Chapter I.

Analysis of the trend to legalize the non-medical use of cannabis

1. Over the last decade, a growing number of States have pursued policies with the aim of allowing and regulating the use of drugs, in particular cannabis, for non-medical and non-scientific purposes. Permitting and regulating the production, manufacture and distribution of, trade in, and use and possession of drugs for purposes other than medical or scientific purposes is commonly called “legalization” or, in some cases, the “regulated market”. In its annual report for 2018, the International Narcotics Control Board (INCB) devoted special attention to the risks and benefits of the medical use of cannabis and cannabinoids. The present chapter focuses on the trend of legalizing the non-medical use of cannabis.

2. This legalization began a decade ago in the Americas and is now manifesting itself in Europe and other regions. While Asia and Africa have not yet been as widely affected, recent developments in South Africa and Thailand may portend changes to come. The number of States having formally legalized drug use is still small in relation to the total number of States worldwide, but it is understood that a number of Governments are considering following this path in the near future.

A. Cannabis: current challenges for States and society

3. The question of how to deal with cannabis and cannabis-related substances, their increasing consumption and supply and the related consequences and problems is a controversial issue which has occupied a large space in the international drug control discussion in recent years.

4. Cannabis has long been the world’s most widely used illicit drug. In 2020, approximately 209 million people used cannabis, representing 4 per cent of the global population. Over the past decade, cannabis cultivation has trended upward, and the number of people who use cannabis has risen by 23 per cent. Prevalence of cannabis use varies widely by region and is highest in North America, Oceania and West Africa.

5. The illicit cultivation, production, trafficking and use of cannabis affects all regions. Production of cannabis, originally destined for internal markets and concentrated in certain developing countries, has shifted to a more globalized form of production, as now found in virtually every country. While the scope of illicit cannabis production is extensive and impossible to accurately estimate because the substance is illicitly produced in every region, cultivation was reported either through direct indicators (such as cultivation or eradication of plants or eradication of production sites) or indirect indicators (such as seizure of plants and reports on origin of seized cannabis) by at least 154 countries in the period 2010–2020. If qualitative information on indoor and outdoor cannabis cultivation trends is also included, the number increases to more than 190 countries and territories. Seizures of cannabis and cannabis resin increased in 2020 to 4,707 tons and 2,190 tons respectively (15 and 29 per cent increases over 2019, respectively).

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1 E/INCB/2018/1, chap. I.


4 World Drug Report 2022, booklet 3.
6. New methods of production have been developed, and extraction and isolation techniques have been improved. In 2019 and 2020, a growing number of countries reported increased indoor cannabis cultivation, which appears to have outpaced outdoor cultivation at the global level.

7. The average content of the main psychoactive constituent of cannabis, delta-9-tetrahydrocannabinol (delta-9-THC), in cannabis products has steadily increased in recent years. In Europe, the delta-9-THC content of cannabis increased between 2010 and 2019 by 40 per cent and that of cannabis resin nearly tripled. In the United States of America, the average delta-9-THC content of cannabis has risen from 3.96 per cent in 1995 to 16.16 per cent in 2018, and in cannabis concentrates it has risen from 13.23 per cent in 1995 to 60.95 per cent in 2018. New forms of cannabis products with a high delta-9-THC potency have appeared, namely edibles, vaping products and other products, in some cases marketed and packaged in ways that appeal to children and adolescents. Cannabis is easily available in many parts of the world and socially accepted to an increasing degree in some regions. This is linked with a decreasing perception of the risks of cannabis use.

8. Synthetic cannabinoids, which are generally far more potent than their natural counterparts, are used as an alternative to cannabis. Because their short- and long-term adverse effects are still widely unknown, use of synthetic cannabinoids may potentially have elevated risks and harms.

9. The growing availability and potency of cannabis products available on the illicit markets poses an increasing health risk. The demand for treatment of cannabis use disorders has increased considerably. Between 2000 and 2018, global admissions related to cannabinoid dependence and withdrawal were up more than eightfold. Admissions for cannabis-related psychotic disorders more than quadrupled worldwide. In Africa, cannabis accounts for most drug treatment demands, a far higher proportion than in any other region.

10. A growing number of countries have approved the use of cannabis for medical purposes and have allowed the cultivation and manufacture of cannabis and cannabis-related substances for medical purposes in their territories. In some cases, possibly due to the novelty of the programmes, these were implemented without due consideration of the provisions that regulate the cultivation of cannabis for medical purposes under the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol. INCB has engaged in a continuous dialogue with Governments on the harmonization of standards for reporting and monitoring the cultivation, production and manufacturing of, trade in, and consumption of cannabis and cannabis-related substances for medical and scientific purposes occurring on their territories.

11. At the same time, in many places, there are misconceptions concerning the use of cannabis for medical purposes. Household cannabis cultivation and the home production of extract preparations for self-medication can contain herbicides and/or other poisonous substances. As the amount of cannabinoid is unknown, it is not possible to determine the dosage. Therefore, home cultivation and production of cannabis extracts for self-medications might be dangerous.

12. The quickly expanding cannabis industry and other business interests have striven for lifting the controls on cannabis use with a view to making a commercial profit. This has contributed to the normalization and trivialization of cannabis use and, consequently, to reduced perceptions of harm associated with cannabis consumption.

13. Criminal organizations linked with large-scale illicit production and trafficking have benefited from the expanding demand for cannabis.

14. The classification of cannabis and cannabis-related substances within the international drug control system has been discussed at the political level for several years. Some civil society groups and some Governments have called for cannabis and cannabis-related substances to be rescheduled under the international drug control conventions or even fully removed from international control, which would effectively amount to the legalization of cannabis, leaving each country to decide on applicable controls and restrictions to access and use.

15. All these issues are perceived as important challenges by many Governments and by the international community. Many Governments are unsure about the continued relevance of controls in their own country, find it difficult to implement related policies and in some cases are looking for alternative solutions, namely legalizing the non-medical use of cannabis.

16. This trend represents a growing challenge for the international community, mainly for the States parties to the
international drug control conventions, which stipulate that, subject to the provisions of those conventions, any kind of drug use must be limited to medical and scientific purposes and that any use contrary to the provisions of the conventions should be treated as “punishable offences”.

**B. Policy and legislative developments related to use and control of cannabis**

17. Over the last decades, drug control policies have changed considerably, with respect to drugs in general but particularly with respect to cannabis. While drug policy was once primarily focused on interdiction and law enforcement with the aim of reducing drug supply in order to prevent drug use, in the 1980s and 1990s States began to recognize drug use and dependence as an issue primarily related to health. More attention was given to the reduction of drug demand through prevention, treatment and rehabilitation, in accordance with article 38 of the 1961 Convention as amended. In many countries, drug demand reduction programmes were complemented by measures to mitigate the adverse health and social consequences of drug use.

18. At the same time, several States have shifted their policies with respect to the prosecution of offences related to personal non-medical use of internationally controlled drugs: a growing number of States have chosen not to criminalize or not to penalize non-medical use of drugs under certain conditions. While prohibiting non-medical use in principle, they have reclassified minor offences, in particular the possession of small quantities for personal use, from “criminal” to “non-criminal” through legislative action (“decriminalization”) and refrain from punishment for these minor offences, replacing punishment and conviction with alternative measures, namely measures of education, prevention and treatment. The most prominent example of this approach is the reform carried out in Portugal in 2001. Other States refrain from imposing criminal sanctions, adopting mechanisms such as the broadening of prosecutorial discretion, allowing for police diversion practices or “tolerating” unlawful behaviour (“depenalization”). The concept of “depenalization”, which has often been used as synonymous with “decriminalization”, in particular in French- and Spanish-speaking States, describes a situation in which there is a reduction in the use of criminal sanctions against a criminal offence, which does not require changes to the law as in the case of decriminalization.  

