

## CANNABIS CONSUMERS in AMERICA

## Part 2: The Purposeful Consumer







**Jointly** 











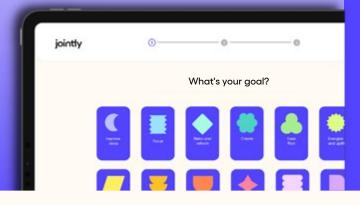


# Contents

2	Contents	
4	Introduction	
5	Consumer Behavior	
	Product Type	6
	Consuming with Whom	8
	Time of Day	10
	Consuming Where	12
14	Consumer Goals	
	Goals of Use	15
	Goal Success	18
	Side Effects	25
30	Key Takeaways	
34	About New Frontier Data	
35	About Jointly	

jointlybetter.com

## jointly matches



## Increase revenue. Empower your budtenders. Save time and money. Create happy customers.

Match your customers with the best products in your store for their goals.

The first and only goal-based, data-driven cannabis sales software for retailers.

Reduce budtender training time



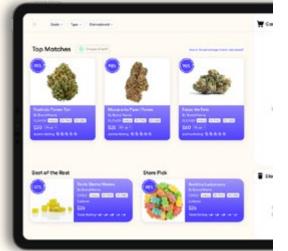
**Increase AOV** 

Drive revenue

incremental



Consistently deliver high-value, trustworthy customer experiences





## Tested, proven, goal-specific product matches.

The Matches<sup>®</sup> product recommendation engine is powered by hundreds of thousands of goal based product ratings all from real, unbiased Jointly users.

Want a demo? Contact us: hello@jointlybetter.com

# Introduction

Jointly is a cannabis discovery company, powered by a proprietary data platform. The company was created on the premise that purposeful cannabis consumption is the key to unlocking a better you. Cannabis enthusiasts use the platform to find products, and to reflect on their experiences to reveal insights that help them reach their goals. They learn to create the conditions for their ideal experience by tracking the factors that can impact their results, while monitoring for possible side effects.

Since launching in 2020, some 80,000 consumers have rated over 200,000 unique experiences on the platform. Included are 206,000 experiences with documented goals, products, doses, product effectiveness, and flavor/aroma ratings. Among them are 140,000 experiences noting the time of day, time since previous session, the presence or absence of exercise, hours of sleep, hydration, fullness of stomach, and side effects. And 120,000 include exercise type, quality of diet, consumption of companion foods, setting, and whom the consumer was with. The data from those experiences form the basis for this report.

#### ABOUT THIS DATA:

**Self-selection:** Participants include consumers who choose to download an app to track and improve their consumption in pursuit of wellness-related goals. Users' inputs include multiple degrees of detail. At bare minimum they select a product, goal, and goal rating. Most users choose to enter additional information on the factors surrounding their experiences to enhance the insights available within the app's "My Factors" feature used by participants to view which factors most impact their experiences, whether in positive or negative directions.

**Self-reporting:** Consumers make their own, subjective judgments about their experiences.

**Momentary assessment:** Contrasting with survey data which is a more high-level approach, this data is repeatedly collected in an individual's normal environment upon reflection of a singular experience. The results enable more granular insights into consumer behavior. For example, Jointly's data extends beyond what a cohort's preferred products are, with the exact distribution of product type usage reflecting specific goals.

# Consumer Behavior

Jointly has collected over 200,000 reports of cannabis use from more than 80,000 users.

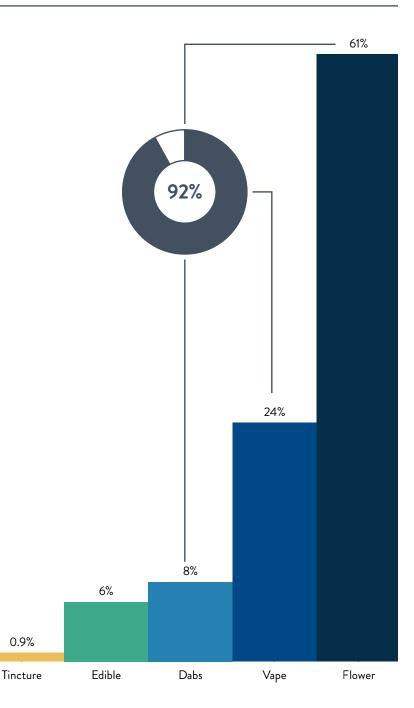
These are characteristics of those use sessions.

## Product Type

#### **Product Use Frequency**

Flower is the most frequently used product type, used in 60% of consumption sessions reported among purposeful consumers. Vapes (24%) and dabs (8%) are the second- and third-most commonly used products, respectively. Together, these three inhalable forms account for 92% of consumption sessions reported.

In addition to being the most common way of consuming cannabis demonstrated within the general population, inhalation is the method of consumption which produces the most immediate effects.



Source: Jointly

0.3%

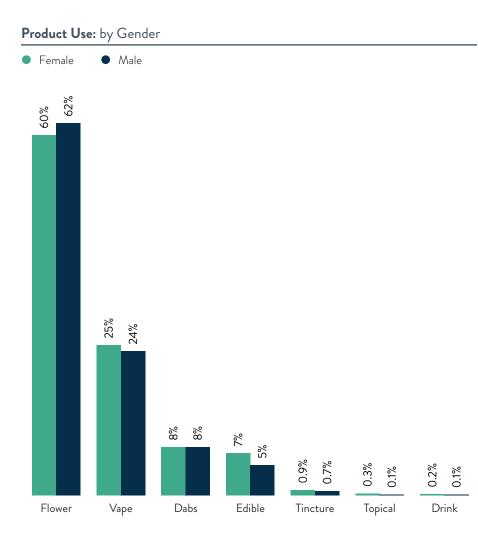
Drink

0.1%

Intimate

0.4%

Topical

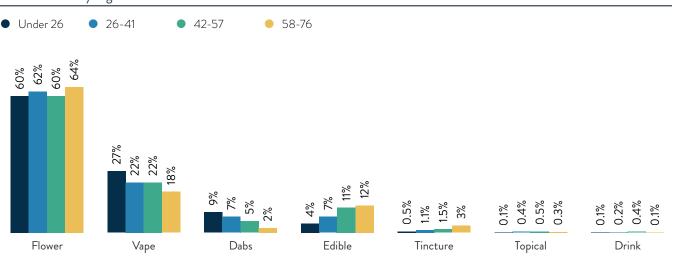


#### Among purposeful consumers, shares of product types used do not differ significantly by gender.

A slightly higher share of use sessions involve flower among males (62%) than among females (60%). Conversely, edibles represent a slightly higher share of use sessions for females (7%) than for males (5%).

