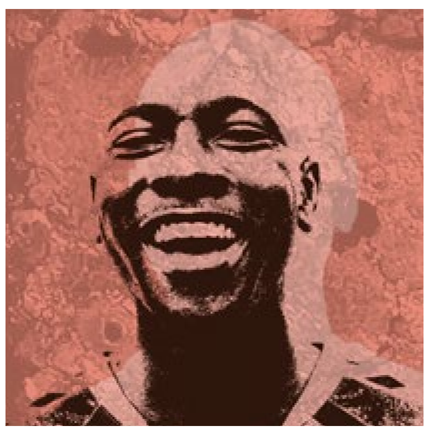
CANNABIS CONSUMERS in AMERICA

Part 1: Dynamics Shaping Normalization in 2022









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About
New Frontier Data

NEW FRONTIER DATA is the premier data, analytics, and technology firm specializing in the global cannabis industry, delivering solutions that enable investors, operators, advertisers, brands, researchers, and policymakers to assess, understand, engage, and transact with the cannabis industry and its consumers. New Frontier Data's global reach and reputation is evidenced by research and analysis citations in more than 85 countries. Founded in 2014, New Frontier Data is headquartered in Washington, D.C., with presence in Europe, Latin America, and Africa.

Mission

New Frontier Data's mission is to inform policy and commercial activity for the global legal cannabis industry. We maintain a neutral position on the merits of cannabis legalization through comprehensive and transparent data analysis and projections that shape industry trends, dynamics, demand and opportunity drivers.

Core Values

- Honesty
- Respect
- Understanding

Vision

To be the nexus of data for the global cannabis industry.

Commitment to Our Clients

The trusted one-stop shop for cannabis business intelligence, New Frontier Data provides individuals and organizations operating, researching, or investing in the cannabis industry with unparalleled access to actionable industry intelligence and insight, helping them leverage the power of big data to succeed in a fast-paced and dynamic market. We are committed to the highest standards and most rigorous protocols in data collection, analysis, and reporting, protecting all IP and sources, as we continue to improve transparency into the global cannabis industry.

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Introduction

Cannabis is no longer a one-size-fits-all industry.

As the plant is more accepted and its use is destigmatized, it becomes vital for brands, retailers, and operators to have a nuanced understanding of who their consumers are, why they consume, and how their preferences are evolving amid rapid innovation in the product landscape.

Since 2018, New Frontier Data has surveyed more than 20,000 consumers to benchmark and analyze cannabis consumption behaviors. This study presents New Frontier Data's fourth edition of in-depth and comprehensive analysis of cannabis consumption and purchasing habits, behavioral drivers, and social attitudes at this inflection point in the legal market's growth.

Our research findings continue to validate that as the market matures, cannabis consumers are becoming more intentional with their use of the plant, seeking specific experiences from their cannabis use, and aligning the products they choose to those outcomes. While the top reasons for consuming cannabis have remained largely unchanged – including relaxation, pain management, improving sleep outcomes, and treating medical conditions – the broadening ways in which they can achieve these outcomes from the wide array of products on the market is leading to significant changes in the ways in which consumers are integrating cannabis into their lives.

Changes are not just taking place in fully regulated markets. One of the notable findings in this report is how similar consumer behavior and preferences have become in both legal and

illicit markets, as value-added products become more readily accessible across all markets.

While flower remains king – smoking joints remains the most common and most popular way to consume cannabis – more than half (57%) of consumers now enjoy both flower and non-flower products. The growth of non-smokable products will continue, as half of all consumers (and 61% of those under age 35) say that they would be interested in trying new products as they learn about them.

For brands, this presents both challenges and opportunities. For new brands, it means that the market is receptive to trying quality products with resonant branding, but for existing brands, it creates a challenge in securing consumer loyalty in a fast-growing and highly dynamic marketplace.

The findings in this report set the foundation of the consumer insights that we will be sharing this year. Moreover, they illuminate a market of consumers who are quickly coming out of the shadows, unshackled from both the stigma of yesteryear and sanction of prohibition, and embracing the offerings of an innovating market in an in increasingly accepting society.

Key Takeaways

With combined U.S. legal and illicit sales estimated at $97 billion in 2021, cannabis consumer demand in America now exceeds what the nation annually spends on spirits, and roughly matches what it spends on beer. Continued strong growth in legal demand, which is expected to serve most U.S. demand by 2030, is driving surging interest in cannabis among CPG companies, investors, and entrepreneurs alike. Furthermore, as science continues to affirm the comparative health effects of alcohol and tobacco relative to cannabis, and social acceptance of cannabis increases, more consumers will expectedly substitute cannabis for alcohol in the coming years, and in the process, increase the acceptability and use of cannabis in American social society.

Cannabis consumers were more than twice as likely to self-identify as LGBTQ compared to the general population. The over-indexing of cannabis use within the LGBTQ community presents an opportunity for further research into why cannabis use is so much higher among that group, and for brands to understand the importance of the LGBTQ community in their consumer bases. While Pride Month has become a major celebration on the U.S. retail calendar, given the large representation of the LGBTQ community in the cannabis consumer base, cannabis brands and retailers would be advised to consider opportunities to serve the community not just during Pride Month, but throughout the year.

For nearly half of current consumers, cannabis use is routinized. Many cannabis consumers have integrated cannabis into their daily routines, with nearly half (47%) consuming cannabis daily, and two-thirds (67%) consuming more than once per week. The advancements in product innovation that enable consumers to use cannabis more conveniently and discreetly, coupled with the proliferation of products that can be used for specific use cases (e.g., pain, sleep, relaxation, exercise, creativity, etc.) have broadened the ways in which consumers can use cannabis per their specific needs and use cases.

More than 1 in 10 (13%) among adults have not yet tried cannabis and would consider trying it in the future. New Frontier Data's long-running consumer research has shown that cannabis' illegality is often the main reason why canna-curious consumers do not try cannabis. For many, prohibition's sanctions are too great a risk to overcome their curiosity in trying cannabis. With more than half of the country now living in states where cannabis is legal in some form, and with an additional 18 states poised to legalize either medical or adult-use programs over the next decade, nearly all Americans (96%) could be living in legal cannabis markets by 2030. Such an expansion of the legal market would not only expand the total addressable market for cannabis by allowing canna-curious consumers to participate in the market without fear of sanction, but it would also dramatically increase the normalization of cannabis by eliminating stigma associated with prohibition in much of the country.

Further affirming the generational shift occurring as cannabis acceptance increases - more than half of adults ages 18-34 consume cannabis at least once daily, significantly more than among older age groups. As those adults grow into positions of legal power and social influence, their acceptance and use of cannabis will likely play increasingly impactful roles in shaping national and regional policies, and cannabis-related cultural trends.

Compared to the general population, cannabis consumers are more likely to be White or Black, and less likely to be Hispanic or Asian. Cultural attitudes among Hispanics and Asians tend to be more socially conservative, and thus likely main drivers of lower usage rates among the two groups. However, there may also be important generational factors at play, with older, first- and second-generation immigrants being more opposed to cannabis than are their American-born children. Over the next decade, as cultural differences between the groups are leavened, and social acceptance of cannabis grows, usage rates are likely to increasingly mirror the country's demographics.

The illegal market is not a barrier for consumers in unregulated markets, and consumptions patterns are quickly normalizing across all markets.

Consumption patterns are normalizing across all markets. The legal status of a market is less influential in predicting frequency of use than are other demographic variables like age and gender. That indicates that while legalization may improve the quality and availability of cannabis products, the pervasive and deeply entrenched illegal market is not a barrier for consumers in unregulated markets, and consumer behavior is quickly normalizing across all markets. That is especially important in newly legal states which are likely to face considerably more shallow consumer-adoption curves than in states which legalized earlier, when there were more substantial differences between consumer behaviors in legal versus adult-use markets.

Dual-use consumers are more frequent consumers than are those who exclusively use cannabis either medicinally or recreationally. Consumers who describe their use as both medical and recreational consume cannabis significantly more often than those who say that they only consume either medically or recreationally. More than half (55%) of current consumers are dual-use consumers, which underscores limitations of the medical-recreational binary that has for so long informed policy-making and business strategy for the industry. The dual-use consumers, many of whom may be described as "wellness" consumers, will be critical to informing the next phase of industry's evolution. As they tend to be more intentional in their use, and thoughtful about which products they use, the contexts in which they consume, and their desired outcomes for doing so, will continue to shape the markets. In coming years, more consumers will be expected to self-identify as dual-use consumers, presenting brands and retailers with significant opportunities to refine their product strategies and messaging.

Reasons for cannabis use remain highly diverse and personalized, making it imperative to build a targeted consumer strategy. The industry is nearing the end of a one-size-fits-all era where brands could be indiscriminate about whom they target with the products they build. With consumers becoming far more intentional with their use, and the primary drivers of use now spanning relaxation, pain management, improving sleep outcomes, treating a medical condition, or improving overall wellness, it is increasingly important for brands to invest in understanding both who their consumer is and why they consume. As the industry grows in scale and specialization, differentiated brands with resonant products aimed at well-defined target segments are far likelier to secure effective competitive market positions over the long term than are brands which try to serve the broadest base possible without tailoring to individual subgroups' needs.

The COVID-19 pandemic's disruptions have continued to drive increased cannabis use. With COVID-19's economic and social disruptions extending well into 2022, it is unsurprising that cannabis use increased during an especially challenging period both financially and socially for many consumers. What is uncertain, however, is whether those increased levels of use will be sustained as the pandemic's economic disruptions wane, and as American social life returns to a semblance of previous normalcy.

The return to post-pandemic normalcy may be offset by changes in the broader macroeconomic climate. While many areas in the U.S. have ended their most stringent pandemic restrictions, and many employers are requiring staff to return to their offices, broader economic conditions could present new challenges to consumers going forward. In addition to generationally high inflation rates, which are acutely impacting consumer spending, the war in Ukraine has spiked fuel and commodity prices, and it could take several months for prices to stabilize. The full effects of such convergent forces remain to be seen, but if inflation persists at current levels, one likely outcome will be consumers' reduced spending for their cannabis, whether by shifting to value/low-cost products in legal markets, or by returning to illicit markets where flower, in particular, is generally less expensive than in a legal market. While New Frontier Data's research has shown that cannabis demand is highly recession-resilient, the long-term implications from protracted high inflation or a broader economic contraction may impact legal market operator revenues, especially for premium brands and more expensive value-added products.

The wide range of medical reasons for cannabis use underscores the urgency for more clinical research. There are over 60 medical conditions for which afflicted patients can qualify for medical cannabis, and in some jurisdictions (including California, New York, and Washington, D.C.) physicians can recommend medical cannabis for any condition which they believe a patient might benefit. While patients have overwhelmingly reported that using cannabis has improved their conditions, far more research is needed to understand which conditions cannabis is most effective for, and how to most effectively integrate cannabis into a broader treatment regime. However, under federal prohibition it remains extremely challenging to perform substantive clinical research about the efficacy and outcomes for patients using cannabis for a multitude of reasons. The necessary research remains years if not decades away from being conducted at the necessary scale. Regardless, it is hard to overstate the value of the research in guiding patients toward better outcomes, and for cementing cannabis' position within the American pharmacopoeia.

Medical cannabis patients have had overwhelmingly positive experiences, which fuel social acceptance and the adoption of medical use. More than half (57%) of medical cannabis patients reported that their conditions improved significantly, and 93% reported at least some improvement. That strong positive feedback across a wide range of products is leading to several outcomes:

- Increased acceptance of cannabis, even among nonconsumers who are witnessing friends and family members experience positive health outcomes from using cannabis.
- Broader willingness to consider using cannabis therapeutically, especially among older and more conservative adults who may still be opposed to recreational use but for whom the therapeutic benefits of cannabis are now settled.
- Greater willingness by health-care practitioners to recommend cannabis, even when the mechanisms by which cannabis reportedly works are not well understood.

In a fragmented product landscape, flower remains king. Even with hundreds of thousands of products now available in legal markets nationwide, flower's dominance of consumer preferences and use remains unchallenged. It remains both the most widely used form of cannabis, and the favorite for consumers overall – three times more popular than edibles (the second-most popular form). As such, while emerging product categories including beverages and pills present significant potential opportunities to capture future demand, retailers in particular should notice the continued dominance of flower over the medium term.

Consumer excitement to try the latest thing highlights challenges for building brand loyalty in a nascent, highly dynamic market. Even as flower remains the dominant product category, consumers are eager to explore new product offerings. More than half (51%) of current consumers say that they are eager to try new products when they learn of them. That suggests a positive environment for brands' launching new products, even in crowded spaces, as there remains a large cross-section of consumers interested in trying a latest thing. The challenge for brands, however, is that it also suggests that brand loyalty remains low, meaning that brands cannot rest on their laurels once they have secured a customer, as that customer might be readily poached by a new entrant.

Even as flower remains the dominant product category, 51% of current consumers say that they are eager to try new products.

Prerolls are helping extend the longevity of flower's dominance. While flower remains king, prerolls have been the fastest-growing consumer category over the past few years, owing to their convenience (relative to rolling joints) and their increased quality and availability. With preroll brands offering an increasingly rich diversity of sizes, strains, packages, and brand positioning, consumers have an array of products to afford them the experience and immediacy of flower in a conveniently portable package.

When choosing which products to consume, function dictates form. For consumers who prefer more than one type of product, their primary choices were determined by the activities they intended to engage in. The alignment of product form and activity is helping to drive a diversification of product uses, resulting in ever more consumers using more than one form. For brands and product manufacturers, it is therefore increasingly important to consider the contexts for which their products are being consumed. Any poor alignment can negatively impact consumer adoption, and subsequently also a company's bottom line.

Despite their promise (and hype), beverages have a long way yet to become a market-moving category. Beverages have been one of the most exciting product categories emerging in the industry, in large part because innovation in manufacturing processes has dramatically improved the quality of the products while also reducing their onset times. Furthermore, the ease with which beverages can be consumed in social environments (essentially mirroring alcohol) has generated a lot of speculation about how large the category could grow. However, despite favorable consumer feedback about products that are now available, limited access in most markets to high- quality beverages, costs per dosing relative to other forms, and the relative newness of the category compared to other forms mean that while 14% of consumers drink infused beverages, only 1% select them as their primary or preferred product form. That share of preference will likely increase significantly over time, but retailers in the near term should expect beverages to remain a small if fast-growing category.

Despite lingering questions about products' scientific validity, consumers are most interested in knowing what effects that the products they consume will have. Of all the types of information which consumers seek about their purchases, most (51%) want to know what effect a product will have (e.g., relaxing, happy, sleepy, uplifting, etc.). While some crowdsourced platforms have collected input from thousands of consumers about the effects produced by different strains and products, the scientific jury remains out about how accurate effect-based outcomes are, and how much they may differ between consumers. That highlights another area where much more research is needed to effectively guide consumers to the types of experiences that they are seeking, and the opportunity for more consumer education regarding the effects typically created by different types of cannabinoids.

Among nonconsumers, medical need and legal access would be the two leading catalysts for considering using cannabis. The four leading reasons why nonconsumers would use cannabis include: whether a doctor recommended it, if suffering from a condition that might improve from it, should cannabis become legal in their state, and (for underage nonconsumers) if they will come of age in a legal market. Those affirm how therapeutic applications of cannabis represent popular softening of public attitudes, and that prohibition continues to be a limiting factor for many adults living in states where cannabis prohibition continues to be punitively enforced. As a result, increased consumer adoption is anticipated as more states legalize (for medical use, in particular) over the coming years.

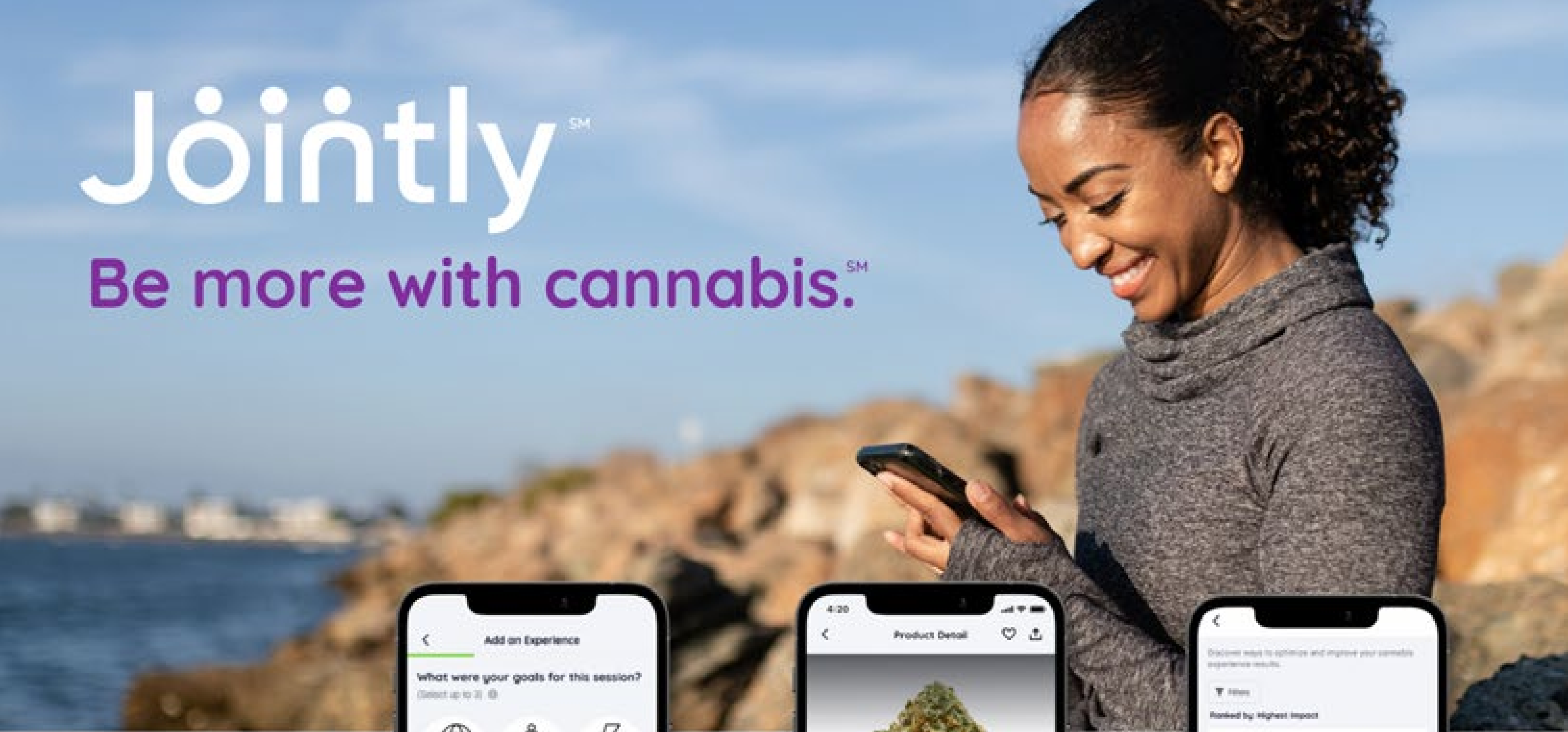
For most consumers, cannabis is a low-spend/high-frequency purchase. Nearly half (45%) of current consumers acquire cannabis at least once per week, with most (67%) among them spending less than $100 per purchase. The high-frequency nature of those purchases, coupled with high levels of expressed interest in new products, creates significant opportunities at each touchpoint for retailers and brands to engage and educate consumers.

As buying legal cannabis becomes routinized, retail loyalty has grown. In a positive development for retailers, nearly two-thirds of consumers who buy their cannabis from a dispensary or delivery service say that they always buy from the same businesses. While this does not necessarily mean consumers only shop from one business, it does mean that the continual shopping around which characterized the industry's early days is largely settled, with consumers now sticking to a small subset of retailers. Since familiarity with a business is a primary reason for consumer loyalty, retailers should be especially focused on finding ways to deepen those relationships, whether through frequent shopper incentive programs, tailored recommendations based on the consumer's shopping habits, or community-focused customer appreciation initiatives and events.

As buying legal cannabis becomes routinized, retail loyalty has grown...nearly two-thirds of consumers who buy from a dispensary or delivery service say that they always buy from the same businesses.

Social use spaces in the U.S. will be enthusiastically welcomed by consumers. More than three-quarters (77%) of current consumers believe that there should be public spaces (e.g., bars and cafes) where public cannabis consumption is permitted. With more states now allowing social-use spaces, and permitting processes underway, the coming years will see major changes in cannabis use as consumption lounges become more mainstream nationwide, and as consumers enjoy spaces presenting alternatives to consuming alone. The rise of social-use spaces likely represents the single-most consequential catalyst toward building a connected community of cannabis consumers throughout local markets across the country.

The displacement of alcohol with cannabis will be a long, incremental process. Two-thirds (67%) of cannabis consumers drink alcohol at least once per month, though 61% say that given a choice, they prefer cannabis. Notably, one-third (33%) say that they would like to quit drinking alcohol entirely, through it is likely that the significant difference in social acceptability between alcohol and cannabis makes it more difficult to stop drinking entirely. While the trend toward alcohol's displacement by cannabis is a durable one, especially among young adults, it is likely going to be a generational one, rather than one manifested in the next few years. Furthermore, it is expected that growing social acceptance will both increase substitutability and strengthen public preferences for cannabis over alcohol, though not completely dissuade cannabis consumers from drinking.