Legalization, decriminalization and depenalization: definitions

While the conventions themselves do not define the concepts of “legalization”, “decriminalization” or “depenalization”, these terms are commonly used by Governments and other stakeholders in the international drug control discourse.

Policies that remove criminal sanctions for personal drug use and minor drug offences are commonly called “decriminalization”. This concept refers to the process through which an offence is reclassified from “criminal” to “non-criminal” through legislative action.

The term “depenalization” is used less frequently. It also refers to the removal of criminal sanctions for certain conduct involving controlled substances. In contrast to “decriminalization”, the concept of “depenalization” describes a situation in which the behaviour in question remains a criminal offence but in which there is a reduction of the use of existing criminal sanctions, and therefore does not require changes to the law, unlike decriminalization. Accordingly, a depenalization approach may include the adoption of mechanisms such as police diversion practices, conditional sentences and the widening of prosecutorial discretion as an alternative to criminal prosecution. “Depenalization” has frequently been considered to be synonymous with “decriminalization”, in particular in French- and Spanish-speaking States, however, the Board considers the two to be distinct concepts.

These concepts should be distinguished from policies and national legal frameworks that explicitly permit the non-medical and non-scientific supply and use of internationally controlled substances and entail no penalty, whether criminal, administrative, civil or otherwise, for the personal use or possession of a particular substance. This is commonly referred to as “legalization” or, in some countries, a “regulated market”.

19. In the past 20 years, a growing number of countries from all parts of the world have started to use cannabis and cannabis extracts for medical purposes, and many States have regulated the medical use of cannabis. Accordingly, global production of cannabis has seen a huge increase, amounting to 468.3 tons recorded in 2019 and 650.8 tons in 2020. The 1961 Convention as amended classified cannabis plant, cannabis resin and extracts and tinctures of cannabis as substances that are highly addictive and liable to abuse (Schedule I). Moreover, cannabis plant and cannabis resin were originally considered to be particularly

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11E/INCB/2021/1, para. 378.

12Ibid., para. 148.
liable to abuse and to produce ill effects, and rarely used (Schedule IV). In 2018, WHO carried out a critical review of cannabis and cannabis-related substances and came to the conclusion that these substances can have a therapeutic value. Following the recommendation of WHO, the Commission on Narcotic Drugs decided in December 2020 to remove cannabis and cannabis resin from Schedule IV of the 1961 Convention as amended but to keep it in Schedule I. The 1961 Convention (in its article 28) allows States parties to cultivate and use cannabis for medical purposes under certain conditions. The Convention requires that States license and control cannabis production for medical use, establish a national cannabis agency, provide estimates of the national requirements for cannabis for medical purposes and ensure that medicinal cannabinoids are used in accordance with evidence on their safety and effectiveness and under medical supervision. As far as the specific control measures for cannabis are observed, these medical cannabis programmes are in compliance with the conventions. However, in some States “medical cannabis programmes” are operated without the necessary control required by the conventions or by the standards recommended by WHO in relation to good manufacturing and good prescribing guidelines.

20. In the last 10 years, some States have formally 
legalized the non-medical use of cannabis. This trend, first established in the Americas, has spilled over to Europe. In Africa and Asia, most Governments currently do not follow that approach.

21. The first country to legalize non-medical cannabis use was Uruguay, in 2013.15

22. Canada provided legal access to cannabis and regulated its production, possession, distribution and sale through the Cannabis Act in October 2018.16

23. In 2012, two states of the United States – Colorado and Washington – enacted laws to regulate the non-medical use of cannabis, following ballot initiatives. Beginning in the 1970s, several States have liberalized their cannabis laws, reducing or removing criminal penalties for possession of small amounts of cannabis. From the 1990s on, many states of the United States introduced laws which allowed the medical use of non-standardized cannabis for medical indications. As at 1 November 2022, 19 states, the District of Columbia and two territories have adopted laws on recreational use of cannabis. It is important to note that under the federal law of the United States, cannabis is still a Schedule I substance, which are substances considered to have a high potential for dependency and no accepted medical use, making possession and distribution of cannabis a federal offence.

24. In Mexico, the Supreme Court ruled in 2018 that the law prohibiting recreational use of cannabis in Mexico was unconstitutional. The court found that adults have a fundamental right to personal development which lets them decide their recreational activities without interference from the State. In May 2022, the Supreme Court of Justice of Mexico ruled that the General Health Law of Mexico, which allows the possession of no more than 5 grams of cannabis for personal consumption, was invalid. The Supreme Court stated that the criminal prosecution of a person who uses drugs is punishment for possession and is not justified because such possession is within the sphere of personal privacy.

25. In 2015, Jamaica amended its Dangerous Drugs Act to remove criminal penalties for personal use and possession of up to 57 grams of cannabis and for possession of any quantity for religious purposes for “sacrament in adherence to the Rastafarian faith”.21

26. In Europe, Malta is the first country to allow cultivation and possession of small amounts of cannabis for personal use. In December 2021, the Parliament of Malta
adopted a law on cannabis\(^\text{22}\) which allows persons over 18 years of age to grow at home up to four plants per household. Some elements of the law have not yet been implemented.

27. Other States in Europe have taken steps and measures to legalize cannabis use, including the following:

\(a\) In June 2022, the Government of Luxembourg released the details of a draft law that would allow adults to grow up to four cannabis plants at home for “recreational” purposes. Non-medical consumption at home would also be allowed;

\(b\) In Germany, the Government presented, in October 2022, the outline of a law that will regulate the controlled distribution of cannabis to adults for non-medical purposes in licensed shops;

\(c\) In Italy, according to a judgment of the Supreme Court of 2020, the cultivation of a very small amount of cannabis at home for personal use does not constitute an offence. In 2021, signatures were collected to place a referendum on the country’s ballot which would legalize personal cultivation of cannabis and other psychoactive plants such as psilocybin. In February 2022, the Constitutional Court rejected the proposal because parts of the proposal would flout international law and violate multiple international obligations;\(^\text{23}\)

\(d\) In the Netherlands, a “cannabis experiment” is under way which allows the production of recreational cannabis for the supply of the “coffee shops” in a restricted number of municipalities. This trial could potentially lead to the adoption of measures to replace the long-standing “coffee shop” programme of the Netherlands which originated in the 1970s and had tolerated the sale and consumption of small amount of cannabis in “coffee shops”. In July 2022, the Government stated that it would not be able to draw conclusions from the regulated “cannabis experiment” in 2024, as initially planned, and that the researchers would not be able to prepare their analysis by 2024;

\(e\) In Switzerland, the Federal Act on Narcotics and Psychotropic Substances was amended in 2020 to allow pilot projects in which cannabis will be sold for non-medical consumption purposes. This project began in 2022, in several cities (such as Basel and Zurich). The Parliament will prepare a revision of the legislation with a view to creating a regulated market for cannabis, taking into account the results of the ongoing pilot projects on non-medical cannabis use.

28. In\(\text{other} \text{continents},\) similar initiatives are under way.

29. In South Africa, the Constitutional Court ruled in 2018 that adults may, for their personal consumption, use, possess and cultivate cannabis in any private place. The provisions of the Drugs and Drug Trafficking Act of 1992 that had previously criminalized any form of cultivation, possession and consumption of cannabis were declared unconstitutional by the Court. Any recreational use, possession or cultivation of cannabis which is not done in private remains an offence under the Drugs Act.

30. In Thailand, in 2022, cannabis was removed from classification under category 5 of the new Narcotics Code and legalized for use with the exception of extracts of cannabis or hemp that contain more than 0.2 per cent per of delta-9-THC.\(^\text{24}\) The exact regulatory framework for cannabis production and sale has not yet been clarified by the Parliament.

31. Globally, more and more countries are in the process of preparing similar legal frameworks which allow and regulate the non-medical supply and use of cannabis.