Vapes and dabs make up relatively greater shares of use sessions among younger than older consumers. Conversely, edibles and tinctures are relatively more often used among older consumers than among younger consumers.

#### Product Use: by Age

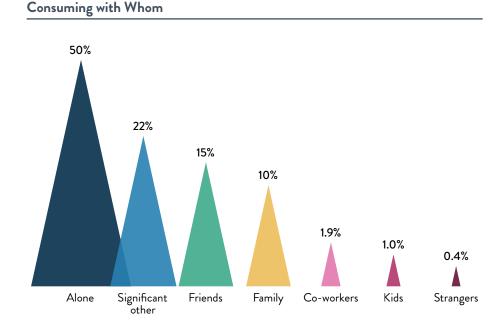


#### Source: Jointly

© New Frontier Data, All Rights Reserved.

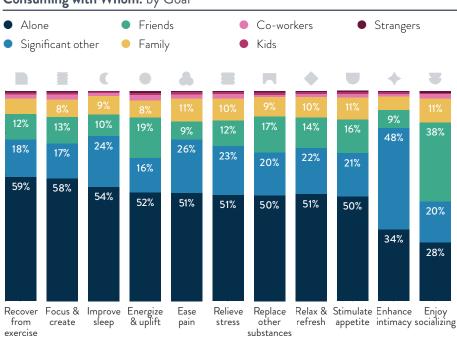
## Consuming with Whom

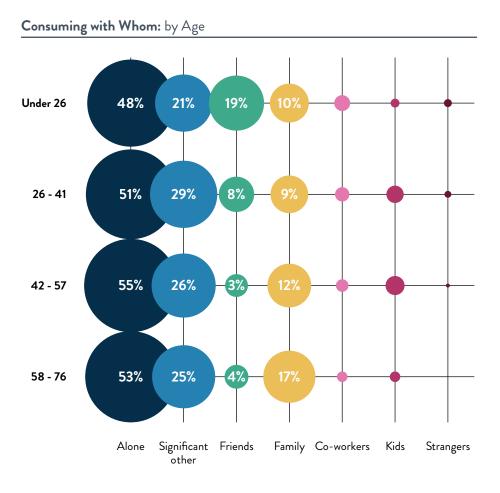
In half (50%) of reported use sessions, consumers were alone. The next most common use sessions included companions ranging from significant others (22%), to friends (15%), or family (10%).



Consumers report being alone during at least half of sessions for all goals, with exceptions of enjoy social experiences and enhance intimacy. Social uses primarily involve friends, while intimacy most often involves a significant other.

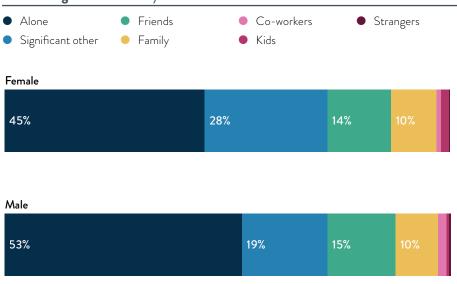
#### Consuming with Whom: by Goal





Consumers aged 42-57 represent those most likely to purposefully consume cannabis alone. Ages 58-76 are most likely to report using with their significant others, and those under 26 are likeliest to report consuming with friends.

#### Consuming with Whom: by Gender

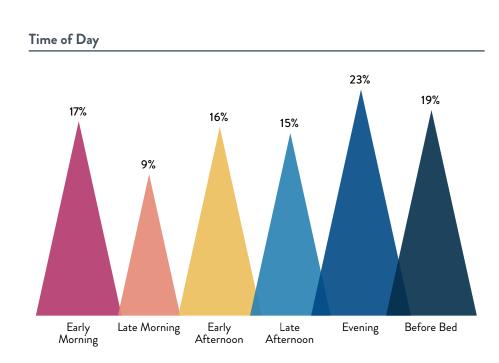


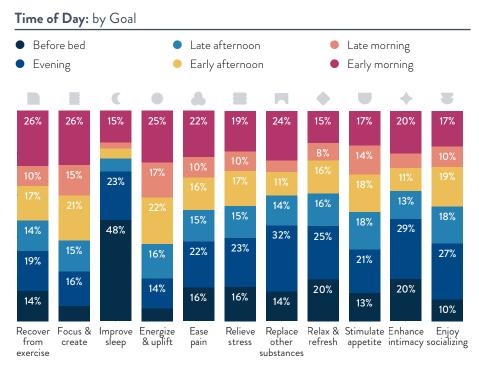
Male consumers (53%) report choosing to use cannabis alone much more often than do female consumers (45%). Conversely, females (28%) more often involve their significant others than do males (19%) in sessions.