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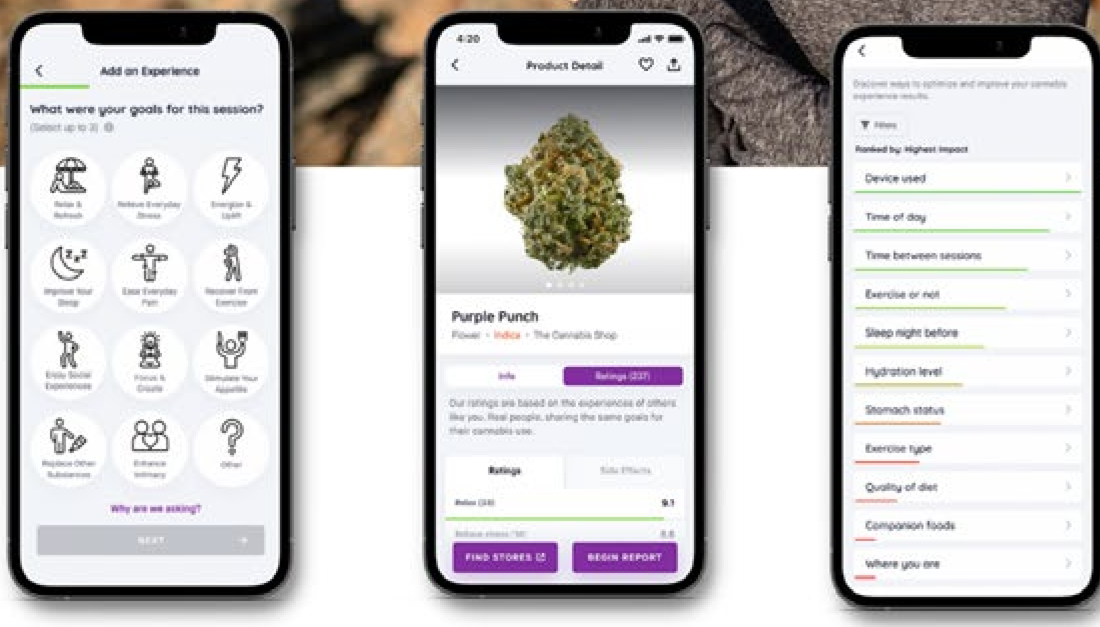

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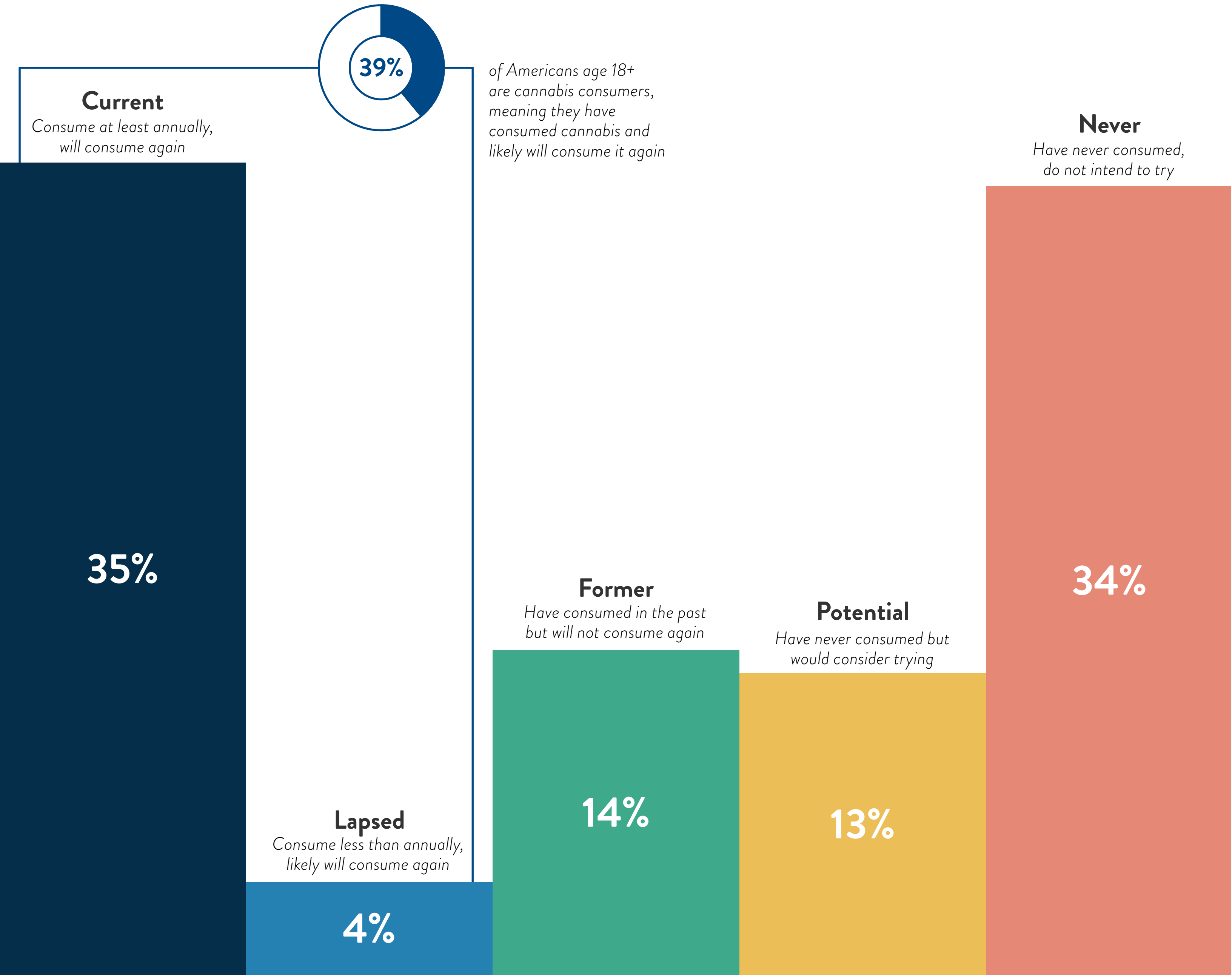
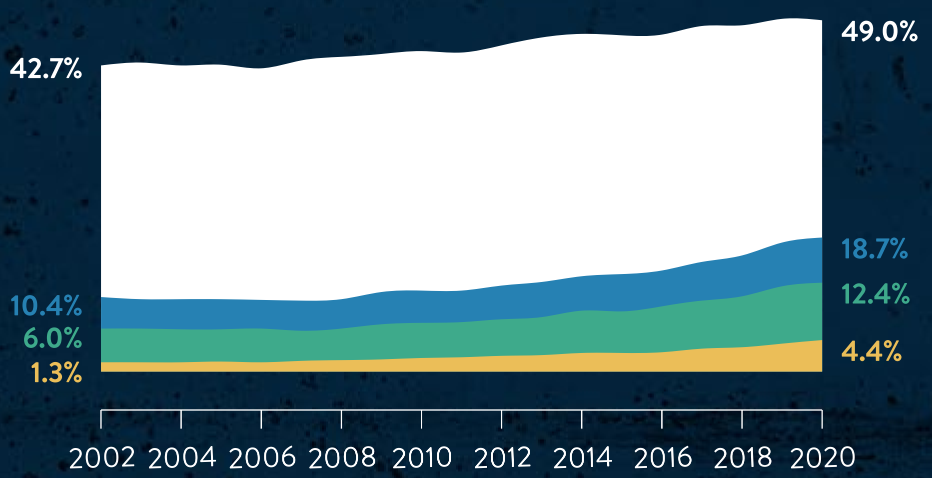
Cannabis and the General Population

Just over one-third (35%) of U.S. adults are current consumers, meaning that they consume at least annually. This is the population discussed in this report.



U.S. Consumers in Context

U.S. Adult Cannabis Consumption Rates (2002-2020)

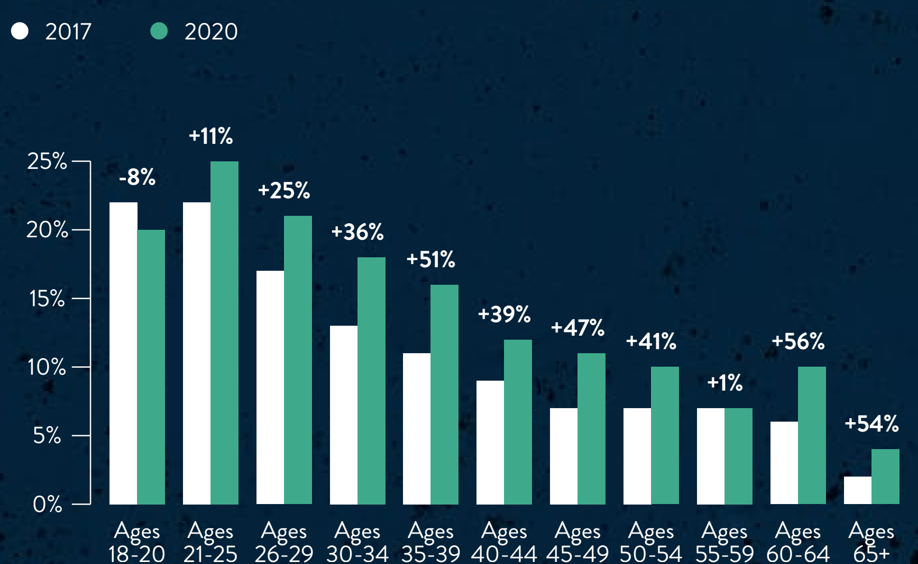


Changes in Use Frequency 2002-2020	
Lifetime	+15% ↗
Past year	+80% ↗
Past month	+107% ↗
Daily / almost daily	+238% ↗

Past month use among minors dropped between 2010 and 2020.

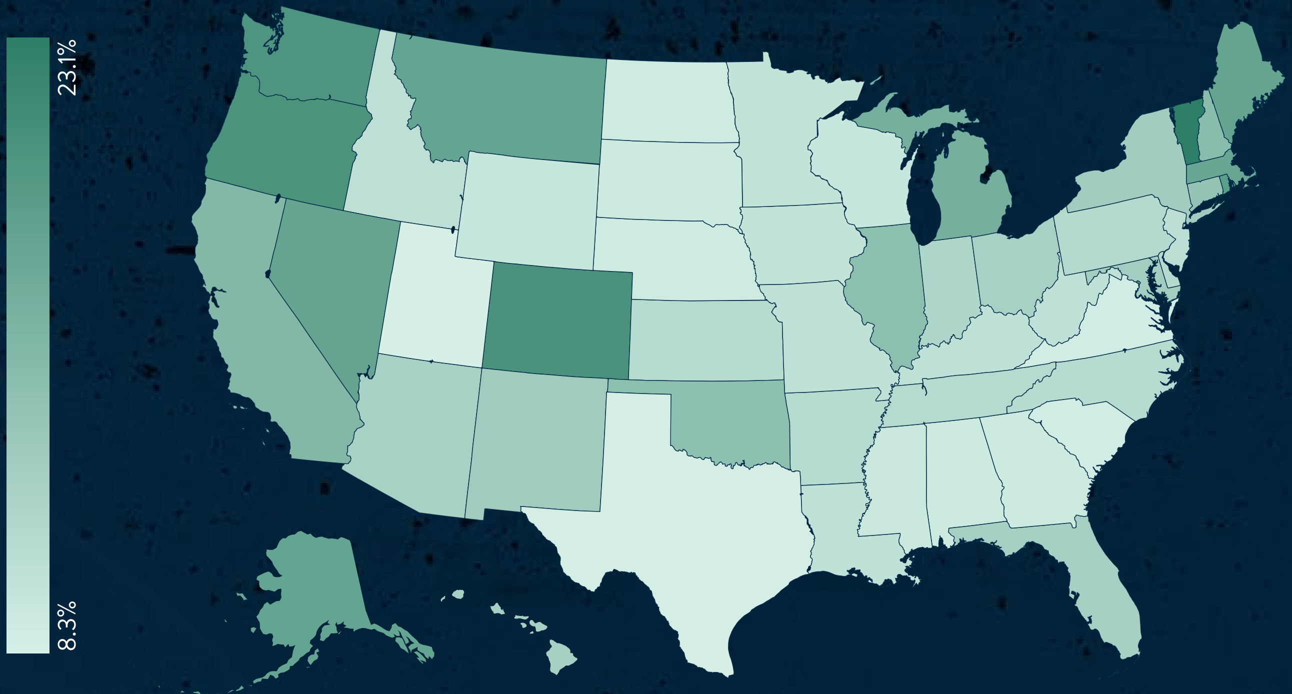
Past month use by 12-17 year-olds fell by 20% between 2010 and 2020 (from 7.4% to 5.9%) despite a proliferation of policy changes.

Changes in Past Month Use Rate: by Age Group

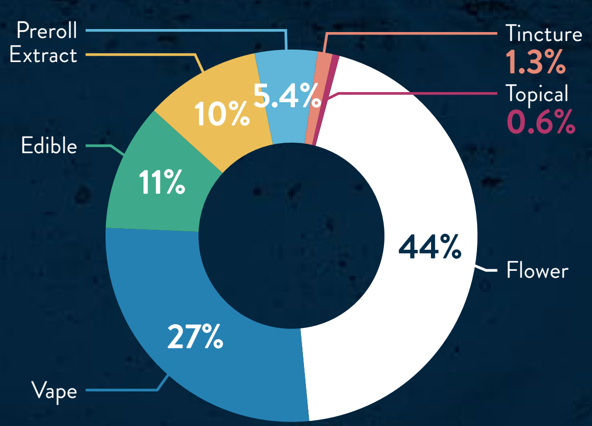


Source (this page): SAMHSA

Monthly Cannabis Consumption Among Adults 18+ (2021)



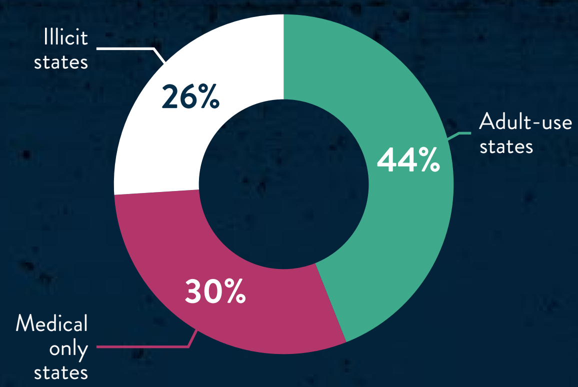
Product Share of Sales: 2021 Average



AVERAGE CONSUMER SPEND PER MONTH	
Adult-use	**Medical-use**
$222.59	**$337.21**

in legal markets, 2021

Adult Population: by State Legal Status



ADULT-USE STATE	**115.9 million**
MEDICAL STATE	**78.4 million**
ILLICIT STATE	**67.9 million**

Sources (this page): SAMHSA, New Frontier Data

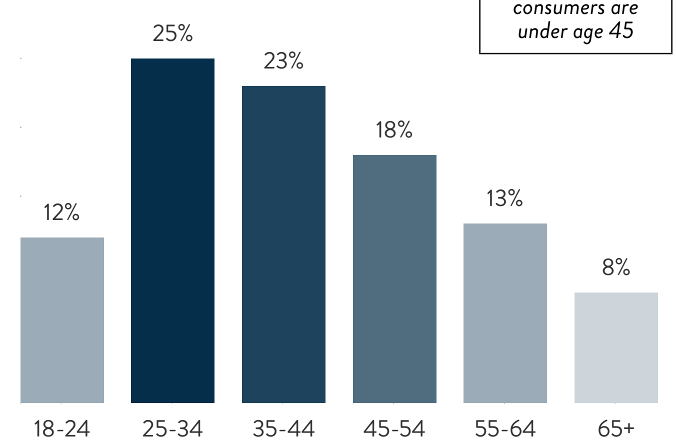
Current Consumers

Consumer Demographics

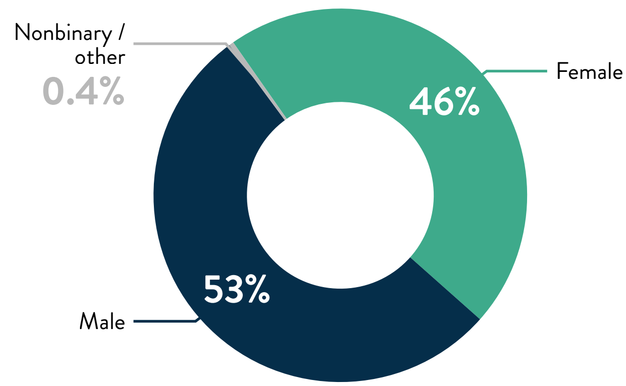
Age

60%

of current consumers are under age 45



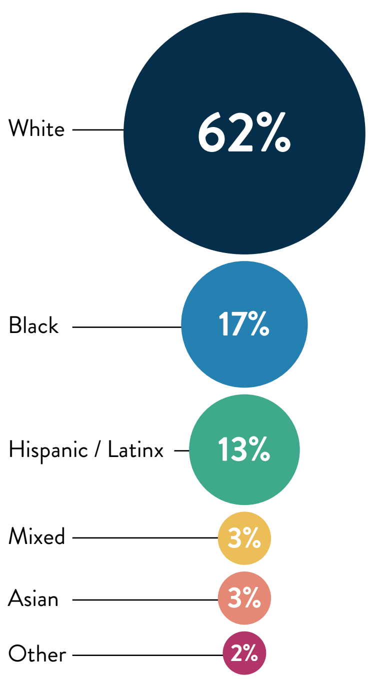
Gender



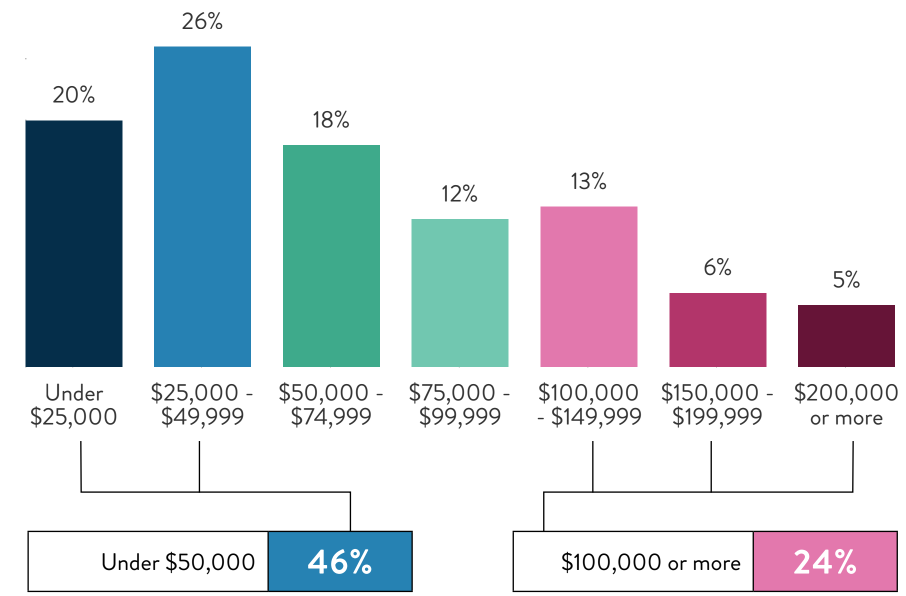
14%

Identify as LGBTQ+

Racial/Ethnic Identity

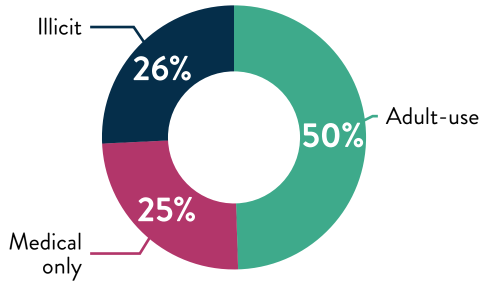


Annual Household Income

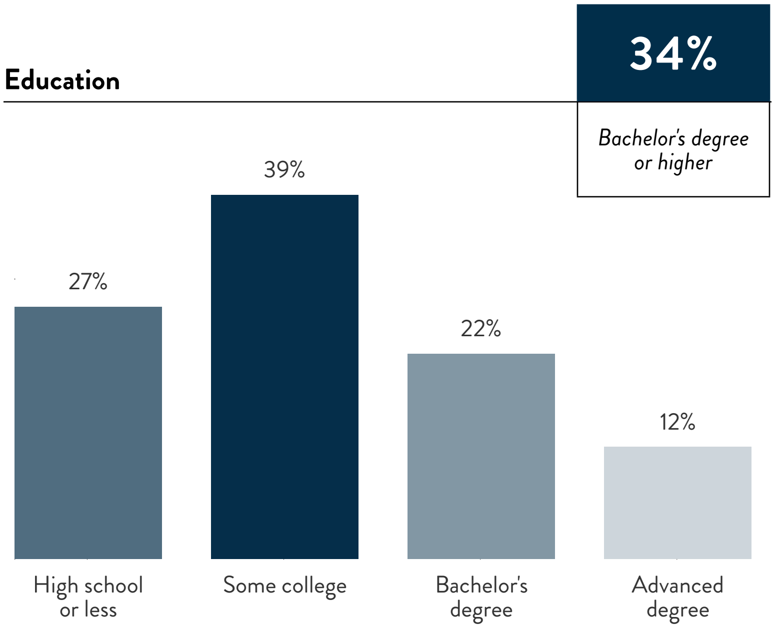


Note (this page): Among current (annual+) consumers.

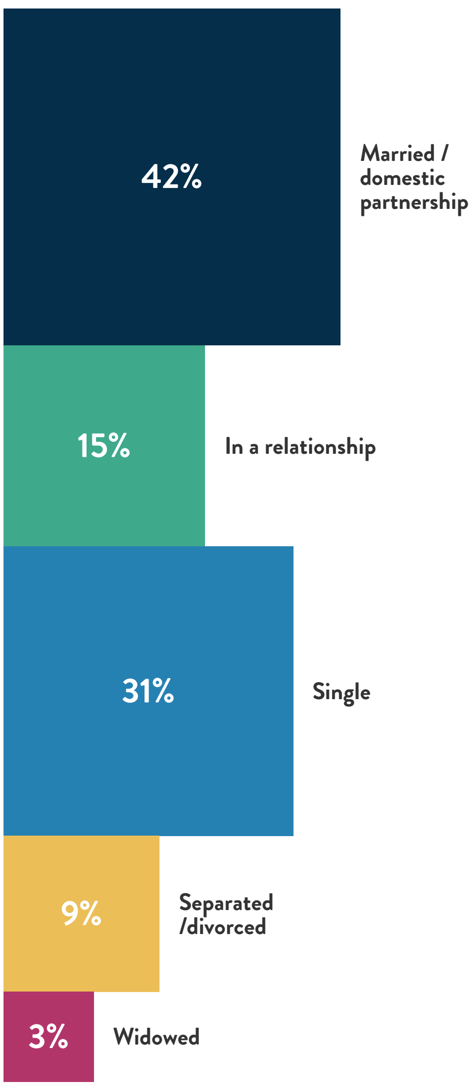
Home State Market Type



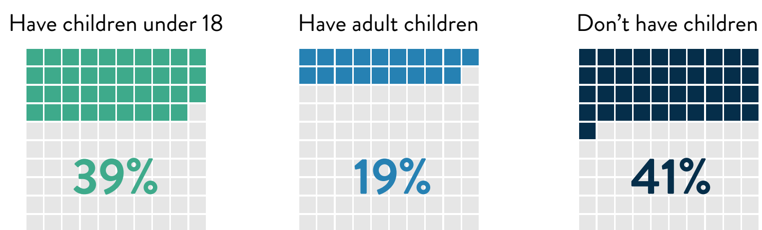
Education



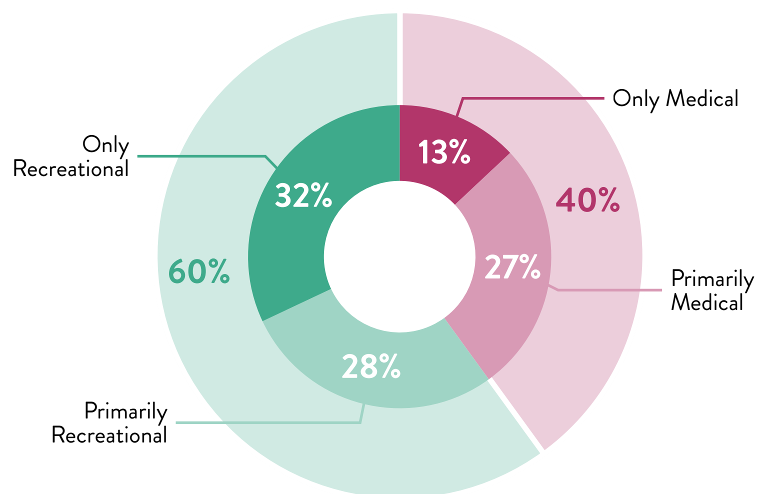
Relationships



Parenthood



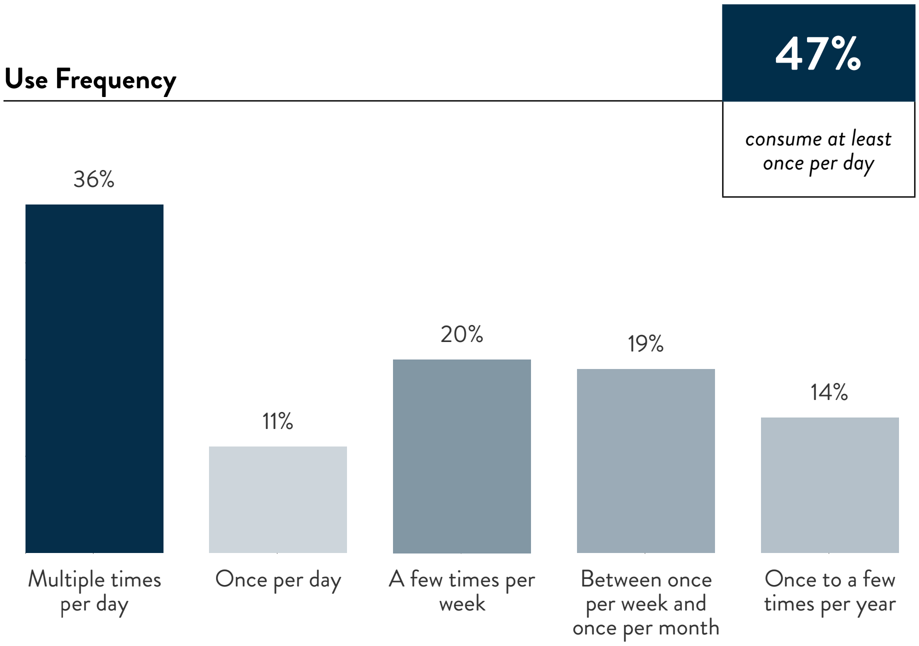
Medical vs. Recreational Self-Identification



Note (this page): Among current (annual+) consumers.

