

Cannabis in the U.S. 2021 Mid-Year Market Update



Sponsored by:

大成 DENTONS

New
Frontier[®]
data

Letter from the Publisher

WHEN I TOOK THE PLUNGE into the cannabis industry in 2014, I was convinced the market was poised for tremendous growth, but I could not have anticipated the transformational evolution, or the speed of change, taking place in the cannabis arena today. With legalization continuing to spread and advance beyond the first half of 2021, the cannabis market is maturing into a sophisticated and complex sector, and now more than ever, it is critical to identify and understand the increasingly nuanced market dynamics shaping this evolving industry.

In this ***Cannabis in the U.S.: 2021 Mid-Year Market Update***, we reveal that adult-use consumption continues to outperform medicinal markets' and that illicit demand remains strong, creating both

challenges and opportunities for all financial and regulatory stakeholders. In fact, in 2020, 45 million cannabis consumers nationwide spent an estimated \$66 billion across illicit sources in U.S., thus highlighting the opportunity for governments to generate significant revenues from effective taxation and legal markets regulation.

As is the case with all our reports, available through New Frontier Data's cannabis intelligence platform Equio®, we trust you will benefit from this fact-based, unbiased, and actionable assessment, and our continued commitment to support investors, brands, operators, and researchers worldwide best assess, understand, engage and transact with the cannabis industry and its consumers, responsibly and knowledgeably.



Giadha A. DeCarcner

Founder, Publisher & Executive Chair
New Frontier Data



Strength in Knowledge®

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 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.

For more information about New Frontier Data, please visit: NewFrontierData.com.



Report Contributors

PUBLISHER

Giadha A. DeCarcera, Founder & Executive Chair, *New Frontier Data*

EDITOR

John Kagia, Chief Knowledge Officer, *New Frontier Data*

AUTHOR

Kacey Morrissey, Senior Director, Industry Analytics, *New Frontier Data*

QUANTITATIVE MODELING

Kacey Morrissey, Senior Director, Industry Analytics, *New Frontier Data*

COPY EDITOR

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

DATE PUBLISHED

June 2021

Copyright

Copyright © 2021 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 or 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.



Methodology

Data Overview

New Frontier Data's analysis in this report represents a new threshold of modeling in the evolving cannabis industry. The forecasts presented herein leverage data collected over 13 years, both spanning the breadth of the cannabis industry and including insights gained from dozens of state, national, and global forecasting iterations. The term "cannabis" here (i.e., also commonly referred to as marijuana) refers to high-THC cannabis and cannabis products sold in both legal and illicit markets. Legal cannabis refers to products sold in regulated channels, including dispensaries and delivery services. The illicit market is defined as sales of cannabis and cannabis products outside of regulated and taxed dispensaries or retail sales.

NOTE: Legal sales through dispensaries can include a small percentage of marijuana-derived CBD products; however, the sales and revenue forecasts do not include the hemp-derived CBD products sold in mainstream retail and nutritional supplement stores. New Frontier Data has separate models for hemp and CBD sold in mainstream (i.e., non-dispensary) channels, based on newly collected national cultivation and consumer demand data. We recently released our revised U.S. CBD market

estimates in [U.S. CBD Consumer Report Series: Spending & Market Size \(Vol 2\)](#).

The data included in this report is drawn from a wide range of sources, including:

GOVERNMENT AGENCIES

We obtained data from federal, state, and municipal agencies ranging from tax revenues and medical cannabis patient participation rates, to rates of illicit cannabis use, and general demographic data.

RETAIL SALES

Point-of-sale data from strategic partnerships with industry-leading technology platforms provide visibility into retail sales trends, including evolving product demand, pricing and sales trends, and variability across markets.

ANCILLARY COMPANIES

Non-plant-touching businesses have been critical sources for insights into the evolving needs and multisectoral impacts of the cannabis industry. Data ranging from capital flows to cultivation supply sales provide valuable indicators into the leading edges of the market. Interviews with strategically placed



stakeholders, including leading investors, business owners, regulators and lawmakers further hone our insights into emerging legal, regulatory, and industrial developments that will impact the industry.

CANNABIS LAW REFORM ADVOCATES

Projections for the states most likely to legalize in the next four years were based on extensive discussions with leading drug law reform advocates who have been central in the national and state-level campaigns to legalize cannabis. Their input was critical in informing our understanding of the arc of the national legalization movement, as well as the local political and legislative dynamics that could influence the growth and performance of each market.

ACADEMIC, RESEARCH & MEDICAL INSTITUTIONS

Research conducted by a broad range of academic institutions, medical centers, think tanks, and universities provided rich insight into issues including health effects of cannabis consumption, medical applications of the plant, and the socioeconomic costs and outcomes of both cannabis prohibition and legalization.

Market Projection Methodology

New Frontier Data has developed proprietary models for estimating the size of both the legal and illicit cannabis markets in the U.S. The models are continually refined based on new data inputs, expansion of legalization into new markets, changes in state regulations, and other market-disrupting events. The market growth projections for legal sales included in this report reference both adult-use and medical markets, and are focused exclusively on retail sales to medical patients and adult-use consumers. These projections do not include wholesale transactions between producers, processors, and retailers, or revenues collected by state governments. Nor do they include revenues from the ancillary (non-plant-touching) sectors of the industry.

The growth models were developed based on analysis of key inputs including:

- Size and growth of the total population within each state;
- Size and growth of the adult population within each state;
- Growth of cannabis usage rates in each state market;
- Monthly changes in legal medical and adult-use cannabis sales in legal state markets;
- Size and growth of the tourism population in states with adult-use sales, as well as in medical-use states that offer reciprocity to cardholding medical patients from other states;



- Monthly changes in patient registrations in each medical market since the activation of a medical program;
- Number and types of qualifying medical conditions accepted in the states which track patient registration growth;
- Monthly changes in medical cannabis expenditures per patient in the states which track this data;
- Monthly changes in expenditures per person in adult-use states which track this data;
- Interplay between medical and adult-use sales in states where adult-use sales are legal (specifically including demand elasticity to price differences in open-access markets);
- Time between passage of each state's respective legalization measure and launch of sales; and
- Analysis of each state's regulatory model to identify similarities and differences in each market's structure, to apply appropriate proxy estimations for more accurate variable predictions in new markets.

Based on such inputs, an economic growth model was applied to project the sizes of legal and illicit state markets through 2025. The projections depend on estimated sales per capita in both medical and adult-use markets, and the model is iteratively refined as additional data is collected on each market.

CANNABIS CONSUMER ESTIMATIONS

The number of estimated cannabis consumers in a given state depends on both the state's total adult population, and reported cannabis usage rates compiled by the U.S. Department of Health and Human Services from its annual Nation Survey on Drug Use and Health (NSDUH) – which New Frontier Data has adjusted to account for under-reporting errors, and projected growth in usage rates according to each state's unique legal status and regulatory environment.



Introducing The New Equio®

Visualize the Cannabis Market Like Never Before

RETAIL TRENDS • CONSUMER BEHAVIOR • MARKET DYNAMICS



FREE TRIAL

NewFrontierData.com/equio

equio®

Primo legal advice and representation

From **204 locations** in **81 countries**—including **78 locations** in the **US, Canada** and **Latin America**—Dentons **multi-disciplinary cannabis team** provides **vital expertise** and insight to help business owners and stakeholders **pursue every opportunity** and overcome every challenge. Our **capabilities and experience are second to none**, from assisting with strategic **legal counsel** and **ongoing regulatory compliance**, to advising on **entity formation** and **corporate governance**, to advising companies from formation through **going public**.

Law firm selection has consequences.

Choose wisely.

[dentons.com](https://www.dentons.com)

© 2021 Dentons. Dentons is a global legal practice providing client services worldwide through its member firms and affiliates. Please see [dentons.com](https://www.dentons.com) for Legal Notices.

Cannabis in the U.S.