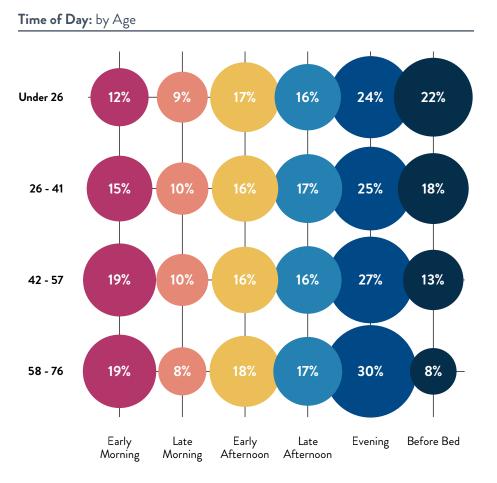
### Time of Day

Evening is the most common time of day for reported cannabis use (23% of sessions), followed by before bed (19%). While late morning is the least-reported time of use, roughly 1 in 11 (9%) of reported sessions occur then, though purposeful cannabis use occurs around the clock, driven by various goals.

Stimulating goals (i.e., energize or focus) see higher use rates in the first half of the day as compared to the average across all goals. Sleep is the goal most often cited at night (i.e., evening or before bed), followed by intimacy, replace, relax, or social.







In general, older consumers purposefully use cannabis earlier in the day than do younger consumers. Meanwhile, male consumers on average use cannabis slightly earlier in the day than do female consumers.

#### Time of Day: by Gender

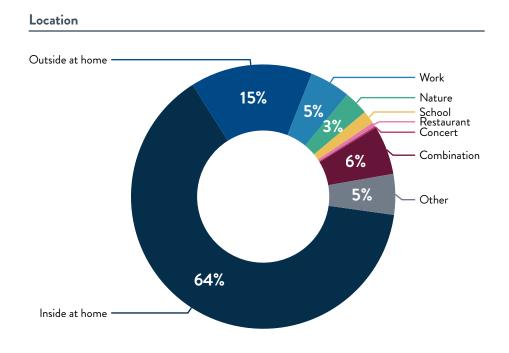
<ul> <li>Early morning</li> </ul>	<ul> <li>Late morning</li> </ul>	• Early afternoon	• Late afternoon	<ul> <li>Evening</li> </ul>	Before bed

13%	10%	16%	16%	25%	20%			
15 /₀	10 /₀	10 /₀	10 /₀	23%	20%			

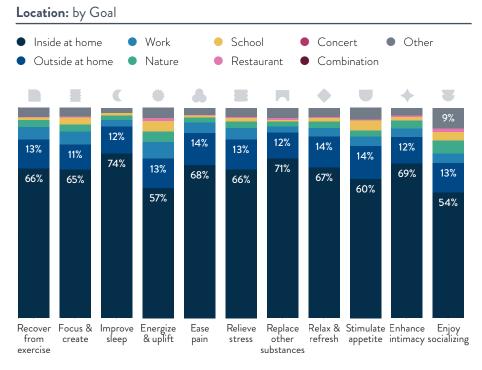
Male					
15%	9%	17%	16%	24%	19%

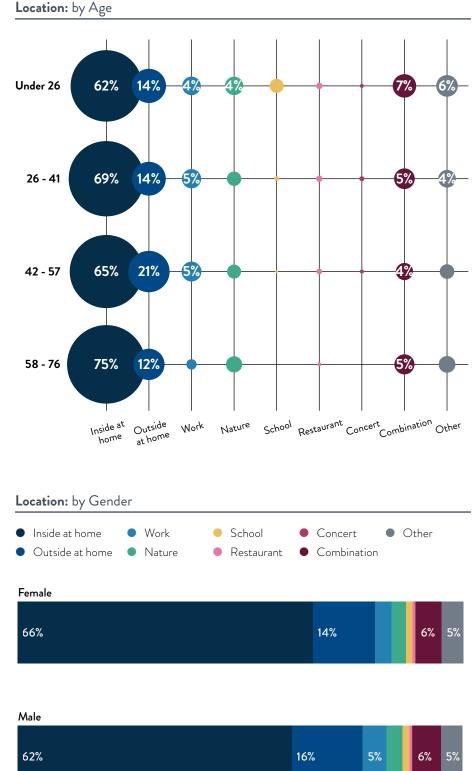
## Consuming Where

## Globally: 79% of use sessions occur at home.



#### Sessions for all goals are predominantly conducted at home, but slightly less so for appetite, energize, or social.





Ages 58-76 are the most likely cohort to consume at home. Though consuming at home is also predominant for the 42-57 age group, those consumers are the most likely to partake outside the home.

Females are 5% likelier than are males (66% to 62%) to consume inside at home.

Source: Jointly

© New Frontier Data, All Rights Reserved.

# Consumer Goals

























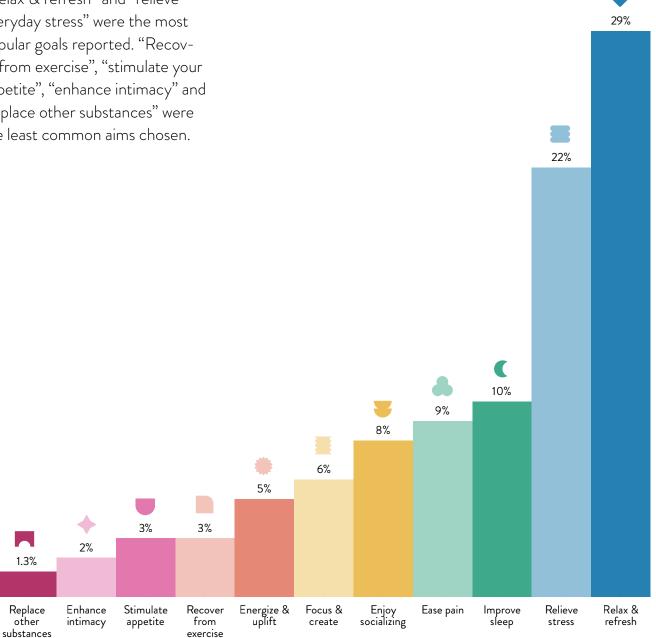




### Goals of Use

#### Frequency of Use: by Goal

"Relax & refresh" and "relieve everyday stress" were the most popular goals reported. "Recover from exercise", "stimulate your appetite", "enhance intimacy" and "replace other substances" were the least common aims chosen.