32. There is a great diversity of regulations to counter the cannabis problem, resulting from diverging interpretations and applications of the international conventions. Most States worldwide still consider cannabis use to be illicit and remain committed to the prohibition of both its production and its consumption for non-medical/scientific purposes. However, a growing number of Governments pursue new strategies such as the decriminalization of the possession of small quantities of drugs, the medical use of cannabis or cannabis products, the non-prosecution of minor cannabis offences and, finally, the legalization of cannabis use for non-medical purposes.\(^\text{25}\)

The rationale behind legalization

33. The legalization of non-medical cannabis use was first promoted in those jurisdictions which had previously introduced “medical cannabis” programmes. Some of these “medical cannabis” programmes were poorly regulated, with dispensaries being used to create a de facto legal cannabis market for non-medical use, whereby cannabis was provided

\(^{22}\)Malta, Authority on the Responsible Use of Cannabis Act, Act No. 241 (18 December 2021).

\(^{23}\)Max Daly, “Legal weed referendum blocked by judges in Italy on technicality”, World News, 17 February 2022.

\(^{24}\)Nishimura and Asahi, “New classification of narcotics under category 5 of the Narcotics Code”, Lexology, 3 March 2022.

\(^{25}\)See the map showing the current state (2022) of the different approaches worldwide. Available at https://worldpopulationreview.com/country-rankings/countries-where-weed-is-illegal.
through dispensaries to any person who satisfied the broad criteria used to define “medical use” (in Colorado, Oregon and Washington). This approach introduced the idea of cannabis as a “friendly” and “useful” plant, while omitting scientific evidence of health harms, and contributed to changing the public perception of cannabis use, thereby preparing the ground for further steps towards legalization.

34. The proponents of legalization put forward different reasons for taking this step. They all share the assumption that the current drug control system has failed and must be replaced because it was not able to effectively counter the global and domestic drug problems. They believe that strict approaches to prohibition have not deterred drug use and have also had unintended consequences and caused collateral problems.

35. According to the Governments that have legalized recreational cannabis, the main objectives of their laws are to prevent young persons from accessing cannabis, to protect public health, and to reduce illicit activities.26

36. They argue that legalization would better protect public health and would allow the establishment of strict product safety and product quality requirements, minimizing contaminants and avoiding harms through high potency. They also argue that legalization would facilitate prevention measures, making it easier for people who use drugs to talk about cannabis-related problems and to seek support and treatment. By shifting distribution to licit channels, they aim to limit availability and reduce youth access and consumption.

37. Some advocates hold that there is a human right to consume potentially harmful drugs. They claim that the State should not interfere with what they argue are civil liberties. They see no justification for the prohibition of cannabis given that tobacco and alcohol are permitted. In some countries, advocates believe the non-medical use of cannabis is justified by cultural or religious tradition.

38. Moreover, proponents argue that legalization would stop the criminalization of drug use and reduce the stigmatization of people who use drugs, in particular young people. It would prevent potentially disproportionate impacts of certain law enforcement and judicial responses on vulnerable groups including women, minority groups and economically disadvantaged populations and reduce inequalities in treatment within the criminal justice system. They also put forward that it would avoid unnecessary incarceration and overcrowded prisons and reduce burdens on the criminal justice system and would diminish the costs associated with prohibition and reprioritize law enforcement resources. That argument fails to take into consideration that removing one category of offence does not meaningfully address greater problems within many national criminal justice systems related to the continued existence of systemic institutional discrimination, for which measures are needed to address root causes.

39. Governments that have allowed or are proposing legalization claim that it would reduce or even eliminate the illicit drug market and related crime and violence, create a safe supply chain and undermine criminal organizations.

40. In addition, most Governments hope to generate significant tax revenue and create new jobs in the legal economy. This point is often made by private commercial interests, sometimes linked with big companies, in supporting legalization that is expected to generate profits from this new and supposedly lucrative legal market.

C. Different models for legalizing the non-medical use of cannabis

41. The various rationales described above translate into different legalizing frameworks allowing the use of cannabis for non-medical purposes. In some countries, legalization has been initiated by the Government, in others by means of ballot initiatives, and in others it has been brought about through court decisions. States take diverging approaches in their legal regulation, in particular regarding eligibility to purchase cannabis, possession thresholds, the conditions and limitations on home cultivation and industrial production, production limits, the rules to assure product quality, permitted distribution channels including the type and number of sales outlets, commercial zoning, taxation of production and sales, rules for advertising and signage, and tracking systems to monitor cannabis from seed to sale.

42. The combination of the different policy goals and regulations leads to a range of diverging legalization models. Within the legalizing States concerned, there may be, as in Uruguay, a single model generally binding for the whole country, or, as in Canada, a basic model determined by federal law and subject to variations added by the federated entities which can tailor certain rules in their own jurisdictions, or a variety of types, where each state of the country has implemented its specific legal solution, as in the respective jurisdictions of the United States.27

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26 For example, Canada, Cannabis Act, (Bill C-45), in combination with Bill C-46, An Act to Amend the Criminal Code; and Uruguay, Ley No. 19.172, Regulación y control de cannabis, Diario Oficial, 7 January 2014.

27 For detailed information on cannabis regulations in Canada, the United States and Uruguay, see the summary tables in the World Drug Report 2022, booklet 3, tables 5–7, pp. 49–65.
43. One significant difference between the various types of legalization lies in the **role of the State** and the **degree of control** within the respective regulatory framework, reaching from strictly regulated models in which the State plays a central role in the entire process to less regulated models that place a strong emphasis on market forces creating and shaping a new legal economic sector. Between these forms, there are also various “mixed” models.

44. The most strictly regulated model is that of Uruguay, where the entire cannabis production and distribution chain remains under State control, including cultivation, production, acquisition, marketing, import, export and distribution of cannabis and its derivatives. Licences are required for all these activities: adults need a licence to purchase or cultivate cannabis at home, cannabis clubs must be registered with the Institute for the Regulation and Control of Cannabis,28 companies need a licence to produce and supply the plant to pharmacies, and pharmacies to sell the drug.

45. The Canadian legalization model is controlled by the State to a lesser degree: commercial production requires a federal processing licence, but distribution is the responsibility of provincial and territorial governments. In most provinces, the retail licensing regime is similar to that which regulates the sale of alcohol.

46. The greatest variety of models can be found in the United States, including both very liberal and less controlled business models and strictly regulated non-profit models.

47. In all legalization schemes, access to cannabis is restricted to adults and prohibited for adolescents. The age limit is fixed at 21 years in the United States, 18 years in Uruguay and Malta and 19 years in most of the provinces of Canada.29 In all legalizing States, the **protection of youth** is specified as a major goal. Many jurisdictions have introduced business regulations with a view to protecting youth. For example, advertising and packaging that might be appealing to children are prohibited,30 and packaging must be childproof and display the required warning labels. In some States, all forms of direct and indirect advertising, promotion and sponsorship of psychoactive cannabis products are forbidden.31 The use of cannabis is commonly not allowed in public spaces or near schools and other places where children are present. Canada has introduced new offences for involving young persons in cannabis-related activities and for the distribution or sale of cannabis to young persons.

48. Many legalizing States have made substantial efforts to strengthen **prevention programmes**, targeting youth and adolescents in particular. In Uruguay, the Integrated National Health System undertakes measures aimed at education, awareness campaigns, prevention of problematic cannabis use, advice, guidance and treatment. In Canada, programmes are implemented to enhance public awareness of the health risks associated with cannabis use.

49. The legal and regulatory frameworks regulating the **production and distribution** of cannabis and cannabis products are very different in the legalizing countries. In Uruguay, commercial growers must be specifically approved by the State to produce and process standardized varieties of the plant with relatively low delta-9-THC content. Licensed pharmacies obtain the drug from those growers and sell them exclusively to registered adults who are residents of Uruguay.

