# IT ISN'T MAGIC, IT'S DATA – SUCCESSFULLY EXPAND YOUR CANNABIS BUSINESS

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MJ Unpacked

May 2022

# LEGAL CANNABIS IS...

Everyone

So.Many.Product.Forms.

Rapid Innovation


Mainstream

# HOWEVER, IT IS ALSO. . .

Confusing

Different than “CPG”

Challenged

Financial Stress

# 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

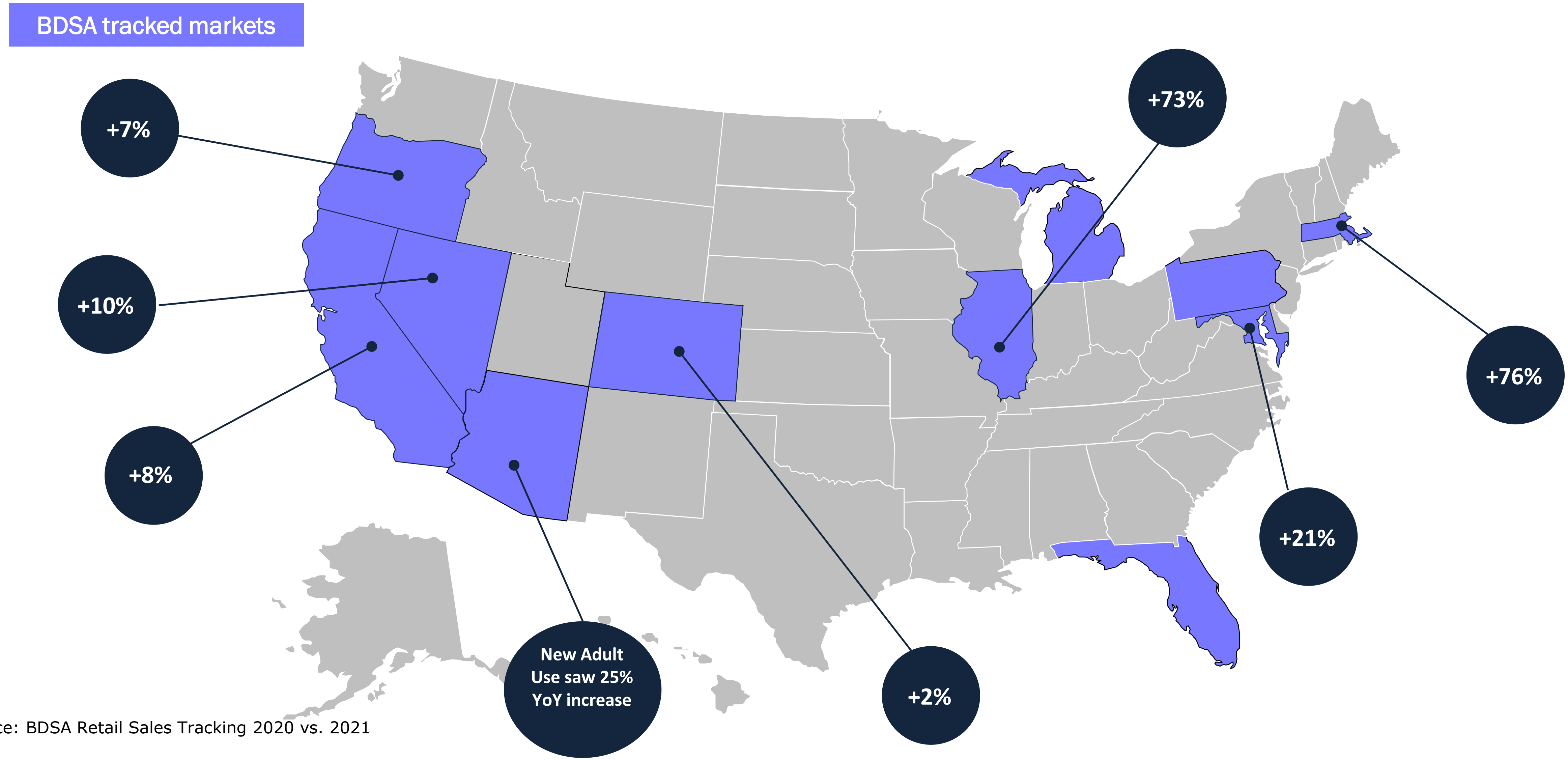
Gain a comprehensive understanding of market size and future opportunity

