



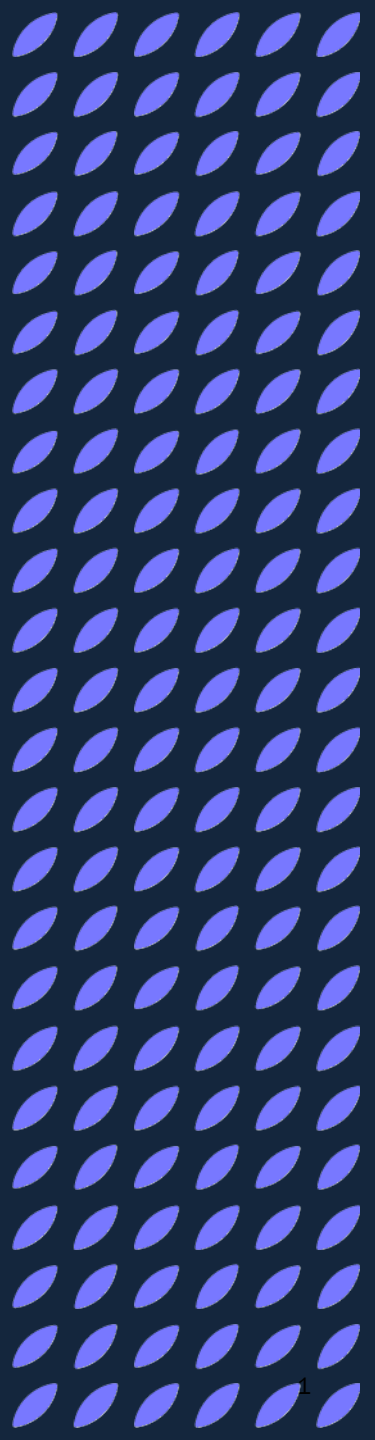
PLAYING THE LONG GAME:

USING DATA TO INFORM CANNABIS INVESTING

Roy Bingham | Co-Founder

CANACCORD CANNABIS CONFERENCE

5.11.22



BDSA PROVIDES A COMPLETE VIEW OF THE GLOBAL CANNABIS MARKET OF TODAY **AND TOMORROW**



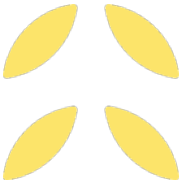
RETAIL SALES TRACKING

Know exactly what is selling where, when, and at what price point



MARKET FORECASTS

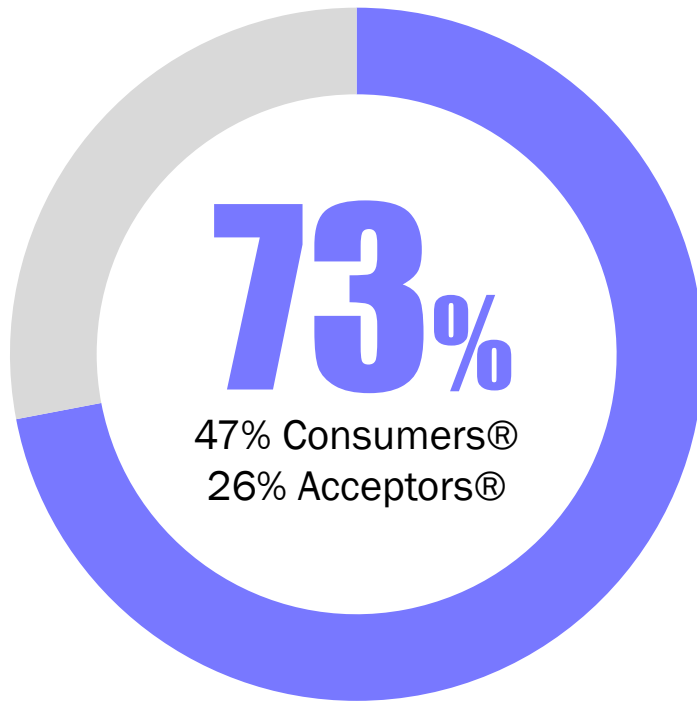
Gain a comprehensive understanding of market size and future opportunity



CONSUMER INSIGHTS

Understand consumer (and non-consumer) segments, sizing, behavior, consumption patterns, purchase habits, and more

IN FULLY LEGAL STATES, ~75% OF ADULTS ARE “BOUGHT IN” TO CONSUMING



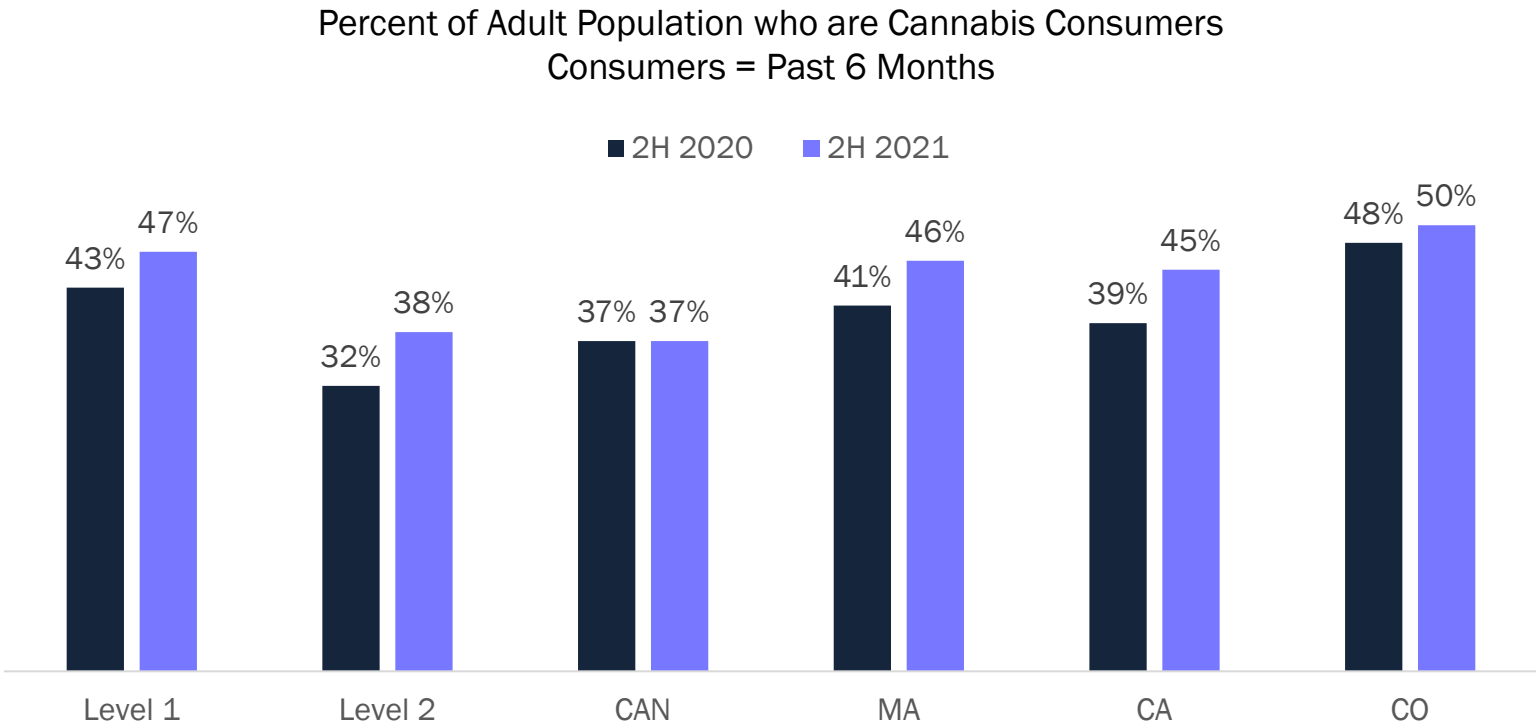
66% in CANADA

...of adults 21+ in fully legal U.S. states who consumed cannabis in the past 6 months or are open to consuming cannabis