50. In Canada, a federal processing licence is required to produce cannabis products and to package and label those products. As for sale and distribution of cannabis, each province and territory is responsible for developing, implementing, maintaining and enforcing its own regulations, including on the number and ownership of retail stores, pricing and taxation. Sales models vary from one province to the other. Cannabis is sold through licensed retailers (private sector), provincial retail stores (public sector) and through the Internet. Some provinces have established government-run monopolies at both the distribution and retail levels, while others have both private distributors and retailers.32

51. In Malta, retail sale is prohibited outside registered cannabis clubs.

52. In the United States, most legalizing state laws permit the production and retail sale of cannabis by licensed for-profit companies.33 In some states of the United States, commercial activities can be regulated, limited or even prohibited by local governments. Accordingly, in California, the majority of cities and counties do not allow the retail sale of cannabis: stores selling cannabis for recreational purposes have been banned from 80 per cent of

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28 Available at [https://www.ircca.gub.uy](https://www.ircca.gub.uy).

29 In Canada, the federal Cannabis Act fixes the age limit at 18 years, but all provinces have increased the age of access in their province to 19 years, and in Quebec it is 21 years.


31 For example, Uruguay, Ley No. 19.172.


33 Exceptions to this are Vermont, Connecticut and the District of Columbia, which allow the possession and cultivation of cannabis for adults at home but do not permit its commercialization.
its 482 municipalities. In Massachusetts, a ban on retail cannabis stores is in place in more than 110 of 351 cities and towns. In New Jersey, roughly 400 municipalities (over 70 per cent) have banned the opening of cannabis businesses within their jurisdictions.

53. The legal threshold for the personal possession of cannabis varies widely. Whereas in Canada that quantity is 30 grams of dried cannabis (or equivalent) in all provinces, in the states of the United States the quantity varies from 1 ounce (28.5 grams) to 3 ounces, while diverging quantities are fixed for concentrates. In Uruguay, individuals can purchase up to 10 grams per week (or 40 grams per month). In Malta, adults are allowed to carry up to seven grams of cannabis.

54. Almost all legalization schemes allow home cultivation of cannabis within certain limits. In Uruguay, individuals can get permission to grow up to six female flowering cannabis plants per household for their own consumption. Total annual home production must not exceed 480 grams. The Cannabis Act of Canada allows for the growth, from licensed seed or seedlings, of up to four cannabis plants per household for personal consumption. Malta allows the cultivation of up to four plants per household at home as long as they are not visible to the public. In the United States, the majority of legalizing states allow the cultivation of six plants, three of which can be flowering, per person (up to 12 plants per household). In many jurisdictions, cultivation has to take place within an enclosed area not visible from public view.

55. In Malta and Uruguay, associations of producers and consumers (“cannabis clubs”) are permitted by law. Neither Canada nor the legalizing states in the United States have legal provisions regarding cannabis clubs.

56. Some legalizing countries regulate the content and quality of the legal cannabis products. In Uruguay, the potency of cannabis sold in pharmacies is determined by the Government, which allows only a few standardized varieties of the plant, all with limited potency: a delta-9-THC content below 10 per cent. In some jurisdictions of the United States, all recreational products must be tested for potency and safety before sales can take place. Regulation of the use of edibles in solid or liquid form varies considerably, from complete prohibition through restrictions to no limitation. In Canada, edible cannabis products and concentrates became legal for sale only in October 2019. In the United States, edibles are widely permitted, but mostly with limited delta-9-THC content.

57. In most legalizing States, except Uruguay and Malta, taxes are imposed on the retail sale of recreational cannabis and cannabis products. These taxes differ considerably from one jurisdiction to the other. In the United States, taxes range from 3 to 37 per cent. In addition, start-up permits have a cost and licence fees can be imposed.

58. In summary, one can say that there are as many models as there are jurisdictions that have legalized the non-medical use of cannabis.

D. Different policy approaches in the light of the drug control conventions

59. The various policy approaches regarding the control of cannabis must be evaluated in a differentiated way from the legal perspective of the drug control conventions.

60. The “decriminalization” approach, as well as the “depenalization” approach, can be considered consistent with the conventions as far as it respects the obligation to limit the use of drugs to medical and scientific purposes and under the condition that it remains within certain limits set by the conventions. The three drug control conventions admit a restricted number of exceptions to the treaty obligation to establish the non-medical use of drugs as a “punishable offence”:

(a) The conventions allow for the application of alternative sanctions for personal drug use instead of conviction and punishment. Drug-related criminal offences, including those involving the possession, purchase or the cultivation of illicit drugs, when committed by people who use drugs do not automatically require the imposition of conviction and punishment. All three conventions provide discretion for parties to allow, as an alternative to conviction and punishment, that these individuals undergo measures of treatment, education, aftercare, rehabilitation and social

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38 Massachusetts Cannabis Control Commission, Municipal Zoning Tracker.
40 Malta, Authority on the Responsible Use of Cannabis Act, Act No. 241.
41 1961 Convention as amended, art. 36, para. 1 (b); 1971 Convention, art. 22, para. 1 (b); 1988 Convention, art. 3, para. 4 (c) and (d).
reintegration. Accordingly, there is no obligation stemming from the conventions to incarcerate people who use drugs who have committed minor offences;

(b) Moreover, it is possible to refrain from punishment in minor cases by virtue of the principle of proportionality. The conventions request “adequate” and proportionate responses, differentiating between offences relating to drug trafficking and offences related to possession of drugs for personal use, and between offences committed by people who use drugs and those committed by others. Sanctions must take into account the relative gravity of the offence;  

(c) In addition, the 1961 Convention as amended gives room for some discretion regarding the prosecution of punishable offences, as article 36, paragraph 4, states that offences shall be prosecuted “in conformity with the domestic law of a Party”.

61. The Board has consistently explained that, within these limits, measures to decriminalize or depenalize the personal use and possession of small quantities of drugs are consistent with the provisions of the drug control conventions.

62. By contrast, the concept of legalization which allows and regulates the supply and use of drugs for non-medical purposes is in contradiction to the obligations set out in the drug control conventions.

63. The 1961 Convention as amended by the 1972 Protocol, the 1971 Convention on Psychotropic Substances and the 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances impose the following obligations on the States parties:

(a) Pursuant to article 4 (c) of the 1961 Convention and article 5, paragraph 2, of the 1971 Convention, States parties have to limit exclusively to medical and scientific purposes the production, manufacture, export, import, distribution of, trade in, use and possession of drugs, subject to the provisions of those conventions;

(b) Article 36 of the 1961 Convention as amended requires States parties to ensure that “cultivation, production, manufacture, extraction, preparation, possession, offering, offering for sale, distribution, purchase, sale … transport, importation and exportation of drugs contrary to the provision of this Convention … shall be punishable offences when committed intentionally, subject to their constitutional limitations”;

(c) Pursuant to article 3, paragraph 1 (a)(i), of the 1988 Convention, each State party is obligated to "adopt such measures as may be necessary to establish as criminal offences under its domestic law … the production, manufacture, extraction; preparation, offering, offering for sale, distribution, sale … importation or exportation of any narcotic drug … contrary to the provisions of the 1961 Convention".

64. As all the legalizing models described above explicitly allow the non-medical use of cannabis, they are inconsistent with the legal obligations incumbent upon States parties to the international drug control conventions.

65. Different legal arguments are used by Governments to justify legalization. One argument is that legalization may be in compliance with the conventions because it pursues the overall goal of the conventions, which is to preserve the health and welfare of humankind and respect human rights principles such as the rights to freedom, privacy and personal autonomy as enshrined in the several international human rights instruments, which take precedence over the drug control conventions.

66. Due respect for universal human rights and the rule of law are crucial for the effective implementation of the international drug control conventions. However, there is no conflict of norms between the international drug control conventions and other international human rights instruments. By ensuring availability of and accessibility to controlled substances for medical and scientific purposes and preventing drug abuse, the conventions are aimed at protecting the right to life and health. The three conventions, as lex specialis, make more specific the way that human rights must be observed in the area of drug control. The conventions reflect the international community’s view that the most effective way to promote human rights in the field of drug control is to limit the use of drugs to medical and scientific purposes.