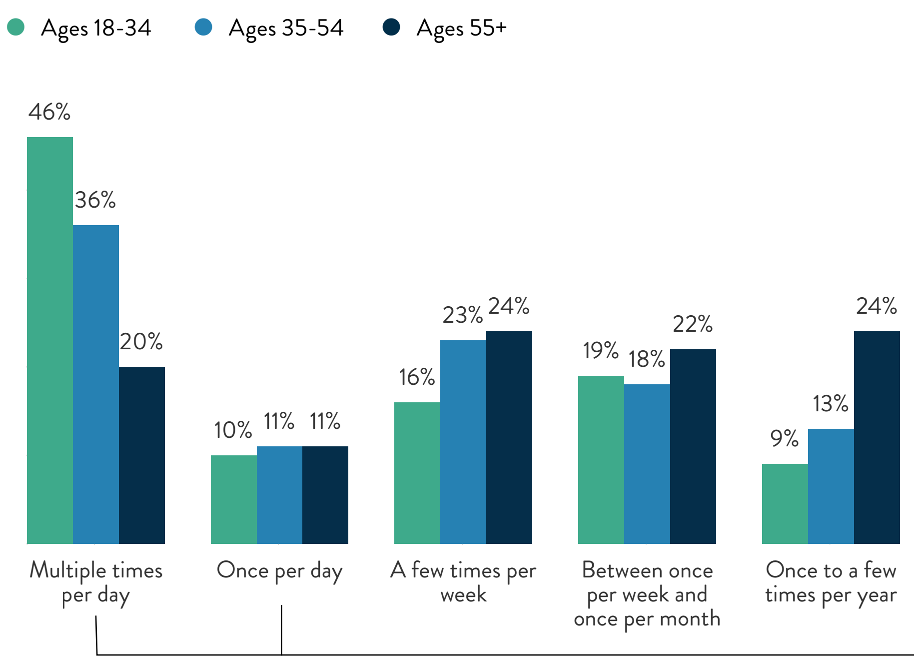
Use Frequency

Use Frequency



More than one-third (36%) of current consumers uses cannabis multiple times a day. Another third consumes once daily or every other day (31%), and one-third (33%) consumes between once per week and once per year.

Use Frequency: by Age Group



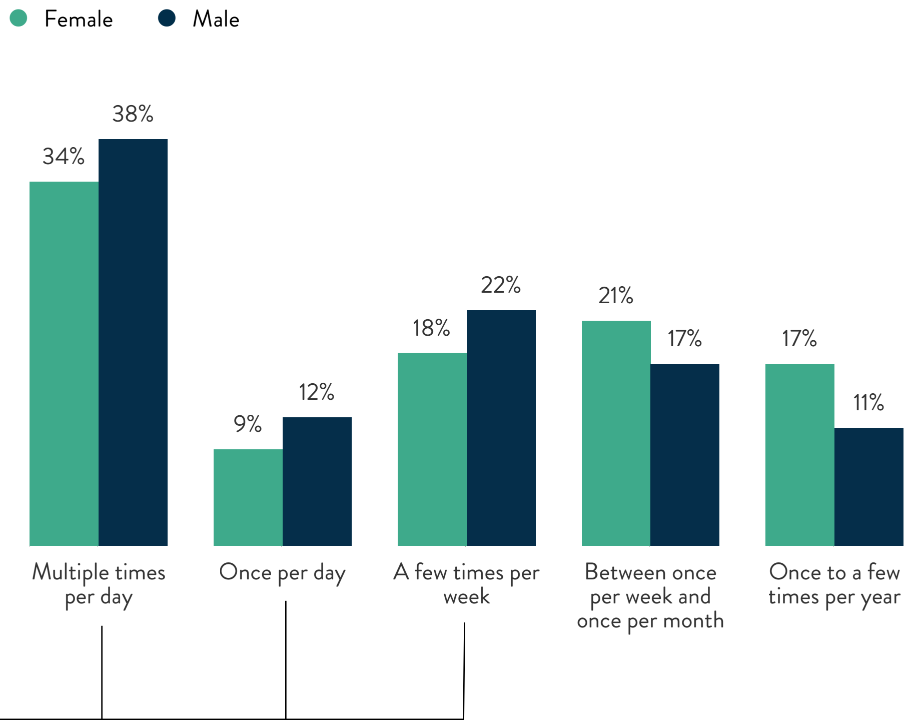
Use frequency varies widely by age, with younger consumer groups generally using cannabis more frequently than older consumer groups.

Consume at least once per day	
Ages 18-34	**56%**
Ages 35-54	**47%**
Ages 55+	**31%**

Note (this page): Among current (annual+) consumers.

The difference in use frequency between men and women is much smaller than between age groups, and overall distribution across frequencies is similar across genders. In aggregate, male consumers use somewhat more frequently than do female consumers.

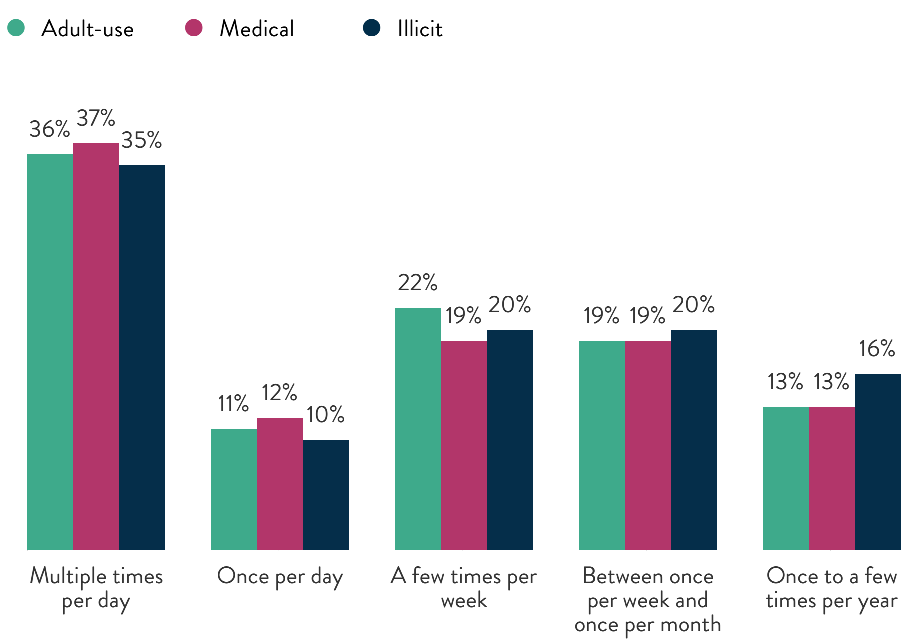
Use Frequency: by Gender



Consume more than once per week	
Female	**61%**
Male	**72%**

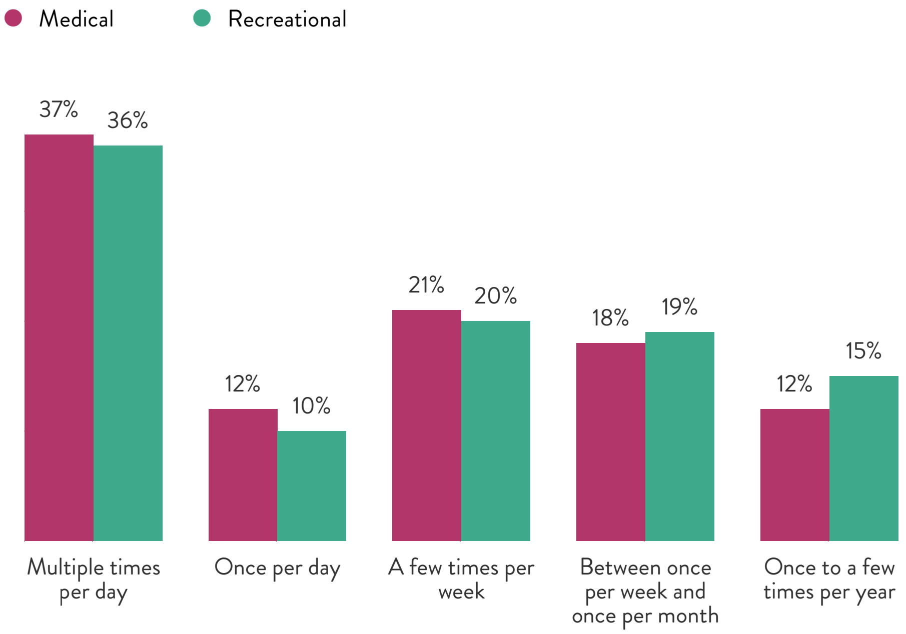
The distribution of use frequency is remarkably consistent across different state markets. That means that a state's cannabis laws do not affect how often people consume cannabis.

Use Frequency: by Home State Market Type



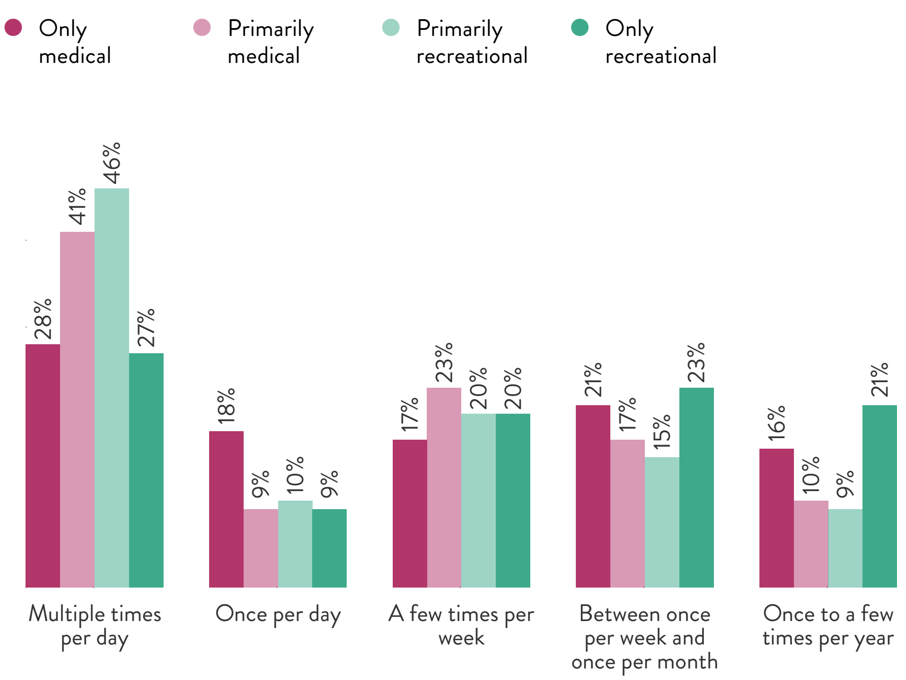
Note (this page): Among current (annual+) consumers.

Use Frequency: by Self-Identified User Type



When comparing consumers who describe their cannabis use as medical to those whose use is recreational, the distribution of use frequency is very similar…

Use Frequency: by User Type (Detailed)

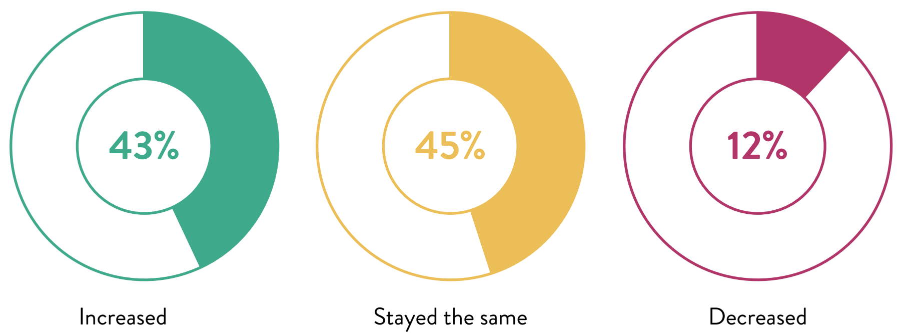


But major differences arise among consumers who use both recreationally and medically. Those who describe their use as both medical and recreational consume cannabis considerably more frequently than do those who say that their use is exclusively medical or exclusively recreational.

Note (this page): Among current (annual+) consumers.

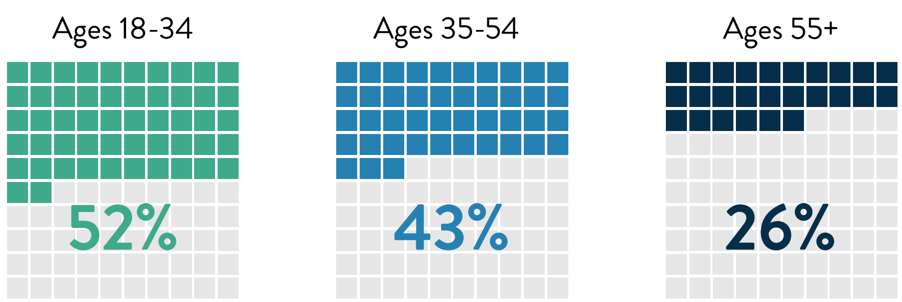
One in eight consumers reported a decrease in their cannabis consumption over the previous year. The rest were split between having increased their use or having maintained their use frequency.

Change in Consumption Since 1 Year Ago



Younger consumers were more likely than were older consumers to report having increased their overall cannabis consumption in the previous year.

Increased Cannabis Consumption Since 1 Year Ago: by Age

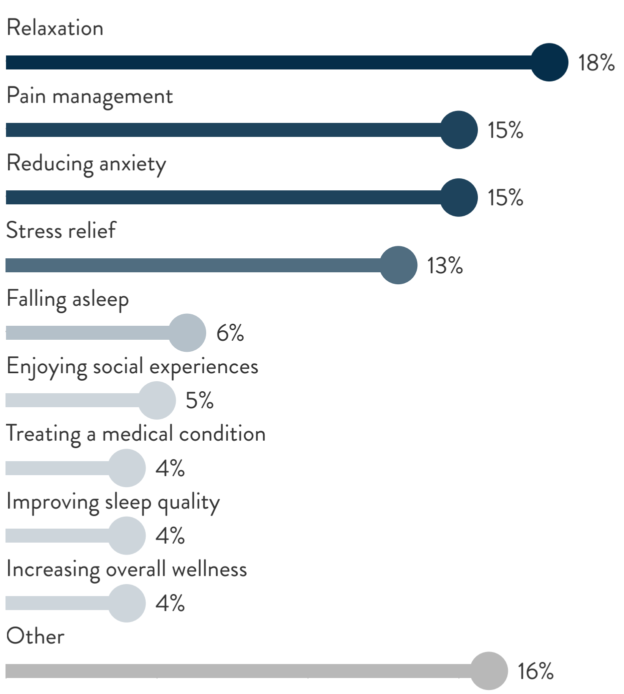


Note (this page): Among current (annual+) consumers.

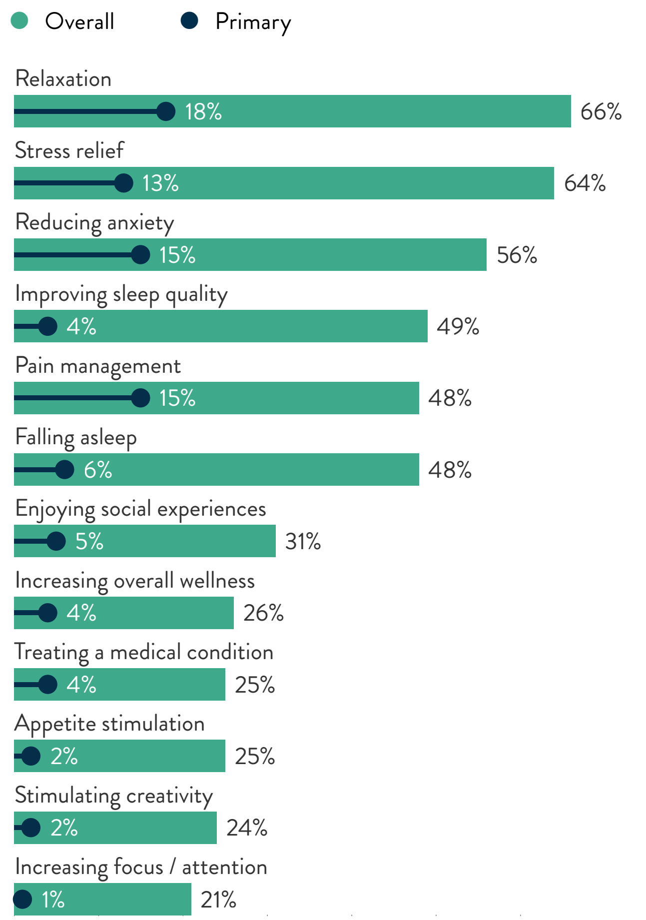
Motivations for Use

Together, motivations for unwinding (i.e., relaxation, reducing anxiety, or stress relief) comprised the primary reason for use among nearly half (46%) of current consumers.

Primary Reason for Cannabis Use



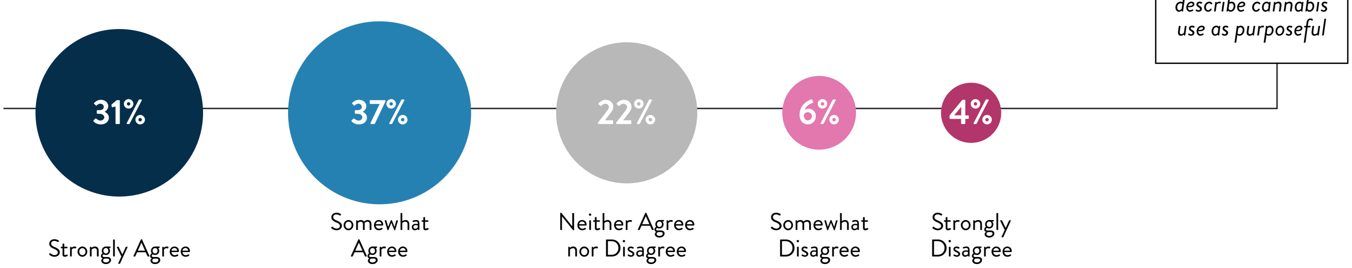
Leading Reasons for Cannabis Use



68%

describe cannabis use as purposeful

My cannabis use is purposeful; it helps me achieve a specific objective...



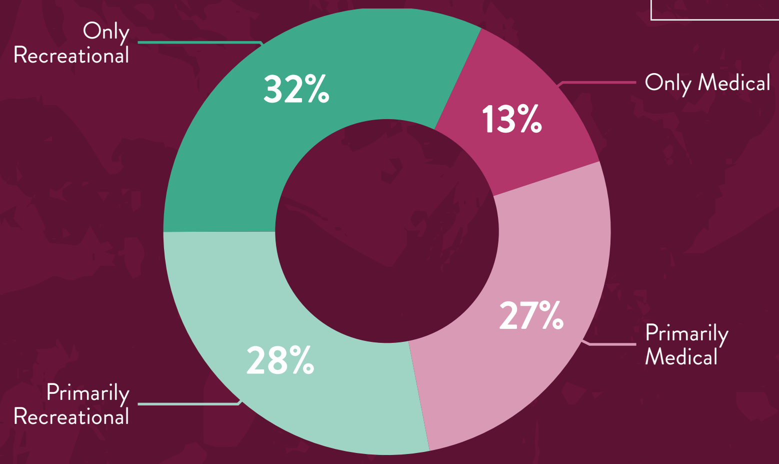
Note (this page): Among current (annual+) consumers.

While males are slightly overrepresented among cannabis consumers in general, medical cannabis consumers are about evenly split between males and females. On average, medical consumers are slightly older than are recreational consumers.

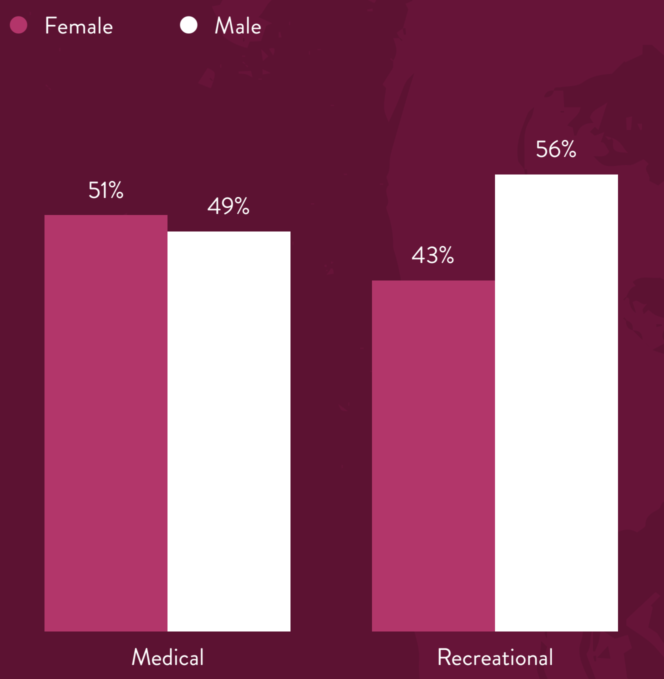
Medical vs. Recreational: Self-Identification

40%

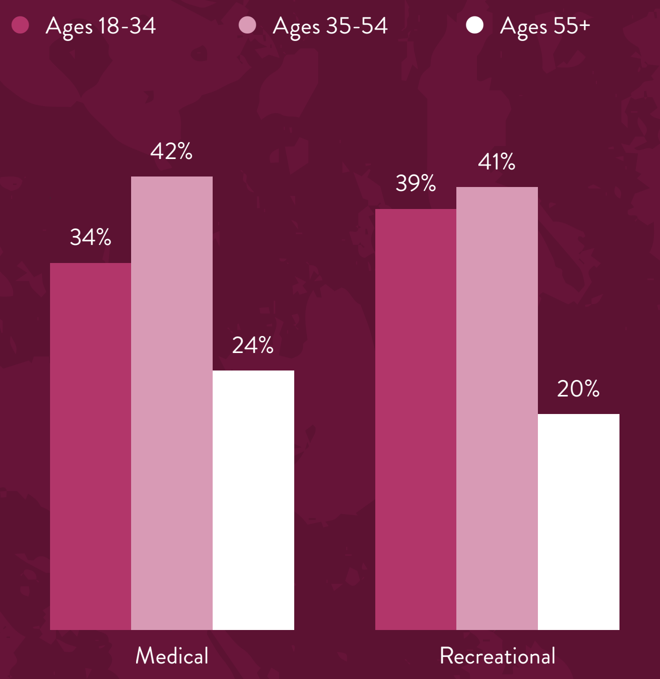
identify as medical cannabis users



Medical vs. Recreational: by Gender



Medical vs. Recreational: by Age



Note (this page): Among current (annual+) consumers.

