

# Cannabis legalisation in the United States Towards a regulated market?

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## INTRODUCTION

While cannabis remains banned at the federal level, since 2012, eleven in fifty American states (+ Washington DC) have taken a new step by making it legal for adults to grow, possess and use cannabis for recreational purposes. Nine of them went so far as to authorise a regulated cannabis market, by entrusting production and sale to private operators (Colorado, Washington State, Oregon, Alaska, Nevada, California, Massachusetts, Maine, Michigan)<sup>1</sup>. These changes in the legal status of “non-medical” or “recreational” cannabis happened as 33 States authorised its “medical” use<sup>2</sup>. Hence, in the third most populated country in the world, a quarter of the inhabitants is currently experiencing a legal regime authorising the purchase and use of cannabis for recreational use by adults (i.e. 75 million citizens)<sup>3</sup>.

The initial initiatives for legalisation were approved via voter initiatives in 2012, in 2 Western states (Colorado and Washington State), then in 2014 in Oregon, Alaska and Washington DC. At the same time as the presidential election on 8 November 2016, 4 new states (California, Maine, Massachusetts and Nevada) followed. The fact that it was legalised in California, the Union’s largest demographic force and the sixth largest economy in the world, reflects the extent of this trend, which continued in 2018 in two

states: Vermont, where reform was first introduced by legislation<sup>4</sup>, and Michigan, which during the mid-term elections in November 2018, became the tenth state – the first in the Midwest – to legalise the recreational use of cannabis.

This note describes the regulatory

1. In 2014, in Washington DC, citizens voted in favour of making it legal to possess and grow cannabis for personal use but without provisions for a regulated market. In 2018, Vermont adopted the same type of regime through legislation.

2. Including three since November 2018: Utah, Missouri and Oklahoma.

3. For a full review of the legalisation processes and regulatory regimes put in place, see Obradovic, 2018b.

4. House Bill 511.

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models that have been implemented since 2014 in the states that have legalised cannabis, highlighting their differences and similarities. It also discusses the reform processes and common features of states that have legalised cannabis for medical and recreational use. Finally, in support of official sources and a specific study conducted in 2015-2016 (Cannalex<sup>5</sup>), it reports on the initial impact of these reforms, particularly in the first two states that undertook to regulate the cannabis market after it had been established for five years (Colorado and Washington State). As these legislative developments are still very recent, this is obviously only an intermediary assessment, which is highly dependent on the data available (which focuses on some aspects and not others) and it does not make it possible to rule on the effects directly attributable to the legalisation of cannabis for recreational use.

## Definitions

The terms of the public debate on cannabis are often misunderstood or even used in an ambiguous or misleading way.

### Legal status of cannabis

**Decriminalisation** involves switching from legislation penalising an offence to more lenient regulations, at the very least eliminating prison sentences, but possibly going as far as removing criminal offences. Various degrees of decriminalisation therefore exist<sup>6</sup>: reduction or elimination of a prison sentence, change in the type of applicable penalty (for instance, transforming an indictable offence into a petty offence, punishable by administrative rather than criminal penalties); lifting the ban (legalisation). In the case of "**cannabis legalisation**", cannabis use (medical or recreational) is legally recognised, subject to state intervention, with the state being responsible for providing the conditions and means for exercising this freedom of action (regulation) – unlike **liberalisation**, which opens up the market to pure and perfect competition to such an extent that State intervention is as limited as possible.

### Cannabis, cannabinoids, THC, CBD: what are we talking about?

Cannabis refers to a botanical species that includes around 100 varieties that are more or less fibrous (such as hemp fabric) or, on the contrary, that are rich in psychoactive agents (i.e. THC or delta-9-tetrahydrocannabinol, the active ingredient of the plant that causes its psychotropic effects). Cannabis contains around 100 cannabinoids, substances that are found in the cannabis plant that act on specific receptors in the brain and human body (National Academies of Sciences, Engineering, and Medicine, 2017). Cannabinoids are the main active ingredients in cannabis products and cannabis preparations. The two most studied cannabinoids are tetrahydrocannabinol (THC) and cannabidiol (CBD). There are both natural (present in the plant) and synthetic (when synthesised in the laboratory) cannabinoids.

### "Medical", "recreational" or "industrial" cannabis

Cannabis is used for a wide variety of social purposes: in its hemp form, it is grown for industrial use (textiles, paper, insulation, food, animal feed, etc.), mainly in China, Europe and Canada; it can also be legally produced for medical uses (EMCDDA, 2018); and finally it is used for recreational, legal or, most often, illegal uses because of its psychoactive properties: it is most often smoked, in its herbal form (marijuana) or as resin (hash).

The medical use of preparations derived from the cannabis plant dates back several thousand years: it was employed for its analgesic, antispasmodic and anti-inflammatory properties in China, India and the Middle East. Since the 1990s, this medical use, which was lost over time, has become topical again, even though the 1961 United Nations Single Convention on Narcotic Drugs classified cannabis as a narcotic drug without therapeutic properties.

5. Cannalex study (INHESJ - OFDT) conducted with funding from the Council for strategic research and training (Lalam et al., 2017).

6. For more details, see Obradovic, 2016.

## SIMILARITIES AND DIFFERENCES IN REGULATORY MODELS

The regulatory schemes put in place have many similarities, particularly the **“for profit” regulatory approach** (Zobel and Marthaler, 2016) (or **business-friendly**), **supported by private operators**. They share a strict set of rules on the organisation of the legal cannabis market, with three objectives:

- **safeguard production, sale and purchase conditions** by subjecting them to regulations in terms of declaration, surveillance and traceability covering all stages prior to marketing (restrictions concerning the profile of businesses authorised for production, definition of boundaries concerning the establishment of production and sales facilities, building security using video surveillance, specific packaging for substances containing cannabis, limitation of the THC level in substances, etc.) ;
- **limit access to the substance to ensure the protection of minors;**
- **guarantee tax revenue for the State.**

Despite the numerous common points, these models are also very different.

## HIGHLIGHTING DIFFERENCES WITH THE MEDICAL CANNABIS MARKET

**All states having legalised recreational cannabis had already authorised it for medicinal use** (see Table 1, page 20). The content and application of legislation governing medical distribution varied considerably, ranging from the recommendation of restricted quantities of cannabis for a few conditions, to authorisation of volumes equivalent to several months of use based on indications with few restrictions (chronic pain, back pain, anxiety, etc.)<sup>7</sup>.

In Western America in particular (California, Washington State, Colorado and Oregon), the **flexible legislation on medical cannabis had the result of opening up supply to recreational users**, if they had a “medical recommendation”: the influx of these “new patients” paved the way for a parallel commercial market largely avoiding State control<sup>8</sup>. Prohibited at federal level, diverted at the State level, the supply of “medical” cannabis thus gave rise to a commercial cannabis market distributed via “dispensaries” (with extremely variable regulation requirements across the states), going hand in hand with a rise in levels of use (Davenport and Caulkins, 2016).

The **cannabis market with controlled sales was designed from the outset with reference to the medical cannabis market**, except in Alaska, which did not have one. One of the challenges facing regulation therefore consisted in better separating both cannabis markets. Number of States have thus pushed dispensaries towards the recreational cannabis market: Colorado, Washington State, Oregon<sup>9</sup>, California, Massachusetts<sup>10</sup>. This choice was in response to a strategic challenge: to work with known partners and benefit from the legalization of recreational cannabis so as to manage the medical cannabis market more effectively.

## REGULATION = LEGALISATION SUBJECT TO CONDITIONS

The possession and sale of cannabis are subjected to numerous regulations, concerning both supply and demand.

### **Restrictive access to the substance**

In all states having legalised cannabis, **authorisation for access to the substance (use and purchase) exclusively concerns adults from the age of 21** (like the legal age of access to alcohol). This concerns limited quantities, usually an ounce of cannabis (28.4 grams)<sup>11</sup>. Only one state, Colorado, introduced restrictions for non-residents. An inhabitant can obtain 28 grams in 8 states. Only Maine and Michigan authorise possession of 75 grams and, in Massachusetts, inhabitants are able to be in possession of 28 grams in public but they can store 280 grams at home (see Table 2, p. 21).

7. For an overview of the latest information and developments with regard to the medical use of cannabis and cannabinoids, see the study by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2018).

8. With the exception of New Mexico, which developed a state-wide system for the production and distribution of medical cannabis in 2007.

9. Where “recreational” cannabis was first offered in around 300 medical cannabis clinics before being sold in 2016 in retail shops.

10. Which adopted original restrictions to limit the size of the market: if 75 dispensaries are licensed by October 2017, no other licences will be granted for a year.

11. Sometimes more, like in Washington DC (where possession for personal use is authorised up to 2 ounces), in Maine (2.5 ounces per individual) and Oregon (one ounce carried in person, but up to 8 ounces at home).

In states allowing home-cultivation (all but one, Washington State), the authorised production limit is in the range of 3 to 6 plants ready for harvest (up to 12 per household), occasionally with a few exemptions<sup>12</sup>.

### **Circumstances for authorised use**

Recreational use is permitted only in a private place – not in the street and in public places. As for alcohol and tobacco<sup>13</sup>, **in most cases cannabis use is still prohibited in public spaces**<sup>14</sup> and is fined<sup>15</sup>, in particular to limit tourism linked to cannabis. It is also prohibited in cannabis sales outlets. Above the authorised possession limit, users are considered to have committed an offence and liable for a fine or prison sentence: in Colorado for instance, sentences of up to a year in prison and a fine of USD 1,000 apply for possession of 2 to 6 ounces. Likewise, **driving under the influence of cannabis is still strictly prohibited** above a defined level of cannabis in the blood, which varies according to state (see Table 2, p. 21).