27% are Rejecters®
(would not consider in the future)

Source: BDSA Consumer Research: Fall 2021 U.S. Adults 21+ in Legal Level 1 States

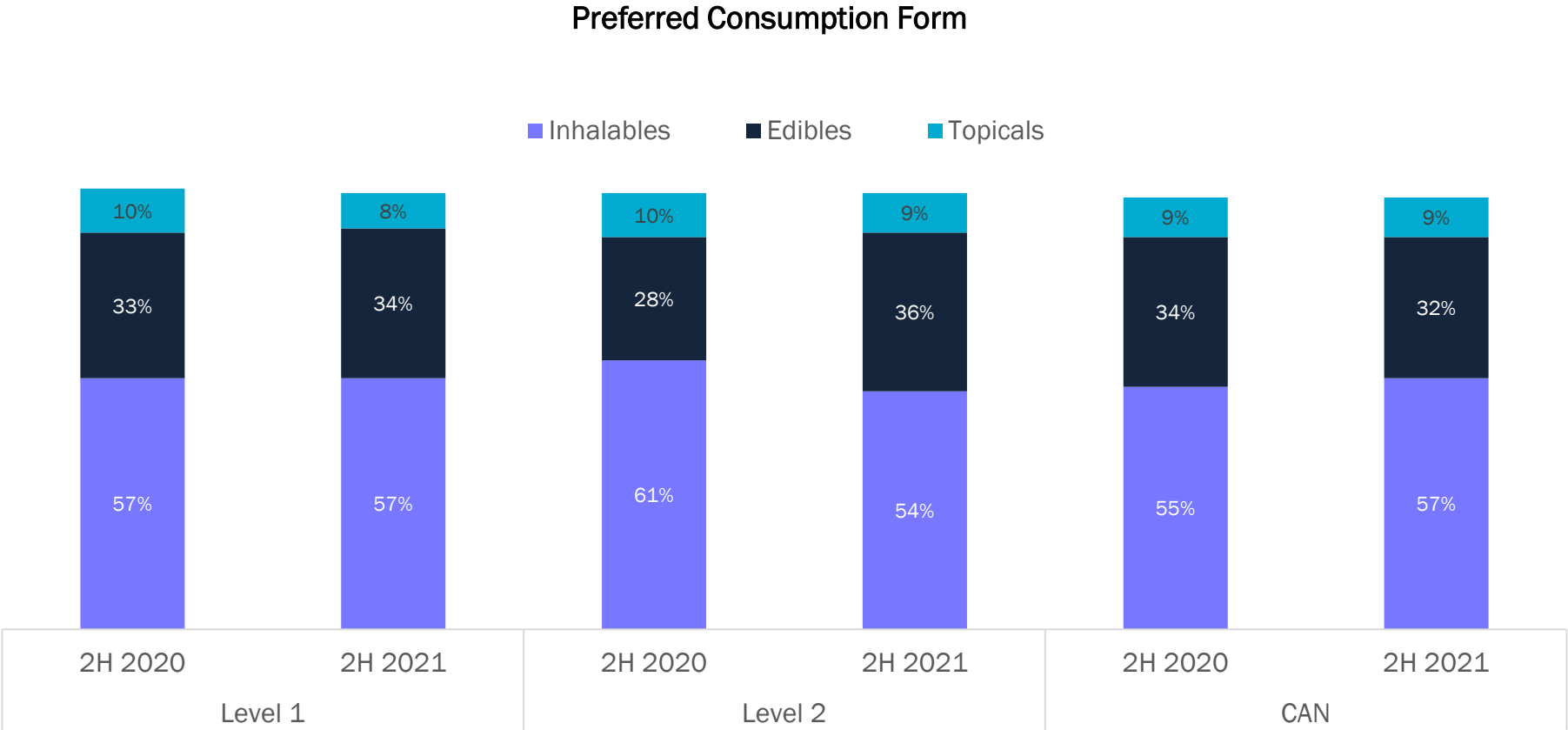
THE CONSUMER POPULATION, EVEN IN MATURE MARKETS, GREW IN 2021



IMPORTANT BDSA CONSUMER INSIGHTS TERMINOLOGY:
Consumer: Adult who has consumed cannabis in the past 6 months
Level 1: Aggregate of fully legal adult-use states
Level 2: Aggregate of medically legal states

Source: BDSA Trending Consumer Insights, 2H 2020-2H 2021

CONSUMER ADOPTION GREW IN 2021, AND CONSUMERS ARE CONSUMING ACROSS MORE FORMS AND MORE FREQUENTLY



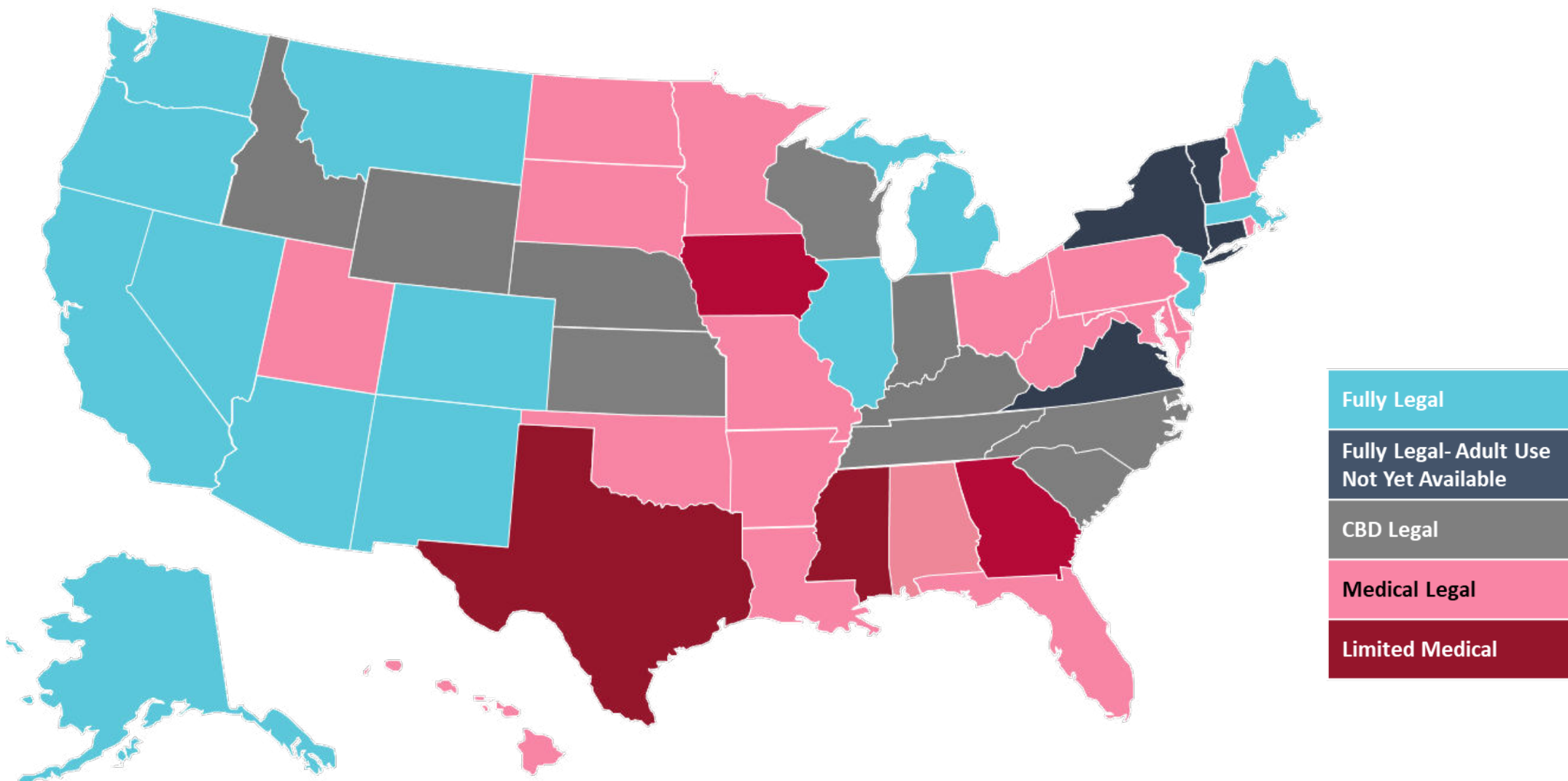
Source: BDSA Trending Consumer Insights, 2H 2020 vs. 2H 2021