67. Another legal argument to justify legalization is that the drug control conventions provide a certain flexibility that provides room for regulations which allow for uses of controlled substances which go beyond those set out in article 4 (c) of the 1961 Convention as amended and article 5, paragraph 2, of the 1971 Convention. In that regard, reference is made to article 36, paragraph 1, of the 1961 Convention as amended and article 3, paragraph 2, of the 1988 Convention. Both provisions contain safeguard clauses which make reference to States parties’ domestic constitution and legislation.  

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43 The Board addressed the principle of proportionality in its annual report for 2007 (E/INCB/2007/1).
44 1988 Convention, art. 3, para. 4 (a).
45 Art. 36, para. 1 of the 1961 Convention (“Subject to its constitutional limitations,...”) and art. 3, para. 2 of the 1988 Convention (“Subject to its constitutional principles and the basic concepts of its legal system,...”).
68. It is true that those safeguard clauses were intended to give consideration to the constitution and the domestic legislation of each State party and allow for a certain flexibility in specific cases designed by the conventions. However, it is important to note that neither article 4 (c) of the 1961 Convention as amended nor article 5, paragraph 2, of the 1971 Convention, both of which limit the use of drugs to medical and scientific purposes, is subject to a safeguard clause. Even if a party, in application of a safeguard clause, is precluded by its Constitution from the obligation to carry out measures under article 36, paragraph 1 or 2, of the 1961 Convention as amended or article 3, paragraph 2, of the 1988 Convention, it must nevertheless respect the obligation resulting from article 4 (c) of the 1961 Convention as amended and article 5, paragraph 2, of the 1971 Convention. In the absence of a safeguard clause, the conventions offer no flexibility to allow and regulate the non-medical possession, production, sale and distribution of cannabis.

69. Some argue that the principle of _ultima ratio_ would allow the legalization of non-medical use. This principle, which is contained in some national constitutions, provides that criminal sanctions should be a last resort in response to illegal behaviour. It does not, however, support non-performance of the treaty obligation to limit drug use to medical and scientific purposes.

70. In States with a federal structure, a special issue may arise with respect to whether the federal Government may be held accountable if a federated entity implements legalization, which violates the conventions, while the federal Government does not have the power to compel the federated entity to fulfil the treaty obligations. The Board notes that article 4 (a) of the 1961 Convention as amended obligates States parties “to give effect to and carry out the provisions of this Convention within their own territories”. In addition, article 29 of the Vienna Convention on the Law of the Treaties stipulates that “unless a different intention appears from the treaty or is otherwise established, a treaty is binding upon each party in respect of its entire territory”. The internal distribution of powers between the different levels of a State cannot be invoked as justification for the failure to perform a treaty. The _Commentary on the Single Convention on Narcotic Drugs, 1961_ explains that the question of whether a federal State is relieved from obligations under article 36, paragraph 1, of the Convention if it is unable to enact the required penal legislation on account of lack of authority under its federal constitution to do so should be answered in the negative. In the _Commentary_, it is noted that the lack of authority under a federal constitution would not free a party from the obligation to adopt the required measures if the states or provinces composing the federal State in question have the necessary powers.

71. In its annual report for 2009, the Board recognized that “acceding to the international drug control treaties should result in States parties adopting national strategies and measures that ensure their full compliance with the treaties. Those treaty obligations are applicable in the entire territory of each State party, including its federated states and/or provinces.”

72. Therefore, the fact that a State has a federal structure does not release it from international obligations to which it had consented to be bound, including those arising from the international drug control conventions. The manner in which a State organizes itself in order to implement international obligations within its territory is a matter of internal law. The implementation of the obligations contained in the international drug control conventions by the federal authorities on the territory of the states that have legalized cannabis remains an internal problem.

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_E. The impact of cannabis legalization_

73. Evaluating the changes caused by legalization is difficult. To assess those changes, it is important to compare data before and after implementation of legalization and to compare data from both legalizing and non-legalizing jurisdictions. However, a simple pre/post design does not necessarily prove a strong causal relationship between the law, its implementation and statistical results. Some increases may be due to changes in reporting or measurement or to completely different factors. For example, it is obvious that there is a greater willingness on the part of individuals to report the use of cannabis if that use is not illegal – and therefore a higher reported rate of use after legalization does not necessarily indicate that actual prevalence has increased. Likewise, increases in the number of emergency visits and hospitalizations might be due to the greater awareness of doctors, who, after the policy change, are more likely to screen or confirm acute cannabis intoxication using urinalysis.
CHAPTER I. ANALYSIS OF THE TREND TO LEGALIZE THE NON-MEDICAL USE OF CANNABIS

74. The effect of legalization depends largely on the specific context of the country that has legalized cannabis, namely on the pre-existing conditions before legalization in that country, such as the degree of development of the legal cannabis market or the existence of an important illegal market and the previous level of illicit consumption. It also depends on the specific set of regulations of the individual legalization model and its political implementation, including the varying degrees of permissiveness and restriction. Therefore, the outcome of legalization in one country cannot easily be compared with other countries. Nor can outcome measures be replicated in other countries.

75. In many States, the time passed since these laws came into effect is too short to produce valid data and judge the full effects of legalization. The consequences do not appear immediately after the enactment or implementation of the relevant law and regulations. Changes in behaviour, the developments of markets and the power of private businesses might lead to different outcomes 15 or 25 years after recreational cannabis laws have been adopted.53

76. The baseline data for evaluation is very different in the various jurisdictions concerned. Some legalizing States have established mechanisms for monitoring and evaluating the results and impact of legalization. For example, in Uruguay, indicators have been developed for this purpose, especially with regard to the use of cannabis by young people, as well as with regard to organized crime and drug trafficking. The Uruguayan Drug Observatory regularly conducts and publishes studies to determine the magnitude of drug use in Uruguay, through the estimation of the prevalence of and trends in substance use, and to explore other aspects related to consumption.54 However, to what extent the changes in consumption and prevalence are due to the legalization of cannabis in Uruguay will become evident only in years to come, when more information on the outcome of measures related to public health and public safety is made available.55

77. The Government of Canada has put in place a system of monitoring and surveillance activities in order to evaluate the outcome of the Cannabis Act and related regulations. The Canadian Cannabis Survey conducted by Health Canada established a baseline in 2017, and the situation is reviewed annually in order to provide information about targeted health, social and public safety concerns. Statistics Canada collects data every three months for the Survey, which examines patterns of use, the quantities of cannabis consumed and the cannabis market, such as sources of cannabis and pricing, as well as issues of public safety such as impaired driving.56

78. In the United States, data for assessing the impact of legalization are scarce because many jurisdictions have been moving quickly to legalize the use of cannabis without establishing a sufficient data infrastructure to evaluate the impact of the changes.57 Only a few jurisdictions provide for the monitoring and evaluation of the effects of legalization.58 In addition, states in the United States have adopted diverging regulations of varying degrees of stringency. Thus, an analysis must largely focus on the jurisdictions that were first to implement non-medical regulations, before 2018. In these states, reliable data and statistics are already available, whereas in states where legalization came later, reliable experience and data are not yet available.

79. There is a growing number of studies on the impact of legalization but which sometimes report diametrically opposed results and conclusions. These conflicting results are often due to the data and methods used and which implementation dates and policies were considered. Sometimes literature is inspired by advocacy groups either in favour or against legalization.

80. Given this multifaceted and complex picture, it is hardly possible to make general statements and conclusions on the impact of legalization.