2021 Mid-Year Market Update

Expanding Legalization Adds Fuel to Legal Cannabis Industry Growth

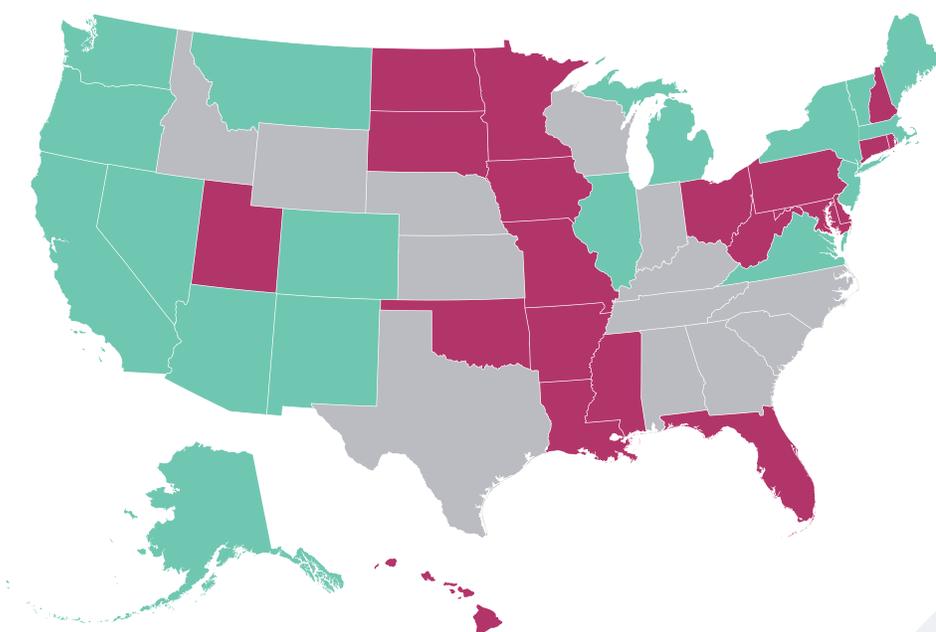
The fourth quarter of 2020 saw five new states pass measures to legalize medical or adult-use cannabis programs in the November elections, and the momentum of legalization continued through the first quarter of 2021. In addition to those states legalizing new markets in the fall (i.e., Arizona, New Jersey,

South Dakota, Montana, and Mississippi), Virginia, New York, and New Mexico also joined the growing list to legalize and regulate in-state sale of cannabis for adult use.

The new actions bring the total to 18 states where high-THC cannabis is legal for adult use, and 38 where high-THC cannabis is legal for medical use. With a combined 141 million Americans living across those 18 adult-use states, and 239 million living across the 38 medical-use states, 43% of American adults

Legalized States

- Legal Medical & Adult-Use
- Legal Medical Use Only
- No Legal High-THC Market



239 million

U.S. POPULATION LIVING IN A STATE WITH SOME FORM OF LEGALIZED ACCESS TO HIGH-THC CANNABIS



now have access to legal adult-use cannabis, and nearly three-quarters (72%) of Americans now have access to legal medical cannabis in some form. Conversely, 93 million Americans (28% of the U.S. population) live in states where possession and use of cannabis remain illegal.

With each passing year as the number of legal states (and the size of the legal industry) grows, there is increasing pressure for federal action to address the disconnected patchwork of state regulations across the country. With Democratic leadership in place, the odds of federal cannabis reform seem likelier than under more conservative Republican administrations. However, while the Democratic Party generally agrees that reforms are needed, consensus remains disjointed due to broad divisions on key regulatory issues, including:

Legalization vs. Decriminalization:

Broadly, legalization would make cannabis federally legal, and grant government authorities expansive powers to regulate the industry. Decriminalization would remove cannabis from federal prohibition enforcement, but leave it up to states to decide their respective regulatory policies. Decriminalization would likely perpetuate the current patchwork nation model where some states are fully legal, others only permit medical use, and some continue to prohibit all possession and use.

Banking and Taxes:

The financial markets are another realm in which federal regulations will have consequential impact. With most capital markets closed to plant-touching cannabis businesses, the industry's growth has been almost exclusively funded by private capital. The end of federal cannabis prohibition is key to allaying financial market concerns about the risks of investing in the cannabis industry (which will expand capital options for businesses and lower borrowing costs). Many businesses currently pay well above market rate due to their limited borrowing options. Federal decisions about how quickly and widely to open the cannabis industry to the financial markets will serve as key determinants regarding the speed of industry growth over the next decade.

Social Equity:

Another area of broadly divided options is how most effectively to grow the industry while acknowledging the impact that socioeconomic and racial inequities in cannabis prohibition enforcement has had on minority communities. Since states are taking widely divergent approaches to addressing social equity, there is no single referential model on which to base a federal cannabis social-equity program. Some legislative proposals include federal funds specifically for cannabis businesses aimed at minority and disadvantaged entrepreneurs, like other programs run by the Small Business Administration (SBA) aimed at supporting diversity and innovation in the market; however, it is unclear to what degree any such measures will be included in a final proposal.

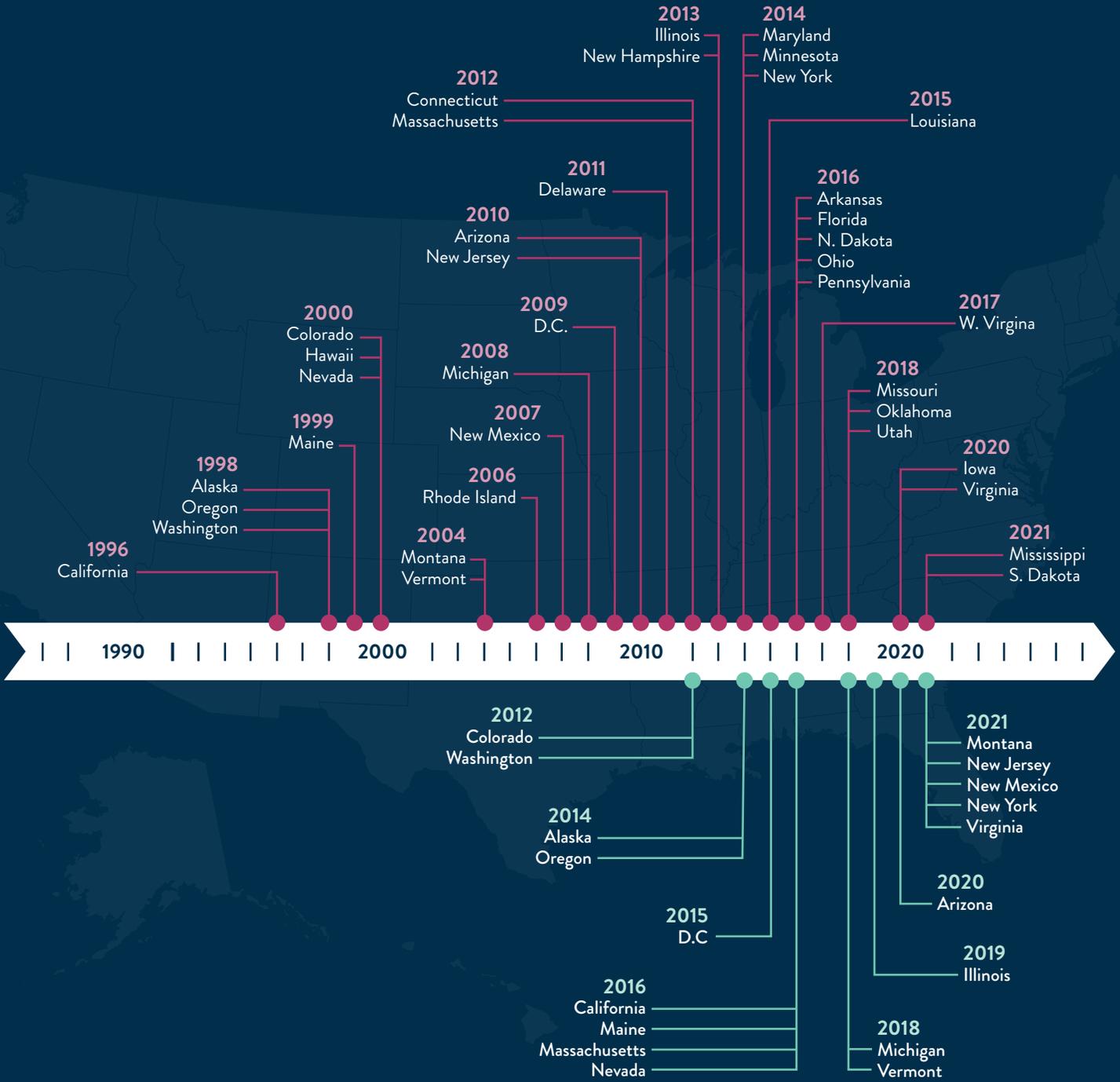
How Washington will decide those and other key market governance issues remains far from clear going into the summer of 2021, but decisions made in the halls of Congress, the White House, and in state capitals nationwide during the months ahead will impact the trajectory of the industry for years to come.