Pain is the most common medical condition which medical consumers report for aiming to manage with cannabis, with roughly half (47%) of them treating some form of pain.

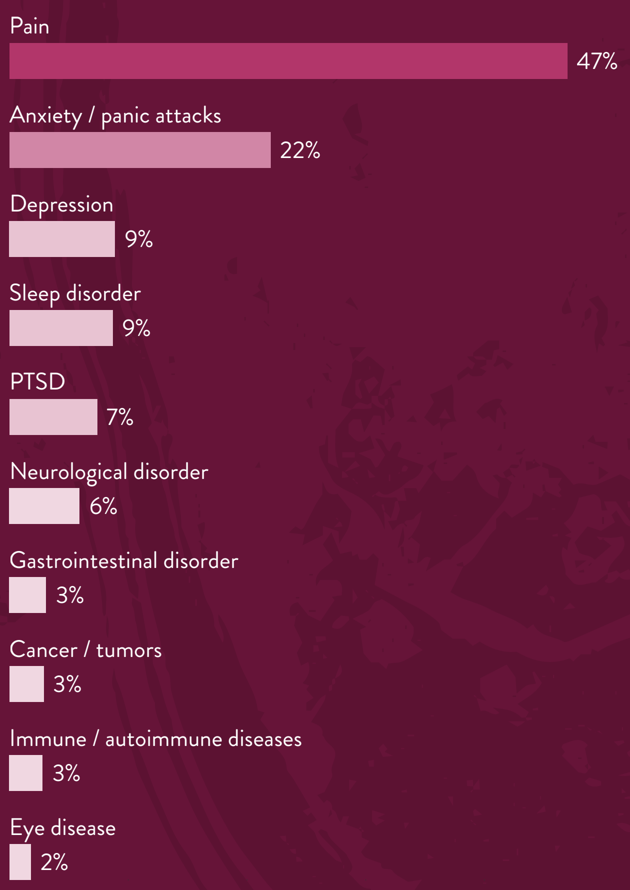
Anxiety or panic is the second-most common condition treated with cannabis, reported by more than one-fifth (22%) of medical consumers.

Medical consumers overwhelmingly report that cannabis has improved their medical conditions.

57% of medical consumers have replaced at least some of their prescription medications with cannabis.

43% of medical consumers say that they have used cannabis instead of prescription medications to save money.

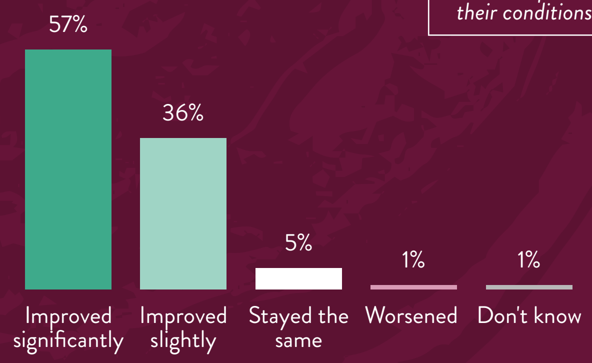
Most Common Conditions Managed



Cannabis Impact on Conditions

93%

report that cannabis has improved their conditions



Note (this page): Among current (annual+) consumers who self-identify as exclusively or primarily medical users.

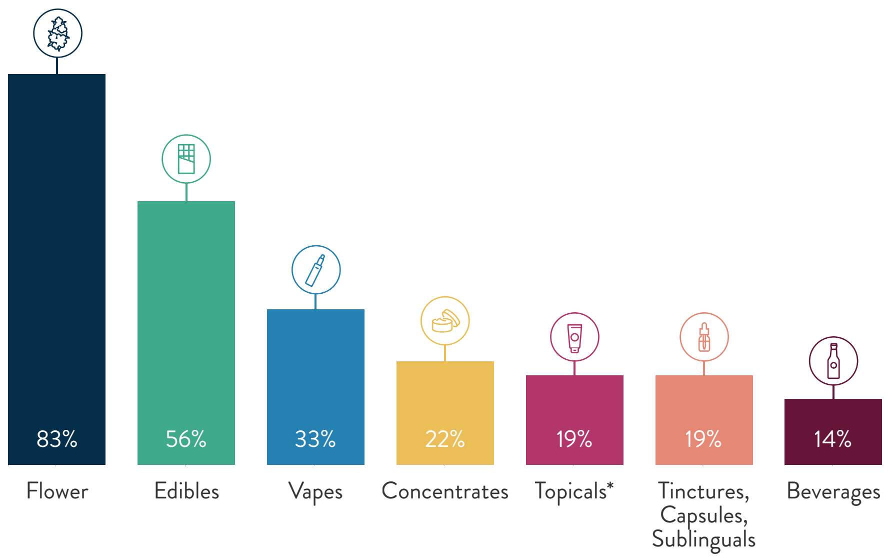
Product Forms

Flower is the leading product form, followed by edibles, then vapes.

Consumers in illicit states were significantly more likely than were consumers in other markets to report using only flower. Regulated markets offer more convenient access to non-flower offerings and alternatives to combustible products.

Top Forms

What % of current consumers use each form

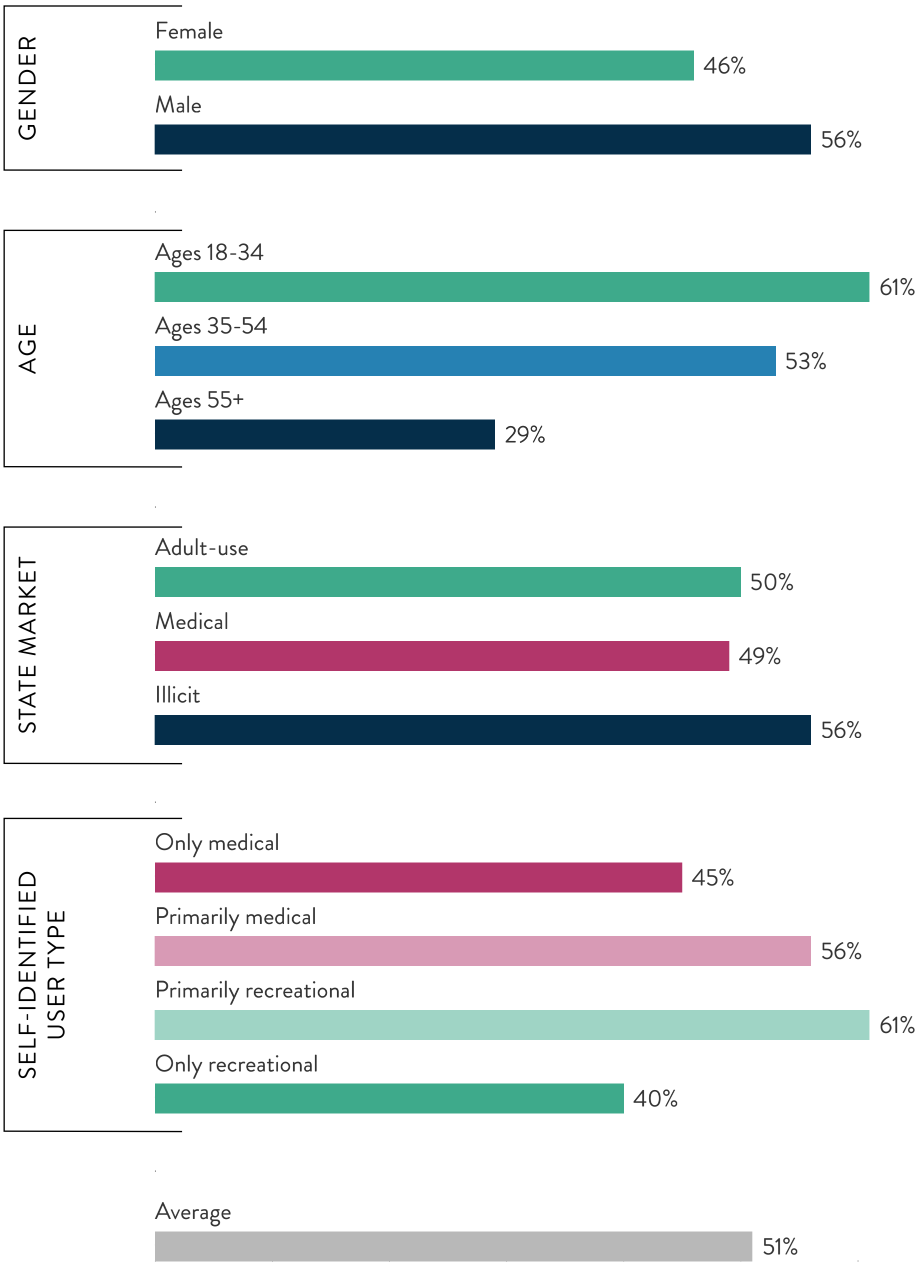


MOST FREQUENTLY USED FORM	
Flower	65%
Edibles	17%
Vapes	9%
Topicals*	3%
Tinctures, Capsules, Sublinguals	3%
Concentrates	2%
Beverages	1%

FAVORITE FORM (regardless of frequency)	
Flower	60%
Edibles	22%
Vapes	8%
Concentrates	4%
Tinctures, Capsules, Sublinguals	3%
Topicals*	2%
Beverages	1%

*Notes (this page): *Topicals includes transdermal patches. Among current (annual+) consumers.*

When I hear about a new cannabis product, I am eager to try it…



51% of consumers reported being eager to try a new cannabis product when they learned about one.

Cannabis consumers ages 18-to-34 and those who primarily (but not exclusively) use it recreationally were the most likely groups to report being eager to try new cannabis products.

Note (this page): Among current (annual+) consumers.

83% of cannabis consumers use flower.

76% report purchasing flower themselves.

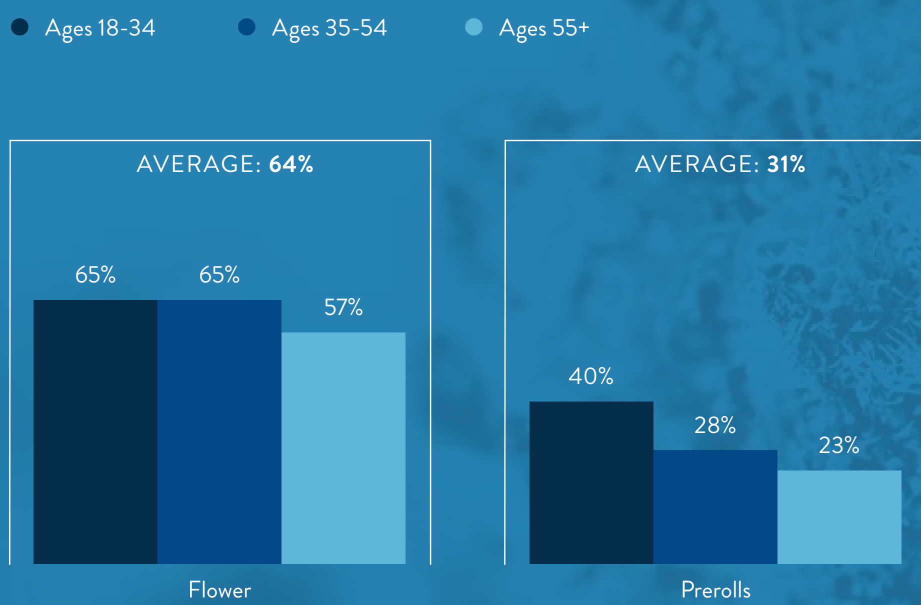
Flower is the most frequently used form among 65% of respondents.

It is the favorite form for 60% of consumers.

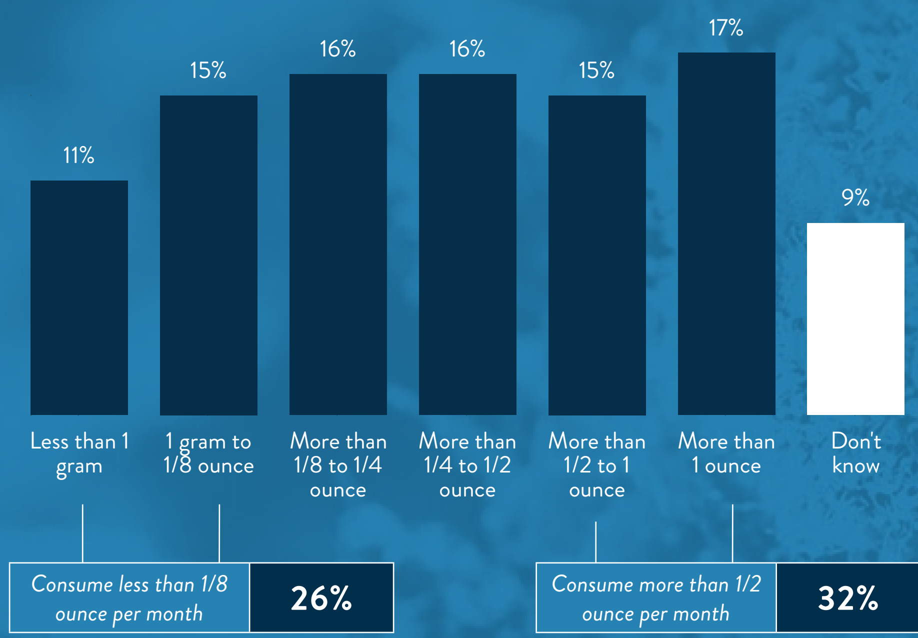
Consumers purchase flower (e.g., in eighth-, quarter-, or half-ounces) at twice the rate as buying prerolls (64% of consumers purchase flower, while 31% purchase prerolls).

The youngest cohort of consumers (ages 18-34) are considerably more likely to buy prerolls than are consumers ages 55 and older (40% vs. 23%).

Flower Forms Purchased: by Age

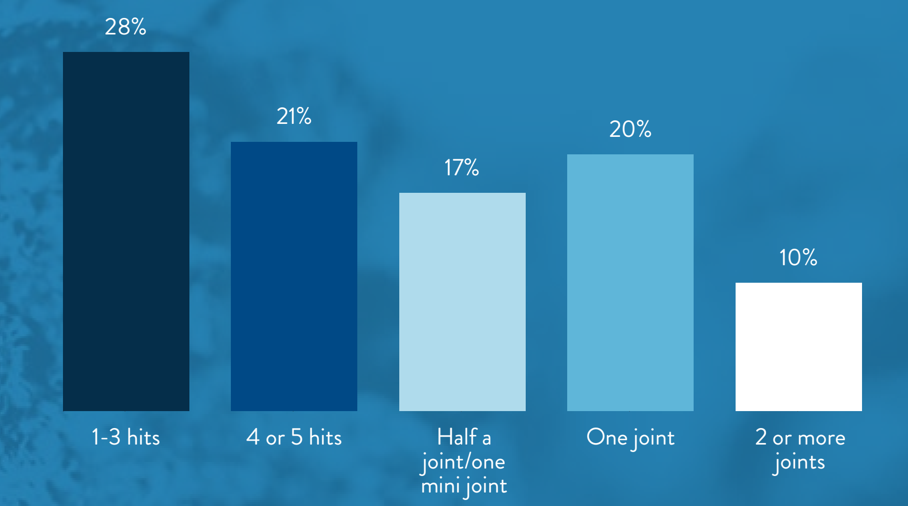


Monthly Flower Consumption

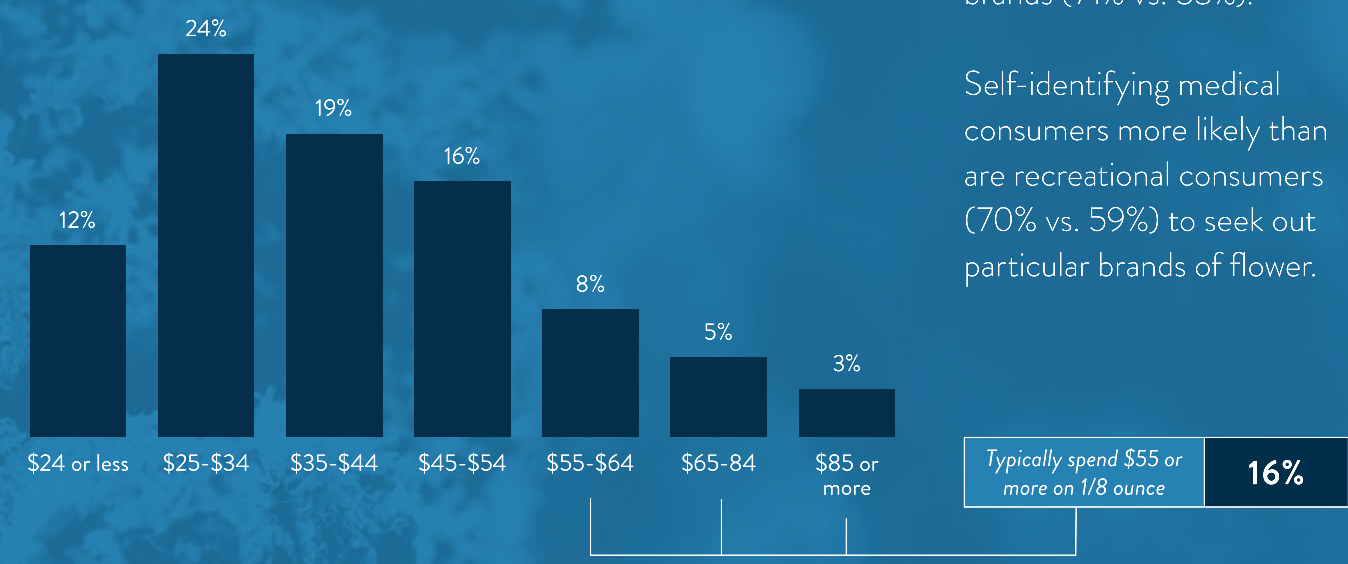


Note (this page): Among current (annual+) consumers who smoke or vape flower.

How much do you typically smoke at a time?



Typical Spend for 1/8th Ounce of Cannabis



Note (this page): Among current (annual+) consumers who smoke or vape flower. "Don't know" omitted.

Consumers aged 55+, female consumers, and consumers in adult-use markets all report being slightly more likely than their counterparts to smoke only a couple hits at a time.

64% of consumers who use flower sometimes or always seek out flower from particular brands/companies.

Male consumers are more likely than are female consumers to sometimes or always seek out flower from specific brands (71% vs. 53%).

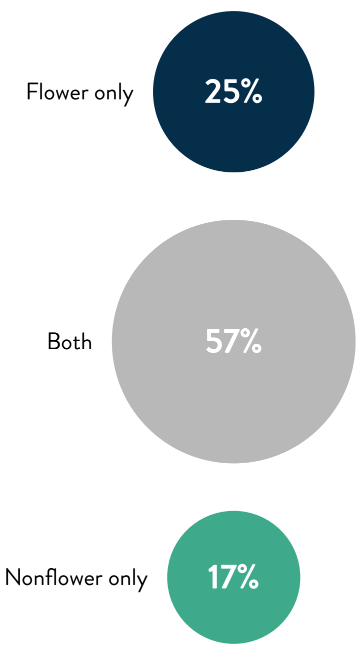
Self-identifying medical consumers more likely than are recreational consumers (70% vs. 59%) to seek out particular brands of flower.

A majority (57%) of current consumers use both flower and nonflower cannabis products.

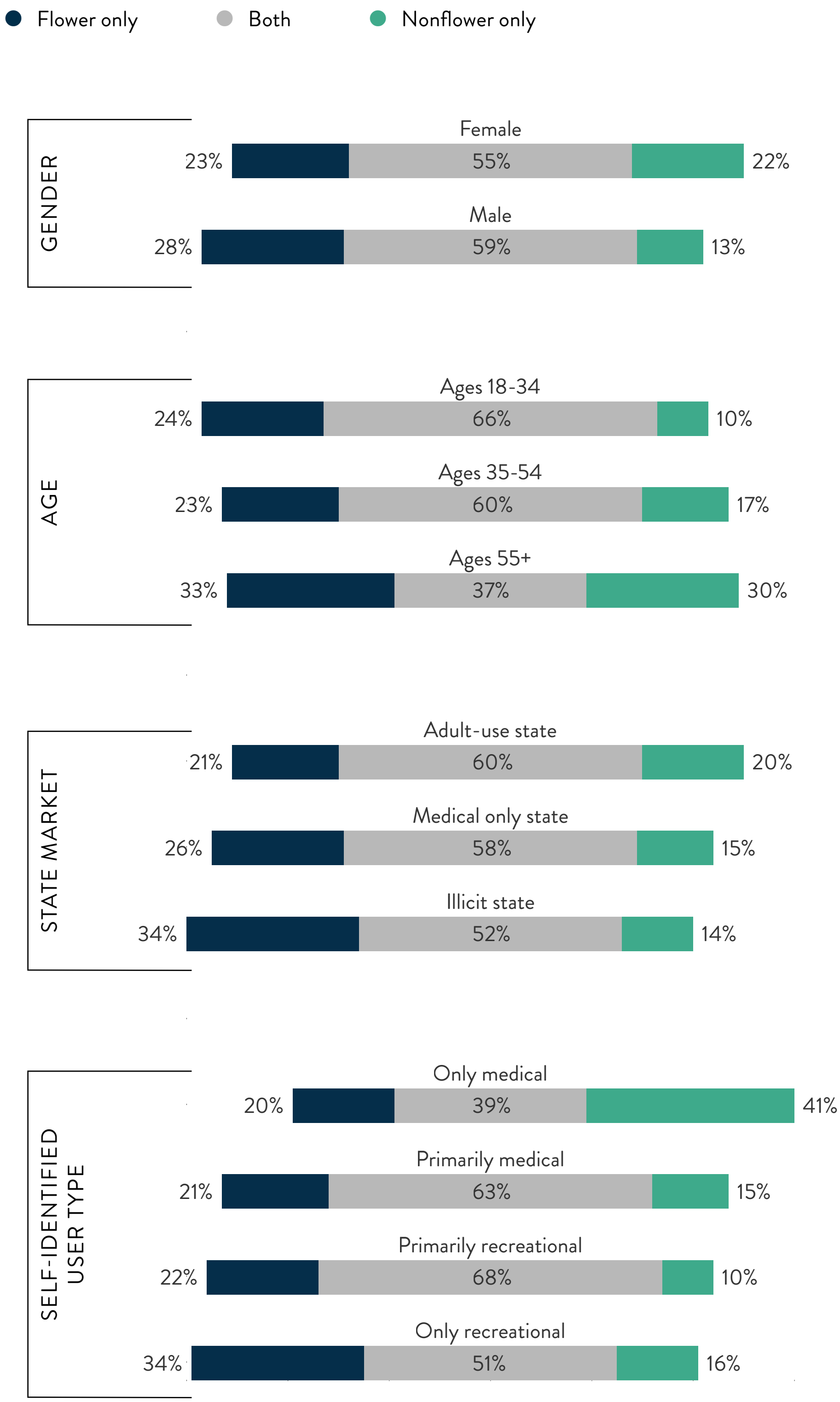
One-quarter (25%) use exclusively flower while 17% use exclusively nonflower forms.