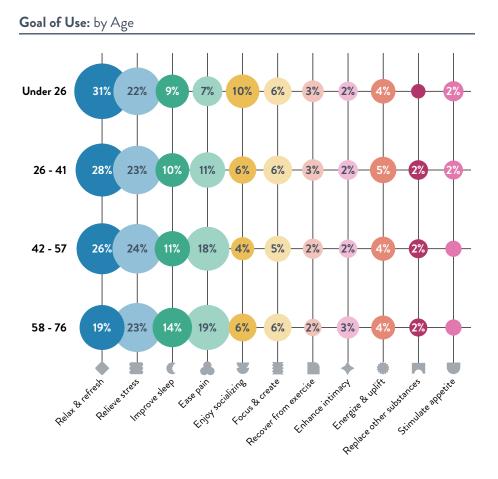


Source: Jointly

#### Product Use: by Goal

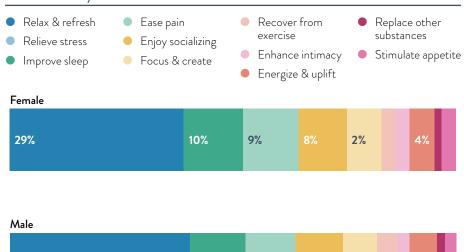
Flower is consistently the most frequently used product type across all categories for purposeful consumption, followed by a vape. Consumers choose edibles or drinks more frequently to replace other substances than for other goals. Topicals, while uncommon, see higher frequencies of use for recovering from exercise, easing everyday pain, or enhancing intimacy.

GOAL	FLOWER	VAPE	DABS	EDIBLE	TINCTURE	DRINK	TOPICAL	INTIMATE
Stimulate appetite	71%	21%	6%	2%	0.4%	0.2%	0.1%	0%
Energize & uplift	65%	26%	5%	4%	0.4%	0.3%	0.1%	0%
Relax & refresh	<b>6</b> 1%	24%	8%	6%	0.8%	0.3%	0.3%	0%
Enjoy socializing	61%	25%	8%	6%	0.7%	0.5%	0.1%	0.1%
Relieve stress	60%	25%	8%	6%	1.2%	0.3%	0.3%	0%
Enhance intimacy	60%	22%	7%	8%	1.2%	0.9%	0.8%	0%
Focus & create	59%	26%	7%	7%	1.1%	0.6%	0.1%	0.3%
Ease pain	59%	22%	8%	8%	1.6%	0.4%	1.3%	0%
Recover from exercise	59%	21%	7%	8%	1.9%	0.7%	2%	0.4%
Improve sleep	58%	23%	7%	8%	1.6%	0.4%	0.2%	0%
Replace other substances	56%	22%	7%	12%	1.6%	1.7%	0%	0.1%



The <26 age group is more likely to consume to enhance social experiences. Easing everyday pain accounts for a much larger share of use sessions for consumers ages 42+ than for younger consumers. Ages 42-76 are much more likely to consume for pain relief, while those 58-76 are more likely seeking to improve sleep.

#### Goal of Use: by Gender



9%

2%

4%

9%

Relatively speaking, males consume to recover from exercise more frequently than do females. Goal selections by gender otherwise are similar.

#### Source: Jointly

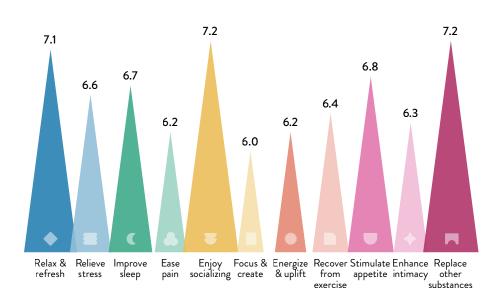
31%

### Goal Success

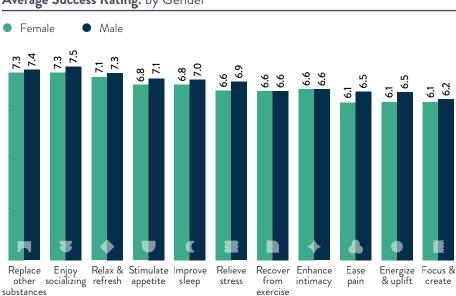
In addition to Jointly users' reporting their goals and circumstances for use sessions, they also report perceived successes in achieving those goals.

While replacing other substances is the least-frequently cited goal, consumers seeking that report the highest success rates, along with enjoying social experiences.

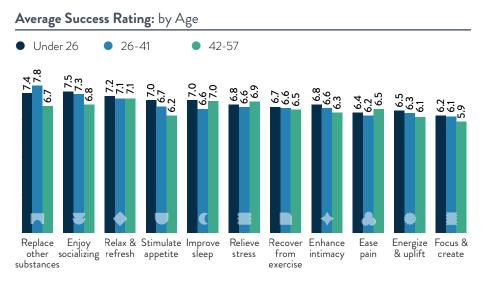
Males' ratings are scored more highly than females' on average across most goals, with statistical significance registered for 8 among 11 of them. The largest difference occurs in easing everyday pain.



#### Average Success Rating: by Goal

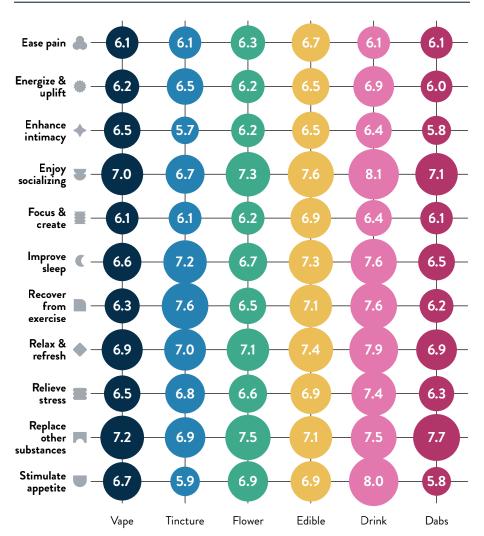


#### Average Success Rating: by Gender



The <41 age groups report better success rates for replacing other substances than does the 42-57 age group.