Impact of legalization on cannabis consumption

81. One of the most important potential effects of cannabis legalization is the likelihood of increased use, with possible negative consequences on individuals and society. Much of the concern surrounding legalization relates to its possible effect on youth. Many fear that expanded access, even if legally limited to adults, might increase use among...
teenagers, with negative effects on cognitive development, educational outcomes, or other behaviours.59

82. In all legalizing jurisdictions, an increase in cannabis use can be observed in the general population. In most of these jurisdictions, cannabis use was higher than in other countries prior to legalization. For example, in the United States, the prevalence in the general population was significantly higher in states that legalized cannabis use than the overall average for the United States, before and after legalization. In 2011, prior to any legalization, cannabis use rates among the first 10 states to legalize cannabis averaged 15 per cent 60 compared with the national rate of 11.5 per cent.61 Yet, after legalization, the prevalence increased visibly faster in the legalizing jurisdictions than in others.

83. The National Survey on Drug Use and Health for the period 2019–2020 shows that prevalence in all age groups is significantly higher in legalized States than in non-legalizing States. Tables 1 and 2 compare past-year and past-month cannabis use in different age groups in 2019 and 2020 in states that legalized cannabis before 2020 (11 states) and in states that had not yet legalized cannabis (or had legalized it only in 2020 or 2021).62

Table 1 Estimated past-year cannabis use in the United States, by age group, 2019–2020 (percentage)

<table>
<thead>
<tr>
<th>Age 12 and older</th>
<th>Age 12–17</th>
<th>Age 18–25</th>
<th>Age 26 and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average for the entire United States</td>
<td>17.73</td>
<td>11.66</td>
<td>34.98</td>
</tr>
<tr>
<td>Average in states not having legalized cannabis (40)</td>
<td>16.46</td>
<td>11.33</td>
<td>34.11</td>
</tr>
<tr>
<td>Average in states having legalized cannabis (11)</td>
<td>24.55</td>
<td>14.45</td>
<td>43.57</td>
</tr>
</tbody>
</table>

Source: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2019 and quarters 1 and 4 of 2020.

84. Tables 1 and 2 show that adolescents consume significantly more cannabis in States having legalized cannabis than in states not having legalized cannabis and more than the average for the United States nationwide.

85. Studies report mixed findings regarding changes in the self-reported prevalence after the adoption of laws legalizing cannabis. All studies found an increase in cannabis use was more likely among the overall adult population than among the younger generation. With regard to consumption among youth, some studies suggest that the prevalence of use among youth may have increased, while other studies suggest that prevalence did not change or may have even declined after legalization.63

86. For example, surveys in the State of Colorado and Washington State found mixed evidence with regard to the impact of cannabis legalization on adolescent cannabis use. Some studies detected an increase in cannabis use among students after legalization in Washington State but a decrease among adolescents in Colorado.64,65,66,67 In four of the six

Table 2 Estimated past-month cannabis use in the United States, by age group, 2019–2020 (percentage)

<table>
<thead>
<tr>
<th>Age 12 and older</th>
<th>Age 12–17</th>
<th>Age 18–25</th>
<th>Age 26 and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average for the entire United States</td>
<td>11.66</td>
<td>6.63</td>
<td>23.02</td>
</tr>
<tr>
<td>Average in states not having legalized cannabis (40)</td>
<td>10.68</td>
<td>6.26</td>
<td>22.18</td>
</tr>
<tr>
<td>Average in states having legalized cannabis (11)</td>
<td>16.93</td>
<td>8.86</td>
<td>30.01</td>
</tr>
</tbody>
</table>

Source: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2019 and quarters 1 and 4 of 2020.

59 E/INCB/2018/1, chap. I.
65 Maria Melchior and others, “Does liberalisation of cannabis policy influence levels of use in adolescents and young adults? A systematic review and meta-analysis”, BMJ Open, vol. 9, No. 7 (July 2019).
66 Mallie J. Paschall, Grisel Garcia-Ramírez and Joel W. Grube J, “Recreational cannabis legalization and use among students after legalization in Washington State but a decrease among adolescents in Colorado.64,65,66,67 In four of the six
states with post-legalization data (Alaska, Colorado, Maine and Massachusetts), adolescent use reportedly decreased in the years immediately before legalization and then after legalization returned roughly to the prior use rates.68 No changes in cannabis use were reported among youth in two surveys in Washington State conducted the year before and the year after the legalization of recreational use.

87. Canada, which had longstanding high rates of prevalence, experienced a surge in illegal consumption in anticipation of the announced legalization.69 With the enactment of the Cannabis Act, there was a rush to the dispensaries that was so great that demand could not be met by legal production. Canadians bought 43 million Canadian dollars’ worth of cannabis in the first two weeks with the result that licensed producers could not grow enough plants to meet legal demand.70 Reported cannabis use in the past three months increased from 14.0 per cent in 2018 to 17.5 per cent in 2019 and 20.0 per cent in late 2020, and an increase was particularly notable among females, adults aged 25 and older, and in some provinces. Prevalence of cannabis use in the past three months among persons aged 20–24 years was nearly twice as high as in the overall population.71 In 2021 the first sign of a decrease in past-year and past-month use appeared, as past-year use dropped from 27 per cent to 25 per cent (but daily use did not drop) (see tables 3 and 4).

Table 3  | Self-reported cannabis use in the overall population in Canada (percentage)

<table>
<thead>
<tr>
<th>Usage frequency</th>
<th>2018 Q4</th>
<th>2019 Q1</th>
<th>2020 Q4</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past-year use</td>
<td>22</td>
<td>25</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Use in the past three months</td>
<td>15.4</td>
<td>17.5</td>
<td>20</td>
<td>n.d.</td>
</tr>
<tr>
<td>Use in the past 30 days</td>
<td>15</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>


88. There are no reliable data on cannabis use among all youth under 18 years of age in Canada because the age group of 16–19 years includes only a section of those adolescents. As one of the main objectives of cannabis law reform was to protect minors, it would be crucial to know whether adolescents have stopped or reduced consuming cannabis after the legalization. The statistics for those aged 16–19 years nevertheless show a very high prevalence, which increased from 2018 to 2020 and dropped only in 2021, declining to the level of 2018. The coming years should provide evidence on whether legalization can demonstrably reduce the access to cannabis among youth.72

89. In Uruguay, the impact of the legalization is still difficult to assess because the implementation of Law No. 19.172 was very slow after its enactment in 2013. In 2022, more than 69,400 people had access to the regulated cannabis market in Uruguay, either as registered individuals with a licence to purchase cannabis in pharmacy or as individuals authorized to grow cannabis at home or members of licensed cannabis clubs. This represents about one third of the estimated number of people using cannabis in the past month but is nevertheless a relatively small share of all those people using cannabis in the country. The latest study, the eighth national survey on drug use in the general population, published in 2020, revealed an increase in past-month use in the general population of more than 30 per cent between 2014 (when implementation of the reform began) and 2018, while past-year cannabis use increased by more than 50 per cent over the same period. The number of young consumers of cannabis apparently also increased significantly after the law came into force. A survey on drug use among secondary school students aged 13–17 showed that in 2018 almost 20 per cent of

Table 4  | Cannabis use in the past 12 months in Canada, by age group, 2018–2021 (percentage)

<table>
<thead>
<tr>
<th>Age group</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>22</td>
<td>25</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>16–19 years</td>
<td>36</td>
<td>44</td>
<td>44</td>
<td>37</td>
</tr>
<tr>
<td>20–24 years</td>
<td>44</td>
<td>51</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>25+ years</td>
<td>19</td>
<td>21</td>
<td>24</td>
<td>22</td>
</tr>
</tbody>
</table>


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68 Dills and others, “The effect of State marijuana legalizations”.
72 The figures quoted by Rebecca J. Haines-Saah and Benedikt Fischer in “Youth cannabis use and legalization in Canada: reconsidering the fears, myths and facts three years in,” Journal of the Canadian Academy of Child and Adolescent Psychiatry, vol. 30, No. 3 (August 2021), do not cover the period after the legalization came into effect (see Canada, “Summary of results for the Canadian Student Tobacco, Alcohol and Drugs Survey 2018–19”. Available at www.canada.ca/en/health-canada.html).
adolescents had used cannabis in the past year, while about 11 per cent had used it in the past month. The highest prevalence of past-year cannabis use in that overall age group was among 17-year-olds (34.1 per cent).73

Impact of legalization on public health

90. As legalization facilitates access to cannabis, it may increase the individual frequency and amount of cannabis consumption. This may lead to various adverse medical and health effects and consequently raise the number of emergency visits and treatment admissions.74

91. In all legalizing jurisdictions, the incidence of cannabis-related health problems rose following legalization of the non-medical use of cannabis. Those developments have often been in addition to earlier increases that occurred after the introduction of medical cannabis use. Where legalization has opened up access to more harmful cannabis products such as edibles, a sharp increase in the overall health harm of cannabis can be observed.

