United States
2021 CANNABIS REPORT

SEPTEMBER 2022
Forward

The International Cannabis Policy Study is an international research collaboration designed to examine cannabis policy and public health impact. The project started in 2018 and includes annual population-based surveys in Canada and the United States (since 2018), as well as Australia and New Zealand (since 2021).

The current report summarizes findings among respondents from the United States for the 2021 survey, with comparisons to previous years. Additional details are available upon request.

Visit the study website for more information: www.cannabisproject.ca.
FUNDING
FUNDING FOR THE ICPS PROEJCT WAS PROVIDED BY A CANADIAN INSTITUTES OF HEALTH (CIHR) PROJECT GRANT AND A CIHR PARTNERSHIPS FOR CANNABIS POLICY EVALUATION TEAM GRANT. ADDITIONAL FUNDING WAS PROVIDED BY PROVINCIAL AND STATE-LEVEL HEALTH AND REGULATORY AGENCIES.

ETHICS CLEARANCE
THE PROJECT HAS BEEN REVIEWED BY AND RECEIVED ETHICS CLEARANCE THROUGH A UNIVERSITY OF WATERLOO RESEARCH ETHICS COMMITTEE (ORE#31330).

SUGGESTED CITATION

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OVERVIEW
The International Cannabis Policy Study is a repeat cross-sectional survey conducted annually in the United States and Canada (since 2018), as well as Australia and New Zealand (since 2021) to examine trends in cannabis. This report summarizes key indicators from the 2021 ICPS survey in the United States from September 14 to November 8, 2021.

SAMPLE
Respondents were aged 16–65 years and were recruited through the Nielsen Consumer Insights Global Panel. The analytic sample for 2021 comprised 52,938 respondents in Canada (n= 16,952), the United States (n= 30,081), Australia (2,925) and New Zealand (2,980). The results in the current report focus on the subsample of 107,572 respondents from the United States who participated in the 2018 (n= 17,112), 2019 (n= 30,479), 2020 (n= 29,900), and 2021 (n= 30,081) surveys.

SURVEY
The survey covers the following content areas:
• prevalence and patterns of cannabis use;
• cannabis purchasing and price;
• cannabis consumption and modes of use;
• commercial retail environment;
• risk behaviours;
• cannabis knowledge, perceptions of risk and social norms;
• exposure to health warnings and public educational campaigns;
• exposure to cannabis marketing and branding;
• substance use and other risk behaviours; and
• socio-demographics and socio-economic status.

DATA ANALYSIS
Post-stratification survey weights were created using age-by-sex-by-state, ethnicity-by-census division, education-by-state, and age-by-smoking status groups. All estimates in the current report are weighted and rescaled to the original sample size within each state.

Comparisons are provided between the ‘overall’ national estimates, as well as by legal status of cannabis at the state level. In the current report, the term ‘legal’ refers to states that had legalized non-medical cannabis for adult use at the time of data collection in each year. ‘Medical’ refers to states that had legalized medical but not non-medical adult use cannabis at the time of data collection. ‘Illegal’ refers to all other states.

TECHNICAL REPORT
The survey and technical report are available at: www.cannabisproject.ca/methods. The technical report includes detailed information on methodology and survey weighting.
## United States

### Sex

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>8,586</td>
<td>15,290</td>
<td>14,995</td>
<td>15,080</td>
</tr>
<tr>
<td>Male</td>
<td>8,526</td>
<td>15,189</td>
<td>14,905</td>
<td>15,001</td>
</tr>
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</table>

### Age group

<table>
<thead>
<tr>
<th>Age group</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>2,738</td>
<td>3,772</td>
<td>4,030</td>
<td>3,439</td>
</tr>
<tr>
<td>21-30</td>
<td>2,214</td>
<td>5,373</td>
<td>5,032</td>
<td>5,374</td>
</tr>
<tr>
<td>31-45</td>
<td>5,351</td>
<td>9,387</td>
<td>9,162</td>
<td>9,612</td>
</tr>
<tr>
<td>46-55</td>
<td>3,505</td>
<td>6,012</td>
<td>5,808</td>
<td>5,729</td>
</tr>
<tr>
<td>56-65</td>
<td>3,304</td>
<td>5,935</td>
<td>5,869</td>
<td>5,928</td>
</tr>
</tbody>
</table>

### Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>13,068</td>
<td>23,158</td>
<td>22,655</td>
<td>22,730</td>
</tr>
<tr>
<td>Am. Indian or Alaskan Native</td>
<td>140</td>
<td>384</td>
<td>288</td>
<td>324</td>
</tr>
<tr>
<td>Asian</td>
<td>648</td>
<td>1,207</td>
<td>1,368</td>
<td>1,132</td>
</tr>
<tr>
<td>Black or African American</td>
<td>2,335</td>
<td>4,201</td>
<td>4,148</td>
<td>4,183</td>
</tr>
<tr>
<td>Native Hawaiian or Pac Islander</td>
<td>34</td>
<td>105</td>
<td>110</td>
<td>129</td>
</tr>
<tr>
<td>Other/2+ races/Unstated</td>
<td>887</td>
<td>1,424</td>
<td>1,331</td>
<td>1,583</td>
</tr>
<tr>
<td>Hispanic origin (asked separately)</td>
<td>1,493</td>
<td>3,788</td>
<td>3,391</td>
<td>4,063</td>
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</table>