STATE OF THE INDUSTRY

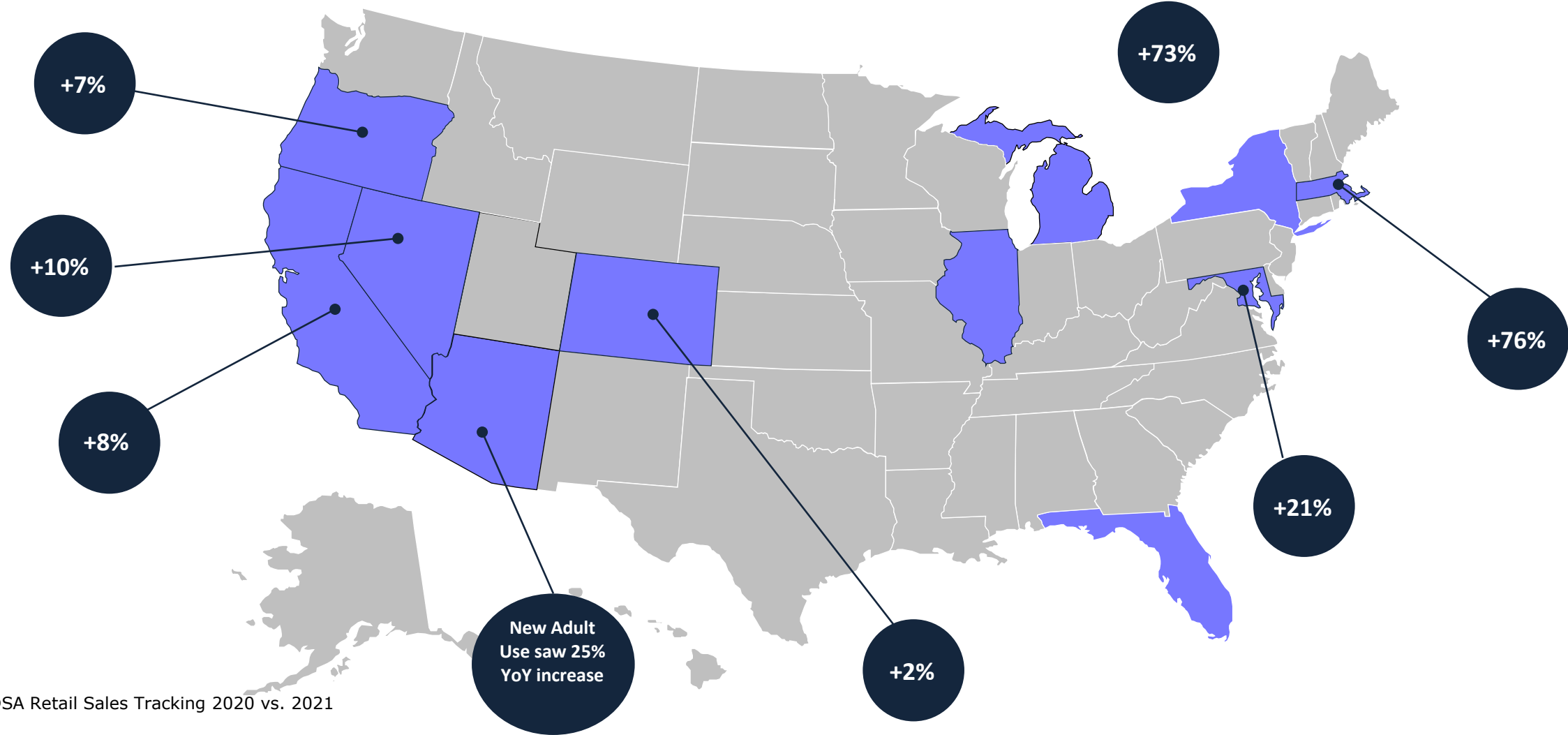


REGULATIONS LOOSENING ACROSS THE US (SEGMENTS AS OF MAR 2022)