92. For example, in Colorado, emergency department visits and hospitalizations caused by excessive cannabis use, including treatment of cannabis use disorders and dependence, increased considerably after the implementation of legalization but have shown a general stabilization since 2018. The largest growth rate was among persons who had received a diagnosis of schizophrenia or another psychotic disorder, suicidal ideation, intentional self-harm or mood disorders.75 Calls to poison control centres due to cannabis exposure continue to rise in Colorado, with 318 total calls in 2020 versus 125 calls in 2013, a 154 per cent increase.76 In California, after the opening of the retail sales market, emergency room visits and admissions related to any cannabis use increased by 56 per cent from 2016 to 2019.77

93. In Canada, according to the Canadian Hospitals Injury Reporting and Prevention Program, there was an average annual increase of 30 per cent in cannabis-related cases over the period 2015–2018.78

94. In Uruguay, about 16 per cent of people who use cannabis showed signs of problematic use as defined by the tenth revision of the International Classification of Diseases ICD-10. In the country’s treatment facilities, 7.8 per cent (in 2017) and 8.9 per cent (in 2018) of all people seeking help at those facilities sought help for cannabis problems. The demand for addiction assistance among people who use cannabis has grown since legalization, but the problem of cocaine use plays a much bigger role in the support system of Uruguay.

95. During the last two decades, in most States where cannabis consumption increased, the perception of risk among the population decreased79 as a consequence of the trivialization of cannabis use. For example, in Uruguay, among students aged 13–17, risk awareness for cannabis has decreased since its legalization, while it has increased sharply for tobacco.80,81 In most of the states of the United States that have legalized cannabis, perception of harm fell below the nationwide average level. Significant declines in the perception of risk were reported among eighth and tenth grade students in the State of Washington compared with states that did not legalize. However, no significant difference in perception of risk or use was reported for twelfth grade students in Washington or for any of the grades in Colorado.82 In Canada, according to Health Canada, the perception of risk has even increased, especially among people who use cannabis regularly, reaching nearly 90 per cent of people in 2021,83 which is probably due to the programmes initiated by Health Canada to educate the public and raise awareness about cannabis as part of its Substance Use and Addictions Program.

96. Legalization may change the attitude towards other drugs insofar as the use of cannabis may substitute for or complement other psychoactive substances. There are relatively few studies examining the effect of cannabis

75 Hall and Lynskey, “Assessing the public health impacts of legalizing recreational cannabis use”.
76 Rocky Mountain High Intensity Drug Trafficking Area (HIDTA), The Legalization of Cannabis in Colorado: The Impact, vol. 8 (September 2021).
83 Canada, Public Health Infobase, “Cannabis use for non-medical purposes among Canadians (aged 16+)”.
84 INCB REPORT 2022
legalization on the use of other substances or associated behaviours.\(^8\)\(^9\) Estimates at the state level in the United States suggest no clear relationship between cannabis legalization and cocaine use.\(^8\)\(^9\) One could question whether legalizing cannabis could lead some consumers to switch from drinking alcohol to using cannabis if they considered it to be a safer substance. In the United States, national trend data show no clear relationship between cannabis legalization and alcohol use: alcohol use increased more than the national trend in Washington, Massachusetts, California and Oregon, but decreased in Colorado, Maine, Alaska and Nevada.\(^8\)\(^9\)

### Impact of legalization on road safety

97. The impact of cannabis legalization on road traffic has been investigated in research which examined the prevalence of driving under the influence of cannabis before and after legalization and the relationship between cannabis use and crash risks. Studies of the effects of cannabis legalization on traffic accidents have produced diverging findings. Researchers who analysed changes in the annual number of motor vehicle crash fatalities in Washington and Colorado and neighbouring states reported in the Fatality Analysis Reporting System\(^8\)\(^7\) found no statistically significant difference between those states and non-legalizing states in the number of fatal crashes involving cannabis-positive drivers.\(^8\)\(^8\) In Washington State, drivers testing positive for delta-9-THC increased by 28 per cent between 2013 and 2016, but similar changes were seen in cannabis-related, alcohol-related and overall traffic fatality rates in non-legalizing states. More recent studies found evidence of a statistically significant and larger increase of fatal crash rates in Washington and Colorado after the opening of cannabis dispensaries.\(^8\)\(^9\) In Colorado, in 2020, the percentage of drivers who tested positive for cannabis in all traffic fatalities was nearly twice as high as in 2013.\(^9\)\(^0\) In another report, authors compared auto insurance collision claim rates (not necessarily fatalities) in Colorado, Washington and Oregon with those in neighbouring non-legalizing states (Nebraska, Utah, Wyoming, Montana, Idaho and Nevada) from 2012 to 2016 and found that collision claim frequencies increased significantly after implementation of legalization. After cannabis legalization in Colorado, there were increases in hospitalizations for motor vehicle accidents and injuries related to cannabis abuse.\(^9\)\(^1\)

98. In Canada, a review of the evidence confirms that acute cannabis consumption produces a small to moderate but nevertheless significant increase in the risk of a crash.\(^9\)\(^2\) Data on trends in driving under the influence of cannabis before and after legalization in Canada are limited. An increase in driving under the influence of cannabis after legalization was observed in national self-report surveys and hospitalization data from British Columbia.

### Impact of legalization on the illicit cannabis market and on the economy

99. One of the major objectives of all legalizing States was to eliminate the illicit drug market and the related organized crime. But for a long time after the law’s entry into force, the market for illicit supply persisted in all legalizing jurisdictions, albeit to varying extents, reaching from approximately 40 per cent in Canada to nearly 50 per cent in Uruguay and 75 per cent in California.\(^9\)\(^3\)

100. In Uruguay, despite the establishment of a regulated market, demand for illegal supply still persists.\(^9\)\(^4\) Young people who are under the legal age are not allowed to buy legal cannabis but continue to use it. Adults who do not want to register and tourists who do not have access to the legal market buy it on the illicit market. Foreigners buy as much cannabis as Uruguays, according to observers. The quantitative restrictions for cultivation and consumption established by the law cannot be effectively checked by the state
101. In Canada, illicit supply decreased gradually, but it still exists at a reduced level. In 2019, less than a quarter of the people reporting use of cannabis over the past year identified legal storefronts as their usual source for obtaining cannabis. In 2020, 37 per cent indicated that they always obtain cannabis from a legal or licensed source and that percentage grew to 53 per cent in 2021. This shows that the legal cannabis supply is taking an increasing market share, but an extensive illicit market continues to flourish. Illicit suppliers are increasingly active on Internet platforms. The attraction of the illegal market remains important because individuals excluded by their age from legal markets might feel compelled to obtain products on the illegal market. In addition, people who use cannabis may choose to continue to source their cannabis from the illicit market due to lower prices, wider variety and higher potency. The proportion of young people among cannabis consumers is significantly higher than for alcohol and tobacco.

102. In the United States, although the legalizing states intended to eliminate or diminish the illicit cannabis economy and the related organized crime, the illicit market continues to thrive. It is difficult to fully assess the size of the illicit market because all its activities are “underground” and not well known. In Colorado, it has been established by the Drug Enforcement Administration that well-established drug trafficking organizations are able to generate millions of dollars through illicit activities related to cannabis.