### Education level

<table>
<thead>
<tr>
<th>Education level</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;High school</td>
<td>2,470</td>
<td>3,146</td>
<td>2,900</td>
<td>3,106</td>
</tr>
<tr>
<td>High school</td>
<td>3,193</td>
<td>6,689</td>
<td>6,889</td>
<td>6,783</td>
</tr>
<tr>
<td>Some college</td>
<td>6,691</td>
<td>11,481</td>
<td>10,946</td>
<td>10,922</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>4,702</td>
<td>9,039</td>
<td>8,916</td>
<td>9,012</td>
</tr>
</tbody>
</table>

### Income adequacy

<table>
<thead>
<tr>
<th>Income adequacy</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very difficult</td>
<td>1,572</td>
<td>3,200</td>
<td>2,618</td>
<td>3,065</td>
</tr>
<tr>
<td>Difficult</td>
<td>3,696</td>
<td>7,013</td>
<td>5,472</td>
<td>5,613</td>
</tr>
<tr>
<td>Neither easy nor difficult</td>
<td>5,421</td>
<td>10,075</td>
<td>10,416</td>
<td>9,824</td>
</tr>
<tr>
<td>Easy</td>
<td>3,796</td>
<td>5,854</td>
<td>6,268</td>
<td>6,176</td>
</tr>
<tr>
<td>Very easy</td>
<td>2,232</td>
<td>3,481</td>
<td>3,958</td>
<td>4,089</td>
</tr>
</tbody>
</table>
Cannabis prevalence 2021

**Past 12 months Cannabis use**
- US total: 34%
- Illegal states: 33%
- Medical states: 33%
- Legal states: 36%

**Past month Cannabis use**
- US total: 26%
- Illegal states: 24%
- Medical states: 25%
- Legal states: 28%

**Daily / near daily Cannabis use**
- US total: 14%
- Illegal states: 13%
- Medical states: 14%
- Legal states: 15%

UNIVERSE: ALL RESPONDENTS (N=30,081). ‘DAILY/NEAR’ DAILY USE INCLUDES CANNABIS ON 5 OR MORE DAYS PER WEEK.
Trends in cannabis prevalence

**US total** n=107,572

- **Past 12 months**
  - 2018: 26%
  - 2019: 33%
  - 2020: 29%
  - 2021: 34%

- **Monthly**
  - 2018: 8%
  - 2019: 13%
  - 2020: 12%
  - 2021: 14%

- **Daily/near daily**
  - 2018: 19%
  - 2019: 24%
  - 2020: 22%
  - 2021: 26%

**Illegal states** n=17,942

- **Past 12 months**
  - 2018: 22%
  - 2019: 29%
  - 2020: 26%
  - 2021: 33%

- **Monthly**
  - 2018: 6%
  - 2019: 11%
  - 2020: 10%
  - 2021: 13%

- **Daily/near daily**
  - 2018: 15%
  - 2019: 19%
  - 2020: 19%
  - 2021: 24%

**Medical states** n=24,695

- **Past 12 months**
  - 2018: 25%
  - 2019: 32%
  - 2020: 28%
  - 2021: 33%

- **Monthly**
  - 2018: 18%
  - 2019: 12%
  - 2020: 12%
  - 2021: 14%

- **Daily/near daily**
  - 2018: 9%
  - 2019: 23%
  - 2020: 21%
  - 2021: 14%

**Legal states** n=64,935

- **Past 12 months**
  - 2018: 34%
  - 2019: 39%
  - 2020: 35%
  - 2021: 36%

- **Monthly**
  - 2018: 25%
  - 2019: 25%
  - 2020: 16%
  - 2021: 14%

- **Daily/near daily**
  - 2018: 11%
  - 2019: 29%
  - 2020: 27%
  - 2021: 15%

UNIVERSE: ALL RESPONDENTS. DAILY/NEAR DAILY USE = AT LEAST 5 DAYS PER WEEK
By sex

- **Past 12 months**: Female 32%, Male 36%
- **At least monthly**: Female 23%, Male 29%
- **Daily / near daily use**: Female 13%, Male 15%

**By sex**

**Past 12 months**

Female: 32%
Male: 36%

**At least monthly**

Female: 23%
Male: 29%

**Daily / near daily use**

Female: 13%
Male: 15%

**Among all respondents (N=30,081). Daily/near daily use = at least 5 days per week**
Cannabis prevalence 2021

By age

### Past 12 months

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>29%</td>
</tr>
<tr>
<td>21-30</td>
<td>40%</td>
</tr>
<tr>
<td>31-45</td>
<td>40%</td>
</tr>
<tr>
<td>46-55</td>
<td>30%</td>
</tr>
<tr>
<td>56-65</td>
<td>26%</td>
</tr>
</tbody>
</table>

### Monthly

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>19%</td>
</tr>
<tr>
<td>21-30</td>
<td>32%</td>
</tr>
<tr>
<td>31-45</td>
<td>32%</td>
</tr>
<tr>
<td>46-55</td>
<td>22%</td>
</tr>
<tr>
<td>56-65</td>
<td>19%</td>
</tr>
</tbody>
</table>

### Daily/Almost Daily

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Daily/Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>9%</td>
</tr>
<tr>
<td>21-30</td>
<td>19%</td>
</tr>
<tr>
<td>31-45</td>
<td>16%</td>
</tr>
<tr>
<td>46-55</td>
<td>11%</td>
</tr>
<tr>
<td>56-65</td>
<td>10%</td>
</tr>
</tbody>
</table>