2021 SAW SUBSTANTIAL GROWTH

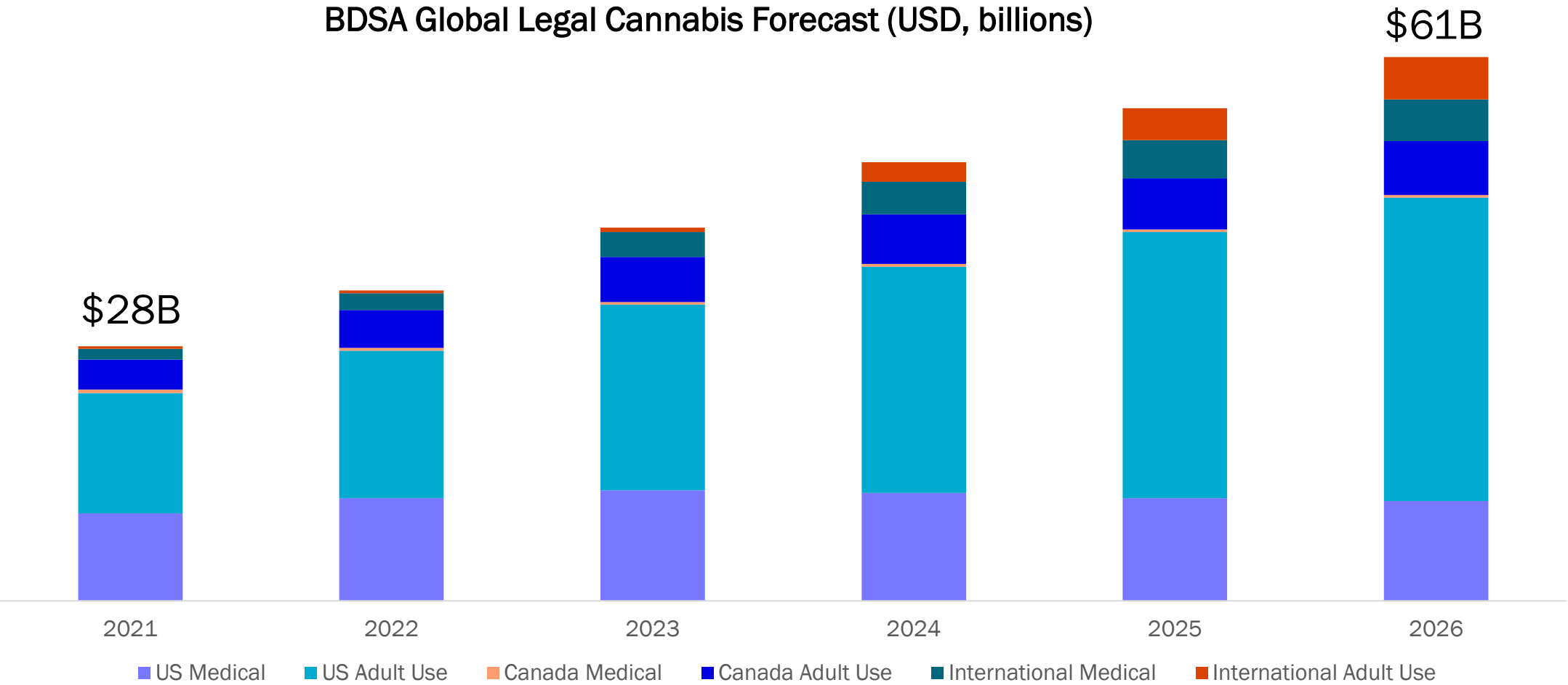
BDSA tracked markets



Source: BDSA Retail Sales Tracking 2020 vs. 2021

THE US IS AND WILL REMAIN THE LARGEST GLOBAL MARKET

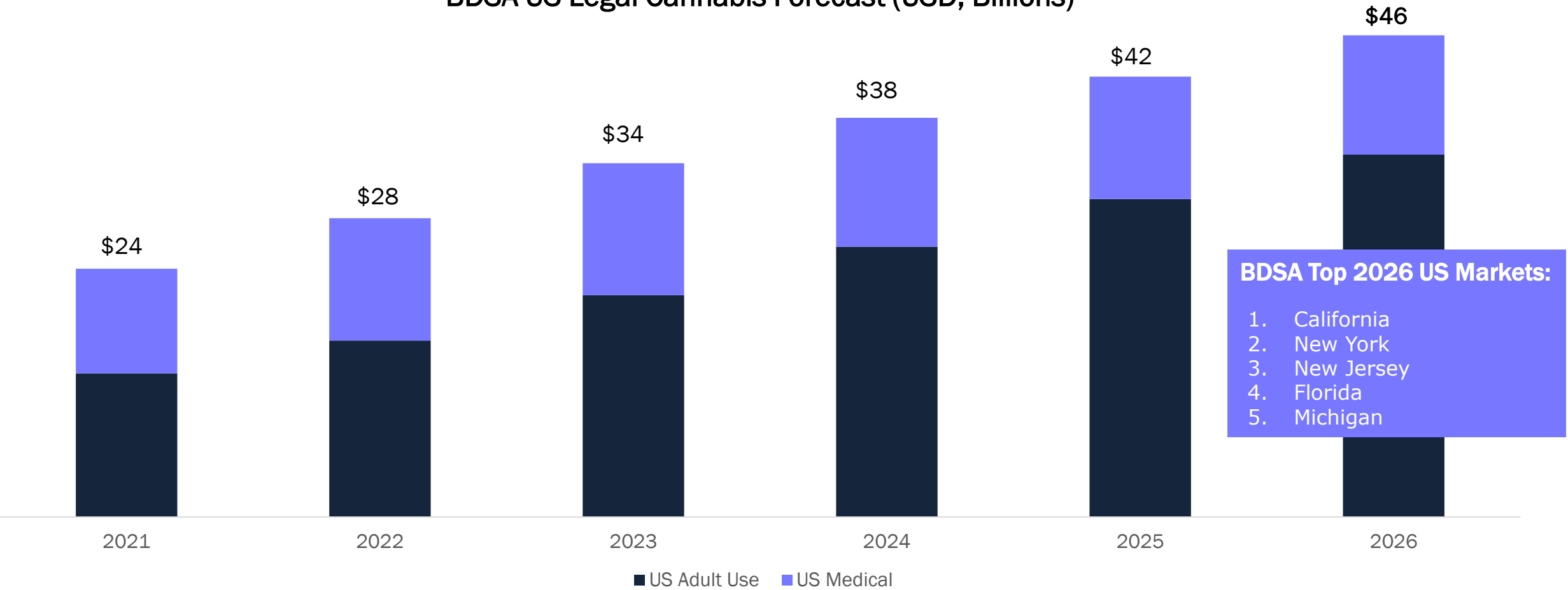
BDSA Global Legal Cannabis Forecast (USD, billions)



Source: BDSA Forecast, as of February 2022

US MARKET DRIVEN BY ADULT-USE – POPULATION DRIVES TAM

BDSA US Legal Cannabis Forecast (USD, Billions)



Source: BDSA Forecast, as of February 2022

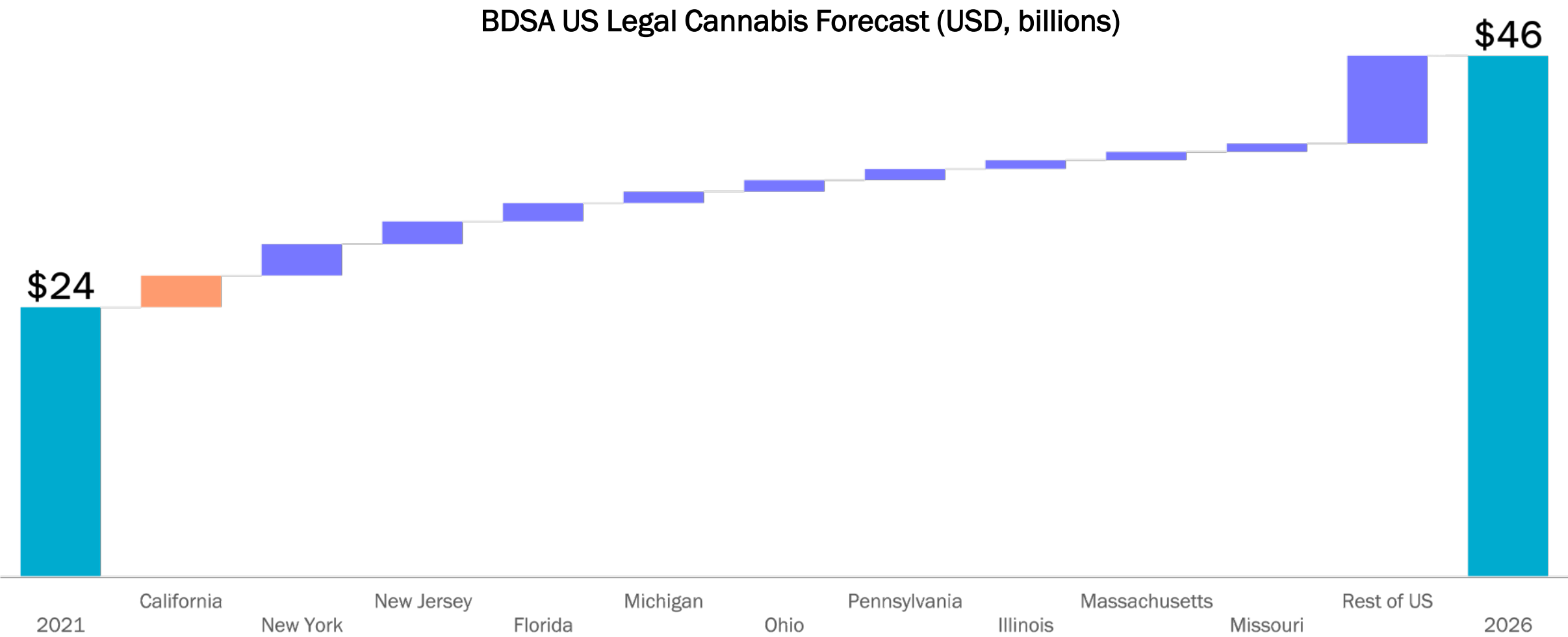
NEW STATES LEGALIZE; US MARKET GROWS

	<u>MEDICAL</u>	<u>ADULT-USE</u>
2021	West Virginia	Arizona, Marianas
2022	Georgia, Mississippi, South Dakota, US Virgin Islands	Connecticut, Guam, Montana, New Jersey, New Mexico, Rhode Island, Vermont
2023	Alabama, Kentucky, North Carolina, South Carolina, Wisconsin, Wyoming	Delaware, D.C., New York, North Dakota, Ohio
2024	Idaho, Indiana, Kansas, Nebraska, Tennessee	Florida, Maryland, Missouri, Pennsylvania, South Dakota, Virginia