### **Authorised supply channels**

In terms of supply, two legal supply channels are authorised: home-cultivation<sup>16</sup> and cannabis sales in specialised stores (retail store), when produced in the legal circuit. The sales conditions for recreational cannabis (except in Washington DC and in Vermont where sales are still illegal) are subjected to numerous restrictions, covering:

- the **location of sales outlets** (by means of a zoning policy, prohibiting sales near to premises frequented by minors or in service stations, to prevent driving under the influence of cannabis);
- **rules for identity checks** on customers entering the store;
- the **range of substances authorised for sale**, which may or may not include edible substances containing cannabis (edibles), infused with cannabis or derivatives;
- the **packaging rules** (serving size), etc.
- the **ban on advertising and marketing**<sup>17</sup>;
- the **ban on Internet sales**.

Person-to-person sales are still prohibited, the objective being to **make the entire cannabis production, distribution and sales circuit more professional and secure**, by creating a controlled cannabis sector governed by the State.

## **DISPARATE PRODUCTION AND DISTRIBUTION REGULATIONS**

More or less strictly governed, often linked to the medical cannabis sector (though to a varying degree), the regulation systems are based on a common principle of **structuring the market in three separate sectors**: production/cultivation, packaging/distribution and sale. The possibility of operating on the market is subjected to legal and professional criteria: condition of residency<sup>18</sup>, no past judicial records, and granting of a **professional licence** (business licence). **Specific state authorities** are responsible for allocating, revoking and renewing (annually) the licences. Most regulatory authorities are part of departments of revenue of which alcohol is often part of their portfolio, and whose remit was initially expanded (often with constant sizes), before expanding to include cannabis (see Table 2, p. 21).

One of the specific features of the legal cannabis market in the United States is the right to sell a wide range of cannabis products (see box below). In contrast to the more restrictive regulatory regimes in Uruguay and Canada<sup>19</sup>, most of the American states that have legalised recreational cannabis do not only authorise the sale of cannabis for smoking but also many varieties of cannabinoids, designed to be ingested (sweets, drinks), inhaled or vaporised (with an e-cigarette) or by applying it to the skin (cosmetics).

12. Like in Nevada (more than 6 plants if there are no dispensaries within 40 kilometres).

13. Most American states prohibit smoking in all closed public areas, including restaurants and bars (statewide smoking ban) (Obradovic and Beck, 2016).

14. Including all types of public spaces: streets, parks, clubs, bars, hotels, restaurants, night clubs, etc.

15. From USD 100 (Colorado, Alaska, Maine and Washington State) to USD 1,000 (Oregon), sometimes combined with prison sentences (Washington DC).

16. Except in Washington State, which only authorises personal cultivation of cannabis for medical purposes.

17. The rules in Oregon are some of the most dissuasive, compelling advertisers to display their messages on contractually sized panels, in bold characters, in Times New Roman or Arial font, size 80.

18. Aside from Massachusetts and Nevada, these conditions may vary. Hence, the condition for 2 years of residency, initially defined in Oregon was lifted on 7 March 2016.

19. At least until October 2019, the federal law providing for the possibility of authorising cannabis-based food products in a second phase.

## Cannabinoid products and methods of use

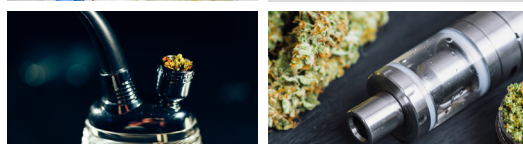
### ■ Combusted products

joints, pipes, bongs, joints rolled in a tobacco leaf (blunts)



### ■ Vaporizers

electronic cigarette, juul, etc.



### ■ Edibles

cookies, sweets, ice cream cones, soups, etc.



### ■ Drinks

sodas, syrups, hot chocolate, etc.

### ■ Dabs

oils (CO2 oil, Butane Hasch Oil called BHO, etc.),  
waxes, etc.



### ■ Cosmetics and wellness products

pain relief balms, anti-ageing creams, massage oils,  
muscle relaxants, etc.



### ■ Topicals

crystals, tablets, etc.

In all states, local authorities still have the **possibility of prohibiting or limiting cannabis stores** (opt out<sup>20</sup> and local bans), which gives rise to greater disparities in terms of implementation. Hence, a year after the pro-legalization vote, a third of town councils in Colorado and Oregon had prohibited the sale of recreational cannabis. In California, less than 20% of cities allow outlets for recreational cannabis (89 out of 482). Some states envisaged a moratorium with a view to delaying the introduction of regulations.

**The type, cost and number of licenses to enter the cannabis market**<sup>21</sup> vary according to state. In addition to the three licenses common to all states (production/cultivation, packaging/distribution, sale), new types of licences have emerged in states where legalisation has taken place more recently: different production permits according to size and place of cultivation (California), cannabis social club licence (Maine), etc. Some states have more than a dozen different licenses (California, Massachusetts). In active regimes, the annual cost of a license can exceed \$30,000 (for example, for a production license in Nevada or a retail license in Massachusetts). The high cost of licences has the effect of reducing the number of capital holders that can enter the market, especially since it is impossible to invest in this market using a bank loan, as cannabis is still banned at the federal level.

In addition, some states have opted for **stepped-up control of the market**, by prohibiting vertical integration (i.e. ownership of the various cannabis production and distribution stages by a single operator), so as to prevent any monopoly on the cannabis production line (source of income and profit) and reduce opportunities for tax evasion. Hence, Washington State has prohibited licensing at the higher levels of the market (production and distribution) and at the sale stage. Holding more than a third of licences in a single town or county is also prohibited there. This precaution was adopted by California, where the regulatory model initially stipulated **anti-monopoly measures**

20. Possibility for councils or counties not to apply the new legislation if a majority of the local population object to it in a referendum.

21. Up to 19 different types of licenses in California, including 13 for culture and production.



aiming to control the emergence of economic cannabis superpowers engaging in mass lobbying, as is the case for tobacco (Big Tobacco), and to protect small local operators (Small is beautiful). Other restrictions rank Washington State as one of the most demanding stakeholders in terms of market control: upper limits on sales outlets, ban on opening cannabis stores (pot shops) in town centres, restrictions on the marketing of cannabis-based food products.

**A seed to consumer (seed to sale) traceability system** has been introduced in all states to monitor the production sector so as to avoid diversion to the black market. This condition for market regulation led to the **rapid development of an indirect economy in the cannabis market**. In 2016, Microsoft signed a partnership with a start-up (Kind Financial) to develop technology to monitor harvests "from seed to sale", so as to guarantee an exact breakdown of taxes on production and to limit the risks of a black market.

## TAXATION AND FIXING PRICES: A DECISIVE CHALLENGE TO WEIGH ON THE MARKET

**The tax system applicable to recreational cannabis is a crucial challenge.** This aims to optimize state revenue: the level of taxation of a substance should not appear too high (to compete with the black market and prevent users from turning to illegal supply sources), or too low (to avoid encouraging use among young people). It should allow sufficient room for businesses to generate a profit and thus stimulate the commercial dynamics of this new industrial sector for legal cannabis.

The initially high level of taxation for recreational cannabis (up to 37% in Washington State) was gradually reduced and varies according to state, between 10% and 25% in order to compete with cannabis sold on the black market (see Table 2, p. 21). The often complex taxation system is mainly based on **excise tax**<sup>22</sup>, the amount of which is based on the quantity of substance: this tax is associated with policies to dissuade excessive use. All revenue derived from excise tax goes to the states. Depending on the state, it also includes local taxes and/or taxes that are indexed based on the quantity and type of substance (e.g. Alaska or California).

## ALLOCATION OF TAX REVENUE: EARMARKED REVENUE TOWARDS THE PUBLIC SECTOR

**The tax revenue generated by the legalisation of cannabis was dedicated in programmes of public interest.** In the reform bills voted on in Colorado, Oregon, Nevada and Massachusetts, this tax revenue is mainly allocated to the educational sector (construction of schools, study grants, etc.). Depending on the situation, it is also used to finance cannabis regulations, renovation of public buildings and maintenance of sheltered accommodation, mental health or alcohol and drug addiction programmes, veteran support services, police services, prevention of subsequent offences, etc. Oregon is the state which has signposted these new tax revenues more specifically. This influx of revenue into state funds is helping to legitimize reforms and explain the growing adherence among public opinion to the principle of legalization of cannabis which, according to the Pew Research Center, should reach 66% in 2018.

## CHARACTERISTICS OF THE LEGALISATION PROCESS FOR CANNABIS

States having legalised recreational cannabis share a few characteristics: as pioneers in the decriminalisation of cannabis and legalisation of its medical use, they stand out due to their high prevalence of cannabis use, political leanings toward the Democratic party, and demographic and economic dynamism. The prospects of rapid industrial development due to opening up a new market appear to be decisive attractive factors in this context, in the same way as the regulation systems already introduced in 4 states, focusing on commercial aims. Moreover, the introduction of these reforms appears to be related to the mechanisms of participatory democracy at work on the other side of the Atlantic. This can largely be attributed to the pre-existing medical cannabis market, which shed light on the need to regulate the supply of this substance, including for recreational use.

## PIONEERING STATES IN THE DECRIMINALISATION OF CANNABIS

Five states were among the **precursor states in the decriminalization of the possession of "small quantities" of cannabis for personal use** in the 1970s<sup>23</sup>. Two other states followed in the 2000s (Nevada and Massachusetts).

22. Indirect tax on the sale or use of certain substances perceived as non-essential items (luxury products), rare (oil) or hazardous (such as tobacco, alcohol or casino games: these are then referred to as sin taxes).

23. Between 1973 (Oregon) and 1978 (Nebraska), eleven American states decriminalised the possession of "small quantities" of cannabis for personal use, generally defined as one ounce, i.e. 28.4 grams - the others being: Alaska, California, Colorado, Maine, Minnesota, Mississippi, New York, North Carolina and Ohio.

Furthermore, all the states which adopted a system to regulate recreational cannabis had **already legalised the medical use of cannabis more than fifteen years previously for some states**, between 1996 (California) and 2000 (Colorado and Nevada) except for Michigan, Massachusetts and Washington DC. Among the States of the Union which were the first to legalise medical cannabis (until the early 2000s), Hawaii is the only state to date which has not also legalised recreational use and sale.