By education

### Past 12 months

<table>
<thead>
<tr>
<th>Education</th>
<th>Past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree or higher</td>
<td>30%</td>
</tr>
<tr>
<td>College/technical training</td>
<td>37%</td>
</tr>
<tr>
<td>High school diploma</td>
<td>37%</td>
</tr>
<tr>
<td>Less than high school</td>
<td>33%</td>
</tr>
</tbody>
</table>

### Monthly

<table>
<thead>
<tr>
<th>Education</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree or higher</td>
<td>21%</td>
</tr>
<tr>
<td>College/technical training</td>
<td>29%</td>
</tr>
<tr>
<td>High school diploma</td>
<td>29%</td>
</tr>
<tr>
<td>Less than high school</td>
<td>24%</td>
</tr>
</tbody>
</table>

### Daily/Almost Daily

<table>
<thead>
<tr>
<th>Education</th>
<th>Daily/Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree or higher</td>
<td>8%</td>
</tr>
<tr>
<td>College/technical training</td>
<td>16%</td>
</tr>
<tr>
<td>High school diploma</td>
<td>19%</td>
</tr>
<tr>
<td>Less than high school</td>
<td>13%</td>
</tr>
</tbody>
</table>
Overall, 1 in 3 past 12-month cannabis consumers in the US reported that their cannabis consumption was only for medical purposes, an increase since 2019.

**Percent of consumers who self-identify as a medical marijuana user**
% ‘YES’, PAST 12-MONTH CONSUMERS N=29,617

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>28%</td>
</tr>
<tr>
<td>2020</td>
<td>31%</td>
</tr>
<tr>
<td>2021</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Percent of consumers who self-identify as a medical marijuana user**
% ‘YES’, PAST 12-MONTH CONSUMERS, 2021, N=10,361

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>US total</td>
<td>33%</td>
</tr>
<tr>
<td>Illegal states</td>
<td>29%</td>
</tr>
<tr>
<td>Medical states</td>
<td>36%</td>
</tr>
<tr>
<td>Legal states</td>
<td>33%</td>
</tr>
</tbody>
</table>
Medical authorization

Over 1 in 4 past 12-month cannabis consumers had ‘ever’ asked a health professional for a recommendation for medical cannabis. Among those who had asked, almost 4 in 10 had ever been refused.

Have you ever asked a licensed health professional for a recommendation to use medical marijuana?
% ‘YES’, PAST 12-MONTH CONSUMERS, 2021, N=10,367

Have you ever been refused a recommendation for medical marijuana?
% ‘YES’, PAST 12-MONTH CONSUMERS WHO HAVE SOUGHT APPROVAL, 2021, N=2,703
Medical authorization

In 2021, 1 in 5 past 12-month cannabis consumers reported ‘ever’ receiving approval for medical cannabis use.

Have you ever received a recommendation for medical marijuana?
% ‘YES’, PAST 12-MONTH CONSUMERS, N=34,277

Have you ever received a recommendation for medical marijuana?
% ‘YES’, PAST 12-MONTH CONSUMERS, 2021, N=10,472

<table>
<thead>
<tr>
<th>Year</th>
<th>US total</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>20%</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>23%</td>
<td></td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>23%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>23%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Medical authorization

In 2021, 14% of past 12-month cannabis consumers reported having a recommendation for medical cannabis use in the past year, a modest increase from 12% in 2018.

Did you have a recommendation to use medical marijuana at any time in the past 12 months?
% ‘YES’, PAST 12 MONTH CONSUMERS, N=34,258

![Graph showing the percentage of past 12-month cannabis consumers with a recommendation for medical marijuana use from 2018 to 2021.]

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Did you have a recommendation to use medical marijuana at any time in the past 12 months?
% ‘YES’, PAST 12-MONTH CONSUMERS, 2021, N=10,468

![Bar chart showing the percentage of users in different states and the US total.]

- US total: 14%
- Illegal states: 8%
- Medical states: 19%
- Legal states: 15%
Cannabis use to manage or improve mental health

‘Ever’ cannabis consumers reported using cannabis to improve or manage a range of mental health conditions, including anxiety, depression and PTSD.

Have you ever used marijuana to improve or manage symptoms for any of the following? % ‘YES’ AMONG ‘EVER’ CANNABIS CONSUMERS, 2021, N=20,125

- Anxiety: 39.1%
- Depression: 28.5%
- PTSD or traumatic event: 15.0%
- Bipolar disorder, mania, or borderline...: 8.6%
- ADD/ADHD: 6.8%
- Alcohol or other drug use: 6.3%
- Eating disorder: 4.5%
- Psychosis: 4.3%
- Don’t know: 3.6%
- Schizophrenia: 2.2%
- Other: 0.2%
- Stress: 0.1%
Have you ever used marijuana to improve or manage symptoms for any of the following?

% ‘YES’ AMONG ‘EVER’ CANNABIS CONSUMERS, 2021 N=20,125

- Pain: 32.1%
- Problems sleeping: 25.9%
- Headaches/migraines: 25.0%
- Lack of appetite: 14.7%
- Nausea/vomiting or chemotherapy: 12.5%
- Muscle spasms: 9.0%
- Digestion/gastrointestinal issues: 5.9%
- Don’t know: 3.8%
- Seizures: 3.3%
- Fibromyalgia: 3.0%
- To shrink tumours or treat cancer: 2.0%
- Other: 0.8%
Dried flower was the most commonly used product among past 12-month consumers in all years; however, the prevalence of dried flower use had a modest decrease between 2018 and 2021. Most other products increased between 2018 and 2021.
Among past 12-month consumers, the prevalence of dried flower, edibles, drops/capsules, and vape oils were generally similar between illegal, medical, and illegal states.