Source: BDSA Forecast, as of February 2022

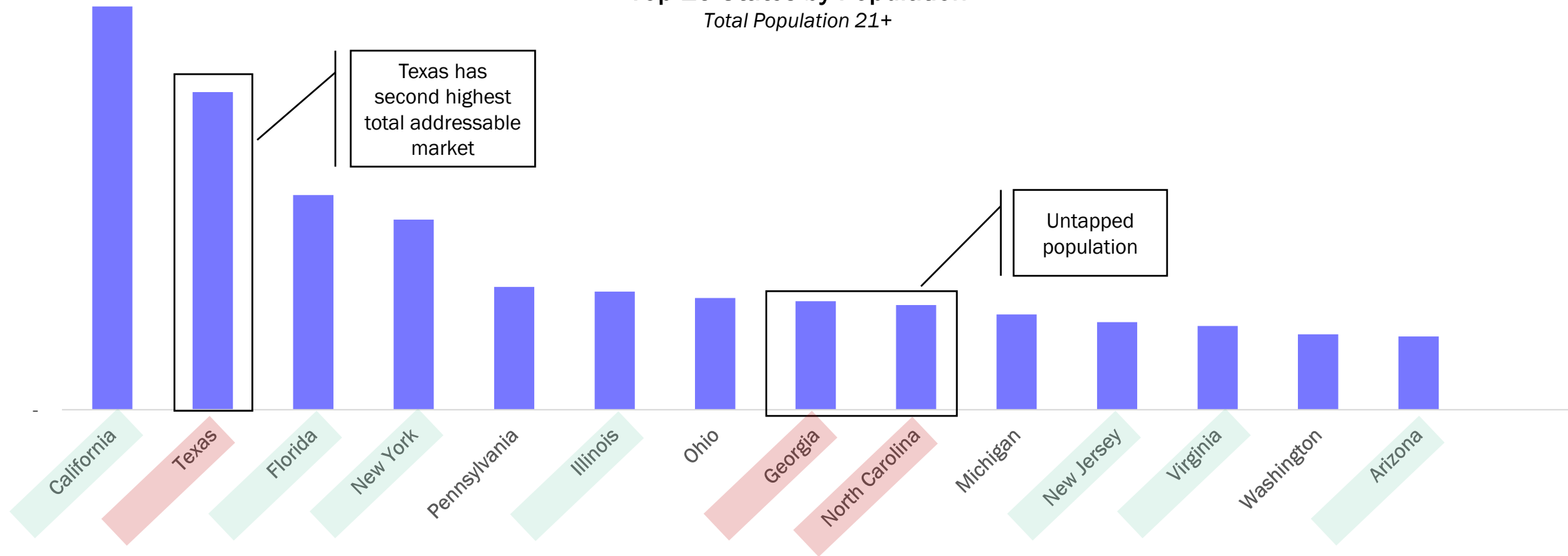
Note: Timeline refers to start of retail sales; as of BDSA market forecast released February 2022

CALIFORNIA CONTINUES TO DRIVE THE US MARKET



WHAT IF REGULATION WASN'T A FACTOR?

Top 15 States by Population
Total Population 21+



Source: BDSA Forecast, as of February 2022

SPEED TO MARKET

OBSERVED RANGE OF TIMING (*as of April 2022*)

Fastest: ~60 days

Slowest: ~3 Years



Arizona

Illinois

New Mexico

Michigan

New Jersey

Massachusetts

Ohio

What dictates timing?

1. Alignment of state government
2. Retail development
3. Production capacity vs. demand



ARIZONA OFFICIALLY THE
FASTEST STATE TO OPEN ADULT
USE:
~60 days from election

Source: BDSA



THE “BIGS” KEEP GETTING BIGGER



CONSUMERS RELY ON CANNABIS FOR PHYSICAL AND EMOTIONAL BENEFITS



Relieve Pain	14%
Sleep Better	10%
Relax/Be Mellow	9%
Manage Anxiety	9%
Manage Stress	6%
Get 'High' Or 'Stoned'	5%
Improve Quality of Life	4%
Have Fun	4%
Feel Peaceful	4%

Source: BDSA Consumer Research: 2H 2021 U.S. Adults 21+ in Legal Level 1 States

CONSUMERS SEEK DIFFERENT BENEFITS BY FORM FORMAT



RELAX / BE MELLOW

#1 reported benefit
of consumption for
Inhalable consumers



RELIEVE PAIN

#1 reported benefit
of consumption for **Topical**
consumers



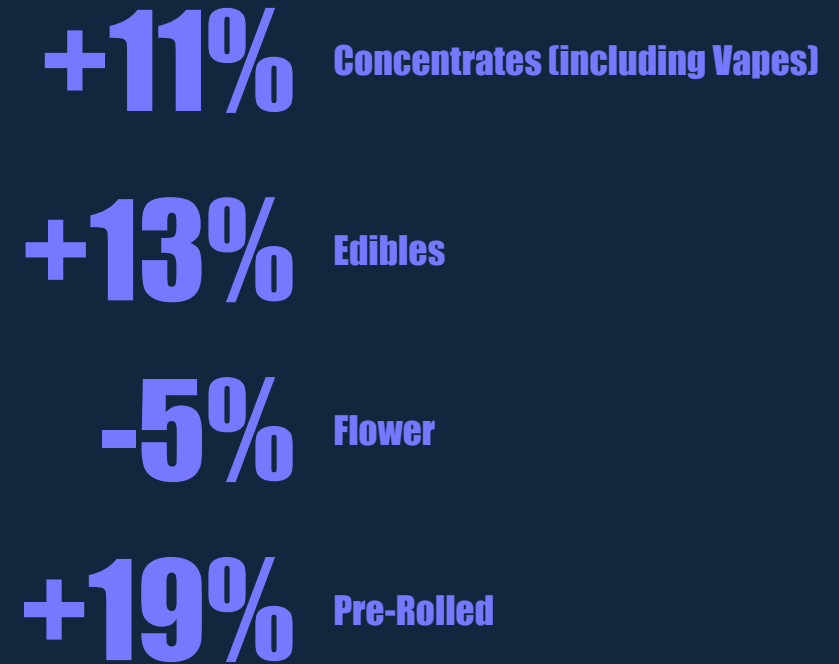
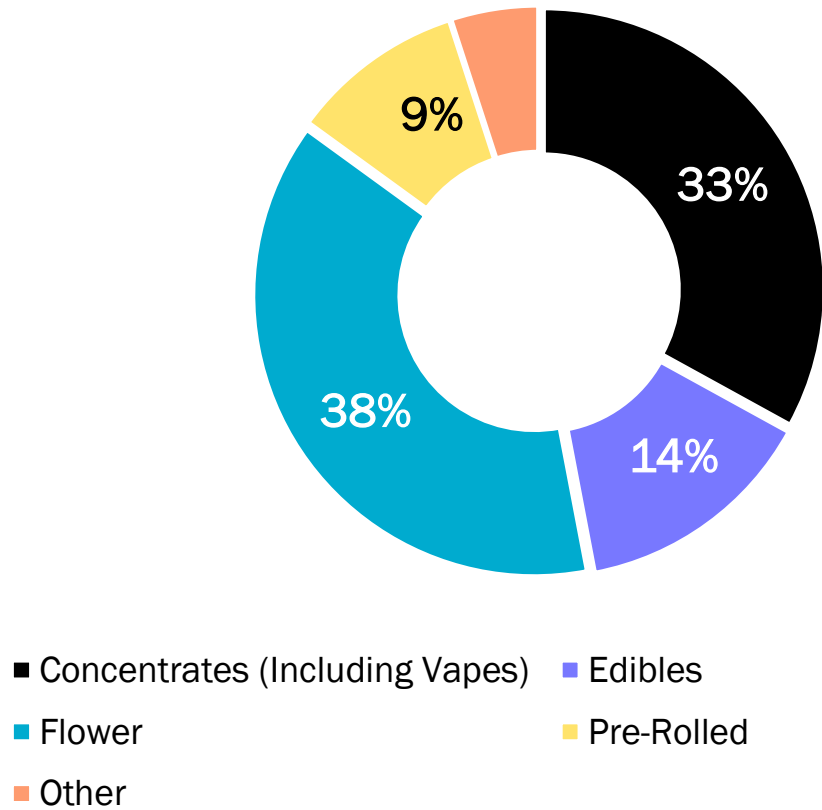
SLEEP BETTER

#1 reported benefit
of consumption for **Edible**
consumers

Source: BDSA Consumer Research: 2H 2021 U.S. Adults 21+ in Legal Level 1 States

CATEGORIES: WHAT FORMATS ARE WINNING?