The 33 states (+ Washington DC) having legalised the medical use of cannabis, according to widely varying regulations<sup>24</sup>, all authorise **medical use at the very least for cancer, AIDS and multiple sclerosis patients** (see Map 1, p. 18). They also authorise the **home-cultivation of natural cannabis**, a rare occurrence elsewhere in the world<sup>25</sup>, by defining a maximum quantity (see table 1, p. 20). Lastly, they allow the **sale of products containing cannabis, upon medical authorisation**, often in specialist dispensaries (and not in pharmacies, like in Europe), in cases where the efficacy of cannabis has been demonstrated (for instance, for the treatment of nausea in cancer patients undergoing chemotherapy, or for certain painful neurological disorders: epilepsy, multiple sclerosis, etc.).

Even so, **federal law does not recognise medical cannabis**, to such an extent that the access systems developed since the mid-1990s have endeavoured to circumvent the commercial circuit to avoid appearing in violation of federal law. Hence, in certain states such as Colorado and Oregon, when not cultivated directly, cannabis available to patients may be supplied by a non-medical third party authorised to produce for others without profit or in the context of "dispensaries" (buyers' clubs), and used in various forms (inhaled, ingested or smoked).

In most legalising states (see Map 1, p. 18), an **established medical cannabis market** already therefore existed, together with the suspected production and distribution of "medical" cannabis to recreational users, particularly in Western states where the legislation seemed relatively open (Colorado, California, etc.). Faced with this legal ambiguity, which allowed recreational users to have access to cannabis through medical recommendations, in 2009, the Obama administration said that combatting medical cannabis market should not be a top priority in states in which it had been legalised, provided they developed a regulatory system to protect public health: this change of federal opinion gave decisive impetus to the dynamic for reforms concerning legal access to cannabis and was not fundamentally challenged by the Trump administration.

## LIBERAL STATES, WITH A DEMOCRATIC MAJORITY

Aside from Alaska, a Republican stronghold, all states having legalised cannabis are **the most in favour of the Democratic party in recent elections**, particularly in the 2016 presidential elections in which the Democratic party only won 20 out of 50 states (+ Washington DC) (see Map 2, p. 19). In addition to Washington DC, a stronghold of the Democratic party since its creation, certain states have only favoured the Democrats in recent years, like the Swing States, such as Colorado, with a more Republican tradition which have recently leaned towards electoral options more in favour of the Democratic party (particularly in local politics), or Nevada, one of the Swing States in the 2016 presidential election.

More generally, practically all states having legalised cannabis stand out from the rest of the Union in terms of different social, cultural and political liberalism criteria. States having legalised cannabis share a **history of social reforms and cultural liberalism**, both in terms of women's votes<sup>26</sup>, the protection of civil liberties and, more recently, the recognition of same-sex marriage<sup>27</sup>. Most are **among the 15 most liberal states of the Union**<sup>28</sup>, where the share of the population claiming religious affiliation plays an insignificant role<sup>29</sup>.

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24. Both in medical indications, the authorised forms of use (either natural or synthetic) and the possibility of cultivating cannabis plants for personal medical use.

25. Among the other countries authorising medical cannabis use, either natural cannabis produced by authorised businesses (and not home grown), or medications containing cannabis: synthetic cannabinoids for medical purposes (Sativex<sup>®</sup>), dronabinol (Marinol<sup>®</sup>) or nabilone (Cesamet<sup>®</sup>) are marketed. (EMCDDA, 2018).

26. Most did not wait for the 19<sup>th</sup> Amendment (1920) to institute electoral equality (Colorado, Washington State, California, Oregon, Nevada + Washington and Alaska which were not yet states).

27. All these states legalised same-sex marriage prior to the Supreme Court injunction (26 June 2015).

28. The Gallup poll publishes a State of the States each year, which ranks the 50 states of America according to multiple statistical criteria, ranging from the economy to ideological tendencies among the American people.

29. Most are among the minority of continental states where less than 80% of residents are Christians and the atheist population is higher than 10% (up to 18% in Oregon).

## STATES WITH A HIGH PREVALENCE OF CANNABIS USE

States having legalised cannabis stand out due to a higher prevalence of use compared to the federal average, for all indicators and in all age groups, particularly among the younger generations. Before the reform, most states had the highest levels of cannabis use in the United States (see Map 3, p. 19), reporting, among the population aged 12 years and over, at least 15% last-year cannabis users and 10% last-month users (except for California, Nevada and Maine). States involved in cannabis legalisation have the highest prevalence of cannabis use in the Union, excluding Nevada and California (see Map 3, p. 19).

## A PROCESS VALIDATED BY THE DIRECT DEMOCRACY APPROACH

In the United States, **the legalisation of cannabis is exclusively approved via the ballot box**, unlike Uruguay, the first country to have legalised cannabis through parliament (in December 2013), and in Canada (where this reform was an election promise of Prime Minister Justin Trudeau). One of the main conditions allowing cannabis to be legalised in the United States relates to citizen participation schemes which are a result of American federalism recognising states' legislative authority (each state has a legislative assembly of elected representatives).

Wherever these initiatives are taken, they generate **moderate approval, indicating a considerable divide in opinion**: aside from Washington DC, which is atypical in terms of electoral behaviour and which voted 70% in favour<sup>30</sup>, the percentage of votes in favour of legalising cannabis has never reached 60% (see Table 1, p. 20). The legalisation of cannabis has sometimes been approved to general surprise (such as in Colorado, for example).

Among the states having legalised cannabis, five **already held a referendum on a similar legalisation bill**: California (1972 and 2010), Oregon (1986 and 2012), Alaska (2004), Colorado and Nevada (2006). These proposals have always generated increasing popularity, from one referendum to the next. The process for including this issue on the agenda is based on **professional, structured opinion campaigns, active lobbying and substantial budgets**. In all cases, popular initiatives are the subject of petition campaigns to collect a sufficient number of signatures<sup>31</sup>, supported by an interest group or a coalition of stakeholders in charge of drafting and promoting the proposal. The same NGO activist networks are observed: the Marijuana Policy Project (MPP), the leading American lobby for cannabis policy reform, which implemented the same campaign model in 5 states<sup>32</sup>, and the Drug Policy Alliance (DPA)<sup>33</sup>. These lobbies worked closely with the American Civil Liberties Union (ACLU), a large American civil rights protection association, and the National Organization for the Reform of Marijuana Laws (NORML) – which, moreover, funds candidates for political posts. In the same way, the opposition campaigns are based on structured opposition groups: the SAM (Smart Approaches to Marijuana) group, one of its main arguments against legalisation being to denounce the risk of opening up channels for trading in harmful substances (such as Big Tobacco); tobacco and alcohol lobbies (Wine & Spirits Wholesale Association); part of the pharmaceutical industry (except for a few pharmaceutical companies in favour of legalisation, such as Big Pharma); police and prison warden unions (managed by the private sector), etc.

These campaigns, moreover, benefit from **major funding** to ensure that the cause is publicised. In addition to the legal organisers of the campaigns and their media spokespersons (celebrities, official supporters), private funding bodies also play a role: digital economic stakeholders, casino owners, financial speculators, such as George Soros which, via the Foundation to Promote an Open Society, has supposedly injected more than USD 80 million into various legalization campaigns and funded several NGO specialising in producing opinion campaigns (MPP, DPA, ACLU, etc.) in the past 20 years. **Industry magnates and billionaires** are proving to play a decisive role in the campaigns: the sums for campaigns in favour of the legalisation of recreational cannabis were 10 to 20 times higher on average than those for the opposition campaigns (except in Nevada), ranging from USD 1 million (Alaska) to USD 30 million (California, where the funds collected by the opposition campaign were ten times lower).

30. Mainly owing to the large proportions of the population tending to be in favour of "liberal" policies, in the Anglo-Saxon sense, i.e. rather left-wing (students and African Americans).

31. It takes several years to gather the signatures required in order to submit a citizen's initiative: in November 2016, 5 states had not yet achieved this (Arkansas, Michigan, Missouri, Montana and North Dakota).

32. Campaign to Regulate Marijuana like Alcohol (Colorado, Alaska, Maine, Massachusetts, Nevada). The MPP also participated in the campaign for the legalization of recreational cannabis in California.

33. Leader of the New Approach campaign conducted in 2 states (Washington State and Oregon).



## COMMON ARGUMENTS

Those in favour of legalisation denounce the failure of the repressive approach, its costs and racial inequalities related to arrests and penalties. All the campaigns in favour of legalisation were conducted with the aim of **protecting individual and civil liberties** (hence the role of the ACLU) and **fighting against trafficking-related violence**.

Activists for the legalisation of cannabis are often also engaged in other causes representative of issues supported by the Democratic party: protection of same-sex marriage, abolition of the death penalty, control of arms sales, recognition of transgender individuals, etc. In certain states, this collection of causes also includes tax interest offering a glimpse of a future legal cannabis market, similar to the tobacco or alcohol market. Most states thus provided statistics on tax losses related to the "war on drugs" (Washington State estimated lost state, federal and local tax earnings of USD 300 million per year). All states having taken the plunge also issued promising estimates of expected tax revenue arising from legalisation<sup>34</sup>.

## DEMOGRAPHICALLY AND ECONOMICALLY DYNAMIC STATES

From a demographic perspective, the states that first legalised the production, sale, possession and recreational use of cannabis were among those with the **highest population growth**. For instance, the city of Washington DC attracted more than 70,000 new inhabitants in five years (more than 10% of its initial population), particularly active young people, which could encourage it to **expand its job pool**.

From an economic perspective, states having legalised cannabis were characterised, on the eve of the reform, by **confirmed growth in GDP**<sup>35</sup> and a proactive search for new markets in response to this demographic revival. In addition to agriculture, a major sector in some of these states, **tourism and new technologies** are often among the preferred areas of activity (Western America being perceived as the birthplace of the "new economy", particularly California and Washington State). The appeal of the **Green Rush** which could prosper from herbal cannabis – the form predominantly consumed in the United States – and "cannabusiness", associated with the promise of a new industrial sector likely to sustain strong growth and high profit margins, has been exploited by interest groups bringing together entrepreneurs and corporate lawyers (such as the Marijuana Industry Group), praising the prospects of economic expansion (jobs, industrial gain, boost in property, influx of tourists, etc.).