State Cannabis Legalization Timeline

● Adult-Use ● Medical Use



Legal Industry Sales Growth

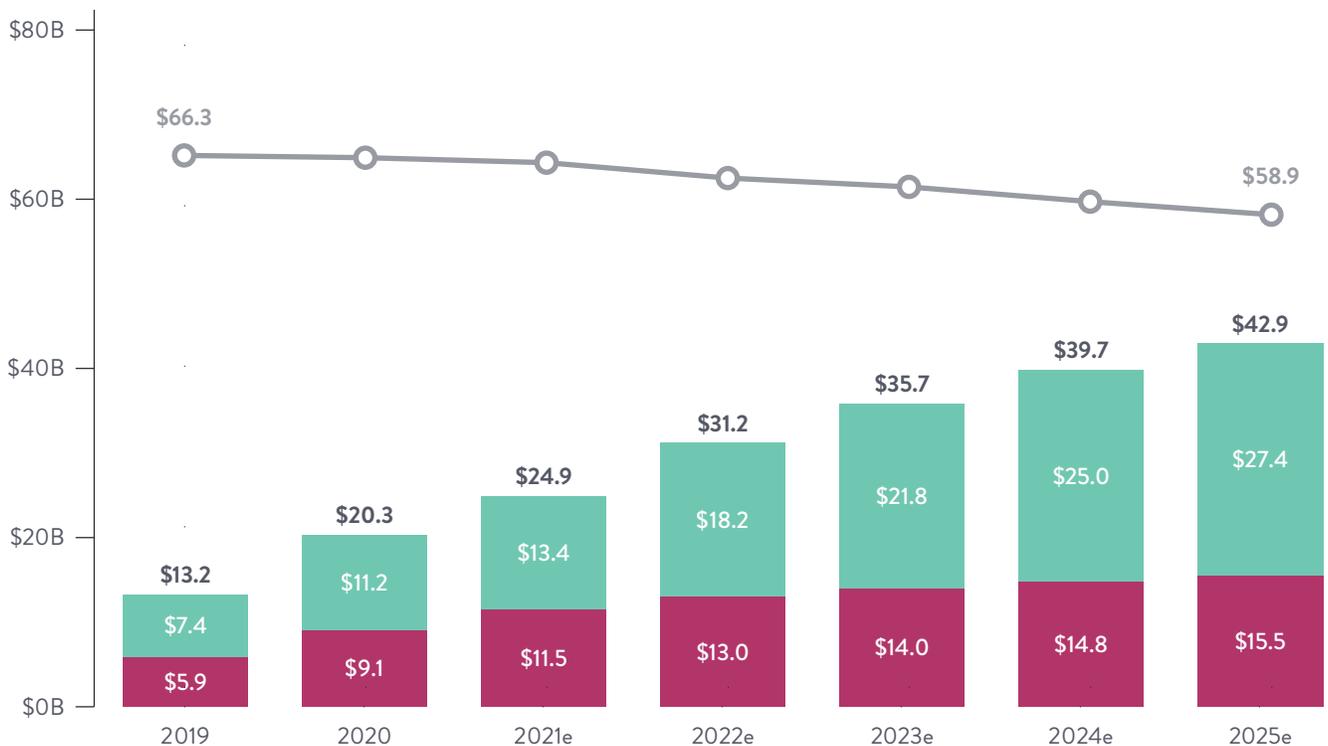
Quarterly sales across legal medical and adult-use states reached an all-time high in Q1-2021 of \$5.84 billion, with sales for Q2-2021 projected to surpass \$6 billion. Total combined sales of cannabis across legal state markets crossed the \$20 billion threshold for calendar year 2020. With new legal markets expected to activate in the next two years, total legal sales are projected to grow at a compound annual growth rate (CAGR) of 16%, to reach \$43 billion by 2025.



Annual Growth of the U.S. Legal Cannabis Industry

2019 - 2025 est. (in \$USD Billions)

- Adult-Use Sales
- Medical Sales
- Illicit Market



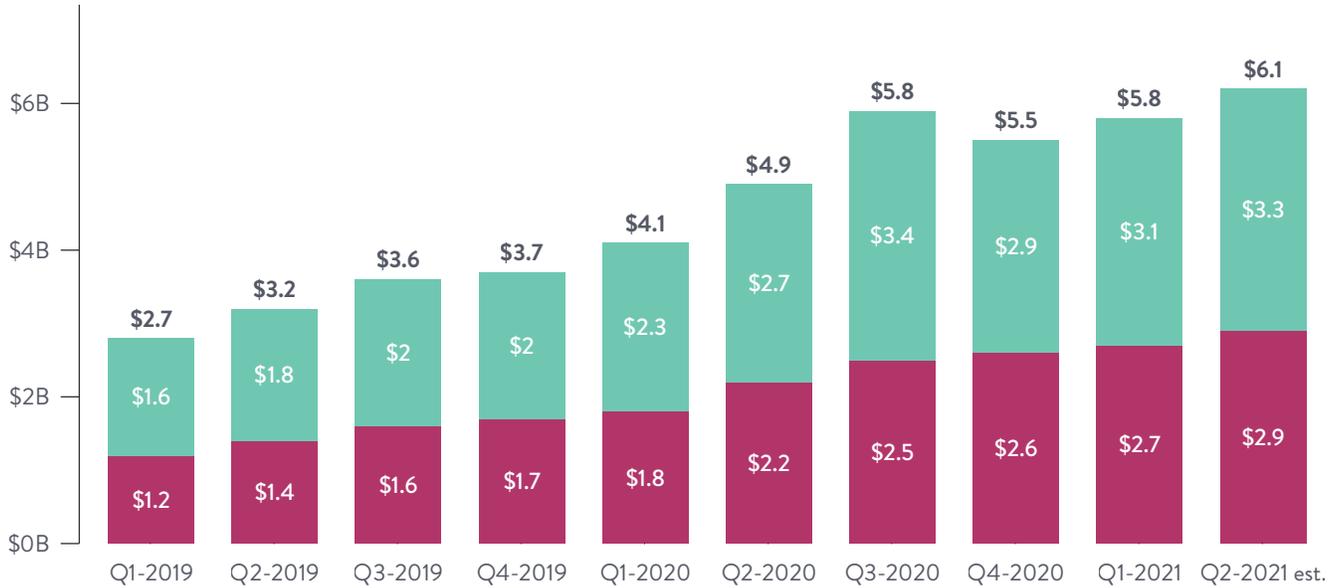
Source: New Frontier Data



Legal Cannabis Sales by Market Type & Quarter

Q1 2019 - Q2 2021 est. (in \$USD Billions)

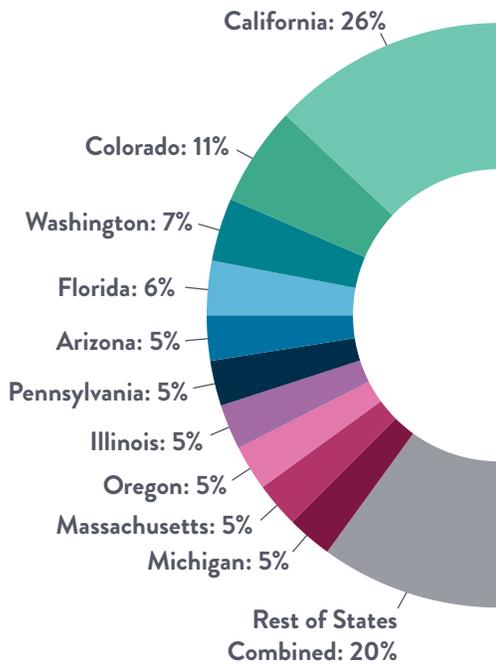
● Adult-Use Sales
● Medical Sales



Source: New Frontier Data

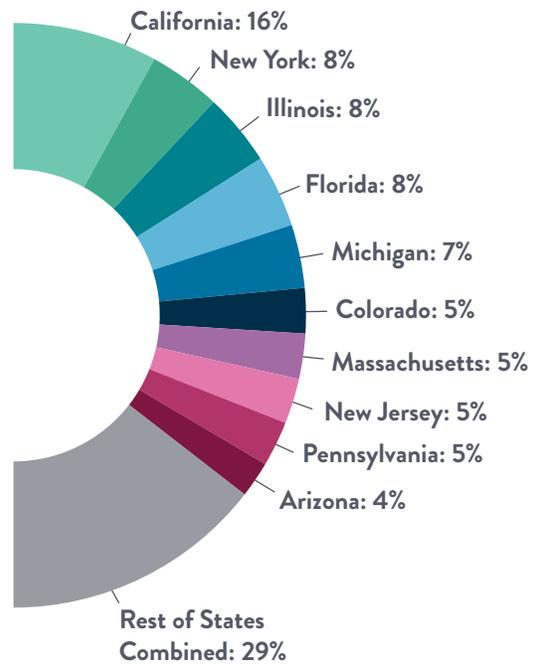
Top 10 Largest Legal State Markets: 2020