#### Average Success Rating: by Product Type



Source: Jointly

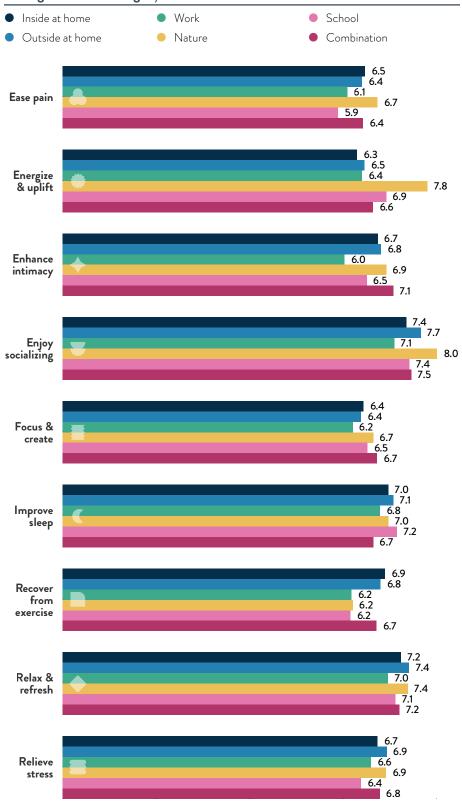
© New Frontier Data, All Rights Reserved

Despite being relatively infrequently used, cannabis drinks are associated with higher-than average goal ratings for all aims but easing everyday pain, and in many cases are the product type scoring the highest rating within each goal.

Across most goals, ingestibles (e.g., edibles, drinks, and tinctures) tend to result in higher goal ratings than do inhalables (e.g., flower, vapes, or dabs).

Dabs generally are associated with poorer goal ratings than are other product types, except for in replacing other substances, where dabs achieve the highest goal rating. While inside and outside at home are the two most common locations for consumption, they often do not register the highest perceived outcome on average. For 6 of the 9 goals presented, consuming in nature scores the highest (or tied for highest) average rating. Exceptions include improving sleep, recovering from exercise, and enhancing intimacy.

#### Average Success Rating: by Location\*



\*Some less frequent goals and locations omitted due to low counts in the data. Source: Jointly Cannabis affects everyone differently, based on physiology and a range of environmental factors. The data illustrates how factors impact one's experience in varying ways according to a specific goal. Jointly allows inputs for 15 individual factors. To evaluate the impact of each, we took the difference between the lowest and highest average for each subfactor (e.g., poor diet average - great diet average) and divided by the sum of the 15 factor differences to generate the percentage of impact. The factors were then grouped into cannabis and non-cannabis factors.

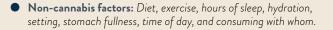
Cannabis is much more than THC: Product quality and formulation are important aspects to any experience. Some goals lacked sufficient data to include all factors, and therefore were omitted. For "relaxation & refresh" or "ease everyday pain", the cannabis factors were of more importance than for non-cannabis, and were responsible for 64% and 61% of the variations in experience ratings, respectively. For "enhancing intimacy", the results were inversed, with non-cannabis factors being the dominant driver in experience ratings. Other goals were a near split, lending roughly 50% to each group of factors.

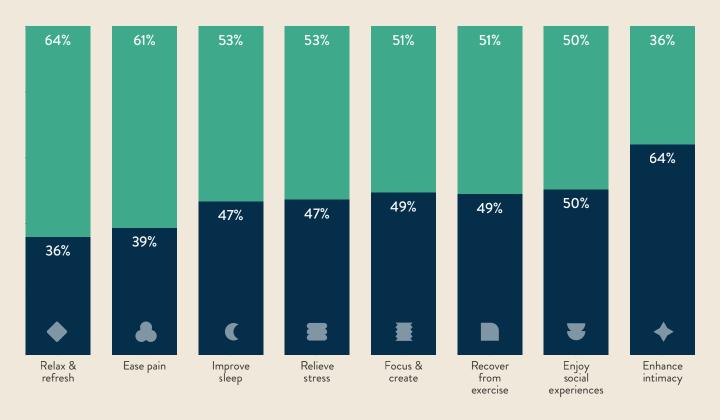
For any goal, the impact of the less significant group was responsible for over ½ of the variation in the goal rating, indicating that while the significance of each factor may change based on the goal they all have significance. With Jointly's platform, users can isolate their factors to see what specifically works best for them, and optimize conditions to attain their aspirational 10 score.

For specific factors, doses and specific products were by far the most significant conditions affecting experiences across goals. Underdosing will fail to produce the desired effect, whereas too high of a dose produces undesirable side effects – as shown in the <u>side effects section</u>. The data illustrates the significance in choosing the right product for one's experience. **Cannabis is much more than THC:** Product quality and formulation are important aspects to any experience. Some may be more uplifting, others more sedating, so it is important to choose a product wisely in order to optimize the cannabis experience. Achieving cannabis goals are dependent not only on cannabis, but on factors like environment, diet and exercise. Achieving intimacy was more dependent on non-cannabis factors like diet, environment, or partners, while the goal to "relax & refresh" was more dependent on factors like one's dose and the specific cannabis product used. It is interesting to note the nearly equal role which cannabis and non-cannabis factors serve in helping consumers meet their goals.