## ASSESSMENT OF THE FIRST IMPACTS OF LEGALISATION

After five full years of reform in Colorado and Washington State (2014-2018), first outcomes can be reported – although it is not clear whether they are directly attributable to cannabis being legalised. The most significant effects relate to the quick and large-scale industrial expansion of the cannabis supply chain. However, this economic boom has also seen the emergence of three public health concerns:

- The substance is now aimed at all population profiles, from people who have never tried it to regular users and from young people to seniors. The increase in supply and its diversification have increased the incentives to use it, which is only made worse by marketing strategies emphasising cannabis' "therapeutic virtues" or its dimension of social aspect.
- The increase in the number of emergency calls and hospitalisations following acute intoxication highlights the difficulty of effectively regulating substances put on the market (particularly in terms of the concentration of active ingredients). At the same time, cannabis-related treatment demands have declined.
- The decline in both the perceived dangerousness of cannabis and retail prices have led to it becoming more accessible and the substance being "normalised" which, according to public health stakeholders, could ultimately increase the risks and harm associated with its use (particularly among the younger generation).

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34. For example, refer to <http://www.drugfree.org/news-service/estimates-of-tax-revenue-from-marijuana-legalization-in-three-states-vary-widely/> or [https://www.aclu-wa.org/sites/default/files/pie\\_graph/502\\_tax\\_revenue\\_chart.pdf](https://www.aclu-wa.org/sites/default/files/pie_graph/502_tax_revenue_chart.pdf)

35. In 2013, practically all American states reported an increase in their GDP, but at different rates, with the highest growth rates being observed in Western America, particularly in Colorado (3.8%), Oregon and Washington State (2.7%), and in California (2.0%) (US Bureau of Economic Analysis).

## A FAST-GROWING MARKET AND AN ABUNDANCE OF JOBS

The legal cannabis market has been **rapidly expanding since 2014**: it is now an **industrial sector in its own right**. The number of points of sale has increased steadily over the last five years: Colorado has gone from having 59 specialised shops in the first month of the market opening (January 2014) to more than 500 by the end of 2018 (for comparison, the state has 322 Starbucks). With an increased supply, the annual sales of recreational cannabis quadrupled in five years, going from \$300 million per year to \$1.2 billion between 2014 and 2018.

This is the case for all states that legalised the recreational use of cannabis, with sales starting high and only increasing since (see Figure 1, p.11). Among the last states that legalised cannabis, some experienced overproduction from the first year, such as Oregon, which was quick to claim that supply far exceeded demand<sup>36</sup>. In the most recent year of data available (2018), legal cannabis purchases peaked in the fifth state to have legalised recreational cannabis, Nevada, where, in the first month of the market opening, herbal cannabis sales (marijuana) reached \$27 million, which is double the amount of sales in Oregon in the first month (14 million) and seven times that of Washington State (3.8 million). One of the characteristics of the legal American cannabis market is its rapid expansion (with a growth rate of 20% to 30% per year), along with an exceptional profit margin, that is estimated to be between 15% and 21% (after tax) on average in Colorado.

According to private organisations working for manufacturers, in 2018, the legal cannabis market in the United States was estimated to be worth more than \$10 billion (including cannabis for recreational or medical use). The main markets are all found in the Western States (which were the first to legalise medical cannabis use in the 1990s and recreational use in 2012): California (\$2.5 billion), Colorado (\$1.5 billion), Washington State (\$1 billion), Oregon (\$700 million)<sup>37</sup>.

According to various different sources<sup>38</sup>, in 2019, the cannabis economic sector in the United States was responsible for 210,000 full-time jobs (including products for recreational and medical use)<sup>39</sup>. In Colorado alone, in one year (2015), the reform created more than 12,000 direct jobs (production, packaging, sales, etc.) and 6,000 indirect jobs, particularly in areas related to private security (due to compulsory video surveillance in production and sales sites), tourism and biotechnology (Light *et al.*, 2016).

However, due to the federal ban, this market remains relatively uncertain and fragmented – as it is limited to states that provide legal access to cannabis. These legal restrictions do not prevent stock market speculation: more than a dozen “cannabis stocks” are currently traded on the main North American stock markets (New York and Toronto), with a two to three times higher profitability margin than that of beer or tobacco<sup>40</sup> producing groups. According to some estimates, if cannabis were fully legalised in both the United States and Canada, the legal cannabis market could reach \$75 billion by 2030<sup>41</sup>. These figures are similar to those of the American tobacco industry – estimated at \$77 billion per year – or the beer industry (\$110 billion).

As a result of taxes levied on cannabis sales, this sector’s turnover generated tax revenues of several hundred thousand dollars per year in the first few years (see Figure 2, p.11). In Colorado, where the Constitution provides for a maximum amount of taxes to be collected by the state, a surplus – which is small but symbolic of the enthusiasm for this new market – has even been paid back to the taxpayer (\$7.63 per inhabitant). However, these tax revenues do not exceed 1% for each state.

This market dynamic has had the effect of increasing the legal supply of cannabis in the United States, which is now characterised by its abundance and diversity: an increase in the number of points of sale, an expansion in the range of cannabinoid-based products (food products, drinks, hybrid varieties of herbal cannabis including products with a high concentration, etc.) (see box, p.5) and the implementation of marketing strategies to renew demand (particularly among seniors, for well-being and pain control).

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36. As of 1<sup>st</sup> January 2019, the recreational cannabis market was considered to be able to meet demand for 6.5 years without additional production (OLCC, 2019).

37. Source: BDS Analytics.

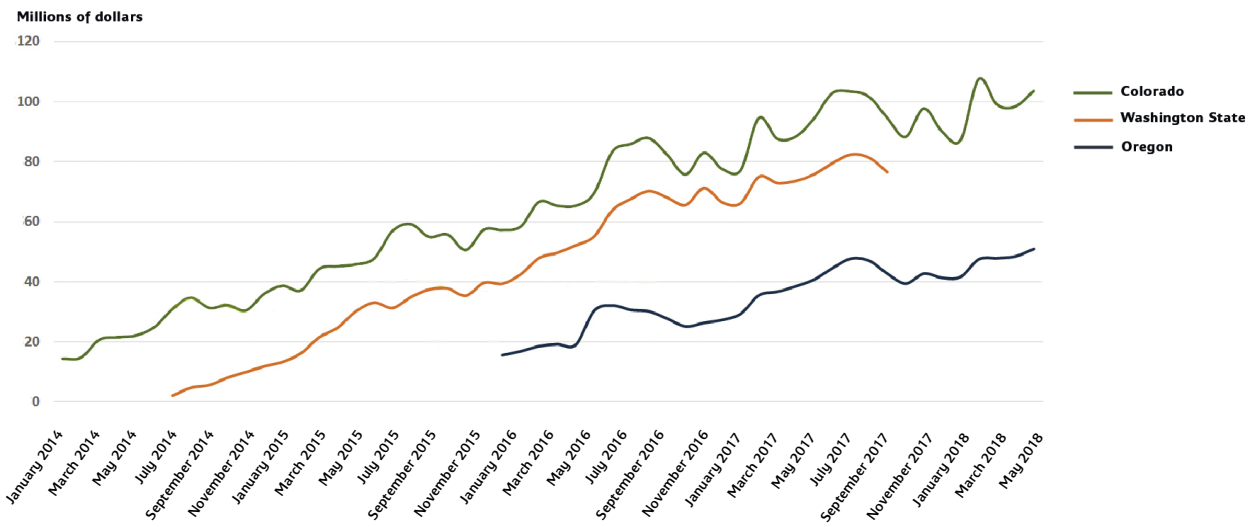
38. In the absence of an independent source, the available figures come from manufacturers and groups advocating for legalisation (Marijuana Policy Project, Leafly, etc.).

39. Sources: Leafly (activist group) and Marijuana Business Daily (cannabis manufacturers review).

40. “Cannabis stocks” are traded at an average price of between 20 and 45 times their expected gross operating surplus (EBITDA) in 2020, with a much greater multiplication effect than that of the beer producing groups (10 times the EBITDA) and tobacco producing groups (14 times).

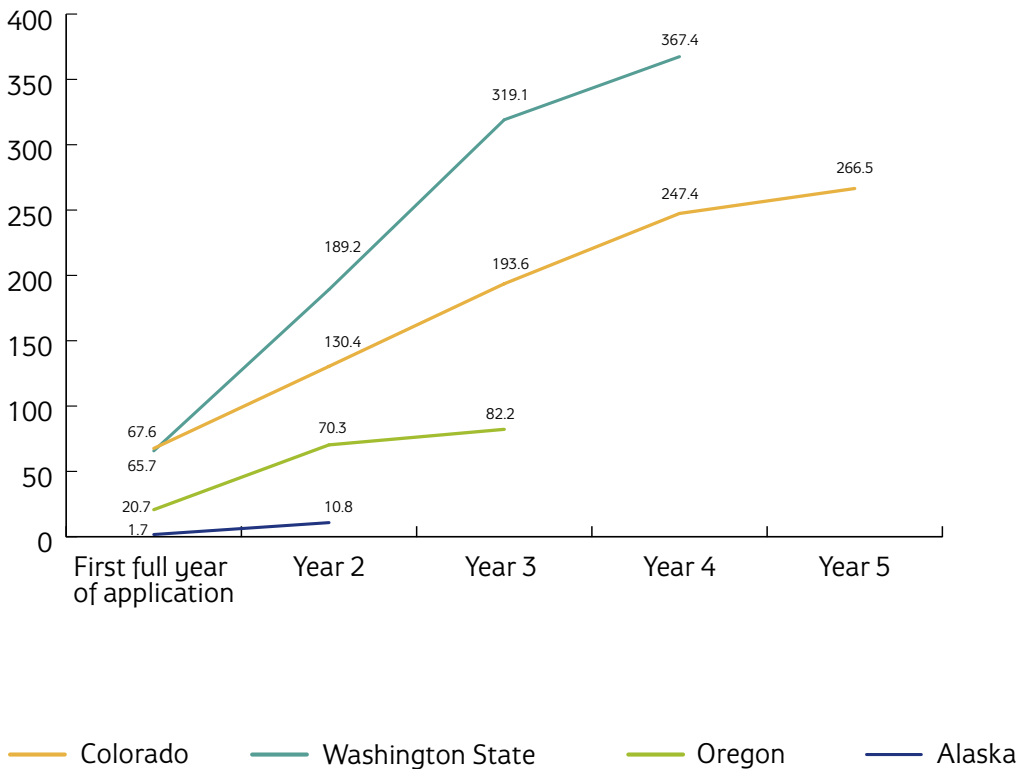
41. According to the American investment bank Cowen & Co.