2020 Annual Sales, Legal Medical & Adult-Use Combined



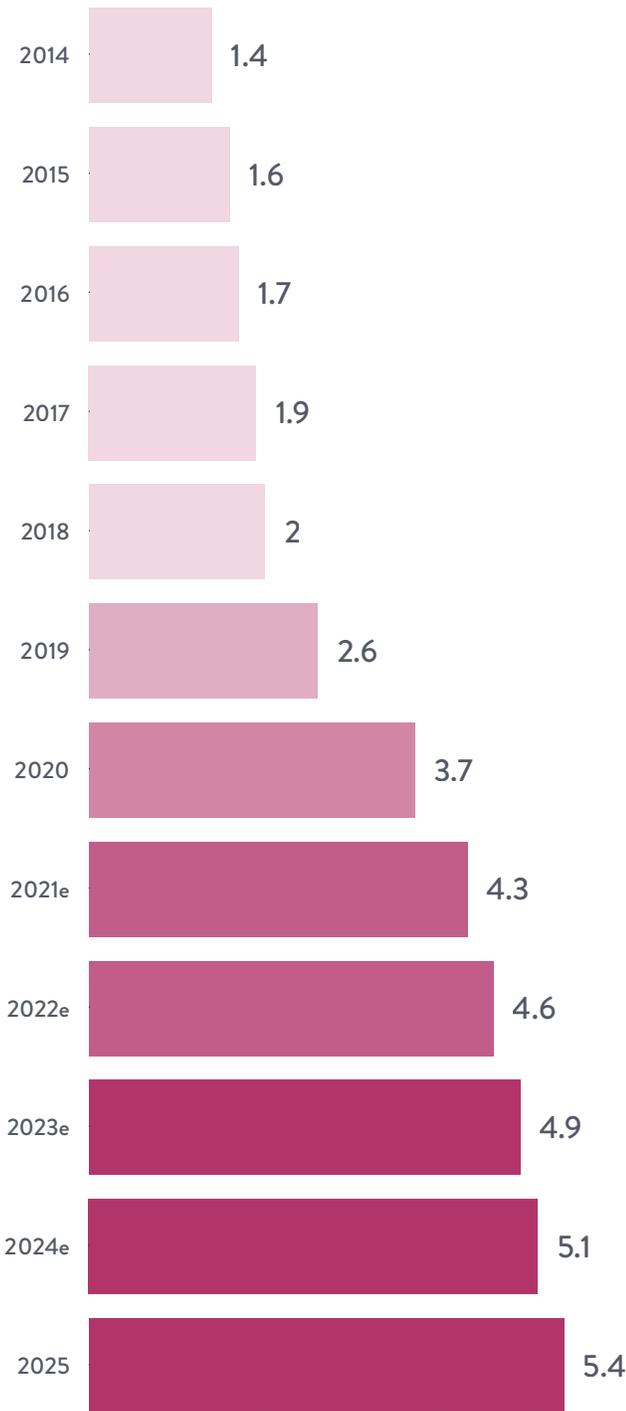
Top 10 Largest Legal State Markets: 2025

2025 Projected Annual Sales, Legal Medical & Adult-Use Combined



Number of U.S. Medical Cannabis Patients

2019 - 2025 est. (in Millions)



MEDICAL MARKET PARTICIPATION

With 38 legal medical state markets (plus the District of Columbia [D.C.]), the total number of medical cannabis patients nationwide surpassed 4 million (as of April 30), and is projected to increase as newly legal medical markets become operational. In those states where cannabis has been legalized for medical use (with no assumptions for any new state markets by 2025), New Frontier Data projects that there will be a combined 5.4 million registered medical cannabis patients in the U.S. by 2025, representing nearly 2% of the entire U.S. population.

While state programs are providing legalized medical cannabis access to a combined 4 million patients nationwide, other factors such as tightly restricted lists of qualifying conditions, or lack of access to retail locations or product types, can greatly limit potential participation in some medical markets to small pools of residents. With some 43% of the U.S. population residing in states with legalized adult-use programs, most Americans lack access to legal cannabis. However, newly legal states are generally trending toward more expansive medical programs, permitting a broad array of health care practitioners to recommend medical cannabis for diverse lists of qualifying conditions.

In the first states to legalize medical use, the most common specified qualifying conditions included epilepsy, cancer, HIV/AIDS, and glaucoma. Those conditions still rank among the most commonly specified ailments; however, newer markets have greatly expanded their lists of qualifying maladies in recent years. Some of the more recently added conditions additions include PTSD, anxiety disorders, Alzheimer's, and autism spectrum disorders.



Additionally, with a growing body of research suggesting that cannabis may hold promise in helping mitigate rates of opioid dependence and overdoses, there is growing parallel support for expanding access to people most vulnerable to opioid abuse and dependence. Many states have already turned to cannabis to mitigate the crippling opioid crisis - some indirectly, by including chronic pain as an accepted qualifying condition, and others choosing to explicitly allow any patient with an opioid prescription to access medical cannabis.

While some states have allowed the public to petition for new conditions, the fastest means to grow a program is to allow physicians the discretion to recommend cannabis for any condition which they deem appropriate. While not the first state to do this (e.g., California and Washington, D.C., have long permitted physician discretion), Oklahoma’s physician discretion clause has played a key role in the state’s medical cannabis market having grown so quickly that it has attained the highest patient participation across any state medical market, and by a wide margin. While the level of participation in Oklahoma’s medical market is also fueled by other, low barriers to entry in their regulations (such as the absence of license caps/ease of retail dispensary access), the latitude granted to physicians has been instrumental to that market’s explosive growth.

Top 7 States by Patient Saturation <i>(as of April 2021)</i>		
		REGISTERED PATIENT SATURATION %
1.	OKLAHOMA	9.41%
2.	MAINE*	5.89%
3.	NEW MEXICO	5.51%
4.	PENNSYLVANIA	4.32%
5.	ARIZONA	4.10%
6.	MONTANA	3.80%
7.	ARKANSAS	3.12%

** Estimate displayed for the state of Maine includes patients that shop from both regulated medical dispensaries as well as through the caregiver system*
Note: Patient Saturation is defined as the number of registered patients expressed as a percentage of each state’s population.

Top 7 States by Patient Count <i>(as of April 2021)</i>		
		REGISTERED PATIENT COUNT
1.	PENNSYLVANIA	553,000
2.	FLORIDA	544,278
3.	CALIFORNIA**	377,053
4.	OKLAHOMA	374,409
5.	ARIZONA	304,767
6.	MICHIGAN	249,106
7.	OHIO	189,579

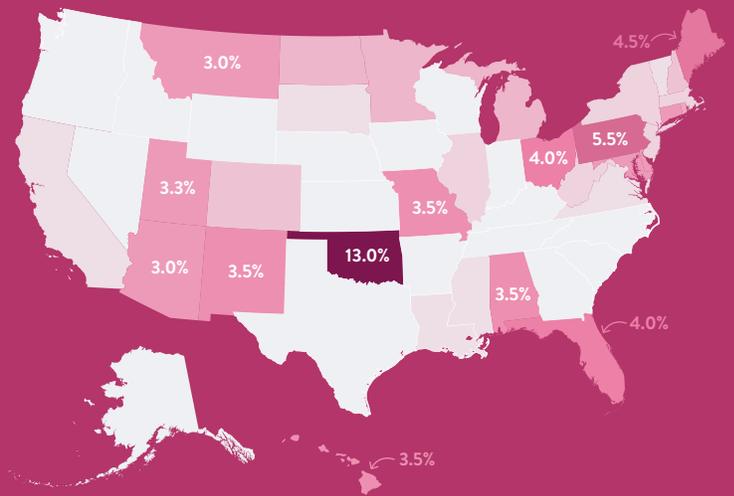
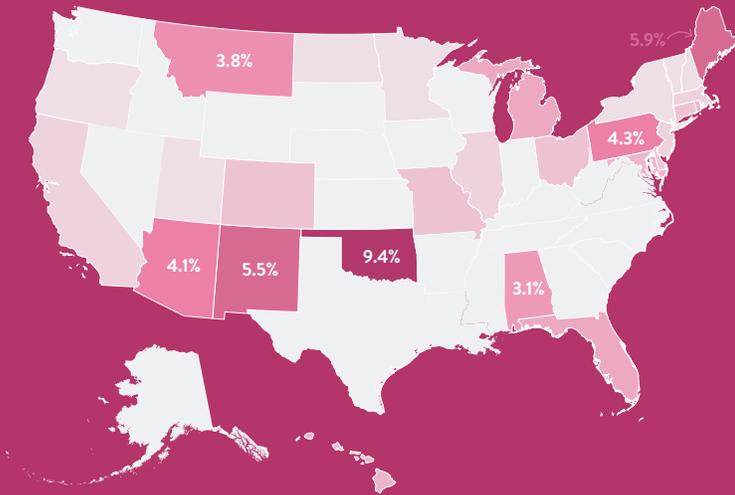
*** Estimate displayed for the state of California are New Frontier Data estimates for active medical patients only. There are an estimated 2 million card-holding medical cannabis patients in California (4.9% saturation), of which only an estimated 1/5th are active purchasers of medical cannabis products from licensed and regulated medical dispensaries.*



U.S. Medical Cannabis Patients

CURRENT PATIENT SATURATION*

ESTIMATED SATURATION* BY 2025



4.0 million

Current number of medical cannabis patients in the U.S. as of April 2021

5.4 million

Est. number of medical cannabis patients in the U.S. by 2025

1.9%

Average saturation rate across all legal medical states** as of April 2021

2.4%

Est. average saturation rate across all legal medical states by 2025

*Patient saturation reflects the number of estimated registered medical cannabis patients in each state as a percentage of state population.