For consumers who use more than one form, their chosen activity is the leading determinant (46%) for the form used.

Product Forms Used

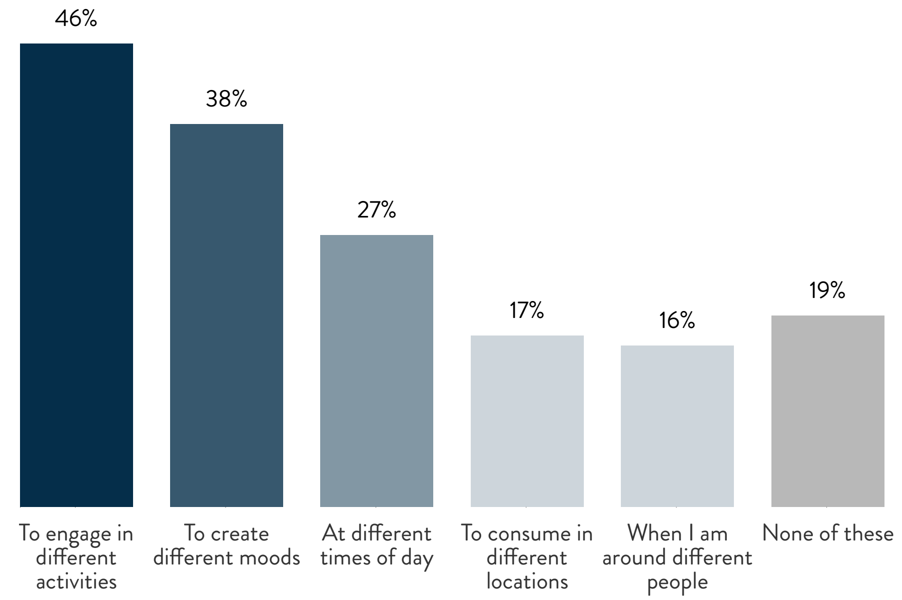


Product Forms: by Consumer Segment



Note (this page): Among current (annual+) consumers.

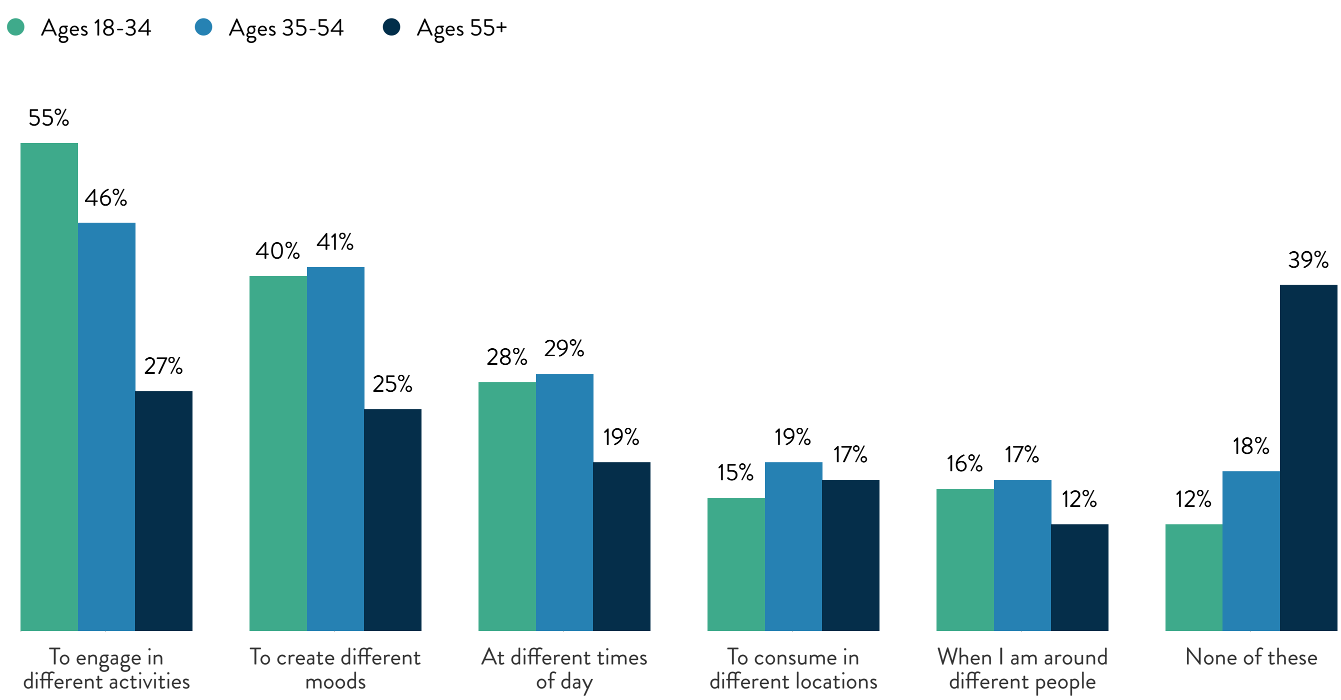
I choose different forms of cannabis...



Consumers ages 55+ are much less likely than are younger groups to use more than one form of cannabis (44%, vs. 63% of consumers ages 18-34, and 64% of consumers ages 35-54).

They are also less likely to differentiate between activity, desired mood, time of day, location, or company in choosing which product form to consume.

Form Selection Factors: by Age Group



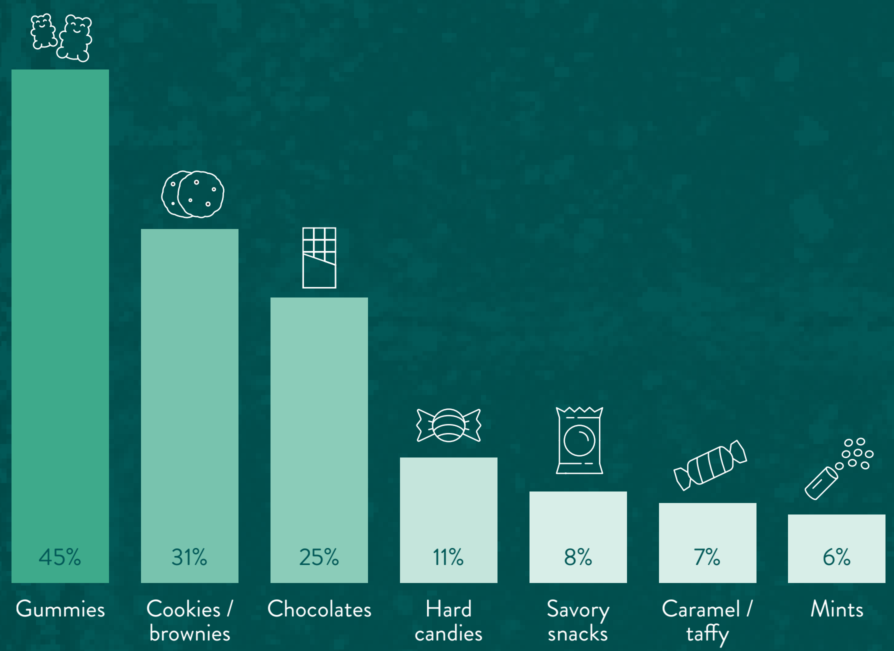
Note (this page): Among current (annual+) consumers who use more than one form of cannabis.

56% of current consumers report consuming solid edibles.

Edibles are the favorite form among 22% of consumers, and the most frequently used form among 17% of consumers.

46% of current consumers report purchasing edibles for themselves.

Top Edible Forms



A NOTE ON CANNABIS-INFUSED BEVERAGES

14%

Drink infused beverages, but beverages are neither a primary nor favored form among most consumers. Beverages functionally remain a subset of edibles.

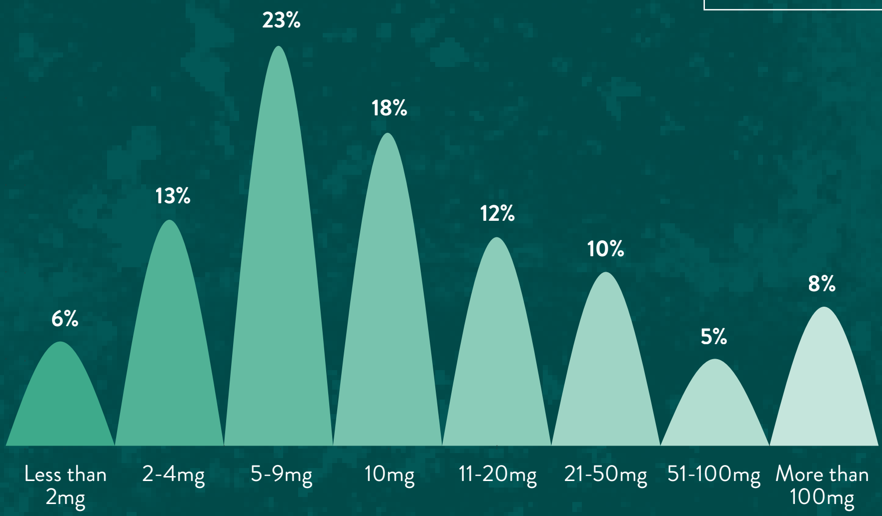
2%

Drink cannabis-infused beverages while also declining to consume solid edibles.

Note (this page): Among current (annual+) consumers who consume edibles/infused beverages.

Quantity of THC Typically Consumed in a Session

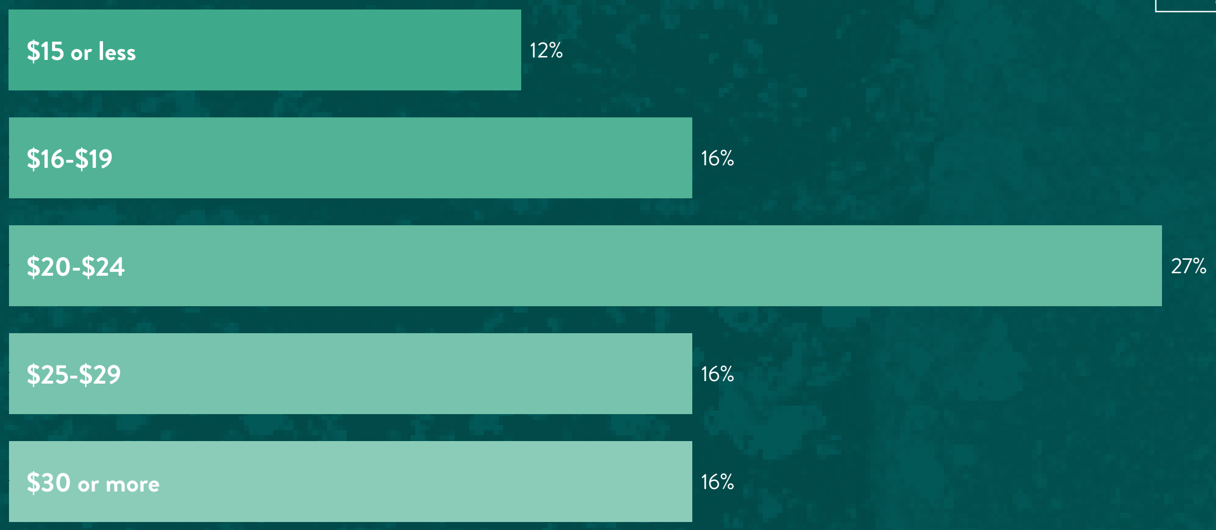
42%
consume less than 10mg of THC at a time



57% of consumers say that they are always or usually confident of knowing the quantity of THC in their edibles/beverages.

Typical Spend per 100-mg Package of Edibles

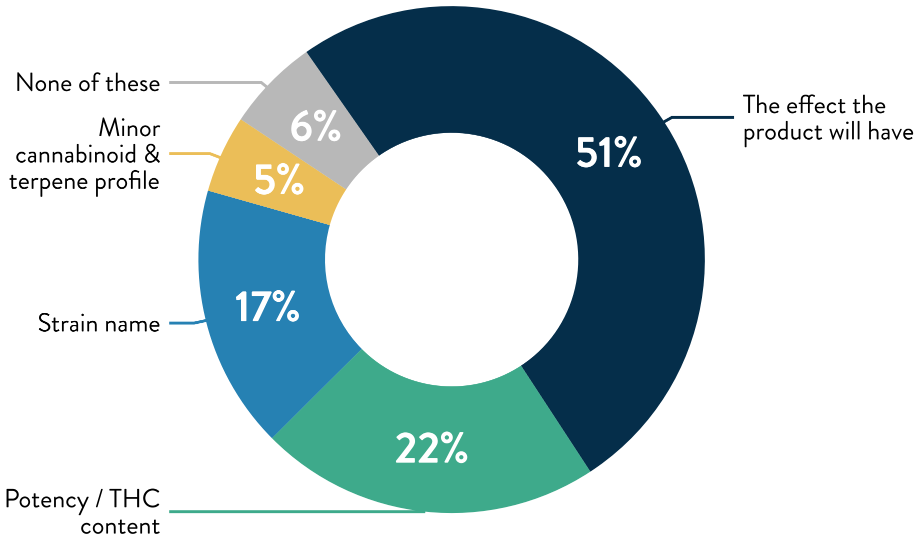
32%
spend $25 or more per 100mg package



Note (this page): Among current (annual+) consumers who consume edibles/infused beverages. "Don't know" omitted.

More than half (51%) of current consumers say that the purported effect a product will have (i.e., "sleep," "energy," "chill," or "create") is the most useful information when considering a product for purchase or use.

Most Useful Information About a Cannabis Product

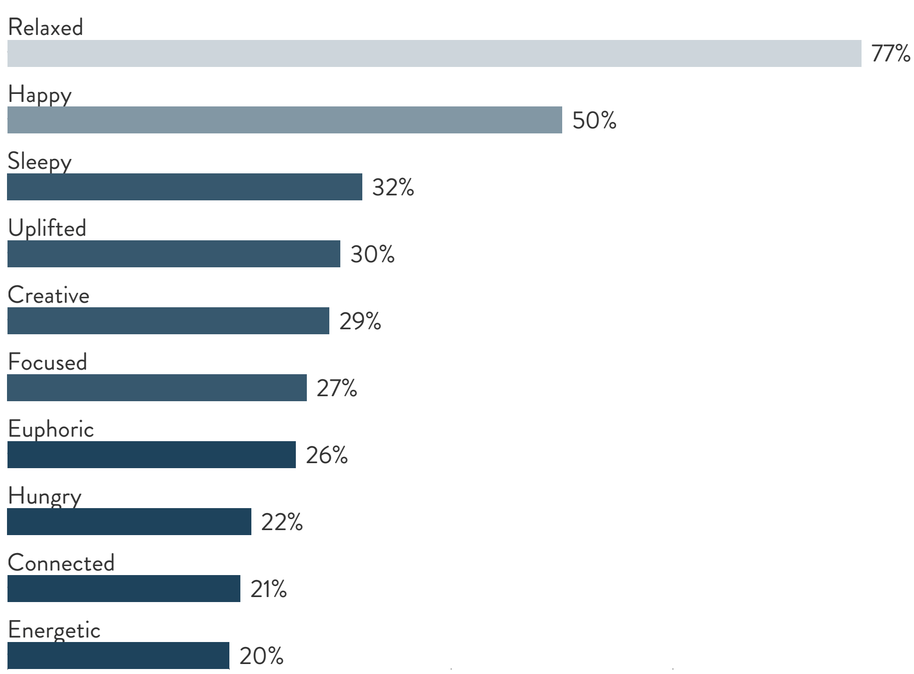


So, which effects are consumers looking for?

Female consumers were slightly more likely than were male consumers to seek the effects of "sleepy" or "relaxed", while males were more likely to seek "creative" or "euphoric".

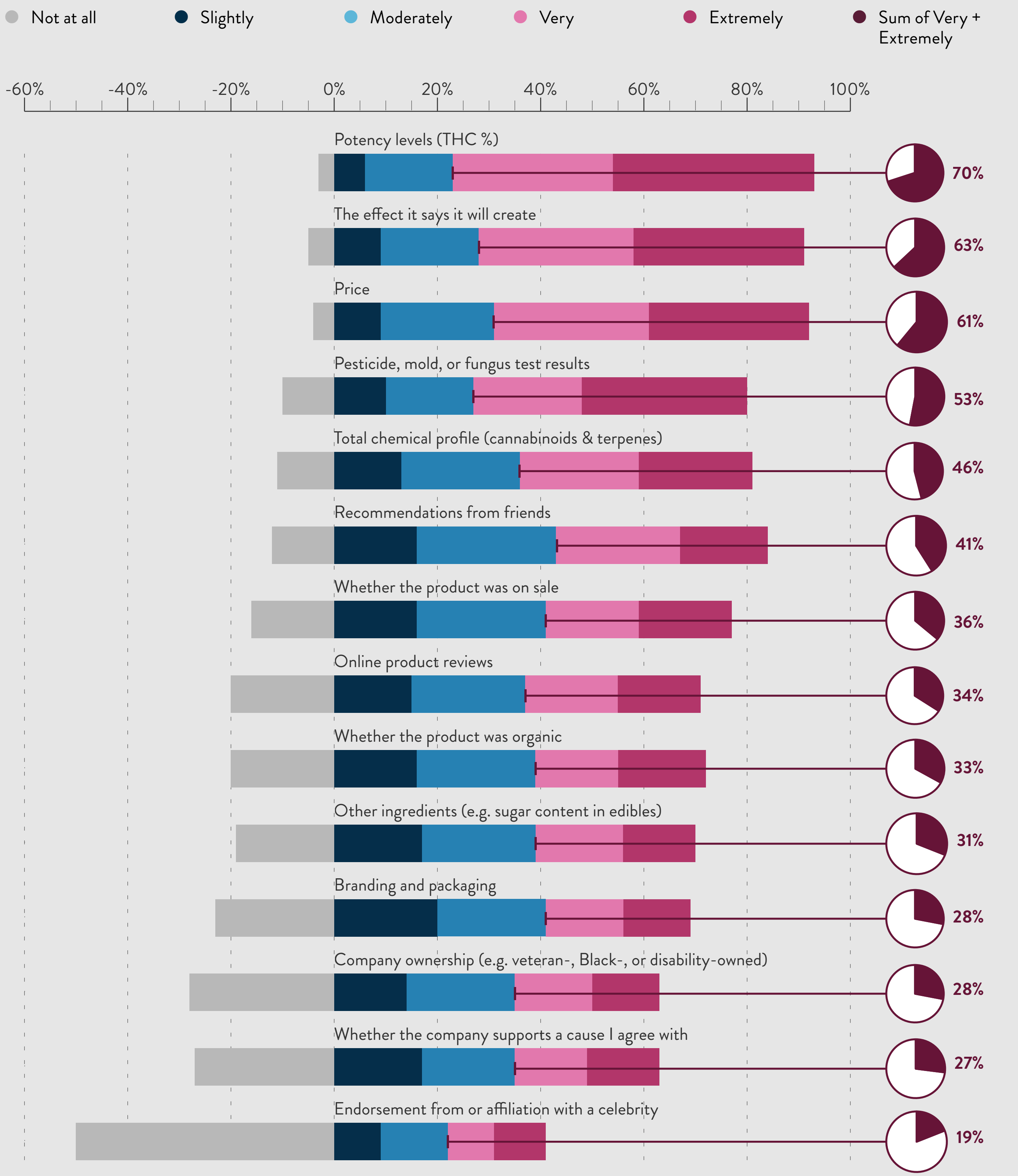
Older consumers (ages 55+) were less likely than were younger groups to seek any effects other than "relaxed".

Effects Sought



Note (this page): Among current (annual+) consumers.

Importance of Product Purchase Decision Factors



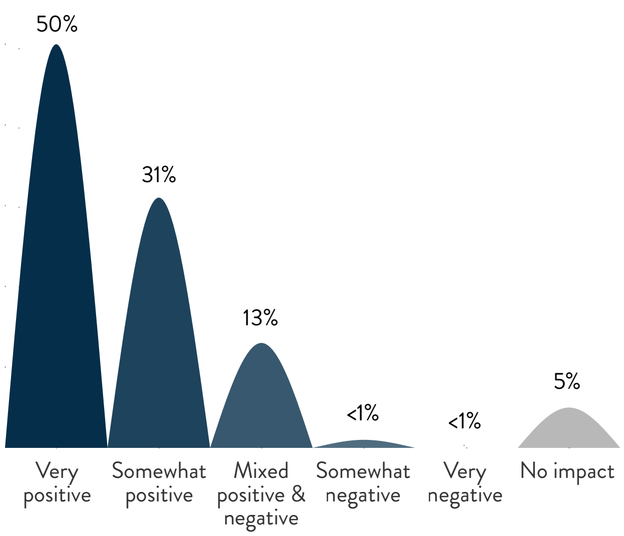
Note: Among current (annual+) consumers using cannabis legally (in adult-use markets or registered patients in medical-only markets).

Cannabis Impact

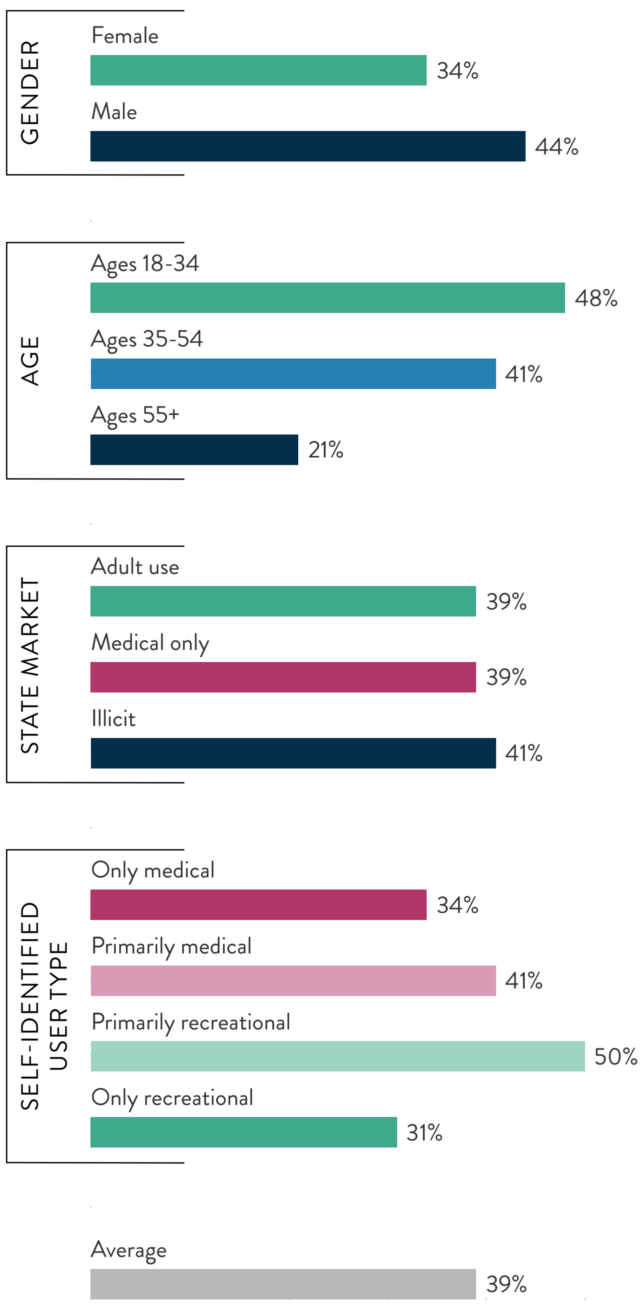
Consumers ages 18-34 and those identifying as primarily (but not exclusively) recreational are the likeliest segments to report cannabis use as an important aspect of their identities.