Figure 1. Monthly sales trends in the first three States that established a legal market for recreational cannabis use



Source: state tax and regulatory authorities

Figure 2. Evolution of tax revenues generated by the recreational cannabis market (in millions of dollars, including taxes and licences)



Source: State regulatory authorities

The diversification of cannabis-based products has led to a change in consumption patterns, marked by the rise of alternative consumption methods rather than smoking. Therefore, concentrated forms of cannabis (concentrates) i.e. with a high dose of active ingredients, also called “dabs”, comprising oils, waxes, cannabis crystals (shatter), natural essences (oral tinctures), etc. are particularly popular among the younger generation. These forms can contain up to 80% THC. These products account for nearly one-third of sales in several states, particularly Colorado, Washington State, Oregon and California, just behind smoking grass (marijuana), where the proportion is declining to the benefit of an increasingly diverse range of products: from cannabis edibles (THC-infused food products) that account for one-quarter of sales<sup>42</sup> to cosmetics (topicals). The extension of supply has therefore had the effect of changing the structure of demand, encouraging the development of at-risk behaviour, involving use of products with a high THC content. For example, in Washington State, the proportion of products containing more than 20% THC, which initially represented one-fifth of sales, represented the majority of sales in less than six months (Smart *et al.*, 2017).

The assertion of a multifaceted legal cannabis supply, which is increasingly more attractive and visible because of advertising and marketing (theoretically regulated but often bypassed), therefore raises uncertainties about the impacts of this industrialisation on public health. This issue is even more prominent when considering the sharp drop in the price of legal cannabis, making it more accessible. For example, the retail price was halved in less than three years: it went from 10 to 14 dollars at the opening of the legal market to around 5 dollars per gram in 2017 (Washington, Oregon), while wholesale prices are now at a low level (\$1.33 per gram in Oregon, \$1.93 in Colorado, \$2.43 in California, the maximum being \$4 in Nevada).

## NEW PUBLIC HEALTH CHALLENGES

In all states that legalised recreational cannabis, the campaign arguments promised to improve the protection of minors and to optimise the relationship between costs and public health benefits. On the other hand, opponents of legalisation feared that legalising the substance would lead to increased use and a setback in achieving public health objectives. What is the situation five years after legalisation was implemented?

### *Decreased use among minors, increased use among adults*

Official data<sup>43</sup> shows a **decrease in cannabis use among minors**<sup>44</sup> in three states (Colorado, Washington State and Alaska). In one state, Oregon, where the opening of the market boosted supply to the extent that it exceeded demand, use has increased among minors (see Figure 3, p.13).

**With regard to adults, there is a consistent upward trend.** In all states affected by legalisation, cannabis use has increased among young adults (18-25-year-olds)<sup>45</sup>, sometimes to an overwhelming extent: +20% users in two years in Washington State, as observed in the month preceding the survey. There is an even more pronounced increase after the age of 25 (+32% in Washington State, +16% in Colorado for use in the last month), especially among seniors. However, it is important to be careful when interpreting these increases, as users may now be more open in reporting patterns of use that were illicit before legalisation and that they had therefore partly hidden until now.

Overall, in all states that have legalised the substance, **the proportion of young adults who have used cannabis has increased much faster than the federal average**, reaching a record level in some states (up to 33% of users in the month in Oregon). This population includes both young people aged 21 to 25, who can access legal cannabis, and those aged 18-20, who are under the legal age. Oregon now ranks first among American states for recent use across all age groups (12-17-year-olds; 18-25-year-olds; over 26-year-olds), ahead of Colorado. In addition, there tends to be an increase in use by some vulnerable groups, particularly during pregnancy (in Colorado)<sup>46</sup>.

### *Health accidents and acute intoxications*

Besides prevalence of use, the **increase in the number of instances resulting in a trip to the emergency room after acute cannabis intoxication** is one of the most significant social and health consequences. In the top two states most affected by cannabis legalisation, this is an unanticipated impact of legalisation: with a lack of information

42. For example: 13% of the cannabis market in California and 17% in Nevada, according to the regulatory authorities.

43. Data produced by the Substance Abuse and Mental Health Services Administration (SAMSHA).

44. The indicators used refer to consumption in the last year and in the last month.

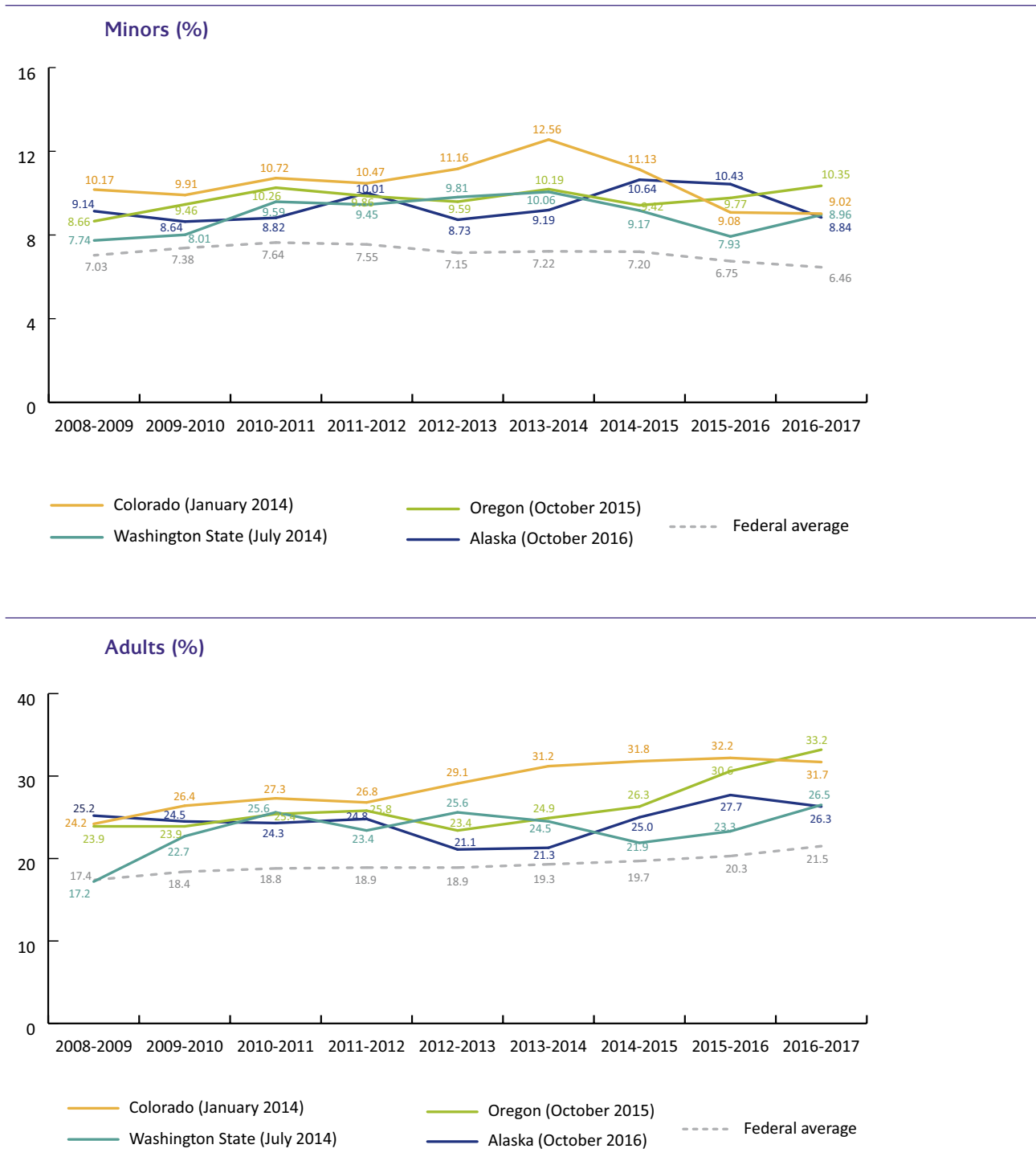
45. Without distinguishing between under 21s (for whom access to legal cannabis remains banned in theory) and those between 21 and 25 years of age.

46. Source: CDPHE, 2018 (primary source: PRAMS survey: Pregnancy Risk Assessment Monitoring System).



on the delay of the impact of new forms of cannabis (particularly food products, the effects of which only appear after 30 minutes), cases of excessive cannabis use have been identified, particularly among tourists or former users (who were surprised that they had taken a high dose of cannabis). However, cannabis results in urgent hospitalisation ten times less often than in the case of alcohol. To a lesser extent, cases of accidental ingestion have been reported among children (under 10 years of age). These acute episodes mainly involve food products (infused with cannabis) and/or highly dosed products (dabbing).

Figure 3. Evolution of cannabis use in the month prior to the survey, by age group



## Are we moving towards a “normalisation” of cannabis?

Analysis of official sources also shows a **decrease in the perceived risk** associated with cannabis use (Estoup *et al.*, 2016), an **increase in the number of people driving after using cannabis** (most often taken with alcohol)<sup>47</sup> and a **decline in treatment demands, particularly among younger people** in the states of Colorado and Washington<sup>48</sup>. This indicates some “normalisation” of cannabis, especially among the younger generations.