Dollar Share by Category Q1 2022



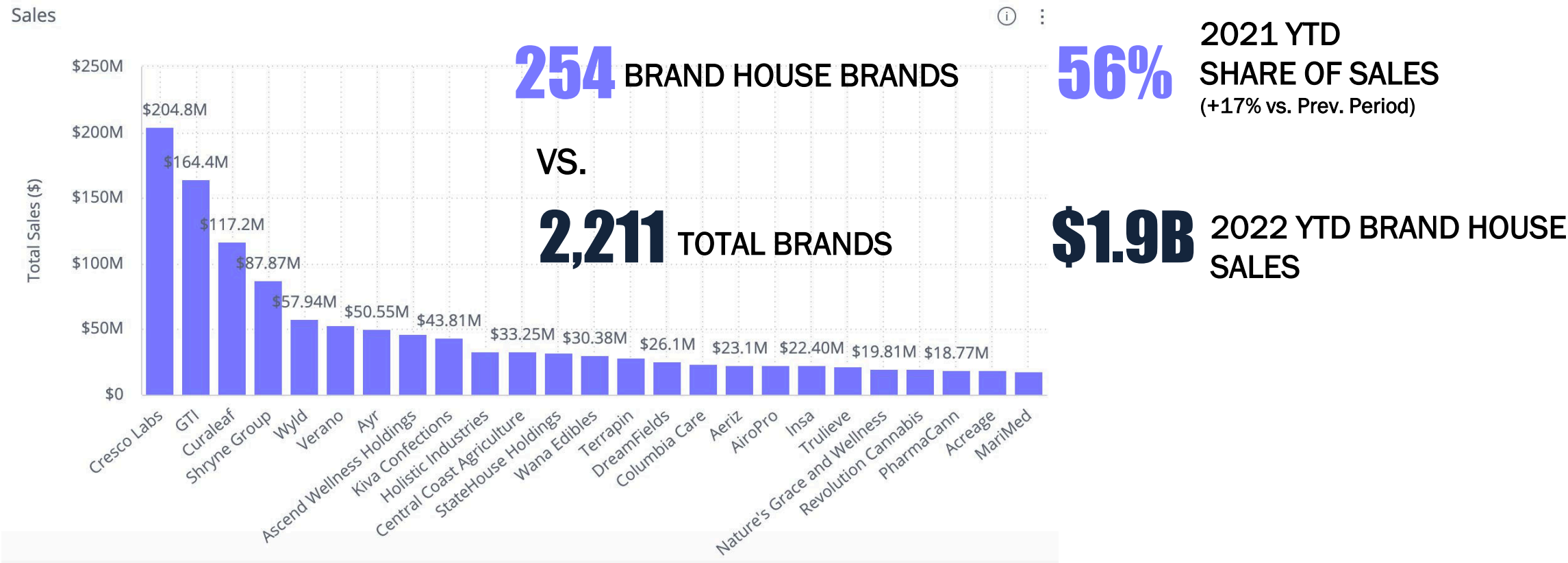
Q1 2022 Growth vs. Q1 2021

*Source: BDSA Retail Sales Tracking; Growth reflected across AZ, CA, CO, FL, IL, MA, MD, MI, MO, NV, OR

THE LARGEST FIRMS CONTINUE TO TIGHTEN THEIR GRIP

And with inter-industry M&A consolidation continuing at rapid pace, fewer in the future will control majority share of US

TOP 25 PARENT COMPANIES BY BDSA TRACKED RETAIL SALES (YTD 2022)



Source: BDSA – Retail Sales Tracking – Brand House January 2022 – March 2022 AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA

Q1 2022 TOP SELLING (\$) BRANDS (AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA)

1 RYTHM (Green Thumb)

2 CRESCO CANNABIS (Cresco Labs)

3 STIIIZY (Shryne Group)

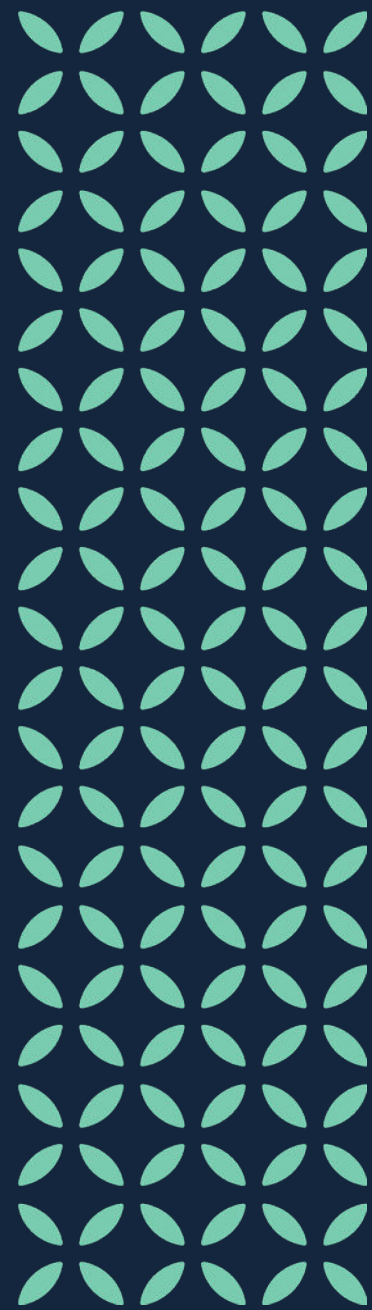
4 SELECT (Curaleaf)

5 WYLD

Source: BDSA RETAIL SALES TRACKING 2021—AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA

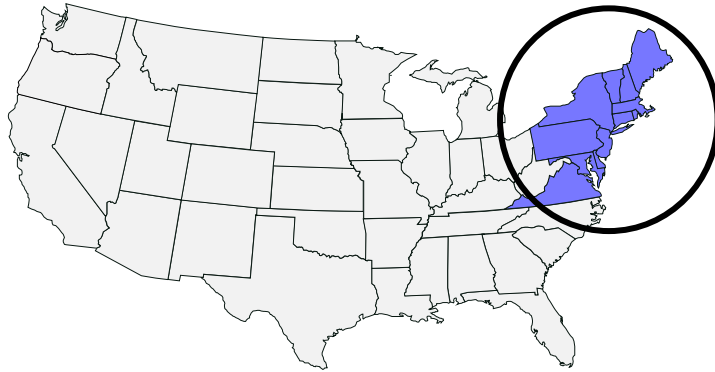


NORTHEAST MARKETS—DRIVER OF GROWTH



NEW LEGISLATION

New Jersey: Gateway to NE



TOP-15 BDSA MARKETS BY 2026

New York
Massachusetts
New Jersey
Pennsylvania
Maryland

**Additional +16% adult-use population
with full Northeast seaboard**



Arizona

PRE-ELECTION

Medical Only

POST-ELECTION

+Adult-Use

RETAIL
AVAILABLE/EXPECTED

Jan. 2021



New Jersey

Medical Only

+Adult-Use

April 2022



Montana

Medical Only

+Adult Use

Jan. 2021



South Dakota

None

+Both Adult Use and
Medical

2022



Mississippi

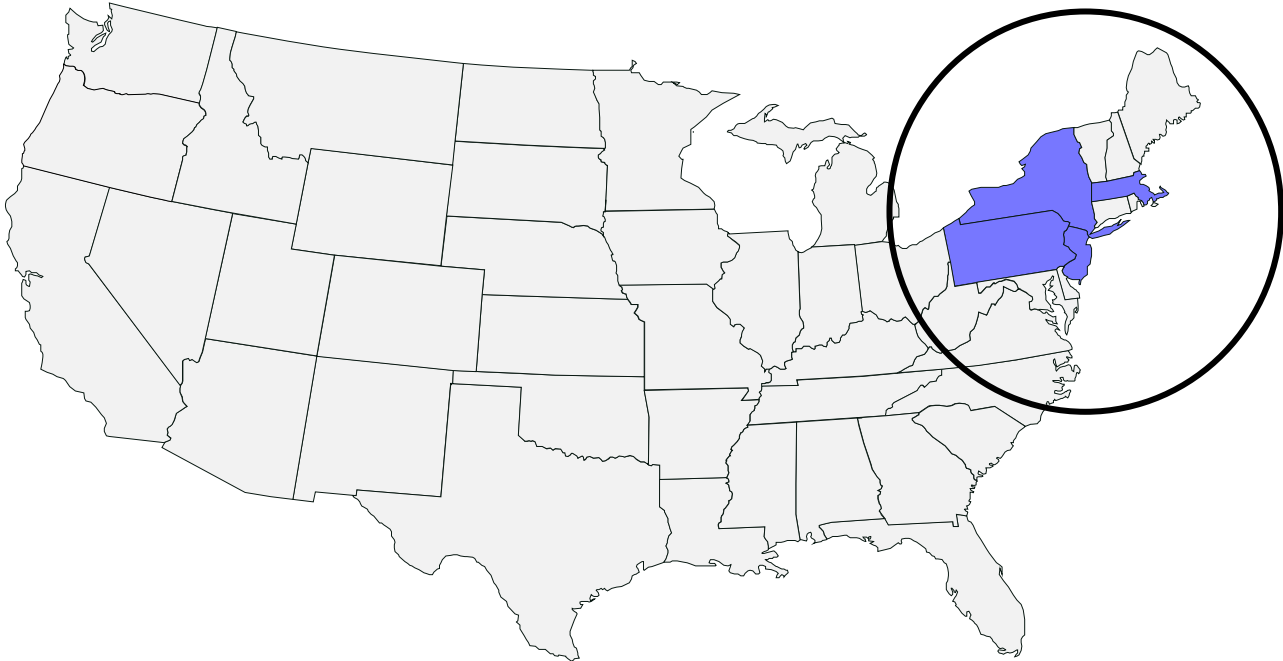
None

+Medical

2022

Source: BDSA

THE NORTHEAST IS SLATED TO PROVIDE HUGE REVENUE OPPORTUNITY



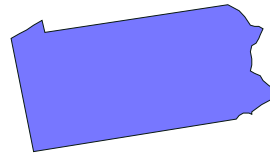
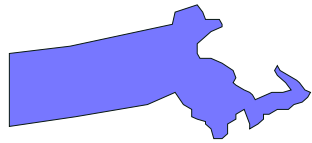
Four densely populated states in NE expected to be combined ~\$9B opportunity by 2026

TOP BDSA MARKETS BY 2026

Market	Size	Spend / 21+ adult
California	\$6.55B	\$196
Florida	\$3.36B	\$189
New York	\$2.91B	\$192
Michigan	\$2.8B	\$380
Illinois	\$2.55B	\$270
Colorado	\$2.4B	\$485
Massachusetts	\$2.34B	\$430
New Jersey	\$2.25B	\$327
Pennsylvania	\$2.2B	\$222
Arizona	\$1.84B	\$311
Washington	\$1.8B	\$294
Ohio	\$1.37B	\$156
Oregon	\$1.36B	\$399

Source: BDSA Forecast, as of February 2022, US Census Bureau 21+ Adult Population 2020

BDSA TOP MSOS & BRANDS



Brands

Massachusetts*	Pennsylvania*	Missouri
Rythm	Cresco	Proper Cannabis
Cultivate	Rythm	Illicit Gardens
INSA	Grassroots Cannabis	Flora Farms
Sira Naturals	Moxie Seeds and Extracts	Sinse
Ozone Premium Cannabis	Double Bear	C4 Pharms

MSOs

GTI	Cresco Labs	Terrapin
Cresco Labs	GTI	Wana Edibles
Ayr	Curaleaf	StateHouse Holdings
Insa	Terrapin	Curaleaf
MariMed	Moxie Seeds and Extracts	Timeless Vapes

*Source: BDSA Retail Sales Tracking - Massachusetts (Adult-Use + Medical); Pennsylvania (Medical), Q1 2022

PENNSYLVANIA - MED TODAY, ADULT USE TOMORROW?

If as predicted the state goes adult-use it would bring legal cannabis access to another 10M US adults



+21
pop

9.74M

Q1 2022
Sales

\$290M

brands
w/ Sales

115

retailers
selling

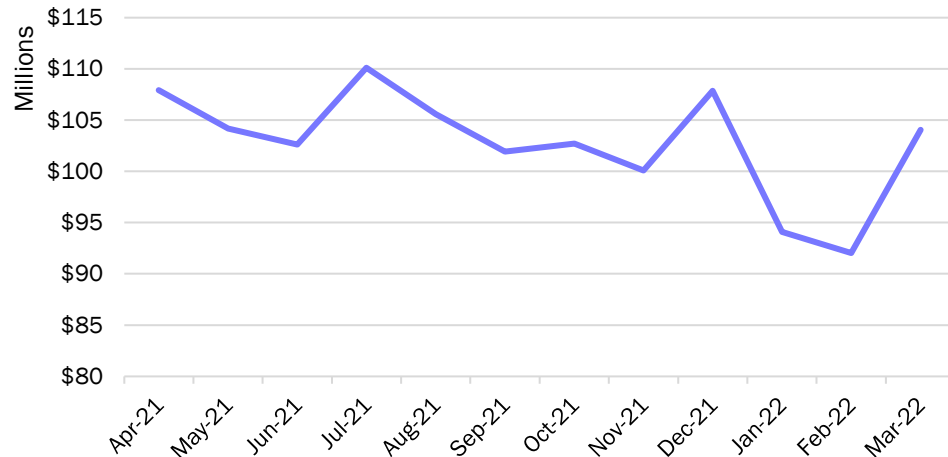
161

	2022	% CHG vs. 2021
Registered Patients	406,454	26.8%
	Per Month	Per Trip
Patient Spend	\$117	\$100

Purchase Influencers	
High THC Content	33%
Taste/Flavor	33%
Low Price	23%

Top reasons for consuming	
Relieve Pain	20%
Manage Anxiety	16%
Sleep Better	8%

Pennsylvania Medical Cannabis Monthly (\$) Sales,
April '21 - March '22



Format Trends	Past Three Months vs. Prior				
	Oct-Dec 2021		Jan-Mar 2022		\$, % Change
	\$M	\$ Share	\$M	\$ Share	
All Accessories	\$2.39	0.7%	\$2.28	0.8%	-5%
Pills	\$5.5	1.7%	\$5.66	2%	3%
Tinctures	\$6.77	2%	\$6	2%	11%
Dabbable Concentrates	\$43	14%	\$38.9	13%	-10%
Vape	\$109.2	35%	\$99.7	34%	-9%
Flower	\$142	46%	\$135.4	47%	-5%
Topicals	\$2.05	0.7%	\$1.78	0.6%	-13%

PRICE COMPARISONS BY MARKET

BDSA expects new adult-use markets in NE to have higher prices relative to those observed in IL & MA

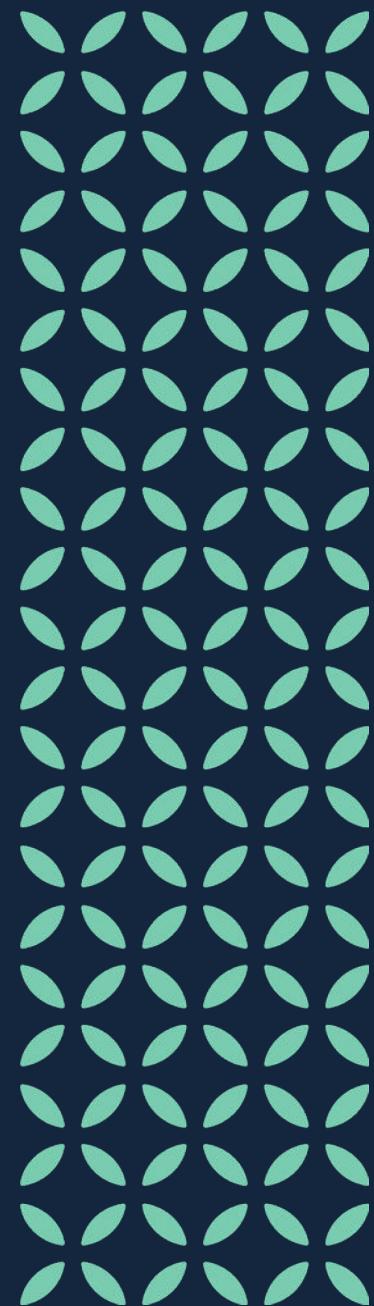
	Concentrates	Edibles	Flower	Pre-Rolled	Shake	Sublinguals	Topicals
California	\$31.71	\$17.08	\$6.95	\$16.90	\$2.71	\$40.94	\$28.60
Colorado	\$24.94	\$17.42	\$4.11	\$7.79	\$2.06	\$25.65	\$28.89
Illinois	\$49.07	\$23.59	\$12.24	\$22.91	\$8.50	\$33.08	\$39.47
Massachusetts	\$48.54	\$19.48	\$11.42	\$14.62	\$6.03	\$49.29	\$34.93
Michigan	\$26.97	\$10.61	\$6.10	\$10.58	\$5.30	\$32.56	\$20.80
Nevada	\$26.14	\$17.51	\$7.17	\$12.09	\$3.95	\$34.99	\$37.01
Oregon	\$22.01	\$8.70	\$4.68	\$8.11	\$1.95	\$35.50	\$34.19