Consumers report overwhelmingly positive effects of cannabis on their lives: 81% report positive effects, while under 1% report negative effects.

What has been the overall impact of cannabis on your life?



Using cannabis is an important part of my identity



Note (this page): Among current (annual+) consumers.

Nonconsumers & Potential Use

Under what circumstances would you consider trying cannabis?

Potential Reasons for Cannabis Use Among Nonconsumers

*Notes (this page): Among nonconsumers. *Among nonconsumers not in adult-use states; **Among nonconsumers under 21 years old.*

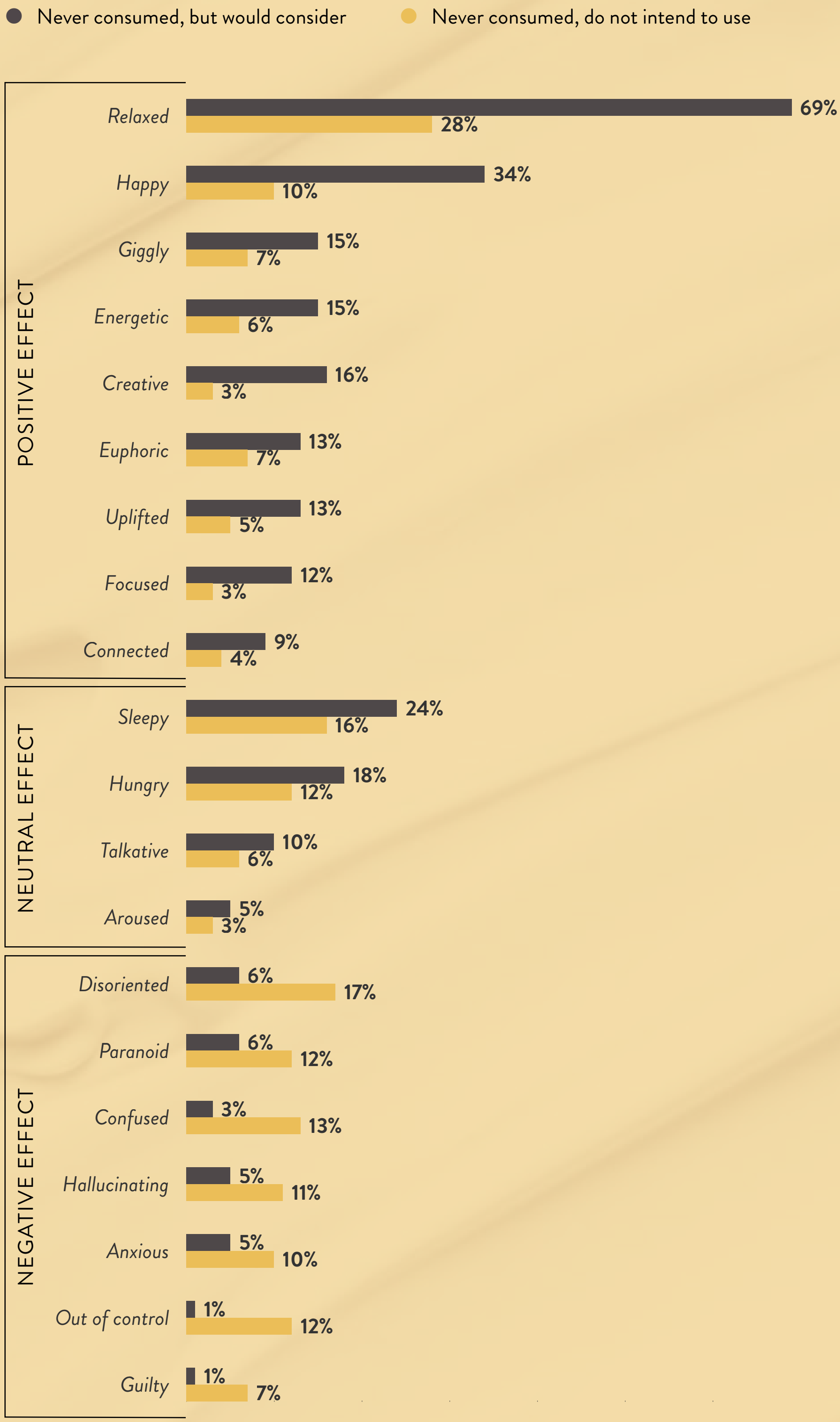
Among Americans who are not cannabis consumers, circumstances likeliest to make them consider trying it are health-related. Nearly two in five of nonconsumers said that they would consider trying cannabis either at their doctor's recommendation or if they developed a medical condition treatable or manageable by cannabis. Legality is also a reported barrier to trying cannabis for one in five consumers either in a state where cannabis is not legal (20%), or for adults under age 21, the legal age for consumption (19%).

Again, health-related reasons were the leading potential motivators for nonconsumers to consider trying cannabis: 37% of nonconsumers cited managing pain as a potential reason for consuming.

Unsurprisingly, nonconsumers unwilling to try cannabis are much likelier to anticipate negative effects (e.g., disorientation or paranoia) than are nonconsumers who are open to it. Conversely, willing nonconsumers are considerably likelier than are unwilling nonconsumers to anticipate experiencing positive effects (e.g., feeling relaxed, happy, and creative).

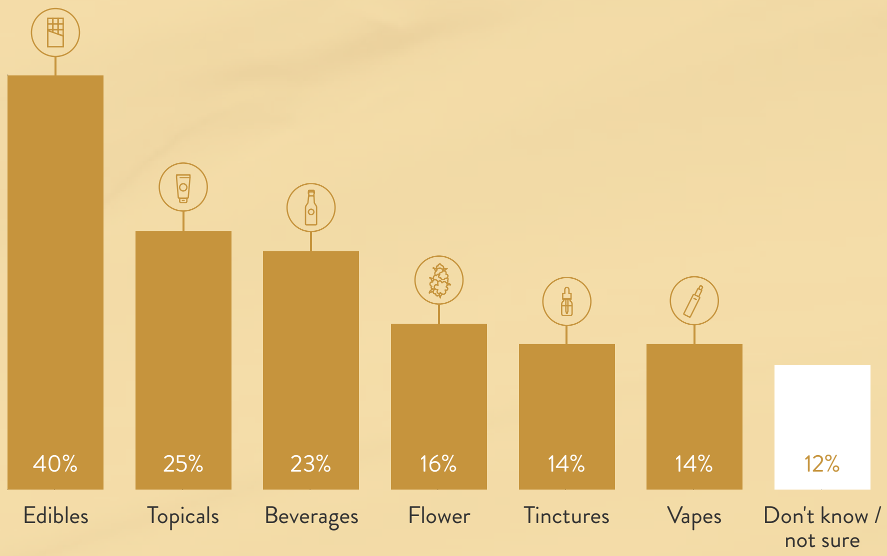
Approaches to reframe or educate nonconsumers about cannabis' effects may alter expectations for their experiences, and may persuade reluctant people to try cannabis. As cannabis use becomes more widespread, stigma diminishes, and more consumers share their experiences, nonconsumers will become more aware of cannabis' typical effects, potentially encouraging nonconsumers to try it.

How Nonconsumers Expect Using Cannabis Would Make Them Feel



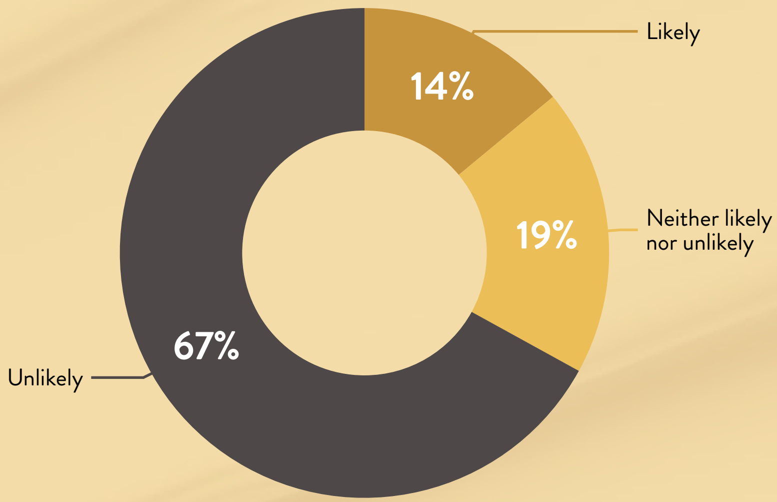
Note (this page): Among nonconsumers.

Product Forms' Appeal to Nonconsumers



Nonconsumers generally found noncombustible/ non-inhalable product forms more appealing than either flower or vaporizers. Edibles were the leading appealing form (40%), followed by topicals (25%), and infused beverages (23%).

How Likely Are Nonconsumers to Try Cannabis in the Next Six Months



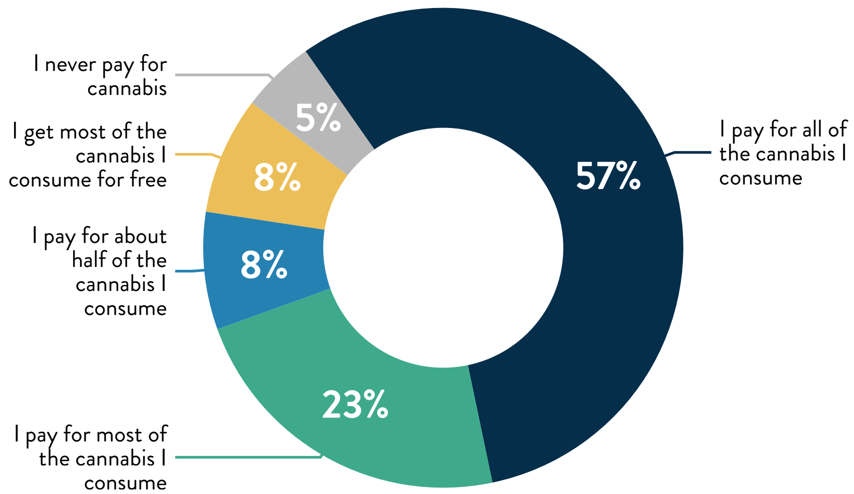
One in seven noncon-sumers indicated that they were somewhat likely to try cannabis in the following six months.

Note (this page): Among nonconsumers.

Spending

79% of consumers pay for most or all of the cannabis that they consume.

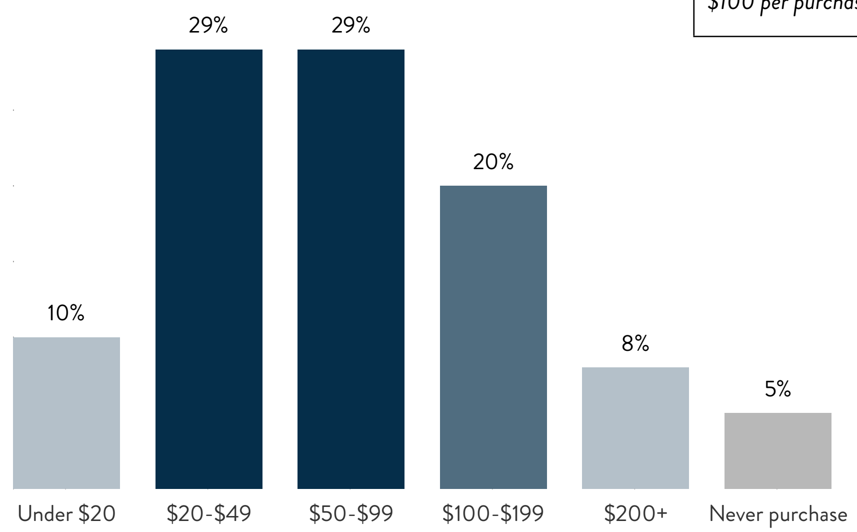
How much of the cannabis you consume do you pay for?



Typical Spend per Purchase

67%

spend less than $100 per purchase

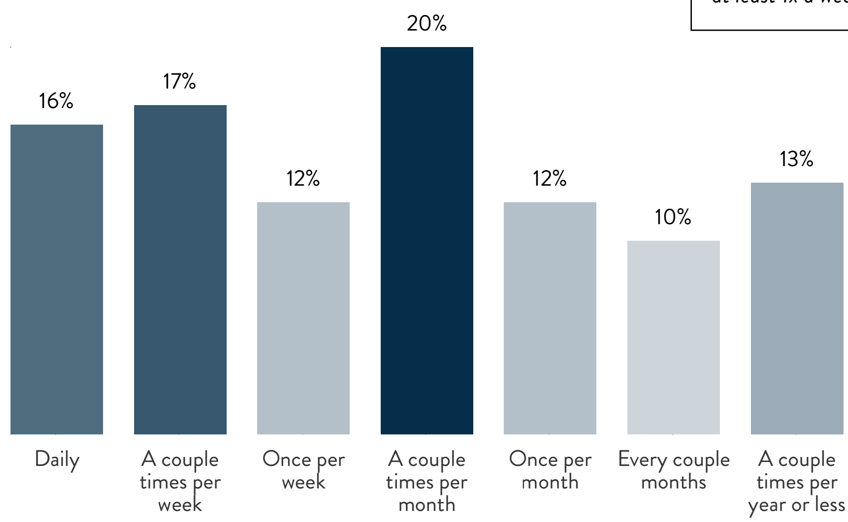


Note (this page): Among current (annual+) consumers.

Acquisition Frequency

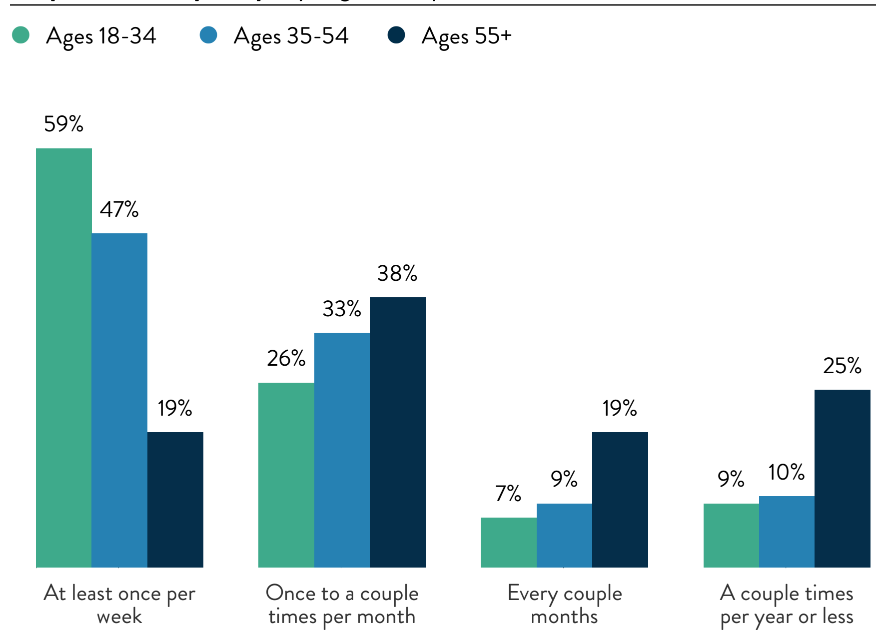
45%

acquire cannabis at least 1x a week



The biggest differences in acquisition frequency are seen between age groups, with consumers 55+ acquiring cannabis much less frequently than do consumers under 55, and consumers ages 18-34 acquiring most frequently among all.

Acquisition Frequency: by Age Group

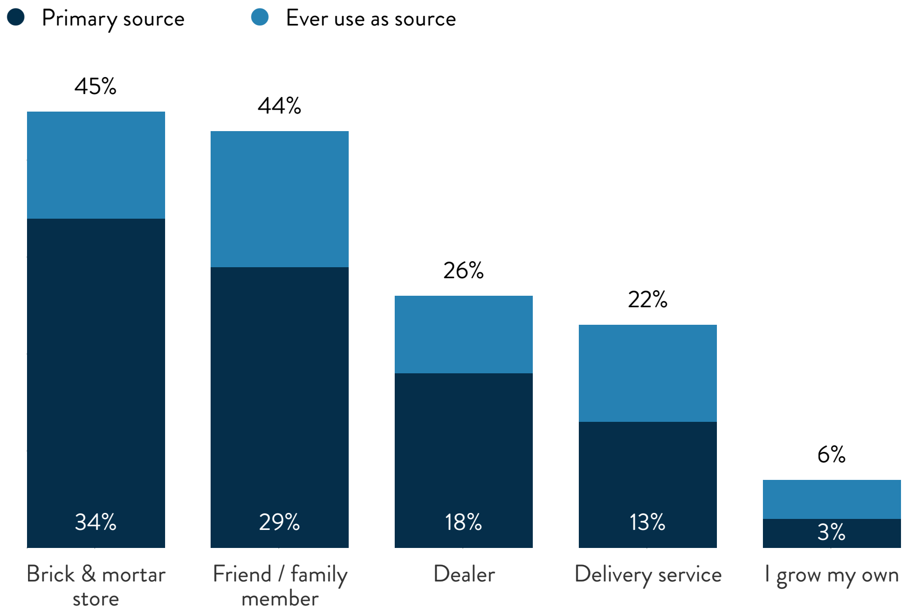


Note (this page): Among current (annual+) consumers.

Sourcing

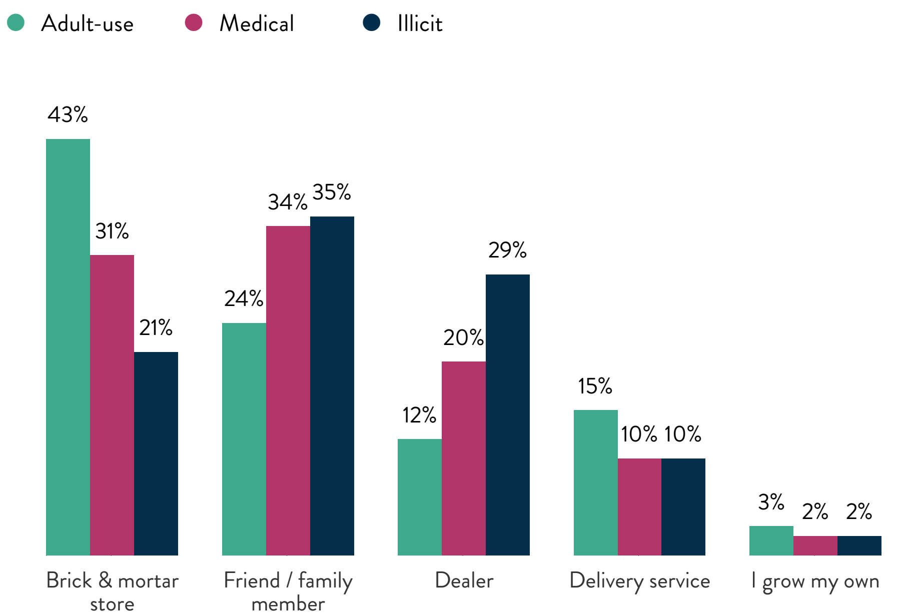
Brick-and-mortar stores are followed closely by friends/ family members as the leading sources for cannabis.

Cannabis Sourcing



A state's cannabis laws greatly affect which sources its consumers use.

Primary Source: by State Market Type

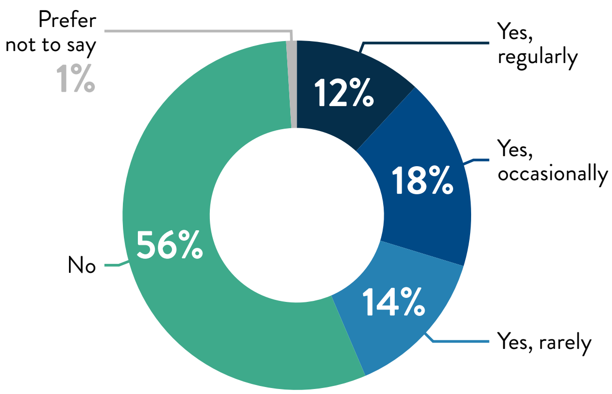


Note (this page): Among current (annual+) consumers.

Brick-and-mortar stores and delivery services — the primary regulated cannabis outlets — are utilized considerably more by consumers who reside in adult-use markets than in other state markets. Informal sources like friends/family or dealers are the leading sources in illicit markets (where high-THC cannabis is completely prohibited).

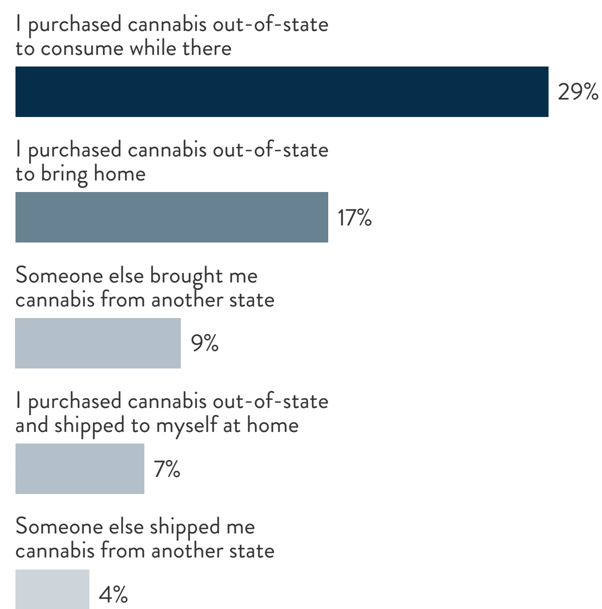
In medical-only markets, brick-and-mortar dispensaries are primary sources for registered medical patients, who have legal access to them. Friends/family are also major sources for consumers in medical-only markets, particularly among consumers who are not registered patients (and therefore cannot access cannabis directly through medical dispensaries). Notably, illicit dealers are significantly less utilized in medical-only states than in completely illicit states. That is likely because in medical-only markets, registered patients act as intermediaries between legal dispensaries and end users for many of their unregistered friends and family who consume. The existence of a group of people with legal access to cannabis means that there are fewer degrees of separation between a reliable, quality source and an unregistered end user, so reliance on dealers with whom consumers do not already have a relationship is lower.

Do you ever supply friends or family with cannabis?



43% of current consumers say that they **supply friends or family with cannabis;** 12% report doing so regularly.