## Pesticide-related risks and environmental effects

Finally, as a result of the persistent federal ban, a “new” public health issue has arisen with regard to the **environmental impact** and **health risks associated with pesticides** used in the industrial cultivation of cannabis. Cannabis grown legally therefore continues to escape quality control since the institution responsible for setting food safety standards (the Food and Drug Administration) has federal jurisdiction.

## RENEWED DRUG-RELATED CRIMINALITY AND PERSISTENCE OF THE BLACK MARKET

Five years after the market opened in Colorado and Washington State, the number of arrests for using and possessing cannabis has naturally decreased. Nevertheless, the number of arrests has increased among minors (where control on the cannabis ban has been tightened) and among the most disadvantaged sectors of the population (especially racial minorities), in Colorado, Washington State and Oregon (Darnell and Bitney, 2017; Firth, 2018). Contrary to the objective claimed by those in favour of the legalisation of cannabis, **it has not reduced racial disparities in arrests** (ACLU data for Washington State). More generally, the reform has made it possible to redirect law enforcement services and judges in a context where cannabis use offences accounted for more than half of all arrests for drug-related offences.

Little impact has been observed in terms of public safety, apart from the increase in sui generis criminality in the first months of the reform’s implementation in Colorado (burglaries due to the large amounts of cash being stored because of restricted access to the federally controlled banking system).

At this stage of the reform’s implementation, it can be noted that trading still occurs within the black market, which is estimated to represent around 30-40% of demand, depending on the state. However, the decline in the price of legal cannabis seems to be competing with the black market which, in the early years of the reform, still existed because of its competitive advantage when it came to price. This continued trade within the black market can be explained by under 21s who want to procure the substance and the development of export channels beyond the borders of the states where cannabis has been legalised, targeting users residing in states where there is still a federal ban.

Several indicators demonstrate that **there is still cannabis-related crime**: a sharp increase in the number of seizures of cannabis plants in States that have legalised the substance; an increase in the number of arrests for trafficking cannabis (produced legally or illegally, or imported). Legalisation has therefore generated a new form of criminality, associated with trafficking cannabis (and its derivatives), on both a small and large scale, which is produced to be exported to states where the federal ban remains.

To date, it appears that transnational criminal groups’ activities have not been fundamentally jeopardised by the legalisation of cannabis. These criminal groups are still heavily involved in the cannabis black market and are starting to traffic other substances (heroin and methamphetamine) to compensate for the economic losses caused by their market partly drying up.

## DISCUSSION POINTS AND NEW CONTROVERSIES

Like the oppositions in campaign arguments, the analysis of the “results” of legalisation gives rise to disputes over differences in interpretation, particularly around official figures.

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47. Source: Fatality Analysis Reporting System (National Highway Traffic Safety Administration), 2012, 2015, 2017 data.

48. Source: NSDUH, SAMSHA.

## **Impact on road safety**

The **impact of legalisation on road safety** is a typical example of these differences in interpretation. Some say that the legalisation of cannabis has not had an impact on road deaths and has even contributed to a decrease in the number of road accidents. On the contrary, others argue that legalisation has increased the number of accidents, although it is not possible to determine the specific proportion of cannabis-related accidents in a road accident table that remains dominated by alcohol. Moreover, these developments do not always take into account the more rigorous screening process and the improved preventative controls in some counties. Finally, the legal limit for cannabinoids varies from state to state (see Table 2, p.21) and are not always easily detected by the available screening tools. For example, early statistics for the state of Nevada show that the number of deaths from road traffic accidents has not increased since cannabis was legalised (305 in 2017, compared to 329 in 2016, a decrease of nearly 10%). However, it is difficult to say that cannabis has reduced the number of road accidents because other laws and regulations on road safety were established during this period. Across Colorado, Washington State and Nevada, the results come together to show that the proportion of deaths related to driving under the influence has decreased significantly (up to one-third in some counties and 45% on average in Nevada).

## **Are we moving towards Big Marijuana? Fears of market concentration**

Among public health stakeholders, the implementation of a commercial model for selling cannabis, supported by private operators, seems to be considered by most people as a model that is not to be followed. The **fear of market concentration leading to the monopoly of Big Cannabis** (after Big Tobacco and Big Pharma) is regularly mentioned and boosted by the international merger and acquisition movement in the cannabis production sector. Speeches at the second North American Cannabis Summit<sup>49</sup> in January 2019 emphasised that “regulation” has, in practice, been more of a slogan than a reality. According to a large majority of participants, including regulatory authorities, the development of the market does not currently seem to be really controlled and it could ultimately have counter-productive results: given the drop in prices, the increase in the average concentration of products on sale and advertising rules being bypassed (for example via the free press or roadside advertising), the increased access to an increasingly wide range of products and, for some, potentially toxic products, involves “new risks”.

## **Cannabis markets: competition between “recreational” and “medical” cannabis?**

In addition, one of the objectives of the reform, which was to use the legalisation of recreational use as a basis for **regaining control of the medical cannabis market**, seems far from being achieved. In some states, the legalisation of recreational cannabis even partly “disadvantaged” patients being treated with cannabinoids who found it harder to procure the substance. Similarly, the argument that “legalisation will make prevention more effective”, presented by those in favour of legalisation, has remained, at this stage, theoretical. Colorado has implemented a poster campaign targeting cannabis-based food products (“start low, go slow”), with prevention funds that are disproportionate to the profits made from legalisation, as they do not exceed one quarter of the tax revenue received, in any of the states.

## **Citizens’ equality and social justice**

Finally, one of the arguments for legalisation was **social justice** and eliminating social and racial disparities in arrests. Yet, a study conducted on behalf of cannabis manufacturers<sup>50</sup> found that 81% of cannabis business owners or founders were white, compared to only 4% of African Americans. More generally, five years after the reform, one of the recurring points of debate is the fact that the legalisation of cannabis has benefited certain sectors of the population. Several associations point out that “cannabis entrepreneurs” are mainly men, white, educated and from well-off social backgrounds, meaning they have the financial means to enter the market. To combat inequality of market access opportunities, a positive discrimination approach has therefore been put in place in the most recent states to be legalised. For example, in California, the municipality of Oakland<sup>51</sup> has a licensing programme in place that gives priority to people convicted of a cannabis offence or residing in a neighbourhood with racial disparities in their arrests. Similarly, in Oregon, a specific programme has been developed to help women break into the cannabis market (The Initiative).

49. It is now the only conference on the subject organised by public health stakeholders in North America that is not funded by the cannabis industry.

50. Marijuana Business Daily.

51. The criteria to be part of the “fair” programme are: to have been arrested after 5 November 1996 and convicted of a cannabis offence, or to have lived in 1 of 21 neighbourhoods in eastern and western Oakland where there were the highest statistics for cannabis-related arrests. It is also necessary to earn less than 80% of the city’s median income, or \$52,650 for a single individual (Department of Race and Equity).

### ***Lack of regulation at the federal level***

Another point of debate is related to the many **practical problems posed by the lack of a federal framework**: the difficulty for cannabis companies to open a bank account and for users to pay for their purchases by credit card and to benefit from warranties for their purchases; a lack of regulation of cannabis production in terms of pesticides and pollutants; differences in the health warnings provided in each state (non-standard logos and messages that do not encourage you to notice and remember warnings).

### ***Developing research on cannabinoids to create well-informed public action***

In general, all the practitioners stressed the **lack of knowledge about the effects of the various cannabinoids** (particularly CBD), especially in the long term (lack of cohort studies) and when highly dosed (in the case of products with a high THC content in particular).



## CONCLUSION

Developments in cannabis-related public policies have **increased** significantly **since 2012**, with the first initiatives to legalise the sale of cannabis for “recreational” use taking place in the United States – the very country that launched the “war on drugs” in 1971 – before Uruguay and Canada. After several decades of it being banned, by June 2019, two thirds of American states had legalised the medical use of cannabis and one in five had authorised its recreational use.

This significant change in policy is explained by **three contextual factors**. Firstly, the **election of Barack Obama as President of the United States in 2008**, which saw a reversal in US policy<sup>52</sup>: while the sale and possession of cannabis remained prohibited at federal level, including for medical purposes, the Obama administration brought about changes in the US position by means of two implementing decrees addressed to prosecutors, encouraging them to end repressive measures against dispensaries distributing cannabis for medical use in 2009 (Ogden Memo<sup>53</sup>) and then in 2013 (Cole Memo<sup>54</sup>). This sign of openness was reinforced by the absence of federal reprisals against states that have legalised the substance since 2012<sup>55</sup>. Secondly, this change took place in the context of **international discussions on the cost and effectiveness of anti-drug use policies**, on a US scale, but also in Latin America (particularly Uruguay, which legalised cannabis in December 2013) and in Europe. This context enabled a dialogue conducive to this change to be sustained: this is accredited by the publication of the report issued by the Global Commission on Drug Policy, then by the extraordinary session of the United Nations General Assembly (UNGASS) in April 2016, which noted the “failure of the war on drugs”. Lastly, the **context of the economic deficit and public financial crisis** enabled supporters of legalisation to justify their proposals for reform, based on tax revenue arguments.

Despite manufacturers’ fears, the Trump administration has not questioned the initiatives to legalise the recreational use of cannabis, which the public are now widely in favour of<sup>56</sup>. Although the directive (Cole Memo) protecting states that have legalised federal prosecutions was revoked in January 2018, President Donald Trump approved an amendment to the Amending Finance Act in September 2018 that prevents federal prosecutors from incurring prosecution costs against states that have legalised use of the substance<sup>57</sup>. In 2018, he also signed the Farm Bill, which removed hemp (defined as containing less than 0.3% THC) from the list of controlled substances, opening up new opportunities for diversifying supply for the emerging cannabis industry.