**The national average saturation reflects the average patient saturation rate across all legal medical cannabis markets that have begun the patient registration process.



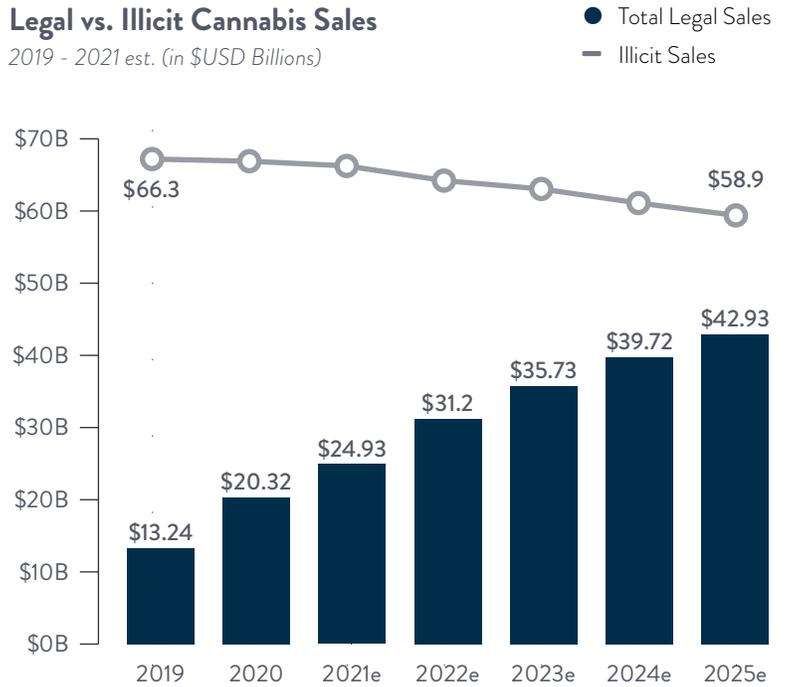
Expanding Legalization and the Erosion of the Illicit Market

An estimated 44.5 million U.S. adults will consume cannabis at least once in 2020, across both legal and unregulated markets. That number is projected to grow by roughly 4% per year over the next six years, to reach an estimated 52.3 million consumers by 2025. Despite strong performances seen in legal state markets (e.g., \$20.3 billion in combined state legal sales for 2020), the illicit market continues to serve most of the national demand, with an estimated \$66 billion spent on cannabis across illicit sources in the U.S. in 2020.

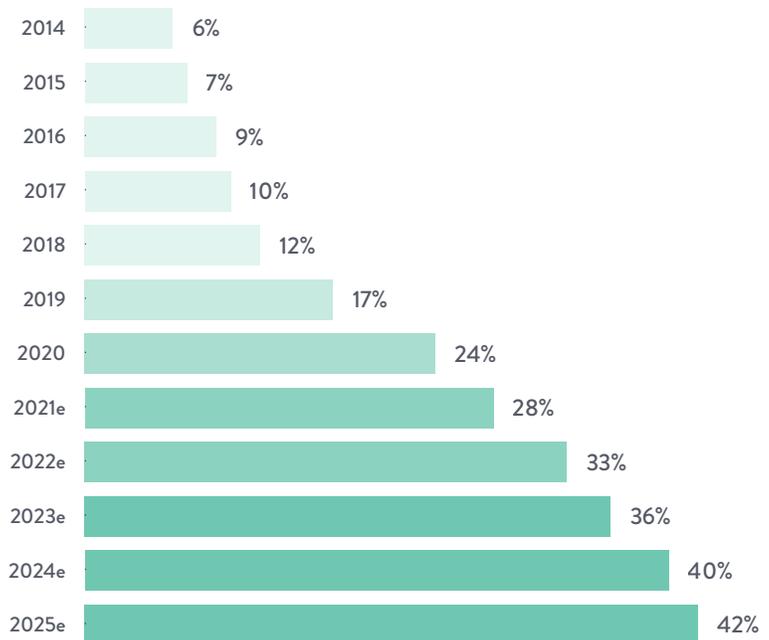
If a key objective of legalization is to disrupt illicit markets, that end is being achieved in states where cannabis is legal. Even with continued growth in the number of cannabis consumers nationally, both legal medical and adult-use markets will increasingly erode the demand met by illicit sources. In 2020, an estimate 24% of U.S. cannabis sales were believed legal; by 2025, 42% of total annual U.S. cannabis demand will be met by legal purchases in regulated marketplaces. That upward revision to total projected legal capture is due largely to the legalization of adult-use programs in New York and Virginia in early 2021.

Legal vs. Illicit Cannabis Sales

2019 - 2021 est. (in \$USD Billions)



Percentage of Total U.S. Cannabis Demand Met with Legal Source



STRONG OUTLOOK FOR POTENTIAL NEW STATE MARKET ACTIVATION

At the start of the 2020, 12 states were considering legalizing adult-use programs, while -10 were considering medical legalization. Due to the COVID-19 pandemic and resultant economic slowdowns, nearly all the states considering reform legislation faced legislative delays; as a result, just five of the dozen were prepared to put them to vote by Election Day. Despite the immediate shortfall, strong public support for cannabis legalization resulted in passage of all five legalization measures on the state ballots. Since then, South Dakota has faced additional challenges to its adult-use measure - but in the time of that ensuing battle, three more states (New York, New Mexico, and Virginia)

respectively legalized cannabis for adult use, bringing the total percentage of Americans living in fully legal adult-use states to 43%.

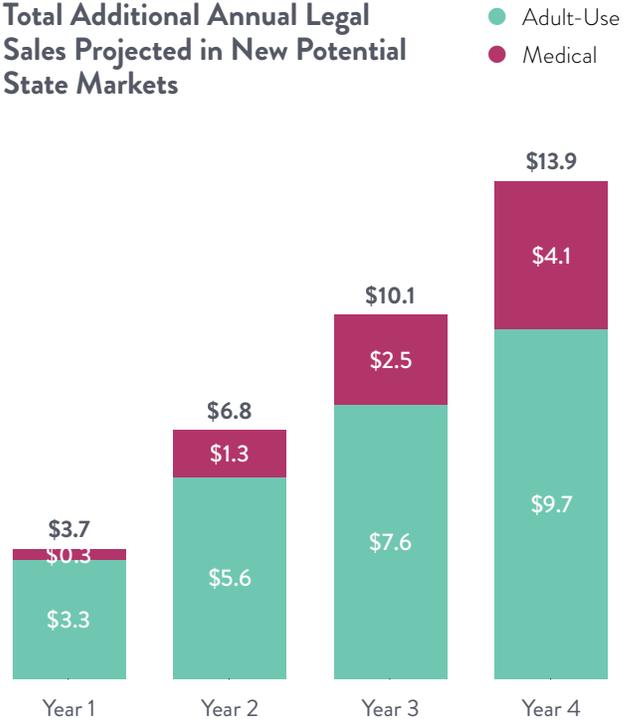
Looking ahead to the second half of 2021, that percentage is going to increase, as states that had previously been halted in efforts for legalization amid the COVID-19 pandemic have regained momentum. There are eight states with strong likelihood to legalize adult-use cannabis in the next 48 months, and 10 states with strong likelihood to legalize cannabis for medical use. Passage of medical-use legalization in those 10 markets would bring legal medical cannabis access to an additional population of nearly 80 million Americans for the very first time, of which an estimated 8.4 million are already consuming cannabis on a regular basis.