### Dried Herb
- **US total**: 73%
- **Illegal states**: 73%
- **Medical states**: 73%
- **Legal states**: 74%

### Edibles
- **US total**: 59%
- **Illegal states**: 55%
- **Medical states**: 58%
- **Legal states**: 61%

### Drops or Capsules
- **US total**: 31%
- **Illegal states**: 29%
- **Medical states**: 32%
- **Legal states**: 31%

### Vape Oils
- **US total**: 44%
- **Illegal states**: 43%
- **Medical states**: 45%
- **Legal states**: 45%

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AMONG PAST 12-MONTH CANNABIS CONSUMERS.
### Types of cannabis products 2021

#### Among Past 12-Month Cannabis Consumers.

<table>
<thead>
<tr>
<th>Types of Products</th>
<th>Illegal States</th>
<th>Medical States</th>
<th>Legal States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hash or kief</strong></td>
<td>26%</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Topicals</strong></td>
<td>23%</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Solid concentrates</strong></td>
<td>27%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Drinks</strong></td>
<td>17%</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Tinctures</strong></td>
<td>16%</td>
<td>13%</td>
<td>17%</td>
</tr>
</tbody>
</table>

- **US total**
- **Illegal states**
- **Medical states**
- **Legal states**

*ICPS*
Use of ‘non-THC’ CBD products

In 2021, over 1 in 4 respondents from the US reported using “CBD-only products” (with no THC) in the past 12 months. The most common CBD product types were oil/liquid drops, topicals, and edibles.

Use of CBD-only products
IN PAST 12 MONTHS N=29,927

Type of CBD-only products used
AMONG THOSE WHO REPORTED CBD-ONLY PRODUCT USE, N=8,356

Among all respondents, percent who reported using any CBD-only products with no THC in the past 12 months.
‘Delta–8’ THC products—Awareness

In 2021, ‘Delta–8 THC’ products were widely marketed in the US, particularly in jurisdictions in which conventional ‘Delta 9 THC’ products were illegal for adult use. Approximately 16% of US respondents reported hearing about Delta–8 products. Awareness levels for ‘Delta–8’ were somewhat higher than the levels for ‘Delta–4’ or ‘Delta–10’ products, which were included as ‘bogus’ options given that these products are not currently marketed or sold in the US. The results suggest higher levels of awareness for Delta–8 products, despite a certain level of misreporting due to confusion about THC types.

Some new types of products contain DELTA–8 THC. Have you heard of products that contain the following? % ‘YES’, ALL RESPONDENTS, 2021, n=30,081

<table>
<thead>
<tr>
<th>THC Type</th>
<th>US total</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta–4 THC</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Delta–8 THC</td>
<td>16%</td>
<td>20%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>Delta–9 THC</td>
<td>11%</td>
<td>12%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Delta–10 THC</td>
<td>7%</td>
<td>8%</td>
<td>7%</td>
<td>6%</td>
</tr>
</tbody>
</table>
‘Delta-8’ THC products – Use

In 2021, 27% of respondents who had heard of ‘Delta-8’ THC reported using a Delta-8 THC product in the past 30 days, corresponding to approximately 3% of all respondents in the US. These estimates should be interpreted with caution given the high likelihood of over-reporting due to confusion over ‘Delta-8’ products.

Have you ever used a DELTA-8 THC product?
ALL RESPONDENTS, 2021, n=3,645

Yes – In past 30 days

<table>
<thead>
<tr>
<th></th>
<th>US total</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes – In past 30 days</td>
<td>27%</td>
<td>26%</td>
<td>29%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Yes – more than 30 days ago

<table>
<thead>
<tr>
<th></th>
<th>US total</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes – more than 30 days ago</td>
<td>20%</td>
<td>23%</td>
<td>17%</td>
<td>19%</td>
</tr>
</tbody>
</table>
‘Delta 8’ THC products – Types

Among those that reported using ‘Delta-8’ THC products, dried herb, vapes, and edibles were the most commonly used, although these estimates are subject to wide confidence intervals due to low numbers of respondents reporting use.

What type of DELTA-8 THC product have you used?

AMONG US RESPONDENTS THAT REPORTED AWARENESS AND USE OF DELTA-8 PRODUCTS, 2021, n=1,561

- Dried herb: 40%
- Vape: 36%
- Edibles: 32%
- Oral oils or liquids: 29%
- Drinks: 18%
- Concentrates: 13%
- Tinctures: 9%
- Hash or kief: 8%
- Topical ointments: 5%
- Don’t know: 2%
- Other: 1%
Consumers in legal states reported paying an average of $8.75 per gram of dried flower in 2021, including from legal and illegal sources. The price paid for dried flower from illegal and legal retail sources decreased between 2018 to 2019 and then increased from 2019 to 2021. In 2019, the average price paid from legal sources was $8.21 per gram, $1.03 higher than from illegal sources, compared to $8.99 in 2021, $0.51 higher than illegal sources.
In 2021, the price of dried flower reported by consumers in legal states was lower in comparison to illegal and medical states. Prices reflect cannabis purchased from all sources, including legal (where permitted) and illegal retail sources.