shading denotes Highest / 2nd Highest Price per category

Source: BDSA Retail Sales Tracking – Average Retail Price – Q1 2022



WHAT IS TO COME IN 2022?



IS THERE MORE TO EDIBLES THAN GUMMIES?

PILLS: 1906

+39%

Pills \$ 2020 vs. 2021



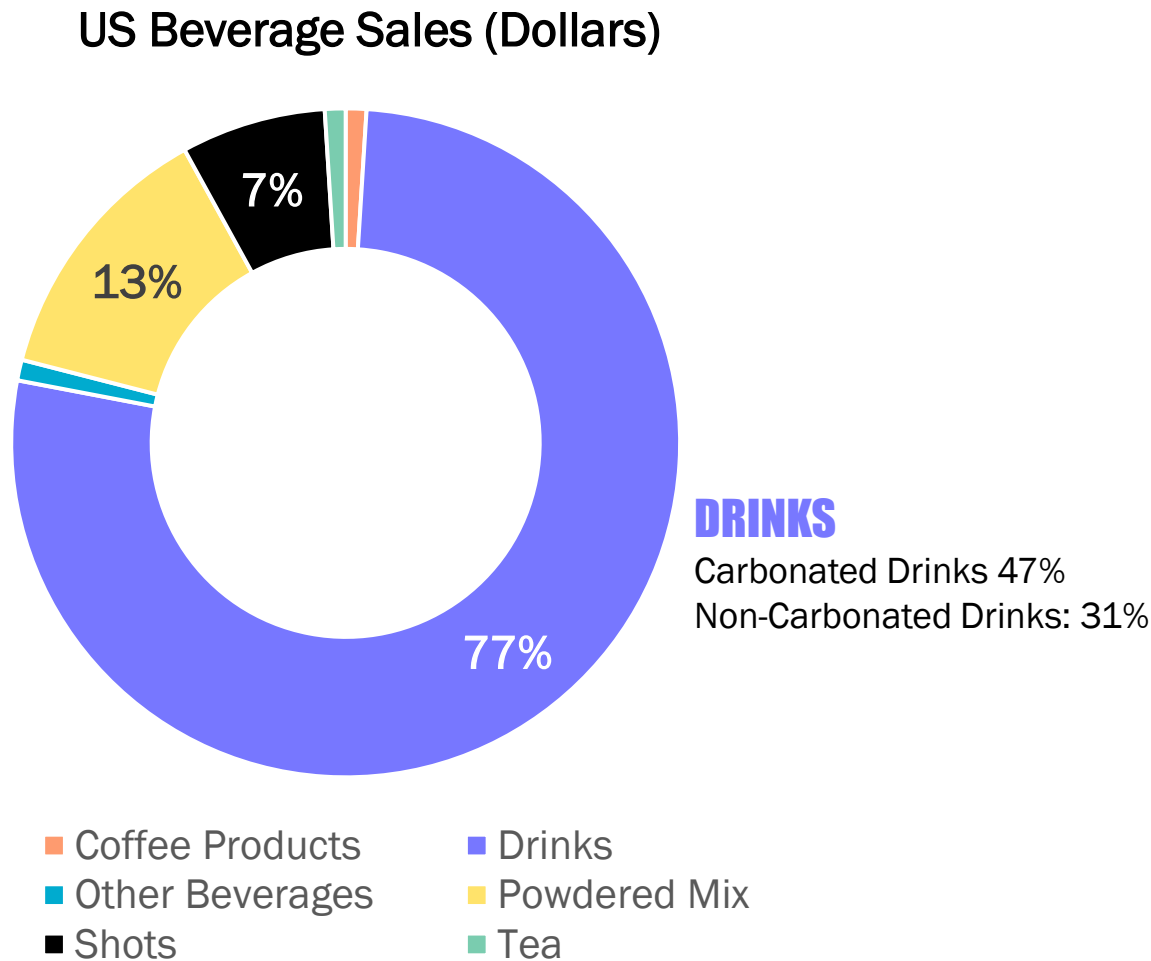
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06

#1 PILL BRAND
37% OF PILL \$ Sales

Next closest at 16%

Source: BDSA 2021 Retail Sales Tracking

US BEVERAGES SMALL (5% \$) BUT GROWING



+63%

2021 US Total Beverage
\$ Growth vs. 2020

Source: BDSA Sales Tracking, Full year 2021 Dollar Beverage Sales: AZ, CA, CO, OR, NV, MD, MA, Mi, MO, IL, FL, PA

Q1 2022 TOP SELLING (\$) BEVERAGE BRANDS (AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA)

1 KEEF

2 CANN

3 LEVIA (AYR)

4 PTS

5 SELECT (CURALEAF)

Source: BDSA RETAIL SALES TRACKING 2021—AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA

BDSA QUICK HITS: SOLVENTLESS

Some Examples...

710 Labs Hash Rosin Gummi



LEVEL Hashtab



Wana Spectrum



dialed in...gummies



BDSA QUICK HITS: STRAIN SPECIFIC

Some Examples...

PLUS strains



KIVA Lost Farm



dialed in...gummies



BDSA QUICK HITS: MINOR CANNABINOID

Some Examples...

WYLD (CBG)



WANA (THCV)



KIVA (CBN)



OF CANNABIS ACCEPTORS (non-consumers)...

45%
Would Consider Edibles

23% Would consider Inhalables

55% Would consider Topicals

Source: BDSA Consumer Research 2H 2021: U.S. adults 21+ in Fully Legal US States

DO THE RULES OF CPG APPLY TO CANNABIS....YES & NO

PRICE MATTERS

“PRICE” is consistently a top-3 claimed driver of product choice with ~30% saying that price influences their purchase decision. It falls just behind taste/flavor and high THC content.

Price alone does not indicate quality or premium. BUT there are drivers and product attributes that cannabis consumers WILL pay more for.

BUT NOT NATIONAL

There are no national standards- the exact same product (same size, variety, THC content, etc.) can have dramatically different pricing by state/province

BRANDS MATTER...ISH

Brand alone doesn't seem to matter at the surface, BUT a good experience, trusted recommendation, and brand familiarity does. These benefits tie back to brand.

Brand dominance does not yet exist and brand rankings shift constantly.

BDSA FULL YEAR 2022 PREDICTIONS

1. Classification (indica, sativa, hybrid) will fade away as a designation of the consumer **experience** – cannabinoid content and terpene driven benefits are the way of the future
2. Brand recognition will grow, and dare we say, **brand loyalty** will emerge
3. More blatant quality cues will drive **greater pricing differentiation**
4. The race for **global cannabis dominance** is well on its way – but traditional CPG will not lead the way
5. The FDA will continue to limit the potential of the **mainstream CBD market** (indefinitely?)
6. **Vape will continue to survive** (and thrive) despite reputational hits

**IT'S A NEW GAME.
DATA. DEEPER.**

<https://bdsa.com/contact/>