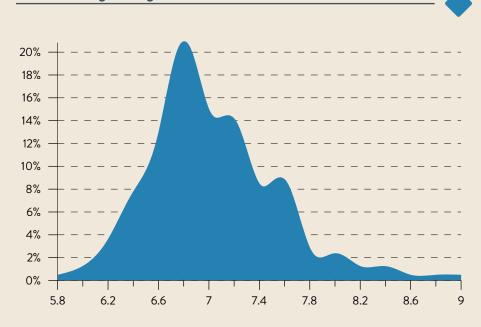
#### Impact of Cannabis vs. Non-cannabis Factors on Success Rating

 Cannabis factors: Cannabinoid profile, device used, dose, product type, specific product, and time since last consumption.





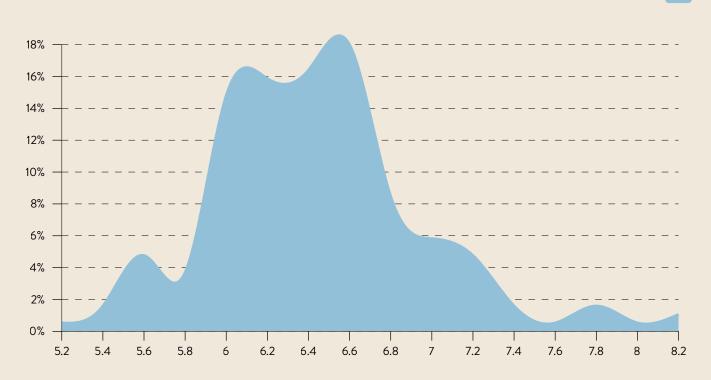
#### Product Average Rating: Relax & Refresh



## Impact of product on goal score:

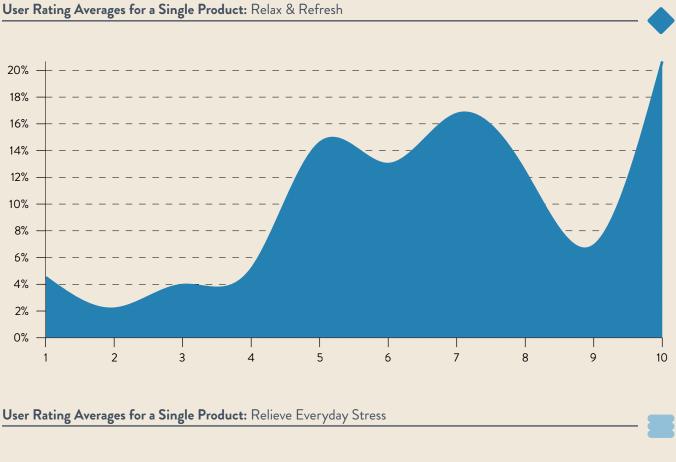
Choosing the right product is a key factor for optimizing one's cannabis experience. The distribution of product averages across users can vary greatly, as well as with the same product across different users.

#### Product Average Rating: Relieve Everyday Stress



Source: Jointly

© New Frontier Data, All Rights Reserved.



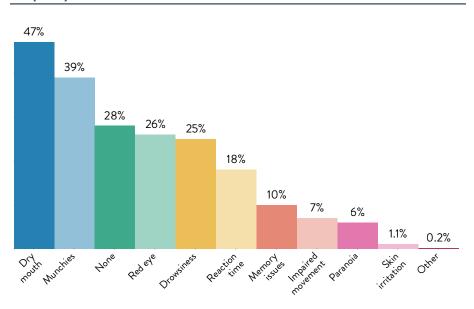




© New Frontier Data, All Rights Reserved.

Side Effects

#### Frequency of Side Effects

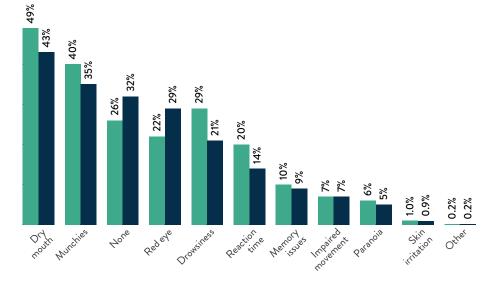


Dry mouth occurs in almost half of the experiences with side effects. Munchies is the second most common, occurring at a rate of 39%.

Frequency of Side Effects: by Gender Male

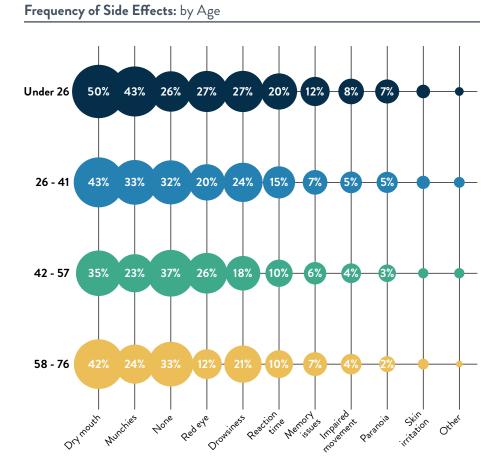
Female

Female consumers are more likely than are male consumers to report experiencing nearly all side effects.

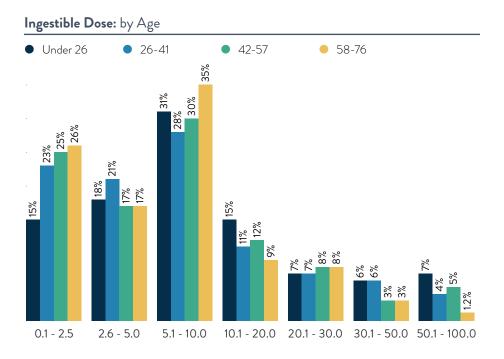


Report to side effect relationship can be one to many. Source: Jointly

Younger ages are the most frequent consumers, and also report experiencing the most frequent side effects.



Younger ages are much less likely to take doses less than 2.5 mg THC, and are more likely to take a dose above 10 mg, representing 35% of ingestible doses for ages > 26. The contrast suggests that the higher rate of side effects among younger consumers may be due to dosing.