**Price of dried flower**
SALES WEIGHTED PRICE-PER-GRAM OF DRIED FLOWER AT LAST PURCHASE

**Among ‘legal’ states** 2021

*STATES IN WHICH LEGAL RETAIL STORES HAVE YET TO OPEN*
Family or friends were the most common source of cannabis among past 12-month consumers across all years. In 2021, over half of consumers got their cannabis from family or friends.

**Cannabis sources in the past 12-months**
AMONG PAST 12-MONTH CONSUMERS

- **Made or grew my own**
  - 2018: 10%
  - 2019: 9%
  - 2020: 10%
  - 2021: 11%

- **Family member or friend**
  - 2018: 64%
  - 2019: 62%
  - 2020: 54%
  - 2021: 55%

- **Dealer**
  - 2018: 35%
  - 2019: 37%
  - 2020: 38%
  - 2021: 37%

- **Store, co-operative or dispensary**
  - 2018: 26%
  - 2019: 32%
  - 2020: 35%
  - 2021: 44%

**Note:** Respondents could select all that applied.
Cannabis sources

Past 12-month consumers from legal states were more likely to report sourcing cannabis from a store, and past 12-month consumers from illegal states were more likely to report sourcing cannabis from family/friends or a dealer.

**Store, co-op, or dispensary**

- US total: 44%
- Illegal states: 29%
- Medical states: 36%
- Legal states: 57%

**Family member or friend**

- US total: 55%
- Illegal states: 59%
- Medical states: 56%
- Legal states: 52%

**Dealer**

- US total: 37%
- Illegal states: 46%
- Medical states: 41%
- Legal states: 29%

**Made or grew my own**

- US total: 11%
- Illegal states: 8%
- Medical states: 10%
- Legal states: 12%

Among past 12-month cannabis consumers, respondents could select all that applied.
Purchasing cannabis from ‘legal’ sources

Past 12-month consumers from legal states reported purchasing the highest percentage of cannabis from legal retail sources in 2021.

Mean percentage of all cannabis products purchased in last 12-months from a legal retail source

AMONG PAST 12 MONTHS CONSUMERS, RESPONDENTS AGE: 21+

US total  Illegal states  Medical states  Legal states

2019  50%  32%  39%  78%
2020  56%  33%  50%  78%
2021  64%  46%  58%  76%

AMONG PAST 12-MONTH CANNABIS USERS (AGE 21+), ADJUSTED FOR CONSUMPTION AMOUNT.
Perceptions of legal cannabis

Past 12-month consumers were more likely than all respondents to perceive cannabis from ‘legal’ sources as more expensive, and less convenient to purchase. Fewer respondents perceived differences in the quality and safety of cannabis from legal versus illegal sources.

Respondents could select all that applied; legal states only.
Reasons for purchasing from retail ‘illegal’ sources

Consumers who purchased cannabis from an illegal retail source reported a range of reasons for doing so. Higher price, not having a prescription got medical marijuana, and lower convenience were the most common reasons for purchasing cannabis from illegal sources in 2021.

AMONG RESPONDENTS FROM ‘LEGAL’ STATES WHO REPORTED OBTAINING ANY CANNABIS FROM ILLEGAL OR UNAUTHORIZED SOURCES (N=11,506). RESPONDENTS COULD SELECT ALL THAT APPLIED.
**Perceptions of cannabis access**

Respondents from legal states reported a higher ease of getting cannabis, buying cannabis from a legal store, and buying cannabis from a legal online source, compared to respondents from illegal or medical states.

**Ease of getting cannabis**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>US total</td>
<td>51%</td>
<td>55%</td>
<td>50%</td>
<td>55%</td>
</tr>
<tr>
<td>Illegal states</td>
<td>46%</td>
<td>48%</td>
<td>42%</td>
<td>48%</td>
</tr>
<tr>
<td>Medical states</td>
<td>47%</td>
<td>51%</td>
<td>44%</td>
<td>50%</td>
</tr>
<tr>
<td>Legal states</td>
<td>66%</td>
<td>70%</td>
<td>65%</td>
<td>62%</td>
</tr>
</tbody>
</table>

**Ease of buying cannabis from a legal store or dispensary**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>US total</td>
<td>15%</td>
<td>25%</td>
<td>22%</td>
<td>29%</td>
</tr>
<tr>
<td>Illegal states</td>
<td>13%</td>
<td>20%</td>
<td>17%</td>
<td>21%</td>
</tr>
<tr>
<td>Medical states</td>
<td>14%</td>
<td>22%</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>Legal states</td>
<td>23%</td>
<td>36%</td>
<td>31%</td>
<td>35%</td>
</tr>
</tbody>
</table>

**Ease of buying cannabis from a legal online source**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>US total</td>
<td>22%</td>
<td>32%</td>
<td>32%</td>
<td>39%</td>
</tr>
<tr>
<td>Illegal states</td>
<td>10%</td>
<td>18%</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>Medical states</td>
<td>17%</td>
<td>27%</td>
<td>27%</td>
<td>32%</td>
</tr>
<tr>
<td>Legal states</td>
<td>52%</td>
<td>60%</td>
<td>54%</td>
<td>53%</td>
</tr>
</tbody>
</table>

*Among all respondents. Percentage selecting 'very' or 'fairly' easy.*
COVID-19 impact on consumption
2020 and 2021

Approximately 1 in 3 past 12-month consumers in the US reported that the COVID-19 pandemic changed their cannabis use, with a greater percentage indicating an increase in consumption.