With some states reaping a tax revenue of several hundred million dollars a year (\$266 million in Colorado and \$367 million in Washington State)<sup>58</sup>, the issue of the legalisation of cannabis has changed. It is now **more a financial and industrial issue** than a political and diplomatic one. The opening of the legal cannabis market in California in 2018, in an economy 50 times the size of that of Colorado, has taken it to a new scale. At this stage, the implementation of the reform in California remained below the predictions made for the first year (limited number of licensed shops, administrative delays, sales figures considerably lower than estimates) but the prospects for the growth of “cannabusiness” will be interesting to monitor in view of the market dynamics generated by the legalisation of cannabis in Canada, a neighbouring country, this time at the federal level (Obradovic, 2018a).

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52. In the same way as for the budget priorities of the anti-drug policy back in 2011: for the first time in 40 years, prevention credit has increased more than for repression.

53. The Ogden Memo, named after Deputy Attorney General David W. Ogden, indicated that prosecuting patients and caregivers who “clearly and unequivocally” comply with their state’s law would not be a federal priority.

54. The Cole Memo, named after Deputy Attorney General James Cole, recommended that federal prosecutors do not prosecute companies that comply with the ban on selling to minors and on using and manufacturing on federal territory.

55. Conversely, a memo noted the apparent contradiction between federal prohibition and the initiatives for legalisation in Colorado and Washington State (Memo dated 29 August 2013).

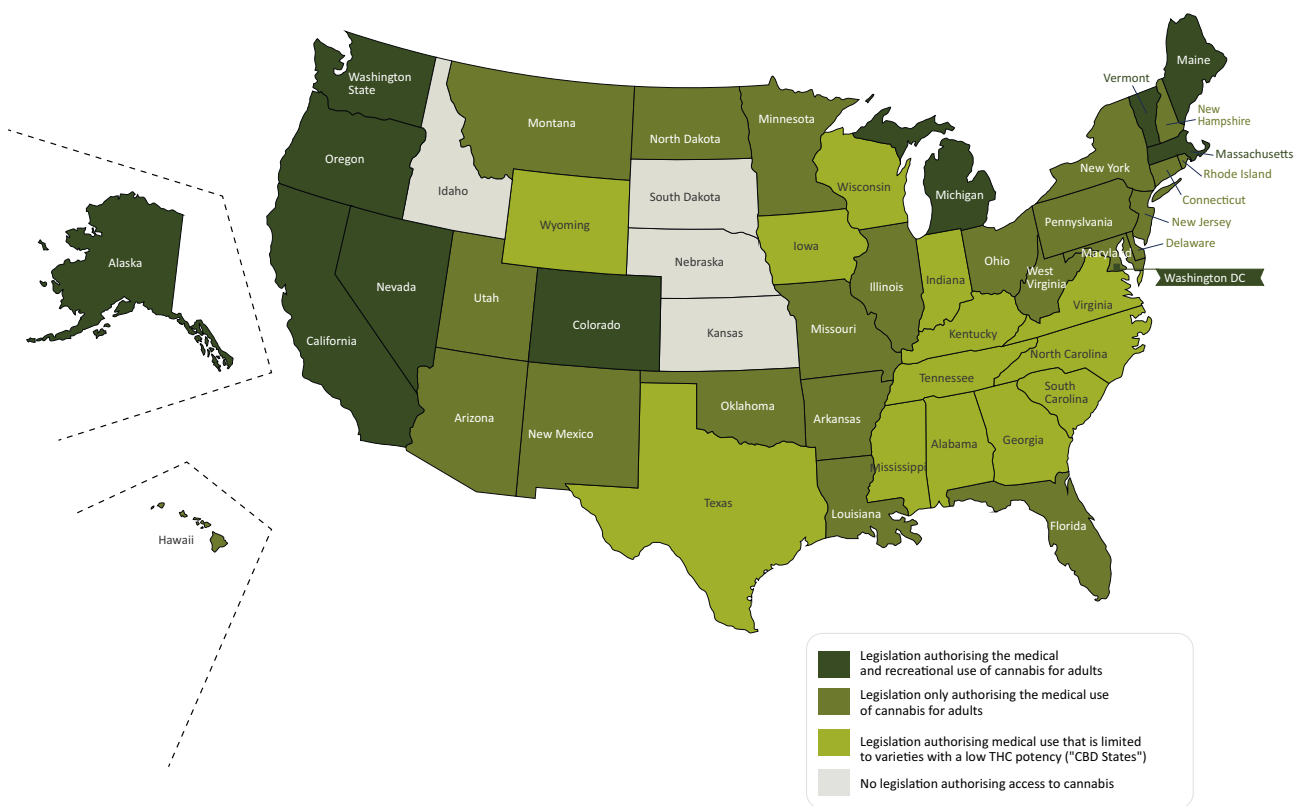
56. In 2018, 66% of the American population supported the legalisation of recreational cannabis, according to a Gallup survey that has been conducted since 1969 (12% when it was first conducted, 36% in 2006, 50% in 2012 and 58% in 2015). Over half of Republican voters had a favourable opinion in 2017.

57. Rohrabacher-Farr amendment, renamed Rohrabacher-Blumenauer.

58. Including licensing fees and excluding taxes related to medical cannabis.

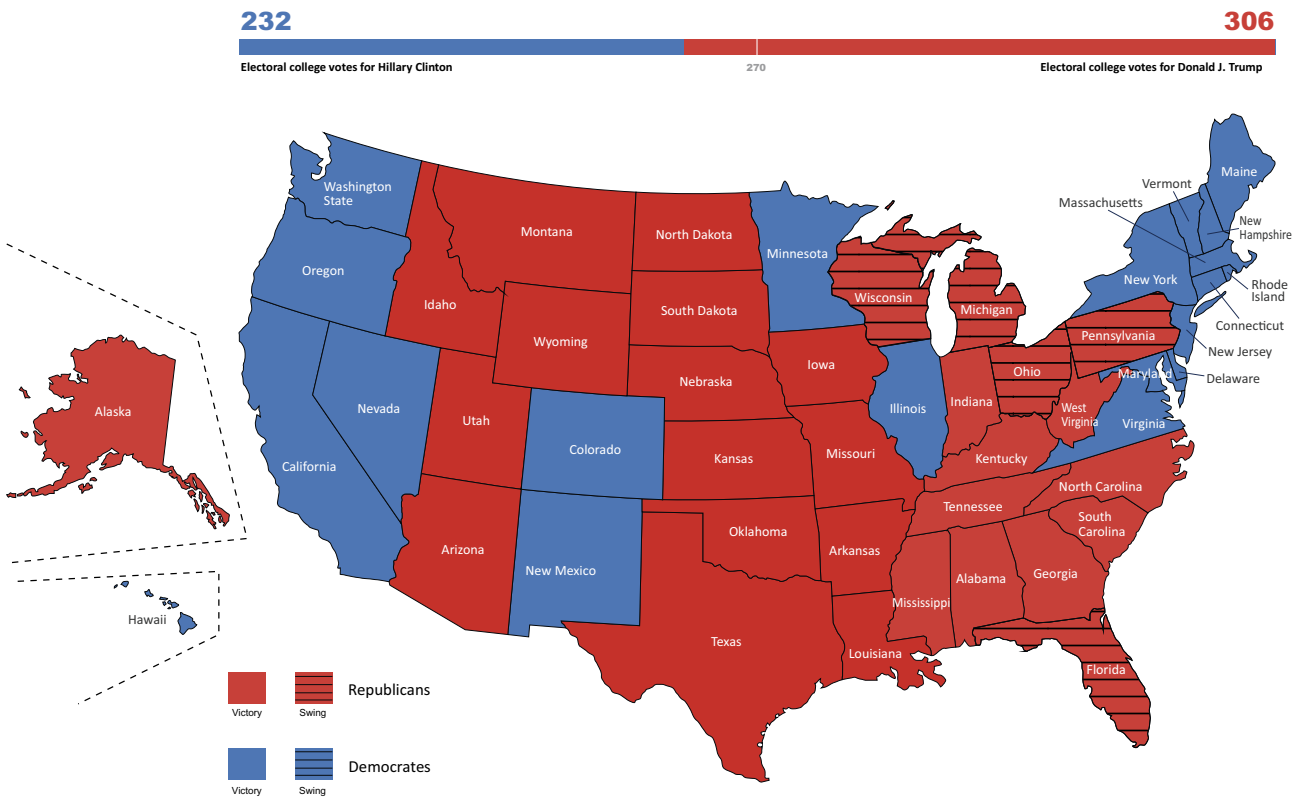
# APPENDICES

Map 1 - Status of legislation on recreational and medical cannabis use and sale (updated in April 2019)