Report to side effect relationship can be one to many. Source: Jointly

#### Frequency of Side Effect: by Product Type

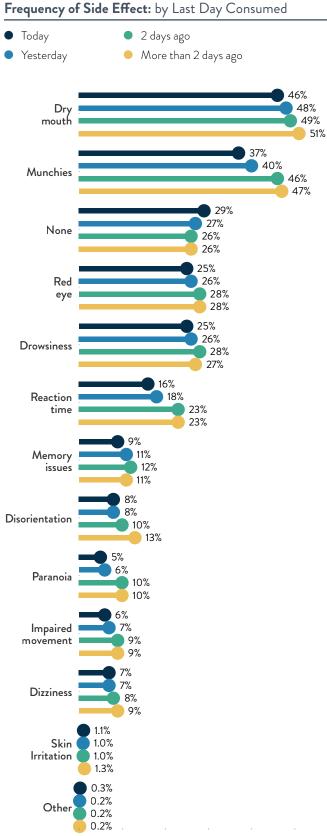
Topicals by far have th lowest rates of side eff by nature of their usag That may be a functio of reduced rates of bioavailability due to t hydrophobic cannabin needed to pass throug the aqueous layer of one's skin. Additionally dermal applications sk the first pass effects c metabolism in the live which are prerequisite for ingested products enter the bloodstream At that point a portion of THC, for example, is metabolized to 11-hydroxy-THC, which is significantly more psychoactive and may produce more side effects.

Tinctures had the second-lowest side effect rate, possibly due to their lipid formulations which may impact bioavailability.

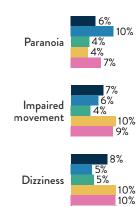
ect. by F	roduct Type							
		FLOWER	VAPE	DABS	EDIBLE	TINCTURE	DRINK	TOPICAL
he ffects 1ge.	Dry mouth	48%	49%	45%	40%	30%	46%	20%
on the	Munchies	40%	39%	38%	37%	25%	36%	12%
noids gh	None	27%	28%	30%	31%	44%	33%	62%
ly, kip of	Red eye	27%	27%	22%	20%	16%	18%	12%
er, es s to	Drowsiness	25%	26%	25%	32%	23%	32%	12%
m <sup>1</sup> .	Reaction time	18%	19%	16%	20%	10%	25%	5%
,	Memory issues	10%	12%	10%	11%	%6		2%
	Impaired movement	%9	× 8	%9	%6	5%	11%	4%
2-	Paranoia	%9	7%	5%	. 2%	5%	7%	1.1%
t cheir ch	Skin irritation	1.1%	1.0%	1.2%	1.5%	0.6%	1.4%	1.1%
oility.	Disorientation	8%	%6	8	10%	5%	8%	1.1%
	Dizziness	6%	% 8	7%	%6	<b>%9</b>	7%	4%

Report to side effect relationship can be one to many. Source: Jointly

1. <u>Ncbi.nlm.nih.gov/pmc/</u> articles/PMC2689518/



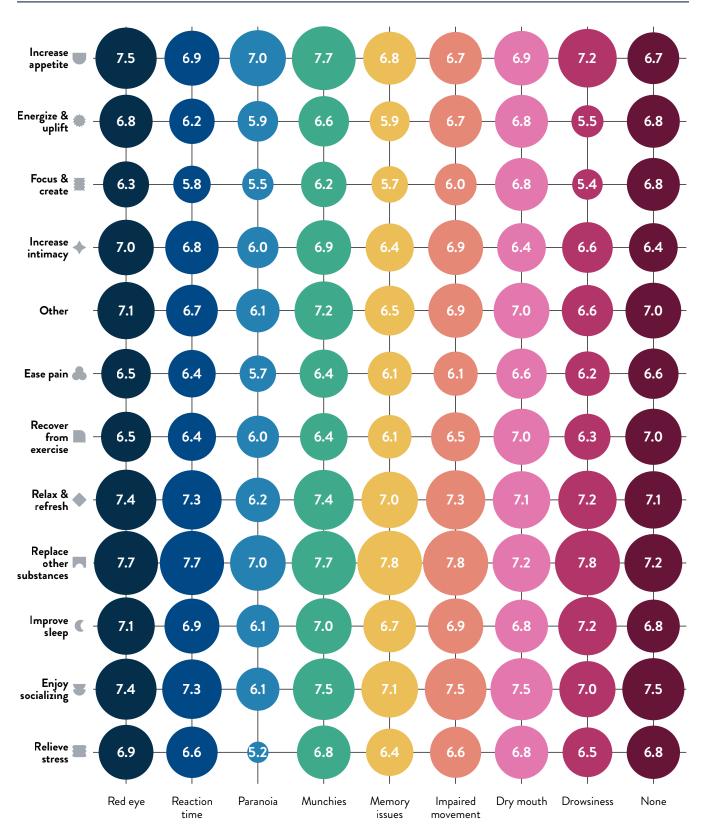
#### Frequency of Side Effect: by THC/CBD Ratio 0.5 - 1.0 CBD only • THC only 0.1 - 0.5 More than 1 30% 28% 30% Dry mouth 40% 25% 20% 。 25% 24% Munchies 38% 43% 49% 25% 29% 43% None 16% 9% 13% 16% $\mathsf{Red}$ eye 20% 25% 23% 24% Drowsiness 30% 33% 13% 18% Reaction 12% time 20% 20% 11% 12% Memory 8% issues 8% 11% 8% 6% 6% Disorientation 11% 10%



Source: Jointly

50%





Source: Jointly

© New Frontier Data, All Rights Reserved.

# Key Takeaways

Flower is the most commonly used (but not the highest-rated) form in terms of meeting consumption goals. It is possible that while flower is more popular overall, those seeking specific outcomes prefer the standardization and sophistication of manufactured products. Beverages, in particular, were rated very highly for helping consumers achieve their goals. That may be related to easy dosing (e.g., most beverages contain one serving), their ready substitution for alcohol, or technologies (like nanoemulsion) which shorten time of onset.