Impact of COVID-19 pandemic on cannabis use

Percent of consumers who ‘used more’ or ‘started using’ cannabis during the pandemic

- **US total**
  - 20% (2020) vs 22% (2021)

- **Illegal states**
  - 19% (2020) vs 22% (2021)

- **Medical states**
  - 20% (2020) vs 21% (2021)

- **Legal states**
  - 21% (2020) vs 23% (2021)

AMONG PAST 12-MONTH CONSUMERS.
Cannabis advertising exposure

In 2021, almost half of respondents in the US reported noticing at least one type of cannabis advertising or promotion in the past 12 months – Respondents from legal states reported higher exposure than those from medical or illegal states.

Noticing any cannabis ads and promotions
AT LEAST ONE LOCATION IN THE PAST 12 MONTHS

Noticing any cannabis ads and promotions – 2021
AT LEAST ONE LOCATION IN THE PAST 12 MONTHS
Cannabis advertising exposure 2021

Among US respondents in 2021, social media was the most common source of advertising and promotion, followed by websites/online and billboards/posters.

<table>
<thead>
<tr>
<th>Marketing Channel</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social media</td>
<td>18%</td>
</tr>
<tr>
<td>Websites or online</td>
<td>14%</td>
</tr>
<tr>
<td>Billboards or posters</td>
<td>12%</td>
</tr>
<tr>
<td>Outside stores that sell marijuana</td>
<td>12%</td>
</tr>
<tr>
<td>Inside stores that sell marijuana</td>
<td>9%</td>
</tr>
<tr>
<td>TV or radio</td>
<td>9%</td>
</tr>
<tr>
<td>Email or text</td>
<td>8%</td>
</tr>
<tr>
<td>Print newspapers or magazines</td>
<td>5%</td>
</tr>
<tr>
<td>Flyers</td>
<td>5%</td>
</tr>
<tr>
<td>Bars, pubs, nightclubs</td>
<td>5%</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>4%</td>
</tr>
<tr>
<td>Sporting events, concerts, festivals, markets</td>
<td>4%</td>
</tr>
<tr>
<td>Kiosks or temporary sales locations</td>
<td>4%</td>
</tr>
<tr>
<td>At the movies</td>
<td>4%</td>
</tr>
<tr>
<td>Taxis or buses/public transit</td>
<td>3%</td>
</tr>
<tr>
<td>Regular postal mail</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
</tr>
</tbody>
</table>

AMONG ALL RESPONDENTS. PERCENT REPORTING SEEING MARIJUANA BEING ADVERTISED OR PROMOTED IN AT LEAST 1 LOCATION IN PAST 12 MONTHS.
## Cannabis advertising exposure 2021

For most marketing channels, respondents reported similar sources of seeing and hearing cannabis advertising. However, respondents living in ‘legal’ states reported higher levels of noticing billboards and advertising in retail settings, including inside and outside stores.

### Noticing cannabis ads in the past 12–months
**BY MARKETING CHANNEL, 2021, N=30,081**

<table>
<thead>
<tr>
<th>Marketing Channel</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social media</td>
<td>16%</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>Websites or online</td>
<td>12%</td>
<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td>TV or radio</td>
<td>8%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Outside stores that sell…</td>
<td>7%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Email or text</td>
<td>7%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Inside stores that sell…</td>
<td>6%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Billboards or posters</td>
<td>5%</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>At the movies</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Bars, pubs, nightclubs</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Print newspapers or magazines</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Sporting events, concerts,…</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Flyers</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Kiosks or temporary sales…</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Taxis or buses/public transit</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Regular postal mail</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**AMONG ALL RESPONDENTS. PERCENT REPORTING SEEING MARIJUANA BEING ADVERTISED OR PROMOTED IN AT LEAST 1 LOCATION IN PAST 12 MONTHS.**
In 2021, 1 in 3 respondents in the US recalled seeing an education campaign or public health message about cannabis in the past 12 months, with higher exposure among respondents from legal states.

Recall of cannabis education campaigns
IN THE PAST 12 MONTHS

By jurisdiction 2021

AMONG ALL RESPONDENTS. PERCENT REPORTING SEEING AN EDUCATIONAL CAMPAIGN OR PUBLIC HEALTH MESSAGE ABOUT CANNABIS IN AT LEAST 1 LOCATION IN PAST 12 MONTHS.
Around 15% of respondents in the US—and over 20% of past 12-month consumers—reported seeing health warnings on cannabis products in the past year, with higher exposure among respondents from legal states.

**Noticing cannabis health warnings on packages**

<table>
<thead>
<tr>
<th></th>
<th>All respondents</th>
<th>Past 12-month users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>2019</td>
<td>18%</td>
<td>21%</td>
</tr>
<tr>
<td>2020</td>
<td>21%</td>
<td>23%</td>
</tr>
<tr>
<td>2021</td>
<td>23%</td>
<td>23%</td>
</tr>
</tbody>
</table>

**ALL RESPONDENTS**

<table>
<thead>
<tr>
<th></th>
<th>US total</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>15%</td>
<td>12%</td>
<td>13%</td>
<td>18%</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PAST 12-MONTH CONSUMERS**

<table>
<thead>
<tr>
<th></th>
<th>US total</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>23%</td>
<td>17%</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AMONG ALL RESPONDENTS AND PAST 12-MONTH CANNABIS CONSUMERS. PERCENT REPORTING HAVING SEEN HEALTH WARNINGS ON CANNABIS PRODUCTS OR PACKAGES IN THE PAST 12 MONTHS.
Problematic cannabis use

The World Health Organization’s ASSIST tool assesses low, moderate or high risk of problematic cannabis use. Between 2018 and 2021, ‘high risk’ cannabis use has remained relatively stable between 7–9%.