Potential New Legal State Markets					
	MEDICAL	ESTIMATED CANNABIS CONSUMER POPULATION		ADULT-USE	ESTIMATED CANNABIS CONSUMER POPULATION
	Alabama	559K		Connecticut	601K
	Georgia	1.2M		Florida	3M
	Idaho	226K		Maryland	840K
	Kansas	358K		Minnesota	792K
	Kentucky	539K		New Hampshire	263K
	Nebraska	225K		Ohio	1.5M
	North Carolina	1.1M		Pennsylvania	1.7K
	South Carolina	632K		Rhode Island	189K
	Tennessee	843K			
	Texas	2.6M			
	TOTAL	8.4 million		TOTAL	8.9 million

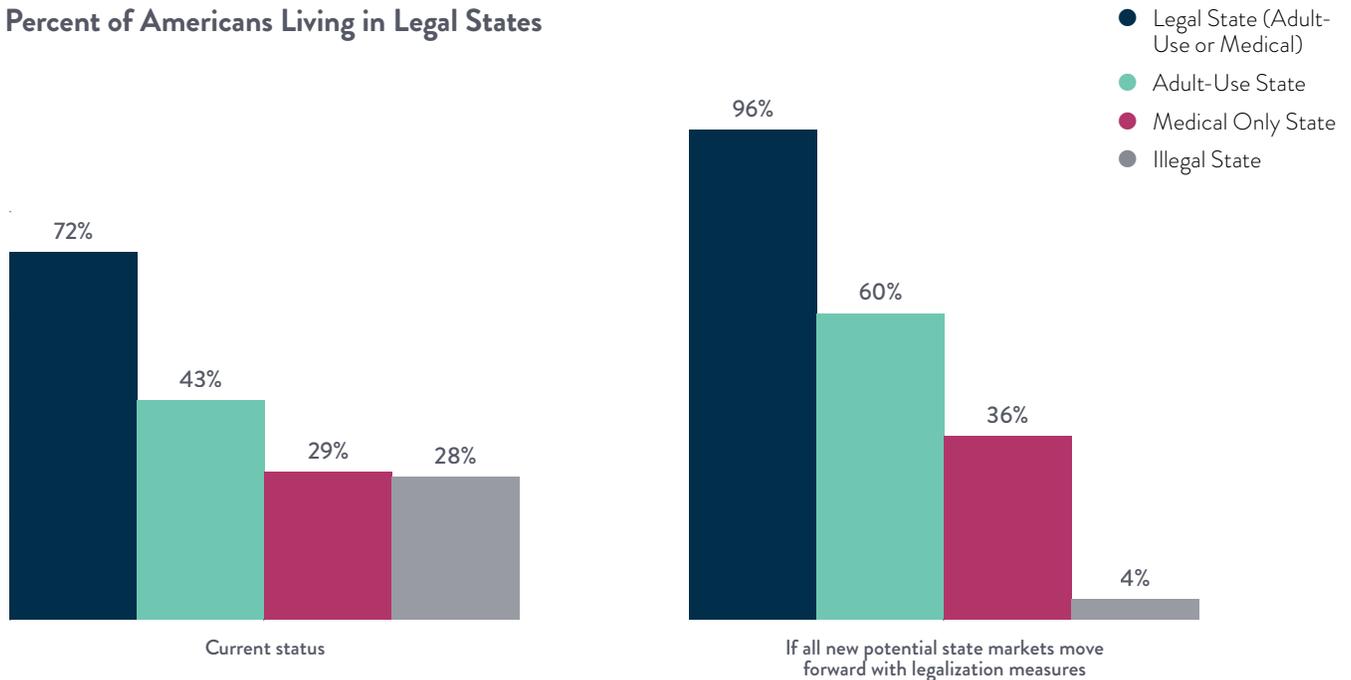


If all 18 states are successful in pushing forth legalization measures in the next two years, it would not only add an additional \$14 billion annually to retail sales, but would likely serve as a catalyst for federal action from the strength of the demographic argument alone, as the passage of the new markets would bring the percentage of Americans living in states with some form of legal cannabis access to 96%, and that of Americans living in states with legal access to adult-use cannabis to 60%. While it is difficult to pinpoint when federal legalization may occur, and what form it will take, it seems clear that the changing tides of public opinion (while often heard in delayed response by lawmakers) have been driving the status of legalization forward, and if two-thirds of the country live in fully legal adult-use cannabis markets, the pressure for action at the federal level will inexorably be felt.

Total Additional Annual Legal Sales Projected in New Potential State Markets



Percent of Americans Living in Legal States



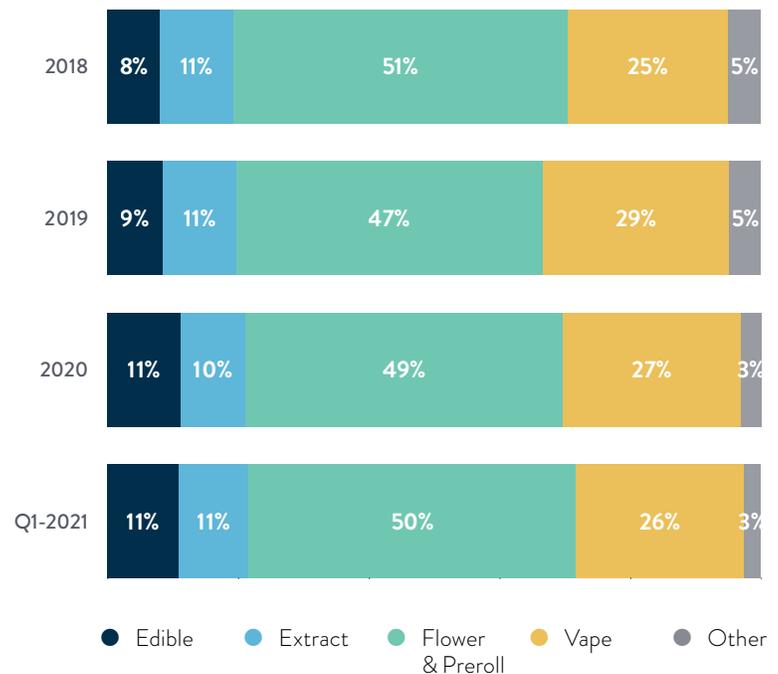
EVOLUTION OF CONSUMER PREFERENCES BY PRODUCT TYPE

Product preferences and consumption habits have changed significantly since the first adult-use markets began cannabis sales six years ago. Not only have manufacturing advancements created novel infused products and more potent concentrates, but product innovation has also increasingly allowed consumers to incorporate cannabis into their lives in new and various ways.

For example, the discretion afforded by vapes and edibles allow people to consume cannabis in a much broader range of contexts than possible simply with smoked cannabis products. The COVID-19 pandemic and ensuing shutdowns increased cannabis demand overall, but most notably demand for flower grew faster than other categories in 2020. Until then, flower’s share of sales had seen a slow year-over-year decline (as demand for other value-added products like edibles and vapes rose). While flower had fallen to a 47% low share of sales in 2019, demand pushed flower back up to over 50% of all sales as of Q1-2021.

When comparing changes in share of total legal sales since 2018, edibles have seen the greatest growth in market share — from 8% of all legal U.S. cannabis sales in 2018, to 11% of sales in Q1-2021.

Share of Total U.S. Legal Cannabis Sales by Product Category
2018 - Q1 2021



Many of the state markets that were early to legalize began with restrictions on product categories, but most have subsequently lifted them through regulatory revisions. Newer states, however, often launch without strict product limitations. The expansion of legal markets across the U.S. — while working to effectively cannibalize illicit cannabis markets within their own borders — has spurred illicit markets to innovate, resulting in unregulated versions of products in legal markets becoming increasingly available in illicit markets.

With the count of legal state markets at 38 and growing, it will become increasingly important for regulators to recognize the respective size and product scale of the rival illicit market when considering potential product limitations in their market regulations. State legalization with strict product category restrictions will carry a heavy discount on state legal market growth in the face of expanding national legal access overall.



INCREASING DEAL FLOW IN CAPITAL MARKETS

Increased confidence in the forward trajectory of the industry after the 2020 elections propelled capital into the sector: The collective market capitalization among the short list of 26 public companies in the New Frontier Cannabis Operator Index increased by \$35 billion between March 31, 2020, and March 31, 2021. The four U.S. multistate operators of Green Thumb Industries (GTBIF), Curaleaf (CURLF), Cresco Labs (CRLBF), and Trulieve (TDNNF) accounted for \$20 billion (60%) of the \$35 billion in market capitalization increases.