Out of State Sourcing

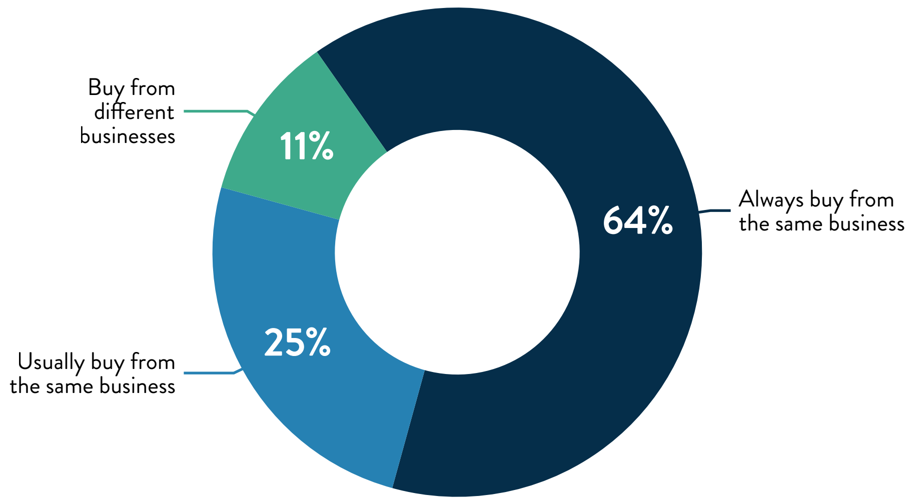


43% of current consumers have **sourced cannabis from outside of their home state.**

Note (this page): Among current (annual+) consumers.

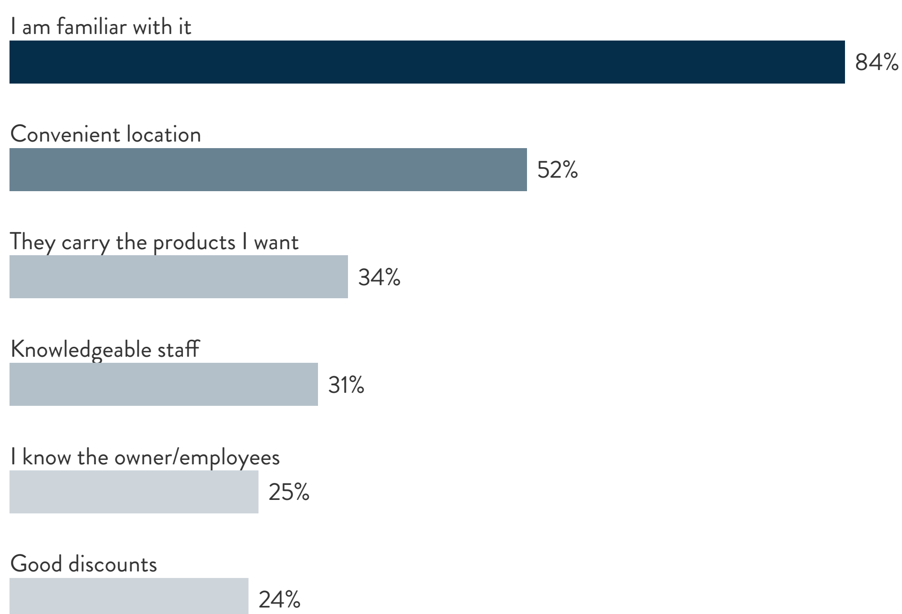
89% of consumers who source from businesses **report always or usually purchasing from that same business**.

Business Loyalty



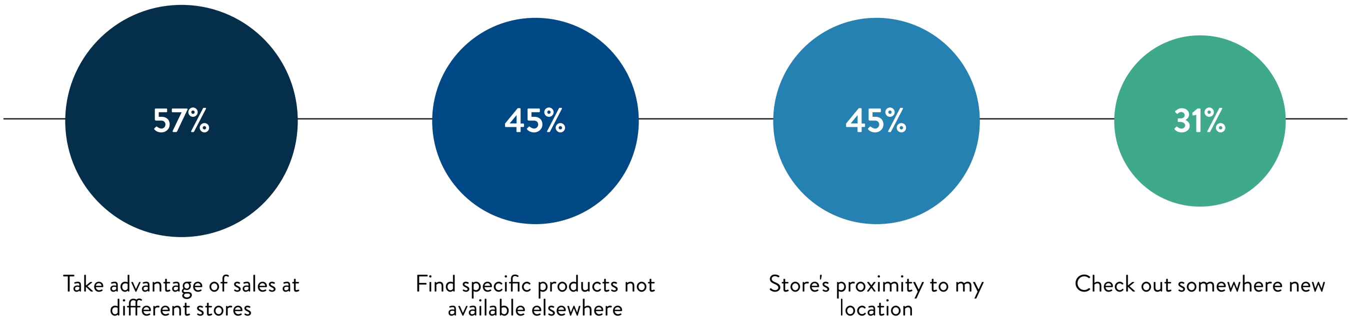
Familiarity is the leading reason that consumers with high business loyalty report sticking with their same sources.

Business Loyalty Reasons

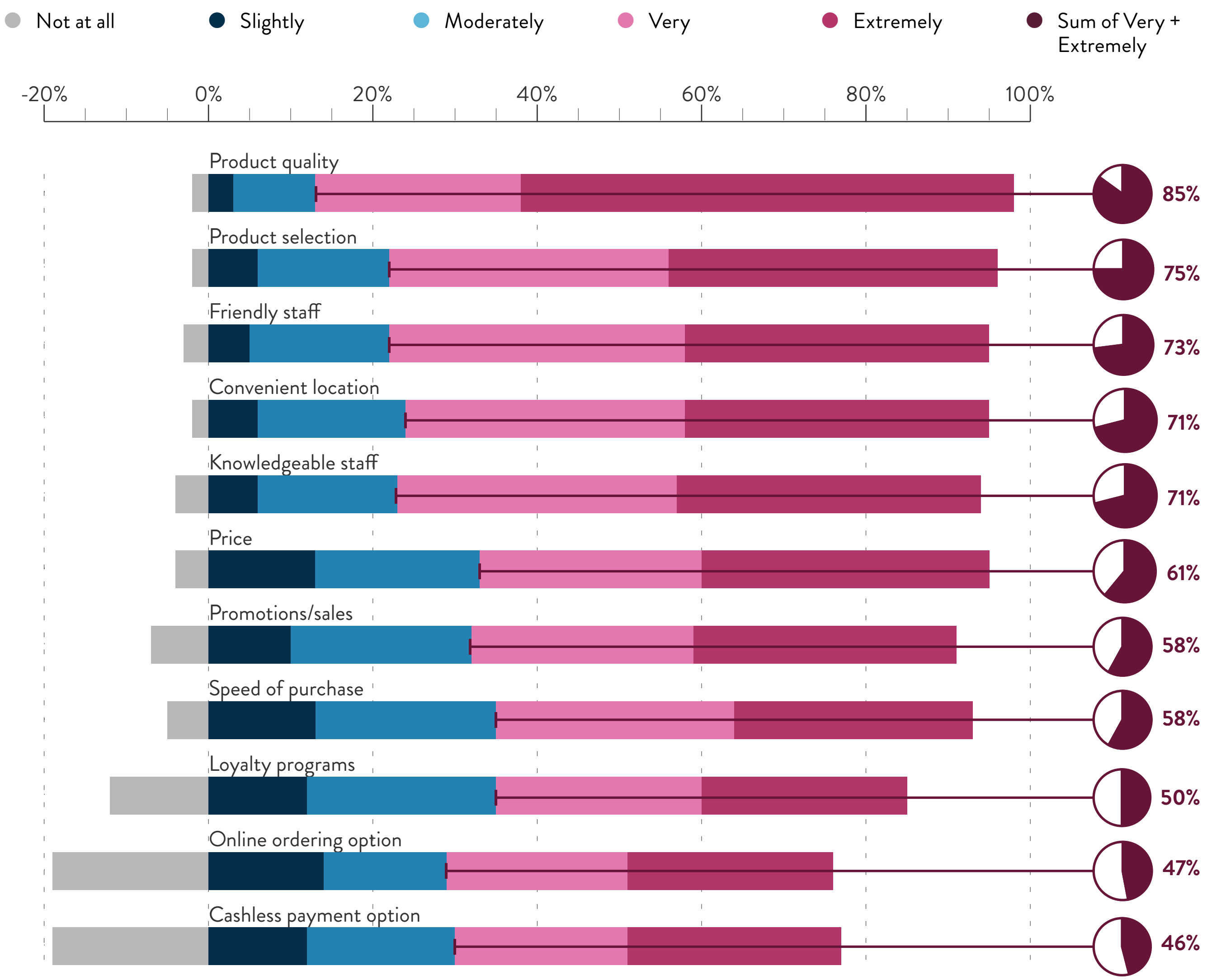


Note (this page): Among current (annual+) consumers who source from businesses (dispensaries/ delivery services) and report sourcing from different businesses.

Business Switching Reasons



Importance of Source Decision Factors

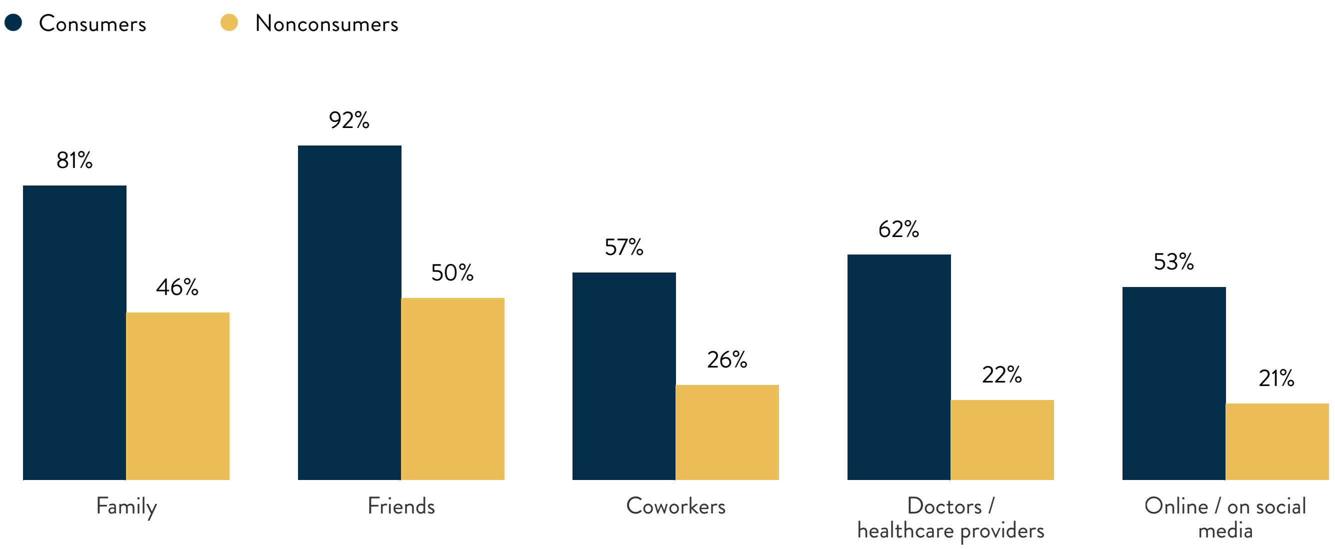


Note (this page): Among current (annual+) consumers who source from businesses (dispensaries/ delivery services) and report sourcing from different businesses.

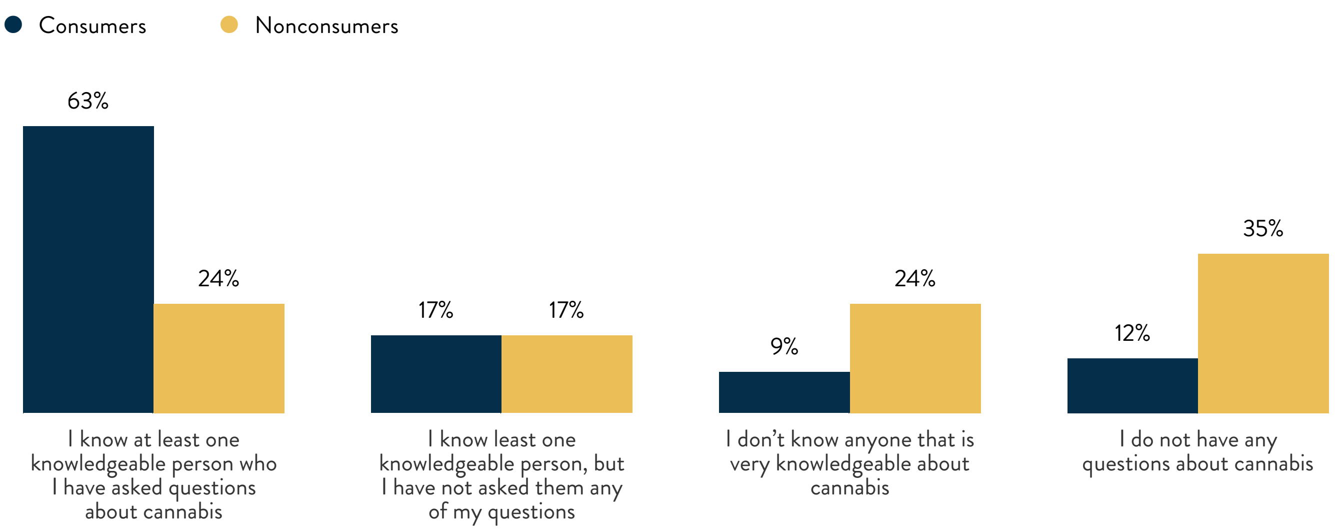
Social Factors and Use

TALKING ABOUT CANNABIS

Who have you talked to about cannabis?

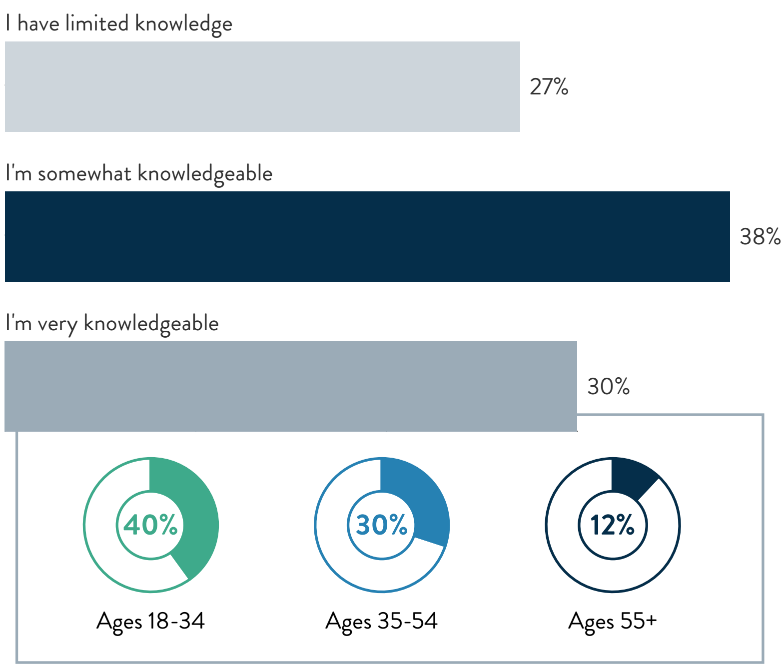


Access to a person knowledgeable about cannabis...

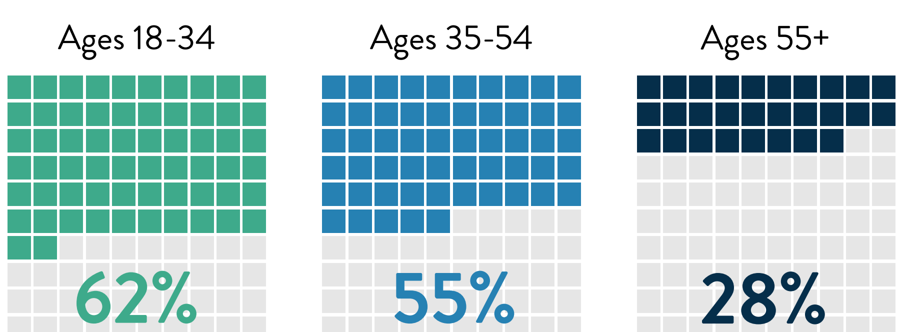


Notes (this page): Among current (annual+) consumers. "Unsure" omitted.

Cannabis Consumers:
How knowledgeable do you consider yourself to be about cannabis?



People in my life have asked me questions about cannabis because they consider me knowledgeable...



There were no reported differences in self-rated knowledge or having access to someone knowledgeable about cannabis as noted between adult-use, medical-only or illicit-market consumers. That suggests that cannabis information and education is reaching beyond the borders of regulated states, and is of interest to consumers in illicit markets.

Age is the factor most influencing self-rated knowledgeability about cannabis.

52% of current consumers say friends or family have come to them with questions about cannabis seeking information from a knowledgeable source.

Among consumers ages 18-34, the rate is more than twice that among ages 55+.

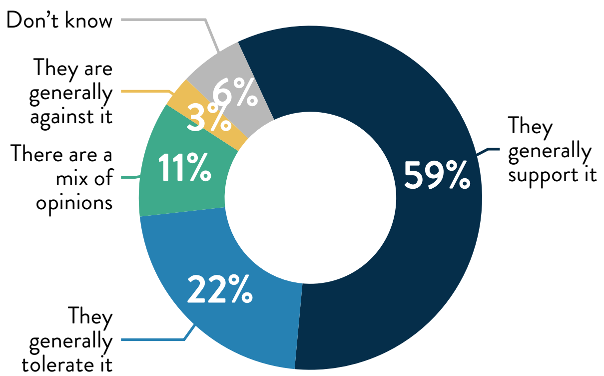
Young people are most often a source of information about cannabis.

Notes (this page): Among current (annual+) consumers.

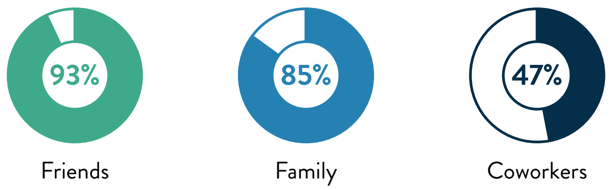
A large majority of current consumers report their friends (93%) and family (85%) as knowing about their cannabis use. Nearly half say that coworkers know about their use.

Interestingly, age was expectedly associated with approval from friends and family, with younger people facing more opposition. Yet, state market type was not associated with approval from friends and family. Nevertheless, use type was, with primarily recreational consumers facing the most opposition from friends and family. Recreational-only consumers were most likely to not know the opinions of friends and family.

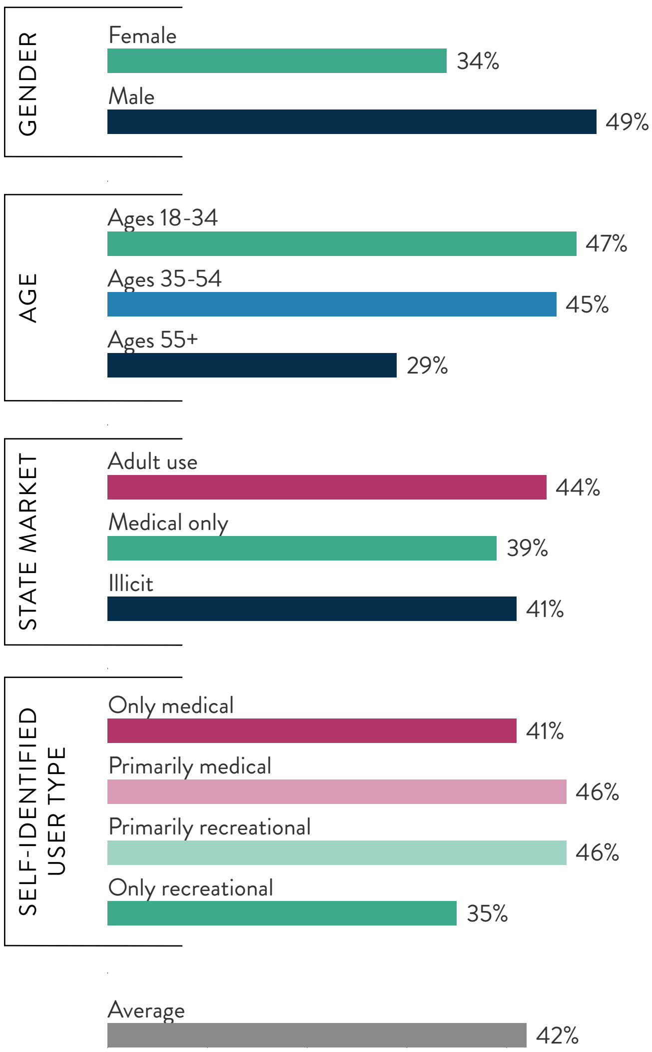
How do your friends/family feel about your cannabis use?



Who knows about your cannabis use?



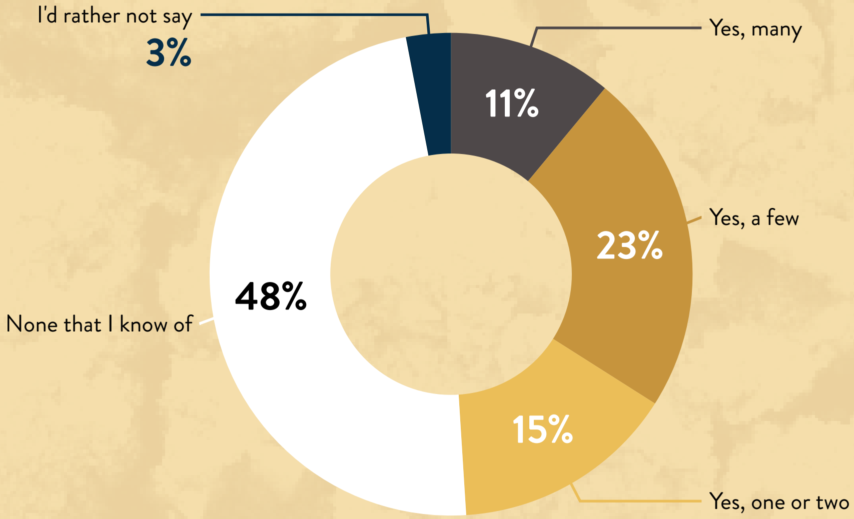
I tell other people about my cannabis use.



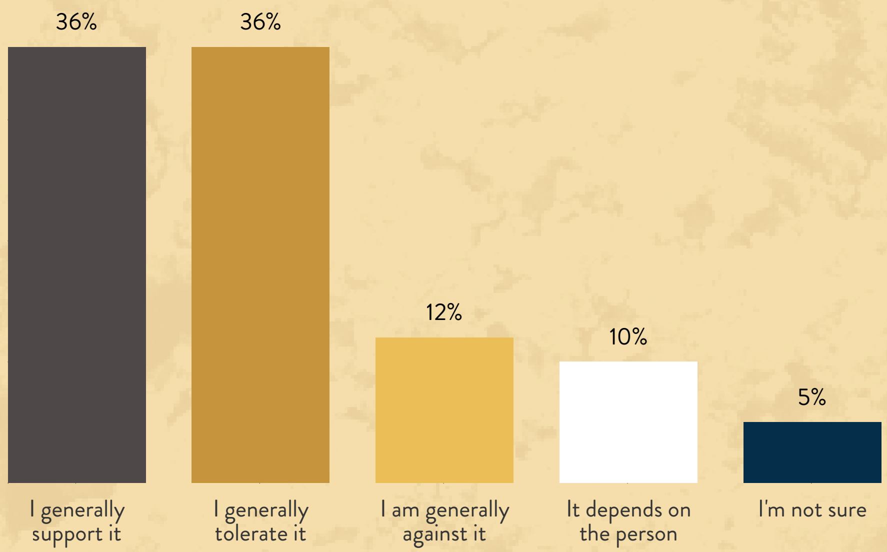
Note (this page): Among current (annual+) consumers.

Nonconsumers:
Do you have friends or family who consume cannabis?