Risk of problematic cannabis use
WHO ASSIST SCORES, AMONG PAST 12-MONTH CONSUMERS
N=30,679

Low risk
2018: 49%
2019: 52%
2020: 48%
2021: 50%

Moderate risk
2018: 44%
2019: 41%
2020: 43%
2021: 41%

High risk
2018: 8%
2019: 7%
2020: 9%
2021: 9%
Problematic cannabis use

‘High risk’ cannabis use was similar between illegal, medical, and legal states. In 2021, ‘high risk’ cannabis use among past 12-month users was about 10%.

Risk of problematic cannabis use
WHO ASSIST SCORES, AMONG PAST 12-MONTH CONSUMERS

Illegal states n=4,117

Medical states n=6,074

Legal states n=20,488

ICPS 38
Driving after cannabis use

The self-reported prevalence of driving within 2 hours of cannabis use in the US increased from 16% in 2018 to 21% in 2021.

Driving a vehicle within 2 hours of cannabis use

IN THE PAST 12 MONTHS AMONG ‘EVER’ CANNABIS CONSUMERS, N=67,525

AMONG EVER CANNABIS CONSUMERS WITH A DRIVER’S LICENSE. PERCENT WHO HAD DRIVEN A VEHICLE WITHIN 2 H OF CANNABIS USE, WITHIN THE PAST 12 MONTHS.
Cannabis use at work

In 2021, 1 in 5 past 12-month cannabis consumers reported using cannabis within 2 hours of starting work. Prevalence of using cannabis at work was higher among consumers who reported working in hazardous jobs. Cannabis use at work decreased between 2018 and 2019, and then has remained relatively stable between 2019 and 2021.

Cannabis use at work (including breaks) or within 2 hours of starting work in past 30 days

% ‘YES’, AMONG PAST 12-MONTH CANNABIS CONSUMERS, N=33,918

<table>
<thead>
<tr>
<th>Year</th>
<th>All consumers</th>
<th>High risk work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>28%</td>
<td>13%</td>
</tr>
<tr>
<td>2019</td>
<td>21%</td>
<td>14%</td>
</tr>
<tr>
<td>2020</td>
<td>22%</td>
<td>15%</td>
</tr>
<tr>
<td>2021</td>
<td>22%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Illegal states n=4,570

Medical states n=6,681

Legal states n=22,667

“IN THE PAST 30 DAYS, HAVE YOU USED MARIJUANA AT WORK (INCLUDING BREAKS) OR WITHIN 2 HOURS OF STARTING WORK?” AMONG PAST 12-MONTH CONSUMERS
In 2021, approximately 9% of past 12-month cannabis consumers in the US reported seeking medical help for an adverse event from cannabis. Among those who sought medical help, emergency rooms and doctors or health professionals were the most common sources of help.

**Percentage of consumers who sought medical help for adverse effects caused by cannabis use**

**Among past 12-month consumers, 2021 N=10,346**

- US total: 8.9%
- Illegal states: 7.6%
- Medical states: 9.3%
- Legal states: 9.4%

**Sources of assistance among consumers who sought medical help for adverse effects**

**Among those who sought medical help**

- Emergency department: 63%, 71%, 74%
- Walk-in clinic: 36%, 35%, 34%
- Doctor or health professional: 38%, 39%, 39%
- Poison centre: 22%, 37%, 36%
- Telephone helpline: 20%, 24%, 25%
- Addiction support service: 11%, 11%, 11%

**AMONG PAST 12-MONTH CONSUMERS. PERCENT WHO REPORTED SEEKING HELP FOR ANY ADVERSE EFFECTS.**
Storage of cannabis in home

Almost 6 in 10 past 12-month consumers in the US stored cannabis in the home in a variety of locations.

Do you currently keep any marijuana in or around your home?
% ‘YES’ PAST 12-MONTH CONSUMERS, 2021, N=10,154

<table>
<thead>
<tr>
<th>US total</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>57%</td>
<td>44%</td>
<td>56%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Where is the marijuana in your home stored?
% ‘YES’, AMONG CONSUMERS WHO STORED CANNABIS IN HOME, 2021, N=6,274

<table>
<thead>
<tr>
<th>Location</th>
<th>All past 12 months consumers</th>
<th>Parents of children &lt; 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>On an open shelf or table</td>
<td>24%</td>
<td>21%</td>
</tr>
<tr>
<td>In an unlocked cabinet or drawer</td>
<td>31%</td>
<td>24%</td>
</tr>
<tr>
<td>In an outdoor location</td>
<td>11%</td>
<td>18%</td>
</tr>
<tr>
<td>In a childproof container</td>
<td>21%</td>
<td>33%</td>
</tr>
<tr>
<td>In a locked container</td>
<td>32%</td>
<td>44%</td>
</tr>
<tr>
<td>In a locked room</td>
<td>9%</td>
<td>12%</td>
</tr>
</tbody>
</table>
Accidental ingestion

In 2021, around 10% of past 12-month consumers in the US reported at least one case of accidental cannabis consumption in the home. Accidental consumption was most commonly reported for respondents themselves or an adult, but included youth, children, and pets.

In the past 12 months, has anyone in your household accidentally consumed marijuana?