**Preferred product forms and goals for use correlate to a user's age.** While all age groups predominantly use flower, concentrates and dabbing are more common among younger consumers, with tinctures and edibles preferred among older people. Preferences may be related to users' relative metabolism (i.e., sensitivity to THC heightens with age), or by social factors (e.g., using cannabis more clandestinely due to parenting or professional identities and social norms). Use goals also differ, as older consumers are more likely to be using cannabis for sleep, versus younger folks more likely doing so for relaxation.

While women are reportedly more susceptible to the side effects of cannabis, it is yet to be determined whether that is due to specific biological differences, or social inclinations for being more aware or willing about admitting them. Younger consumers report experiencing more side effects, which may be related to consuming in higher doses than other age groups. Unsurprisingly, side effects were more common with THC-rich products than CBD-rich products, and were more pronounced among those who had not used in a while, as opposed to frequent consumers. It is possible that frequent consumers build up a tolerance to side effects, and/or learn how to tailor their use to avoid them as they become more experienced.

> Beverages, in particular, were rated very highly for helping consumers achieve their goals.

Half the time, people reported consuming alone, and almost 80% of use sessions are at home, which may be related to one's goal (e.g., sleep) or the lack of acceptable places to consume outside of the home. Interestingly, consuming in nature, although uncommon, resulted in the best outcomes for six of the nine goals.

**Relaxation and relief of everyday stress are the most common goals, while replacing other substances was the least common.** However, replacement for other substances had the highest success rate across goals. This could be because the act itself defines success, regardless of outcome. Beverages were most commonly chosen for the goal of replacement. However, concentrates were rated as most effective in reaching this goal, even though they were among the least effective for all other goals. Some goals are more impacted by non-cannabis factors such as diet and exercise, while others are more dependent on the cannabis use itself. Relaxation and easing everyday pain were more connected with cannabis use, while enhancing intimacy was more connected non-cannabis factors. This demonstrates that for some goals, cannabis itself is the main driver for success, while for others, it only plays a role along with other factors.

### Coming Soon

#### PART 3: CONSUMER ARCHETYPES

Intention, demographics and other consumer characteristics can be described in terms of distinct archetypes. In the last report in our series, we dive into these archetypes, what they say about consumer desires and how that translates to purchasing and consumption behaviors.

Subscribe to our weekly CannaBit newsletter to receive a notification when Part 3 is released.

PART 1: DYNAMICS SHAPING NORMALIZATION IN AMERICA Available with a <u>free Equio</u> <u>Explore subscription</u>.



# >>> Get ready for the <<</li>Suite Life

Get critical retail answers

Amplify your strategy

Make confident decisions

Improve commerical outcomes



>>>>> Comprehensive Dispensary Insights <<<<<-

**910k+** PRODUCTS



164m+ CONSUMERS

Get started today: equio.io

## **About** New Frontier Data

N E W F R O N T I E R D A T A is the premier data, analytics and technology firm specializing in the global cannabis industry, delivering solutions that enable investors, operators, advertisers, brands, researchers and policy makers 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 a 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.



#### Be More with Cannabis

We believe that cannabis makes us more, not less. That's why we created the first ever experience-based cannabis product rating platform, harnessing the wisdom of our community. Jointly's platform matches you to your best products, helping you reach a whole new level of wellbeing through purposeful cannabis consumption. Together, we are creating a new way of thinking about cannabis wellness.

#### **Core Values**

- We believe that purposeful cannabis consumption makes us more, not less.
- We believe science improves the world we live in.
- We believe data solves problems and helps make better decisions.
- We believe that everyone deserves their ideal cannabis experience.

#### Our Promise

#### TRUST

Rely on us for the most personalized product recommendations, the industry's most dependable ratings and reviews, and the most effective ways to get more from cannabis.

#### SAFETY

In order to ensure that every product we recommend is safe for you to use, we only work with legal, compliant, and licensed products, brands, stores, and retailers.

#### SECURITY

Keep track of your cannabis experiences without a worry—we always keep your data anonymous, private, and secure.

## **Report Contributors**

EDITOR Dr. Amanda Reiman, Chief Knowledge Officer, New Frontier Data

#### AUTHORS

Kevin Smith, Data Scientist, JointlyDavid Kooi, Co-founder & CEO, JointlyDr. Molly McCann, Senior Director of

Consumer Insights, New Frontier Data

#### ADDITIONAL ANALYSIS

**Noah Tomares,** Industry Analyst, New Frontier Data

**Rob Kuvinka,** Vice President of Data, *New Frontier Data* 

**CREATIVE DIRECTOR Emily Watkins,** Director, Brand & Creative, New Frontier Data

**COPY EDITOR J.J. McCoy,** Senior Managing Editor, *New Frontier Data* 

**DATE PUBLISHED** September 2022

## Copyright

Copyright © 2022 by Frontier Financial Group, Inc., dba/ New Frontier Data. All rights reserved. Photocopying or reproducing this report in any form, including electronic or facsimile transmission, scanning or electronic storage, is a violation of federal copyright law and is strictly prohibited without the publisher's express written permission.

This report may not be resold. New Frontier Data only sells its publication directly or through authorized resellers. Information concerning authorized resellers may be obtained from New Frontier Data, 1400 I Street NW, Suite 350, Washington D.C. 20005.

While every effort has been made by New Frontier Data, Inc. to ensure the accuracy of information in this report, it accepts no responsibility for errors or omissions. The report is sold as is, without warranty of any kind, either express or implied, respecting its contents, including but not limited to implied warranties for the report's quality, performance, merchantability, or fitness for any particular purpose. Neither New Frontier Data nor its dealers of distributors shall be liable to the purchaser or any other person or entity with respect to any liability, loss, or damage caused or alleged to be caused directly or indirectly by this report.