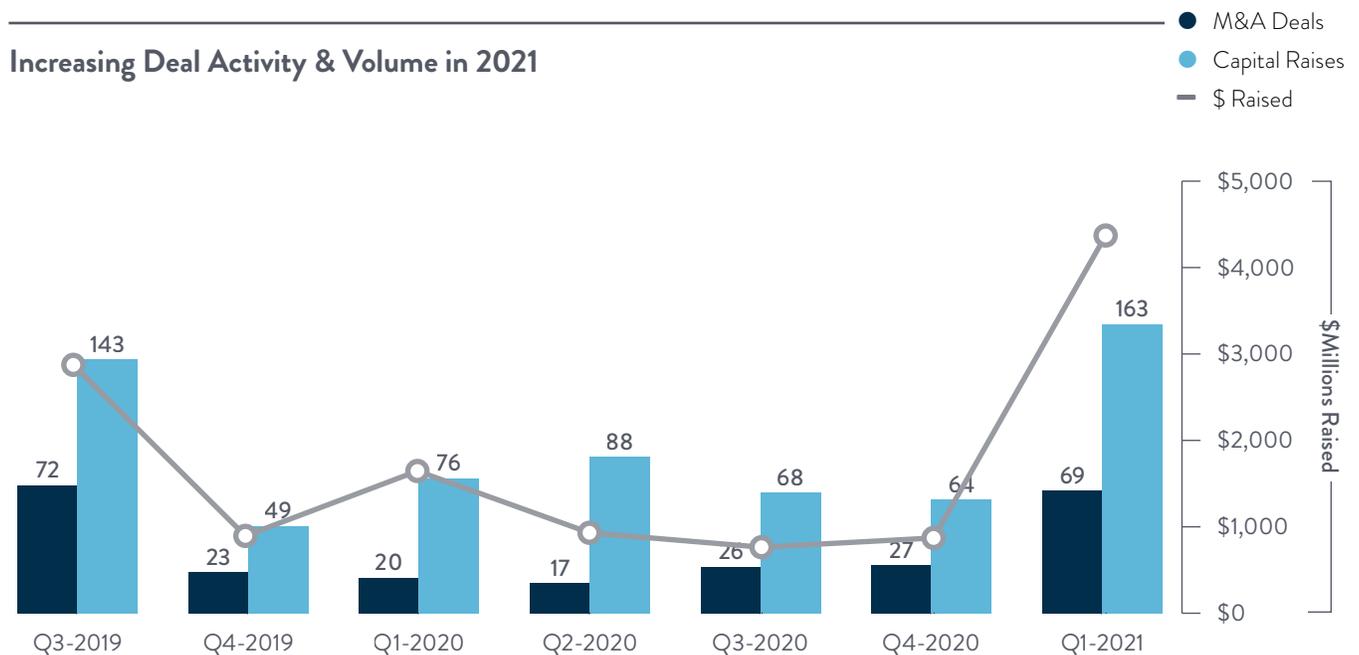
According to the Viridian Capital Advisors Deal Tracker, from January 1 to April 23, 2020, there were 92 merger-and-acquisition (M&A) transactions, compared to 25 transactions during the same calendar period this year. Public companies were the buyers in 82% of 2021 deals YTD, compared to 88% in 2020.

The pace has not slowed since the close of the official quarter. As of the second week of May, the total dollar amount of capital raises in cannabis was closing on \$6 billion – a threefold increase over the same period last year.

Fueled by broadly positive market momentum, new capital is rushing into cannabis. Of 11 among the largest deals in early 2021, companies collectively raised nearly \$2 billion, and total deal flow topped \$5.4 billion in Q1-2021, dwarfing the \$1.9 billion raised in Q1-2020.

Capital inflow to the market is expected to continue apace as operators seek to finance capacity expansion, new market entry, and innovate and secure novel intellectual property.

Increasing Deal Activity & Volume in 2021



Source: Viridian Capital Advisors

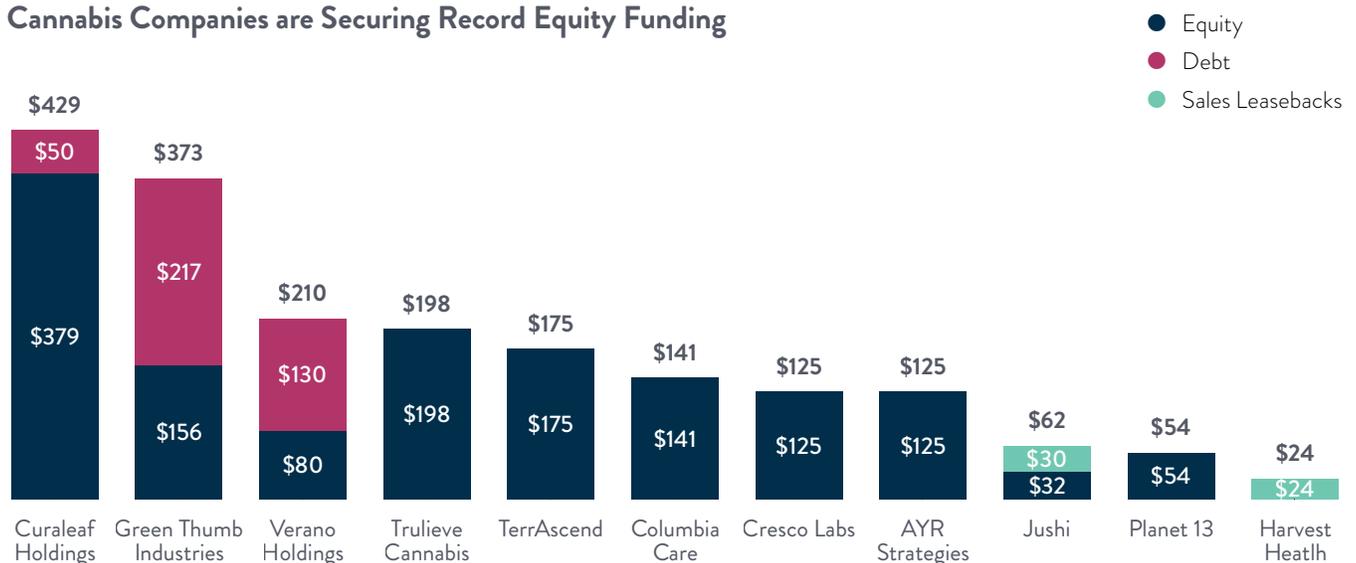


Cannabis Industry Deal Flow										
in \$USD Millions										
JANUARY - APRIL 2020 VS. 2021										
		PUBLIC COMPANIES			PRIVATE COMPANIES			OVERALL		
		Equity	Debt	Total	Equity	Debt	Total	Equity	Debt	Total
2021	# of Raises	149	31	180	18	6	24	167	37	204
	Total Raised	\$3,631	\$1,262	\$4,894	\$542	\$16	\$559	\$4,174	\$1,265	\$5,440
	Average Raise	\$24.4	\$40.7	\$27.2	\$30.3	\$2.8	\$23.3	\$25.0	\$34.2	\$26.7
2020	# of Raises	52	29	81	20	3	23	72	32	104
	Total Raised	\$938	\$726	\$1,664	\$198	\$33	\$232	\$1,137	\$759	\$1,897
	Average Raise	\$18.0	\$25.0	\$20.6	\$9.9	\$11.2	\$10.1	\$15.8	\$23.7	\$18.2

CHANGE: 2020 VS. 2021										
# of RAISES	Change #	↑ 97	↑ 2	↑ 99	↓ 2	↑ 3	↑ 1	↑ 95	↑ 5	↑ 100
	Change %	↑ 187%	↑ 7%	↑ 122%	↓ 10%	↑ 100%	↑ 4%	↑ 132%	↑ 16%	↑ 96%
TOTAL RAISED	Change #	↑ \$2,693	↑ \$536	↑ \$3,229	↑ \$344	↓ \$17	↑ \$327	↑ \$3,037	↑ \$506	↑ \$3,543
	Change %	↑ 287%	↑ 74%	↑ 194%	↑ 173%	↓ 50%	↑ 141%	↑ 267%	↑ 67%	↑ 187%
AVG. RAISE	Change #	↑ \$6.4	↑ \$15.7	↑ \$6.6	↑ \$20.3	↓ \$8.4	↑ \$13.2	↑ \$9.2	↑ \$10.5	↑ \$8.5
	Change %	↑ 36%	↑ 63%	↑ 32%	↑ 205%	↓ 75%	↑ 131%	↑ 58%	↑ 44%	↑ 47%

Source: Viridian Capital Advisors

Cannabis Companies are Securing Record Equity Funding



Key Takeaways

The pace of expanding state legalization will press federal action on cannabis reform.

Following passage of five legalization measures in the 2020 November elections, and subsequent adoption of adult-use measures in each Virginia, New York, and New Mexico in Q1-2021, there are now 18 states (including D.C.) where high-THC cannabis is legal for adult use, and 38 states where high-THC cannabis is legal for medical use. With 141 million Americans living in the now 18 legal adult-use states, (43%) of the adult population now has access to legal cannabis. Furthermore, with a dozen states potentially poised to legalize either medical or adult-use programs in the next 2-3 years, the continued expansion of legal access and growth of regulated markets will only heighten pressure on the federal government to reform national cannabis policy. However, even with the Democrats in control of both the White House and Congress, the fractured political environment, and myriad pressing national issues to address (e.g., the pandemic, economic stimulus, infrastructure, and climate change) cannabis is competing to be a priority within an extremely busy policy agenda.

Deep divisions about the form of changes to federal policy are dimming the prospects of reform in the short term.

Even with the Democrats in power and their party largely in agreement that the time has come for federal reform, there remain some key issues on important divisions which could derail a path to reform, including:

LEGALIZATION VS DECRIMINALIZATION

Legalization would grant the federal government broad powers to regulate a national cannabis industry, while federal decriminalization would perpetuate the current patchwork model with some states making cannabis fully legal, others permitting medical use only, and others maintaining a blanket prohibition. Both approaches would have major implications for the U.S. market, with a nationally legal model greatly favoring the MSOs, Canadian LPs, and non-cannabis consumer packaged goods (CPG) companies, while decriminalization would benefit smaller, single-state operators by maintaining a highly fragmented market.