% ‘YES’ PAST 12-MONTH CONSUMERS, 2021, N=33,999

<table>
<thead>
<tr>
<th>Year</th>
<th>Illegal states</th>
<th>Medical states</th>
<th>Legal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>5%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>2019</td>
<td>6%</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>2020</td>
<td>7%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td>10%</td>
</tr>
</tbody>
</table>

Who was it that accidentally consumed marijuana?

% AMONG RESPONDENTS REPORTING ACCIDENTAL INGESTION IN HOME, 2021

- Me: 51%
- An adult: 42%
- A teenager: 16%
- A child <18 years: 9%
- A pet: 11%
Risk perceptions of smoking tobacco cigarettes were highest, followed by alcohol, with slightly higher risk perceptions for vaping versus smoking cannabis.

In your opinion, what is the level of health risk from...

**Smoking cigarettes daily**

- Very low: 5%
- Low: 3%
- Moderate: 9%
- High: 20%
- Very high: 60%
- Don't know: 4%

**Drinking alcohol daily**

- Very low: 4%
- Low: 6%
- Moderate: 20%
- High: 28%
- Very high: 39%
- Don't know: 4%

**Smoking marijuana daily**

- Very low: 14%
- Low: 19%
- Moderate: 23%
- High: 14%
- Very high: 20%
- Don't know: 10%

**Vaping marijuana daily**

- Very low: 8%
- Low: 11%
- Moderate: 21%
- High: 21%
- Very high: 27%
- Don't know: 12%
Risk perceptions

Among cannabis products, use of synthetic products was perceived as highest risk, followed by high-potency cannabis. Lower risk perceptions were reported for using edibles and exposure to second-hand cannabis smoke.

In your opinion, what is the level of health risk from...

**Consuming edibles daily**

- Very low: 17%
- Low: 23%
- Moderate: 19%
- High: 12%
- Very high: 16%
- Don’t know: 14%

**Using synthetic marijuana daily**

- Very low: 5%
- Low: 6%
- Moderate: 13%
- High: 19%
- Very high: 37%
- Don’t know: 20%

**Using high-potency marijuana concentrates daily**

- Very low: 8%
- Low: 11%
- Moderate: 18%
- High: 18%
- Very high: 25%
- Don’t know: 20%

**Exposure to second-hand marijuana smoke daily**

- Very low: 16%
- Low: 20%
- Moderate: 20%
- High: 14%
- Very high: 16%
- Don’t know: 14%
In your opinion, what is the level of health risk from...
% Moderate – High risk

By sex

By cannabis use

Risk perceptions

In your opinion, what is the level of health risk from...
% Moderate – High risk

By sex

By cannabis use
In your opinion, what is the level of health risk from...

% Moderate – High risk

**Risk perceptions**

*Illegal states*  *Medical states*  *Legal states*

**Smoke cannabis**

- 2018: 69%
- 2019: 67%
- 2020: 68%
- 2021: 70%

**Vape cannabis**

- 2018: 65%
- 2019: 68%
- 2020: 72%
- 2021: 74%

**Consume edibles**

- 2018: 59%
- 2019: 56%
- 2020: 55%
- 2021: 48%

**Use synthetic cannabis**

- 2018: 73%
- 2019: 72%
- 2020: 70%
- 2021: 69%

**Use high-potency concentrates**

- 2018: 66%
- 2019: 64%
- 2020: 63%
- 2021: 62%

**Exposure to second-hand cannabis smoke**

- 2018: 52%
- 2019: 55%
- 2020: 51%
Social acceptability of cannabis

In 2021, over 1 in 3 respondents perceived general ‘approval’ for cannabis, with few changes since 2018.

In your opinion, do people generally approve or disapprove of marijuana?
% ‘APPROVE’ OR ‘STRONGLY APPROVE’

Among all respondents.

US overall 2021

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disapprove</td>
<td>8%</td>
<td>21%</td>
<td>27%</td>
<td>10%</td>
</tr>
<tr>
<td>Disapprove</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither approve nor disapprove</td>
<td>32%</td>
<td>35%</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td>Approve</td>
<td>36%</td>
<td>36%</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Strongly approve</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Social acceptability of cannabis

Approximately 1 in 5 respondents would feel comfortable using cannabis in public.

How comfortable or uncomfortable would you feel openly using marijuana in public? % ‘COMFORTABLE’ OR ‘VERY COMFORTABLE’

AMONG ALL RESPONDENTS.

US total 2021
Support for cannabis legalization

In 2021, 6 in 10 US respondents supported legalization of non-medical cannabis, with approximately 2 in 10 opposed to legalization. Support has increased between 2018 and 2021 across ‘illegal’, ‘medical’, and ‘legal’ states.

Recreational (non-medical) marijuana should be...

AMONG ALL RESPONDENTS, N=106,670

**Legal**  
2018: 52%  
2019: 53%  
2020: 57%  
2021: 61%

**Illegal**  
2018: 32%  
2019: 30%  
2020: 23%  
2021: 20%

**Don’t know**  
2018: 16%  
2019: 17%  
2020: 21%  
2021: 19%

**Illegal states** n=17,792

2018 2019 2020 2021
50% 51% 55% 58%
33% 30% 23% 21%
17% 19% 22% 17%

**Medical states** n=24,494

2018 2019 2020 2021
51% 53% 55% 60%
32% 31% 24% 21%
17% 17% 21% 20%

**Legal states** n=64,384

2018 2019 2020 2021
56% 58% 62% 63%
31% 27% 20% 18%
13% 15% 18% 18%
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