103. In general terms, there is a lack of systematic evidence on the impacts of cannabis legalization on organized crime in all legalizing jurisdictions, which makes it difficult to draw conclusions and develop evidence-based practices.

104. Legalization has led to a new legal cannabis market in the legalizing jurisdictions, attracting the interest of large corporations, which see the potential for growth and opportunity for investment.

105. In Canada, the Cannabis Act laid the ground, in spite of its regulatory controls, for Canada to become an advantageous place for cannabis entrepreneurs and investors looking to do business internationally. Today, Canadian cannabis companies have their eye on the medical and “adult” cannabis markets that are emerging around the world. They are active in Europe, Asia and Africa, and especially in Latin America, and seek to conquer those markets. They mimic the marketing strategies of the tobacco and alcohol industries in order to amplify the consumption of cannabis and create a multi-billion-dollar corporate cannabis empire, driven by commercial considerations.

106. In the United States, it is difficult to assess the impact of legalization at the state level as such markets are prohibited by federal law. In addition, the size and scope of such markets depend largely on the specific market regulations of the legalizing jurisdictions, which vary considerably. States and municipalities decide on the conditions of the legal market, namely who gets a licence to produce and to sell cannabis, whether big private companies are admitted and whether there is a “social equity programme”. They also may determine the number and density of dispensaries and the amount of taxes and fees. As a majority of jurisdictions in the United States have legalized either medical or recreational cannabis, legal cannabis production is no longer small-scale and clandestine but one of the fastest-growing industries in the United States, even though the drug is controlled under federal law. For example, retail cannabis sales surpassed $1 billion in 2016 in Colorado and in Washington in 2017. In 2021, the legal cannabis industry generated $25 billion in sales, a 43 per cent increase over 2020. Many corporations involved in tobacco and alcohol supply have been entering
into the cannabis supply chain, seeking to monopolize and expand the cannabis market, and to increase the number of people who use cannabis and the regularity of their use, in order to maximize their profits.108

107. In Uruguay, the legal cannabis market is entirely put under the control of the State. All consumers who have access to legal cannabis are registered, there is a restricted number of producers and suppliers, which have to be licensed, and the amount of production and consumption of cannabis, as well as the retail price, are controlled by the Government. Consequently, the legal cannabis market in Uruguay is rather restricted compared with other legalizing jurisdictions.

108. For some legalizing jurisdictions, an important goal of legalization was to generate tax income. In fact, tax revenues collected from the legalized cannabis market have increased year on year.109 The annual revenues vary from 1.5 billion Canadian dollars in Canada to $4.4 billion in California.110 However, tax revenues have turned out to be less than expected and constitute, in all legalizing states, less than 1 per cent of the respective state budget.111 Some jurisdictions have invested part of the revenue in the prevention of substance use and the treatment of drug use disorders.

109. Taxing the retail sale of cannabis on the basis of weight has the consequence that cannabis producers and retailers may have an incentive to increase the delta-9-THC content per gram of product in order to reduce costs and increase profits.112

110. In conclusion, the evidence available to assess the impact of legalization on society and individuals is limited. This impact varies considerably according to the different legalization models.

111. The causality between legalization and statistical changes in the respective jurisdiction is often not clear. However, one can say, in general terms, that legalization has not achieved the objectives pursued by its proponents. It can be observed that legalization has not succeeded in overcoming the drug problems encountered in legalizing jurisdictions and worldwide. In those jurisdictions, consumption of cannabis is still higher than in others and prevalence of use is apparently increasing more rapidly than in non-legalizing jurisdictions, with noticeable health consequences. Legalization has not been able to dissuade youth from consuming cannabis. Illicit markets have been partly reduced, but they still survive and flourish in some countries. Organized crime has been widely replaced by an expanding cannabis industry which aims to make profit by increasing sales without regard for public health.

F. Conclusions

112. Legalization of the non-medical use of cannabis is inconsistent with the obligation contained in the 1961 Convention as amended to limit, subject to the provisions of that Convention, exclusively to medical and scientific purposes the production, manufacture, export, import and distribution of, trade in, and use and possession of drugs. There is a degree of flexibility in the international drug control conventions, in particular in the definition of penal provisions, but that flexibility does not provide for exceptions to the limitation of article 4 (c) of the 1961 Convention as amended.

113. While arguments can be made about the success of the implementation of the conventions, the convention-based system offers a large margin of flexibility and allows States to reach the objectives they pursue within its ambit. The purpose of the conventions is to protect youth, improve public health, avoid unnecessary criminalization and constrain the illicit market and related organized crime.

114. Instead of legalizing the non-medical use of drugs, Governments may more effectively use the flexibilities contained in the conventions. They should, in order to protect public health and youth, establish better education, prevention and treatment programmes. They should fight organized crime through effective social prevention and law enforcement. Governments may choose the alternatives to conviction and punishment provided for in the three conventions in order to avoid or reduce stigmatization caused by criminalization and incarceration. They can also reduce the burden on their criminal justice systems by applying alternative sanctions and the principle of proportionality.

115. It is difficult to assess the impact of the ongoing legalization initiatives on society and individuals. In many States, the time since these laws have come into effect is too short to produce valid data and to judge the full effects of legalization. The consequences do not appear immediately after enactment or implementation of the relevant law and regulations. Changes in behaviour, the developments of markets
and the power of private businesses might lead to different outcomes many years after recreational cannabis laws have passed. The impact of legalization depends largely on the pre-existing conditions in the country, the set of regulations chosen by each government and the way they are implemented and controlled.

116. The impact of legalization on public health, public safety and the economy is difficult to measure and varies according to the different legalization models. In summary, based on the relatively short time of implementation, it can be observed that, to date, legalization has not succeeded in addressing the most pressing problems, such as increased consumption rates, the criminalization of people who use drugs, the growing illicit market and expanding organized crime. In jurisdictions that have legalized cannabis, consumption is still higher than in those jurisdictions that have not, and prevalence seems to increase more rapidly than in non-legalized communities, with noticeable health and social consequences. Legalization has not been able to dissuade youth from consuming cannabis. Illicit markets have been partly reduced, but they still survive and flourish in some countries. Organized crime has been partially replaced by an expanding legal cannabis industry which aims to make profits by increasing sales. In general terms, one can ascertain that the legalizing jurisdictions did not reach the goals they had pursued through legalization.

117. In all States, including those that have legalized the non-medical use of cannabis, Governments should support measures to inform their populations of the harms associated with drug use and to address the declining perceptions of harm resulting from the use of cannabis, through effective prevention measures, including public education and awareness campaigns.

118. Legalization raises concerns with respect to public health, in particular when cannabis products are advertised in a way that appeals to children or attracts youth. The high potency of cannabis products such as concentrates and edibles also raises public health concerns.

119. In some jurisdictions, regulators appear to favour commercial retail models which yield important tax income while giving insufficient attention to public health impacts. Sometimes, the commercialization of production and the sale of cannabis are regulated in such a way as to create market-based incentives that drive higher levels of consumption.

120. The short- and long-term consequences of legalization should be carefully monitored by collecting data on the public health impacts of legalization.

121. The growing trend to allow the use of cannabis for non-medical and non-scientific purposes constitutes a significant challenge for the international community, namely for the States parties to the international drug control conventions, especially with respect to the obligation under article 4 (c) of the 1961 Convention as amended, which the signatories have signed and ratified. The principle of pacta sunt servanda applies also in the field of the drug control treaties. The apparent tension between this provision and the trend towards legalization must be addressed by the signatories to the three drug control conventions.

122. The Board’s mandate is to assist Governments in implementing the international drug control conventions and to “facilitate effective national action to attain the aims of this Convention” (art. 9, para. 5, of the 1961 Convention as amended). The Board will continue its ongoing dialogue with States on identifying ways to further the objectives of the international drug control conventions within the flexibility provided by the conventions through the adoption of balanced and proportionate approaches founded on respect for human rights and the advancement of public health and welfare.