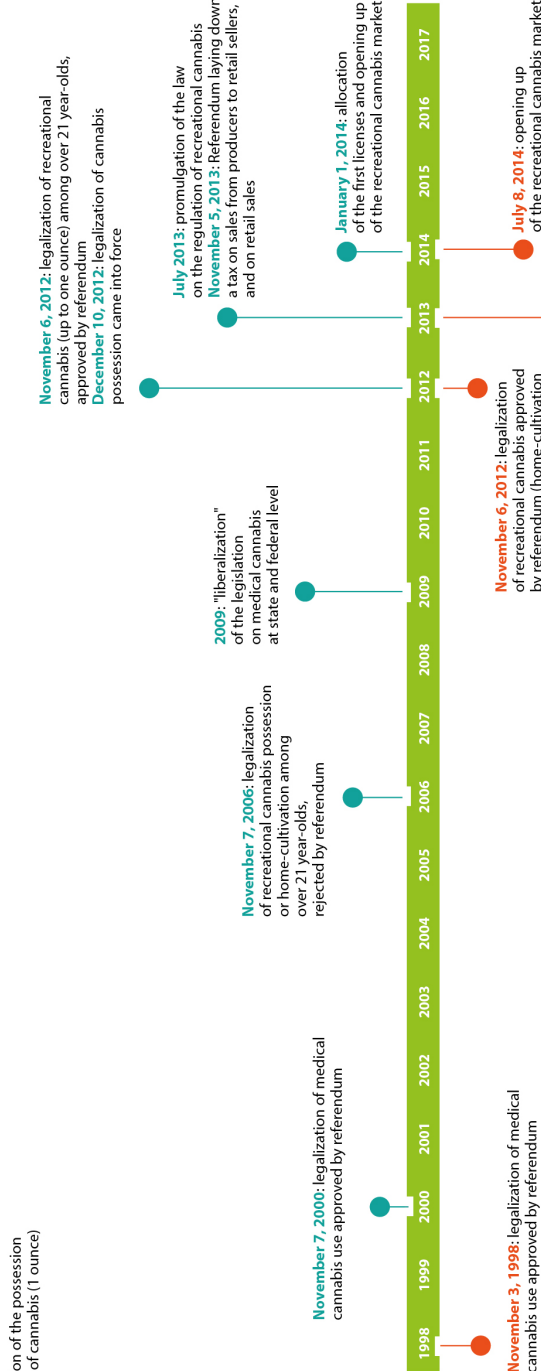
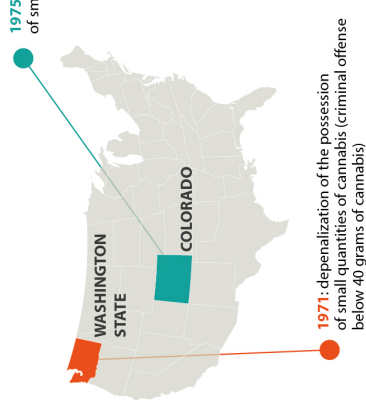
■ Furthermore, a new form of criminality associated with the legalization of cannabis has been reported, stemming from small- and large-scale trafficking to border states still under prohibition. The effect of «insularity» has nonetheless tended to lessen with new initiatives for the legalization of recreational cannabis in the United States (now eight states, covering the whole West coast, and twenty-nine for medical cannabis only).

■ At this stage, the activities of transnational criminal groups have not been fundamentally challenged by the legalization of cannabis. Criminal groups still mainly operate in the cannabis black market and are developing other types of trafficking (heroin and methamphetamine in the United States, or coca substances in Uruguay) so as to cushion economic losses as prospects partly dry up.

■ In the United States, few effects have been observed in terms of criminality, aside from the rise in the number of burglaries targeting the legal cannabis industry in Colorado, mainly due to limited access to the banking system which force companies to store large volumes of cash. From this perspective, the lifting of the federal prohibition constitutes one of the main political objectives of the industrial lobbies (such as the *Marijuana Industry Group*) committed to safeguarding the emerging cannabis industry from a legal perspective.

■ The legalization of cannabis has redirected the activity of the law-enforcement services (Police) and magistrates, in a context where offenses related to cannabis use accounted for more than half of arrests for drug-related offenses.

■ The legalization of cannabis has thus made it possible to relieve strain on the courts and redirect police activities towards road checks, repression of illegal drug-trafficking and the prevention of other drug use.





The National Institute for Advanced Studies in Security and Justice offers a wide range of training for the benefit of public and private actors in the fields of security and justice and the world of economics. A place of partnership and a crossroads of cultures, the INHESJ is an inter-ministerial operator, with the Ministry of the Interior and the Ministry of Justice forming its reference ministries. Its programmes address and study different public policies regarding security and justice, economic intelligence and security, risk and crisis management. [www.inhesj.fr](http://www.inhesj.fr)



Created in 1993, the French Monitoring Center for Drugs and Drug Addiction is responsible for carrying out monitoring activities for the public authorities, professionals in the field, and the general public, on the drug and addiction phenomenon. The OFDT is made up of a team of specialists from different disciplines (demographics, epidemiology, statistics, medicine, economics, etc.). It carries out its mission via its permanent monitoring and survey scheme, and by summarizing data relating to addictions obtained from various sources. The Management Board of the OFDT brings together the French Interministerial Committee for Combating Drugs and Addictive Behaviors (MILDECA), twelve ministries affected by drug control and drug addiction, together with public and private legal entities. The action of the French Monitoring Center is supported by a scientific college consisting of members appointed personally and recognized in the fields within the scope of its missions. The OFDT is one of the national liaisons of the European Monitoring Center for Drugs and Drug Addiction, a European Union agency. OFDT research is promoted via publications or published on its website: <https://en.ofdt.fr/>

Cannalex, a project conducted by the INHESJ and OFDT, with financial support from the CSFRS.

INHESJ/OFDT research collective: Cannalex, international comparison of experiences in cannabis regulation (Colorado, Washington State and Uruguay)

Graphic designer: Frédérique Million (OFDT)