BANKING & FINANCE REFORM

Two primary financial issues facing the industry are the inability for plant-touching businesses to access traditional capital markets (including federal business-funding programs), and the significantly higher taxes which cannabis businesses pay – both being caused by the federal prohibition of cannabis. While legalization would broadly address both issues, anything short of full legalization will require separate legislation to address the capital issues in the cannabis market. Lawmakers remain divided about whether and when to grant the cannabis industry full and fair access to the national and global financial markets, and the lack of consensus could stymie near-term reform efforts.

SOCIAL EQUITY & GOVERNMENT SUPPORT FOR THE INDUSTRY

Another area of division is the extent to which the federal government should actively support the industry's growth, particularly with programs aimed at poor, minority, and disadvantaged communities who have borne the burden of cannabis prohibition yet are now being excluded from the emerging legal industry. Reaching consensus on how the federal government can support the development of an equitable cannabis industry after decades of racially inequitable prohibition enforcement will likely remain a key point of division between progressive and more conservative lawmakers.

Those issues illustrate the complexities which lawmakers will face as they work to establish a framework for national reform. Significant proposals are under development, including a long-awaited proposal from Democratic Senate Majority Leader Chuck Schumer, who though having declared cannabis reform to be a high priority, has not yet shared specifics about the nature of the proposed framework.

Within state markets, it is proving both easier to legalize and harder to regulate cannabis.

Establishing the rules to operate a legal market has become much harder as legalization has spread from more liberal and progressive markets to more conservative ones. Two recent examples illustrate the shift:

- South Dakota Governor Kristi Noem's successful suit to challenge the South Dakota adult-use ballot initiative. After the state's adult-use initiative passed, the governor successfully sued to have the ballot initiative overturned, claiming that the initiative incorrectly made it onto the ballot.
- Similarly, in Mississippi, opponents successfully sued by claiming that the state's ballot initiative was invalid.
- In Florida, opponents have mounted a campaign to establish low-THC limits for all products on the markets based on their views of the risk of high-potency cannabis on mental health.

Both national and state governments remain far from clear on how to regulate minor cannabinoids such as CBD, Delta-8 THC, CBD, CBG or THC-V

The developments should serve as a cautionary note for investors and operators in traditionally conservative markets. While popular support may be pushing for more markets to legaliza-



tion, local politics will define which forms those markets take; increasingly, the likelihood that conservative state officials will work to undermine or reverse public approval will slow (and complicate) the path to a regulated market.

Conditions in Legal Markets Evolved During 2020, Improving Prospects for Illicit Market Cannibalization by 2025.

While the COVID-19 pandemic brought the growth of many industries to a general halt in 2020, the legal cannabis industry experienced unprecedented growth. Nearly half of consumers reported that their use increased since the pandemic began, and average consumer spending per transaction jumped more than 30%. The convergence of three elements – almost all states’ declaring cannabis businesses to be essential during the pandemic, strong consumer demand, and surging legal market expansion – drove momentum to swing squarely in favor of the legal markets. During the unprecedented period of economic and social disruptions, the industry was forced to adapt, including by deploying online ordering platforms, offering delivery and curbside pickup, and leveraging digital media to directly engage with consumers.

Such operational developments on behalf of increasing consumer access and improving customers’ experience have created strong incentives for consumers to transition from unregulated to legal markets. Indeed, the pandemic may prove to be a key catalyst in activating interest both in legalization (in states which have thus far maintained prohibition) and legal market participation (in states with legalized cannabis, but where consumers have been reticent to participate in the market).

As additional states choose to legalize and regulate cannabis, existing legal markets will also face new issues, in the forms of:

- Downward price pressure as the production of legal cannabis increases across the country, and operators improve efficiency and scale.
- Decreased cross-border demand from previously non-legal states, and a growing illicit market that reflects the sophistication and product landscape of the evolving legal industry.

The pandemic may prove to be a catalyst in activating interest in both legalization and legal market participation.



Medical market participation increases in states bordering adult-use markets.

As the newly legal adult-use state markets begin to take off, New Frontier Data expects to see strong upticks in legal medical market participation in legal medical states bordering newly legalized adult-use states. Patients who live in a medical-only market and are registered with the state's program recognize that they can buy products in an adult-use market, and have an affirmative defense for possessing cannabis at home. It is expected for that medical registration/adult-use participation model to be most visible in the Northeast, where legalized adult-use markets states (i.e., New York, New Jersey, and Virginia) either border or are otherwise accessible for people in more than a dozen medical-only markets.

Additionally, as New Frontier Data's consumer research has shown that medical patients consume and spend more than do recreational consumers, the regional demand of medical patients in adult-use markets will drive significantly higher revenues than will nonresident recreational consumer demand.

Adult-use markets continue to outperform expectations, affirming deeply entrenched consumer demand.

The onset of adult-use legalization and sales growth that continuously surpasses estimates has affirmed that existing demand for cannabis is deeply entrenched, but with most of the country still living in unregulated or medical-only states, illicit markets nationwide continue to serve most of that demand. With an estimated 45 million cannabis consumers nationwide spending nearly \$65 billion on illicit market cannabis products in 2019, not only has prohibition been ineffective in eliminating cannabis use, but governments stand to see significant revenues from effective taxation and regulation for legal markets - markets which could also stimulate significant economic opportunities in ancillary markets.

2021 will be the year of social cannabis.

Several factors are converging to make this the year of social cannabis, including:

- Dramatic positive shifts in public attitudes about the morality and safety of cannabis use;
- Elevated consumption rates during the pandemic's disruptions;
- New product forms offering more consistent and refined consumer experiences, especially infused beverages aimed at challenging alcohol's dominance in U.S. society;
- Innovation in noncombustible products, enabling discrete consumption in social settings; and
- The advent of mainstream social consumption spaces (e.g., restaurants, spas, and smoking lounges).



Taken together, those trends lay the foundation for an unprecedented reintroduction of cannabis into American social society. New Frontier Data anticipates seeing cannabis products featured prominently for barbecues, picnics, and dinner parties throughout the year as consumers become increasingly comfortable that their cannabis use will not be met by historical stigma, and as demand rewards product forms (such as low-dose THC beverages) that are exceptionally well-suited to challenge the primacy of alcohol in social settings.

Current trends in cannabis lay the foundation for an unprecedented reintroduction of cannabis into American social society in 2021.

The end of pandemic restrictions will bear out how well that consumption behaviors developed during the pandemic will remain.

The spike seen in cannabis consumption during the pandemic was directly tied to the disruptions in social and recreational life during the lockdowns. As the country emerges from the pandemic's most acute disruptions, it remains to be seen whether the consumption behaviors practiced during the pandemic will persist as Americans return to more normalized lifestyles. New Frontier Data expects consumption habits to remain above pre-pandemic levels, but to decline from their peaking at the height of the pandemic.

The foundation is being laid for a canna-tourism economy.

While the pandemic raged, many operators begun laying the foundation for tourism markets. From Los Angeles and Humboldt County, California, to Las Vegas and Boston, entrepreneurs are exploring ways to capitalize on the interest in canna-tourism. The coming months should see growing numbers of social-use spaces (i.e., consumption lounges, spas, wellness retreats, restaurants, and fitness centers) creating novel cannabis-friendly experiences. As Americans emerge from the pandemic, many will encounter previously unimagined social cannabis experiences on Main Street.

Among adult-use markets that provide sales breakdown by in-state consumers vs. out-of-state purchasers, the latter are responsible on average for up to 30% of sales. That percentage is much higher in states with cities popular for tourism (e.g., New York, Nevada, and Massachusetts), destinations which will see a surge in regional canna-tourism as the pandemic's lockdowns are eased.





THE LEGAL CANNABIS AND CBD INDUSTRY IS A FAST GROWING CONSUMER SEGMENT.

We give you the power to maximize its full potential.

The premier programmatic marketing solution for the cannabis market.

Leveraging years of intelligence and expertise in the cannabis industry and consumer reporting, NXTeck enables both legal cannabis brands, and mainstream CPG enterprises to deliver targeted, tailored, and scalable advertising.

HOW CAN NXTECK WORK FOR YOU?

Contact our experts today to see how NXTeck can help you.

NXTecK@NewFrontierData.com



Improve Campaign Performance



Differentiate Your Agency



Understand the Cannabis Consumer



Spend Confidently



NEW FRONTIER DATA

HEADQUARTERS

1400 I Street NW / Suite 350 / Washington, DC 20005

✉ info@NewFrontierData.com 📞 844-420-D8TA

@NewFrontierData



NewFrontierData.com

InterCannAlliance.com

HempBizJournal.com



Strength in Knowledge®