49%
have friends/family who use cannabis



Nonconsumers: How do you feel about your friends/family using cannabis?



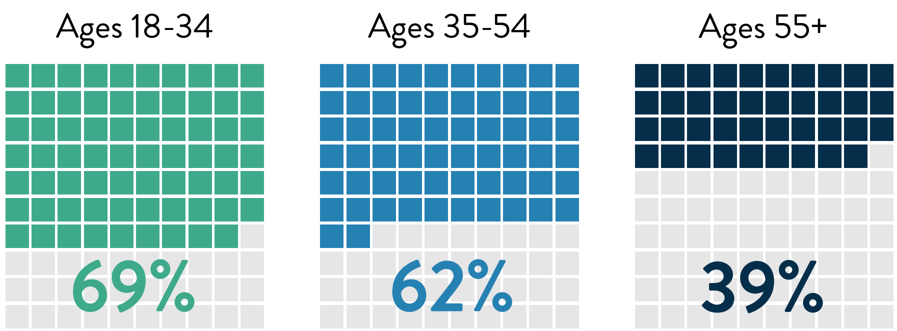
Notes (this page): Among nonconsumers.

Despite not consuming themselves, nonconsumers are generally quite tolerant of their friends'/family's cannabis use, with 12% reporting being against such use and 10% saying that their degree of approval depends on the person.

60% of current consumers say that most of their friends are cannabis consumers.

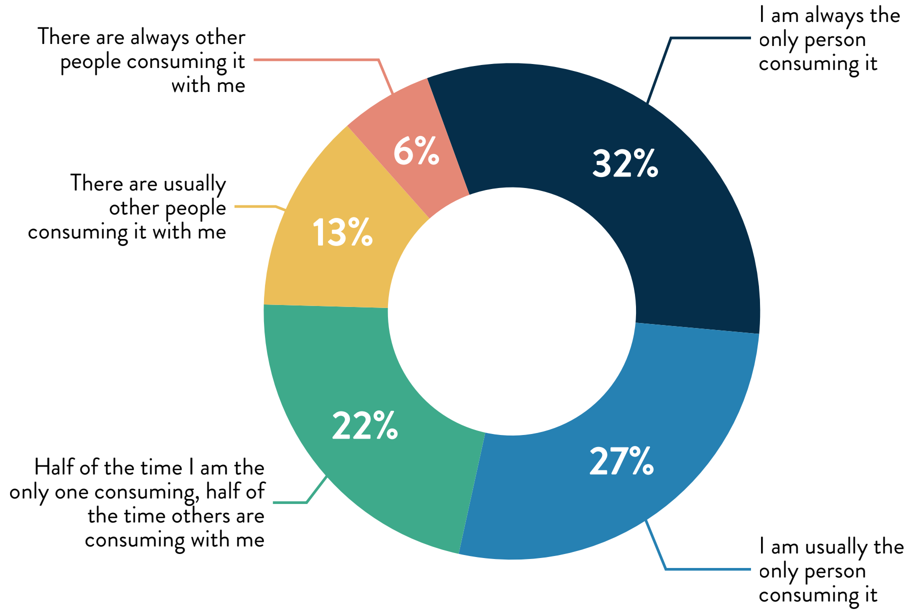
The rate is much lower among older consumer groups.

Most of my friends are cannabis consumers...



60% of consumers report always or usually consuming alone. Social-use rates were probably somewhat depressed because of the COVID-19 pandemic. That could also show that consumption has become more a part of everyday life, rather than an occasion marked by social consumption.

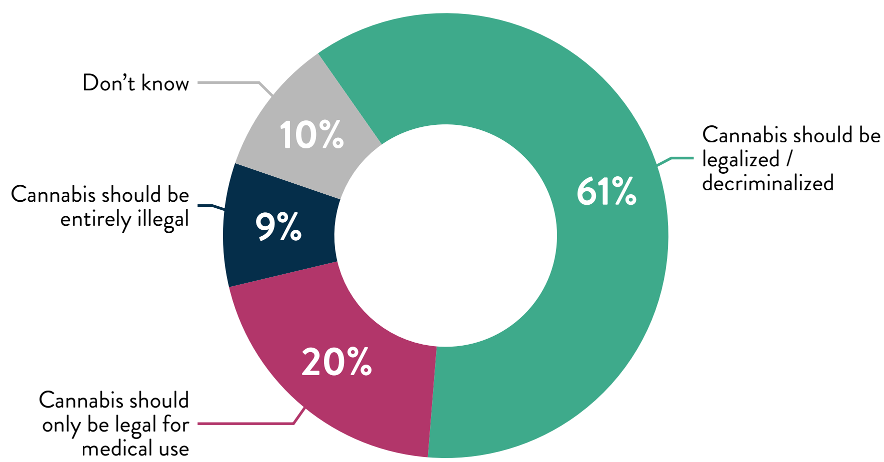
Social Context of Use: When I use cannabis...



Note (this page): Among current (annual+) consumers.

Policy Beliefs

General Population: Which best describes your views on cannabis legalization?

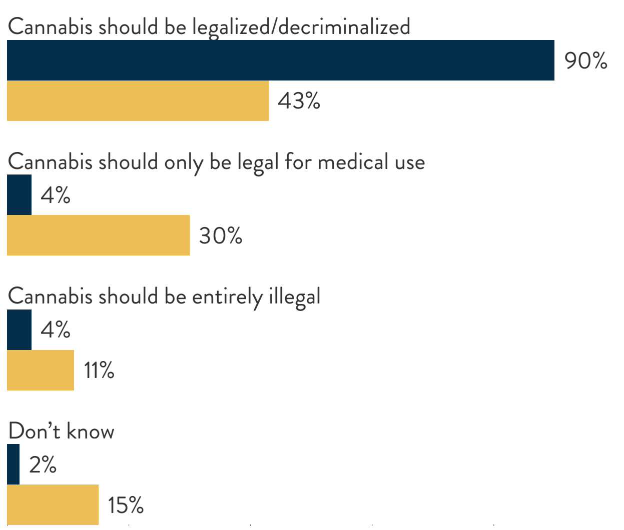


81% of adults think that cannabis should be legalized for at least medical use, with the 9% of adults believing that cannabis should remain entirely illegal mainly comprising nonconsumers.

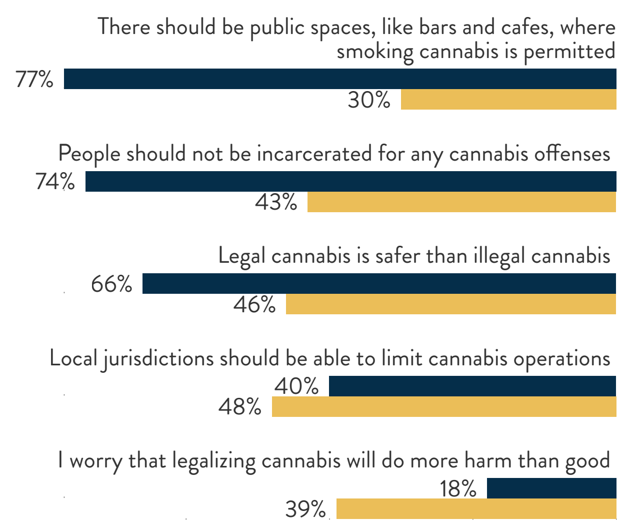
Consumers vs. Nonconsumers

● Consumers ● Nonconsumers

Which best describes your views on cannabis legalization?



Policy Beliefs

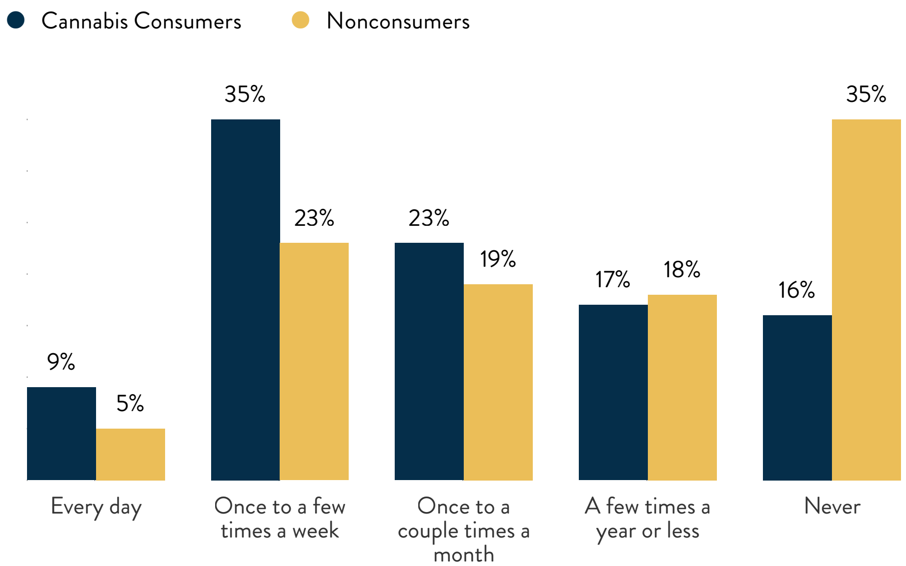


Notes: (Top) Among general population; (Bottom) "Consumers" are current (annual+) consumers.

Alcohol Consumption

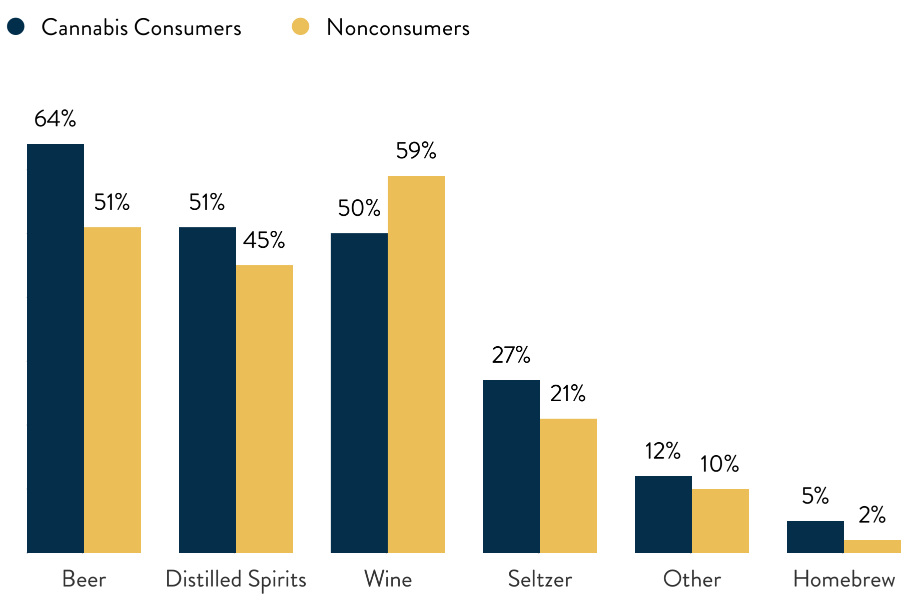
Cannabis consumers are more likely to consume alcohol than are people who do not consume cannabis. On average, cannabis consumers also drink alcohol more frequently than do those who do not consume cannabis.

Alcohol Consumption Frequency



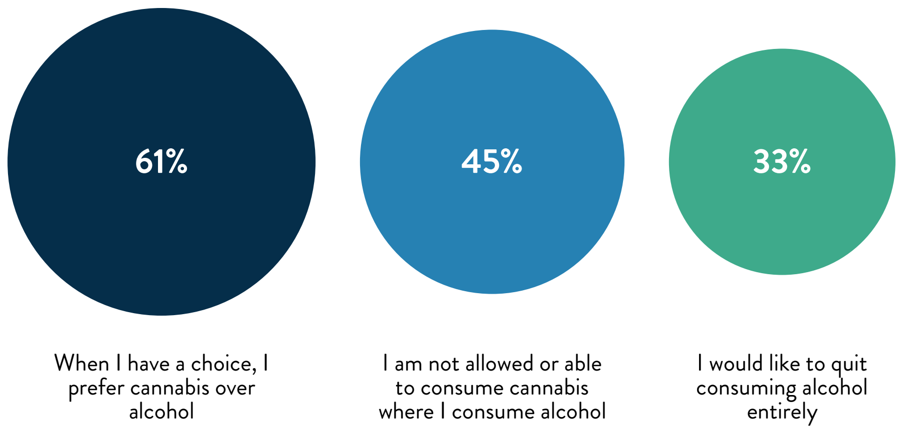
Cannabis consumers who enjoy alcoholic hard seltzer are 1.9x more likely to have tried a cannabis-infused beverage over the average cannabis consumer.

Alcohol Form Preference



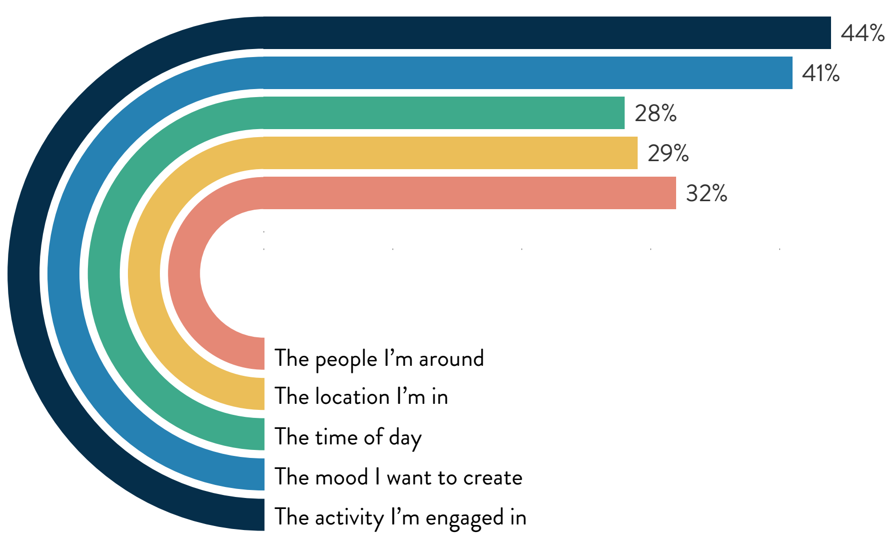
Note (this page): "Consumers" are current (annual+) cannabis consumers.

Cannabis vs. Alcohol: Among Consumers of Both



27% of cannabis consumers always / almost always consume cannabis when imbibing alcohol.

What determines if I choose alcohol, cannabis, or both?



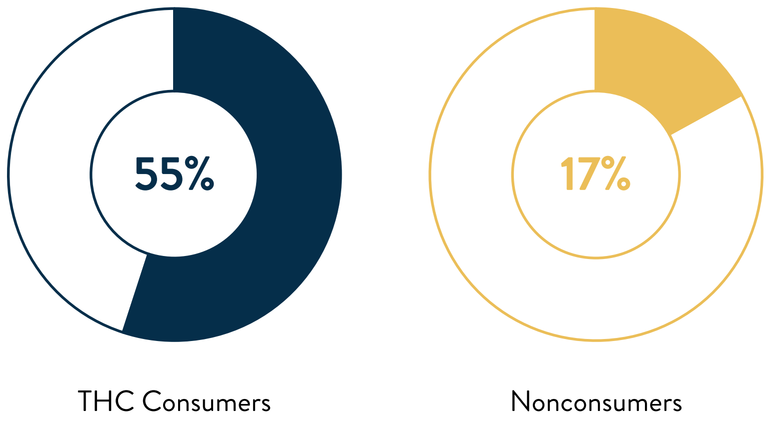
Just as they do with different forms of cannabis, consumers who consume both alcohol and cannabis use context factors like activity, desired mood, company, or location to decide which to consume in a given moment.

Note (this page): Among current (annual+) cannabis consumers who also drink alcohol.

CBD Consumption

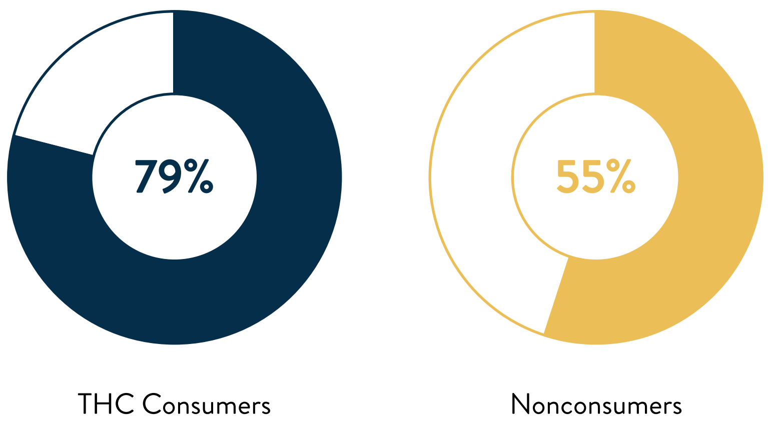
THC consumers were more than 3x more likely than were nonconsumers to have tried CBD / a CBD-only product. Still, roughly 1 in 6 adults who are not THC consumers reported having tried CBD.

Have you ever used CBD?



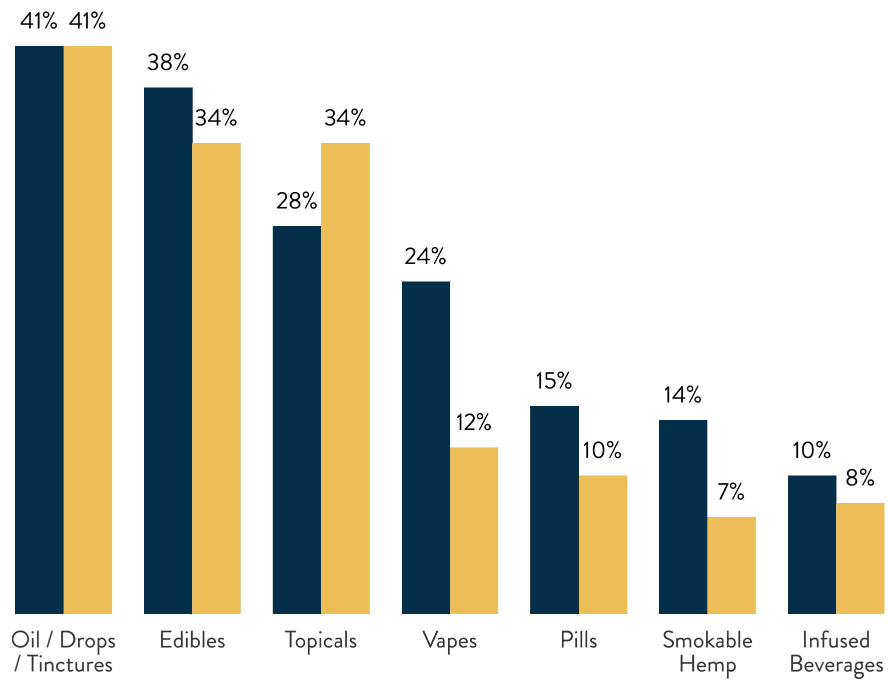
Cannabis consumers were more likely than were nonconsumers to believe that CBD could effectively treat medical conditions.

True: CBD can be used to treat some conditions...



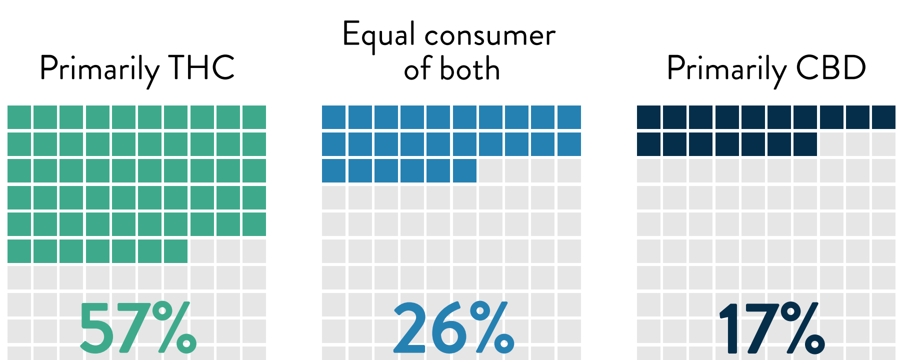
Note (this page): "Consumers" are current (annual+) cannabis (THC) consumers.

CBD Forms Used



THC consumers are twice as likely as nonconsumers to have used inhalable forms of CBD (e.g., vapes, smokable hemp).

Are you primarily a THC or CBD consumer?: Among Consumers of Both



A majority (57%) of consumers who use both THC and CBD say that they primarily use THC. More than one-quarter (26%) consider themselves to be equal consumers of both.

Notes: (Top) "Consumers" are current (annual+) THC consumers; (Bottom) Among current (annual+) THC consumers who also use CBD/CBD-only products.

Methodology

Survey

New Frontier Data designed and conducted an online survey to assess cannabis consumer attitudes, perceptions, and consumption across legal and unregulated markets in the United States. Survey themes included: cannabis use, purchasing behavior and decision influencers, product preferences and expenditures, beliefs about cannabis, and other consumption behaviors. U.S. adults who were not cannabis consumers were also surveyed about potential future cannabis use, and beliefs and attitudes about cannabis, and social and personal connections to cannabis consumers.

Sampling was demographically representative of the adult population in the United States. Analyses were conducted among 4,682 cannabis consumers – respondents who indicated that they consumed cannabis in the past, and will consume it again, as well as 1,250 nonconsumers. The survey was conducted in Q1 2022.

SURVEY OVERVIEW		
Methodology	**Online Survey**	
Sample Size	**Total Respondents**	**5,932**
	Consumers	**4,682**
	Nonconsumers	**1,250**
Fielding Dates	**Jan 27 - Feb 10, 2022**	
Median Duration	**14 minutes**	
Margin of Error	**Consumers**	**±1.43%**
	Nonconsumers	**±2.77%**

APPENDIX: SURVEY SAMPLE		
	CURRENT CONSUMERS	NONCONSUMERS
SAMPLE SIZE	**4170**	**1250**
Age		
18-24	12%	11%
25-34	23%	12%
35-44	22%	12%
45-54	18%	17%
55-64	14%	20%
65+	10%	28%
Gender		
Female	47%	52%
Male	52%	47%
Nonbinary/other	0.4%	0.5%
Home State Cannabis Market		
Adult-use	50%	40%
Medical only	25%	32%
Illicit	26%	28%
User Type Self-Identification		
Only medical	13%	n/a
Primarily medical	27%	n/a
Primarily recreational	28%	n/a
Only recreational	32%	n/a
Household Annual Gross Income		
Under $25,000	20%	20%
$25,000 - $49,999	26%	23%
$50,000 - $74,999	18%	20%
$75,000 - $99,999	12%	12%
$100,000 - $124,999	8%	10%
$125,000 - $149,999	5%	5%
$150,000 - $174,999	3%	3%
$175,000 - $199,999	3%	2%
$200,000 or more	5%	6%
Prefer not to say	0%	1%
Educational Attainment		
Some high school	3%	3%
High school diploma	24%	20%
Some college	23%	21%
Associate's degree or trade school	17%	14%
Bachelor's degree	22%	25%
Advanced degree	12%	17%
Racial/Ethnic Identity		
White	62%	66%
Black	17%	14%
Hispanic/Latinx	13%	10%
Mixed	3%	2%
Asian	3%	6%
Native American	1%	1%
Pacific Islander/Native Hawaiian	0%	0%
Middle Eastern/North African	0%	0%
Other	0%	0%
Prefer not to answer	0%	0%

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