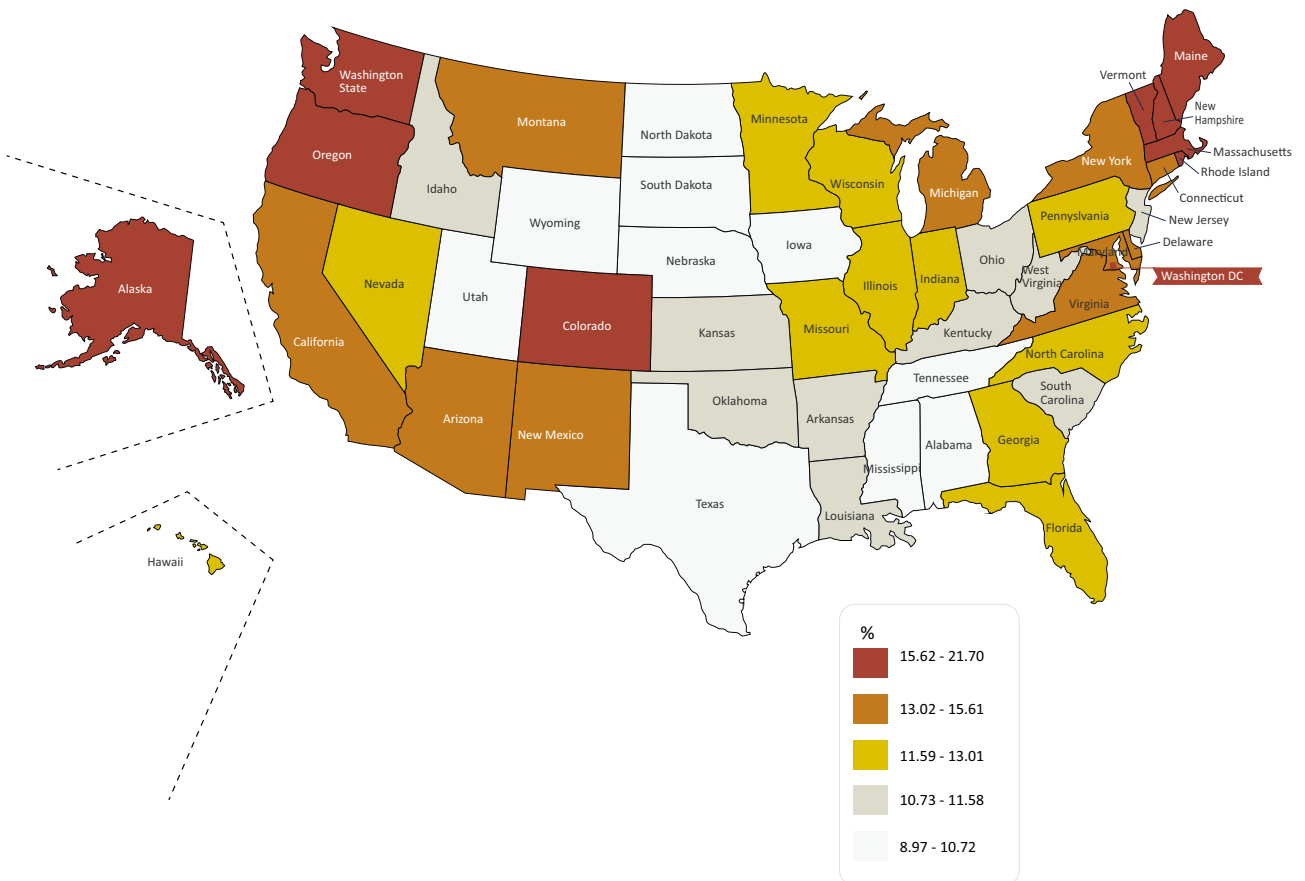
Source: OFDT 2019

Map 2 - Results of the last presidential election (8 November 2016)



Source: Federal Election Commission

Map 3 - Last-year cannabis use in the population aged 12 years and over prior to implementation of the reform (2013-2014)



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2013 and 2014 (processed by OFDT 2017)

Table 1. Overview of cannabis status and conditions for legal access by state

Decriminalisation of the possession of "small quantities" of cannabis		Legalisation of medical cannabis				Legalisation of recreational cannabis				
Date	Authorised possession limit in ounces (equiv. grams)	Date	Votes in favour in the referendum (%)	Authorised possession limit in ounces (equiv. grams)	Authorised home-cultivation limit (number of plants)	Date	Votes in favour in the referendum (%)	Authorised personal quantity (ounces)	Home-cultivation (authorised maximum limit)	
Colorado	1975	1 oz (28.4 g)	2000	54	2 oz (≈ 57 g)	6 (including 3 mature plants)	2012	55	1 oz (28.4 g) (0.25 oz ≈ 7 g for non-residents)	Authorised 6 plants per adult (including 3 mature plants) 12 plants per household
Washington State	-	-	1998	59	24 oz (≈ 680 g)	15	2012	56	1 oz (28.4 g)	Prohibited
Oregon	1973	1 oz (28.4 g)	1998	55	24 oz (≈ 680 g)	24 (including 6 mature plants)	2014	56	1 oz (28.4 g) (8 oz ≈ 227 g at home)	Authorised 4 plants
Alaska	1975	4 oz (≈ 113 g) at home	1998	58	1 oz (28.4 g)	6 (including 3 mature plants)	2014	53	1 oz (28.4 g)	Authorised 6 plants
Washington DC	-	-	2010	Unanimous 13 to 0	Limits to be defined	2 (dried)	2014	70	2 oz (≈ 57 g)	Authorised 6 plants per adult (including 3 mature plants) 12 plants per household
California	1976	1 oz (28.4 g)	1996	56	8 oz (≈ 227 g)	6 mature plants or 12 immature	2016	56	1 oz (28.4 g) 4 g (concentrated)	Authorised 6 plants
Nevada	2002	1 oz (28.4 g)	2000	65	1 oz (28.4 g)	7 (including 3 mature plants)	2016	54	1 oz (28.4 g) 3.5 g (concentrated)	Authorised 6 plants per adult 12 plants per household Within 25 miles (40 km) from a retail store
Maine	1976	1.25 oz (≈ 35 g)	1999	61	3 oz (≈ 71 g)	6	2016	50	2.5 oz (≈ 71 g)	Authorised 6 plants per adult 12 plants per household
Massachusetts	2006	1 oz (28.4 g)	2012	63	60 days of use		2016	54	1 oz (28.4 g) 5 g (concentrated)	Authorised 6 plants per adult 12 plants per household
Vermont	2013	1 oz (28.4 g)	2004	Vote of the legislature	2 oz (≈ 57 g)	9	2018	Vote of the legislature	1 oz (28.4 g)	Authorised 2 plants (+ 4 non-mature plants)
Michigan	-	-	2008	63	2.5 oz (≈ 71 g)	12	2018	56	2.5 oz (≈ 71 g)	Authorised 12 plants per household



Table 2. Legal conditions for accessing cannabis for "recreational" use in American states that have opened a legal market (updated in April 2019)

	COLORADO	WASHINGTON STATE	OREGON	ALASKA	WASHINGTON DC	NEVADA	CALIFORNIA	MASSACHUSETTS	MAINE	VERMONT	MICHIGAN
Entry into force of the retail sale	1 <sup>st</sup> January 2014	8 July 2014	1 <sup>st</sup> October 2015 (dispensaries) then October 2016 (stores)	29 October 2016	Prohibited	1 <sup>st</sup> July 2017 (dispensaries) then 1 <sup>st</sup> January 2018 (stores)	1 <sup>st</sup> January 2018	November 2018	End of 2019	Prohibited	2020
Regulatory body	Marijuana Enforcement Division (MED) Department of Revenue	Liquor & Cannabis Board (LCB)	Oregon Liquor Control Commission (OLCC)	Alcoholic Beverage Control Board (ABCB) then Marijuana Control Board (created in May 2015)	Department of Consumer and Regulatory Affairs (licences) Department of Health (aliments)	Department of Taxation	Bureau of Cannabis Control	Cannabis Control Commission	Department of Agriculture, Conservation and Forestry (State licensing authority)	Cannabis Control Board	Bureau of Marijuana Regulation
Authorised personal quantity (ounces)	1 oz (28.4 g) for residents 0.25 oz (7 g) for non-residents	1 oz (28.4 g)	1 oz (28.4 g) (8 oz ≈ 227 g at home)	1 oz (28.4 g)	2 oz (≈ 57 g)	1 oz (28.4 g)	1 oz (28.4 g)	1 oz (≈ 28.4 g) (10 oz ≈ 283 g at home)	2.5 oz (71 g)	1 oz (28.3 g)	2.5 oz (71 g) (10 oz ≈ 283 g at home)
Home-cultivation (authorized maximum limit)	Authorised 6 plants per adult (including 3 mature plants) 12 plants per household	Prohibited	Authorised 4 plants	Authorised 6 plants per adult (including 3 mature plants) 12 plants per household	Authorised 6 plants per adult (including 12 plants per household)	Authorised 6 plants per adult 12 plants per household	Authorised 6 plants	Authorised 6 plants per adult 12 plants per household	Authorised 6 plants (immature)	Authorised 2 plants (+ 4 immature plants)	Authorised 12 plants per household
Retail sales	569 retail stores	505 retail stores Capped at 334 (556 including dispensaries)	629 retail stores	83 retail stores	Prohibited	53 retail stores	646 temporary retail stores	218 applications from dispensaries, currently being considered Capped at 75	Not yet in force	Prohibited	Not yet in force

	COLORADO	WASHINGTON STATE	OREGON	ALASKA	WASHINGTON DC	NEVADA	CALIFORNIA	MASSACHUSETTS	MAINE	VERMONT	MICHIGAN
Manufacturing and packaging	720 production licences 279 licences for manufacturing cannabis products (product manufacturers)	1,185 production licences (producer) 1,211 processing licences (processor) including mixed licences (producer-processor)	823 production licences (producer) 133 processing and packaging licences (processor-manufacturer)	217 production licences (marijuana cultivation facility) 25 licences for manufacturing cannabis products (product manufacturing)	0 licence for recreational cannabis production (medical cannabis only)	92 production licences 65 processing-packaging licences	Specific feature: no residency requirement	Capped at 75 licences			
Cannabis products: authorised doses	1 oz maximum (≈ 250 chocolate bars with 120 mg of cannabis or 380 sodas with 75 mg)	Solids: 16 oz Infused with cannabis: 72 oz (≈ 6 12-oz sodas) Cannabis extract: 7 g	Solids: 1 lb (≈ 450 g) Infused with cannabis: 72 oz (≈ 6 12 oz sodas) Cannabis extract: 1 oz	maximum of 5 mg of THC	Prohibited	1/8 oz (3.5 g) of "marijuana concentrate"	1/4 oz (8 g) of "marijuana concentrate"	5 g of "marijuana concentrate"	5 g of "marijuana concentrate"	Prohibited	15 g of "marijuana concentrate"
Driving under the influence (legal limit)	5 ng of THC/ml of blood	5 ng of THC/ml of blood	To be set by the 2017 Legislature	Zero tolerance	Zero tolerance	2 ng of THC/ml of blood	Zero tolerance	Zero tolerance	Zero tolerance	Awaiting reliable saliva tests	No legal limit
Sales taxes (sales + excise taxes)	30% (28% at first)	37%	17-20% By county and municipality	25% (tax on quantities produced)	Not applicable	25%	15%	17-20% By municipality	10%	Not applicable	16%

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