## CONSUMER INSIGHTS

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

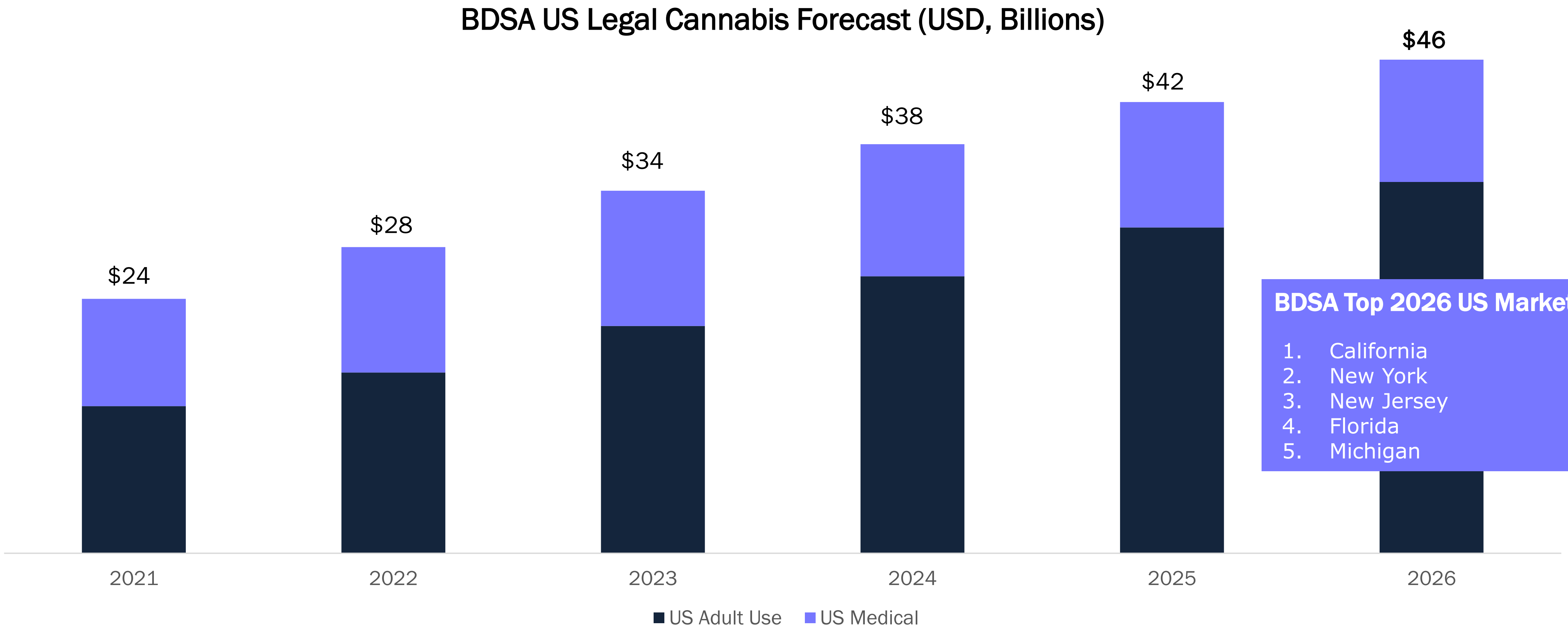
# STATE OF THE INDUSTRY

# 2021 SAW SUBSTANTIAL GROWTH




Source: BDSA Retail Sales Tracking 2020 vs. 2021

# GLOBAL MARKET ($61B) DRIVEN BY US; US DRIVEN BY ADULT-USE

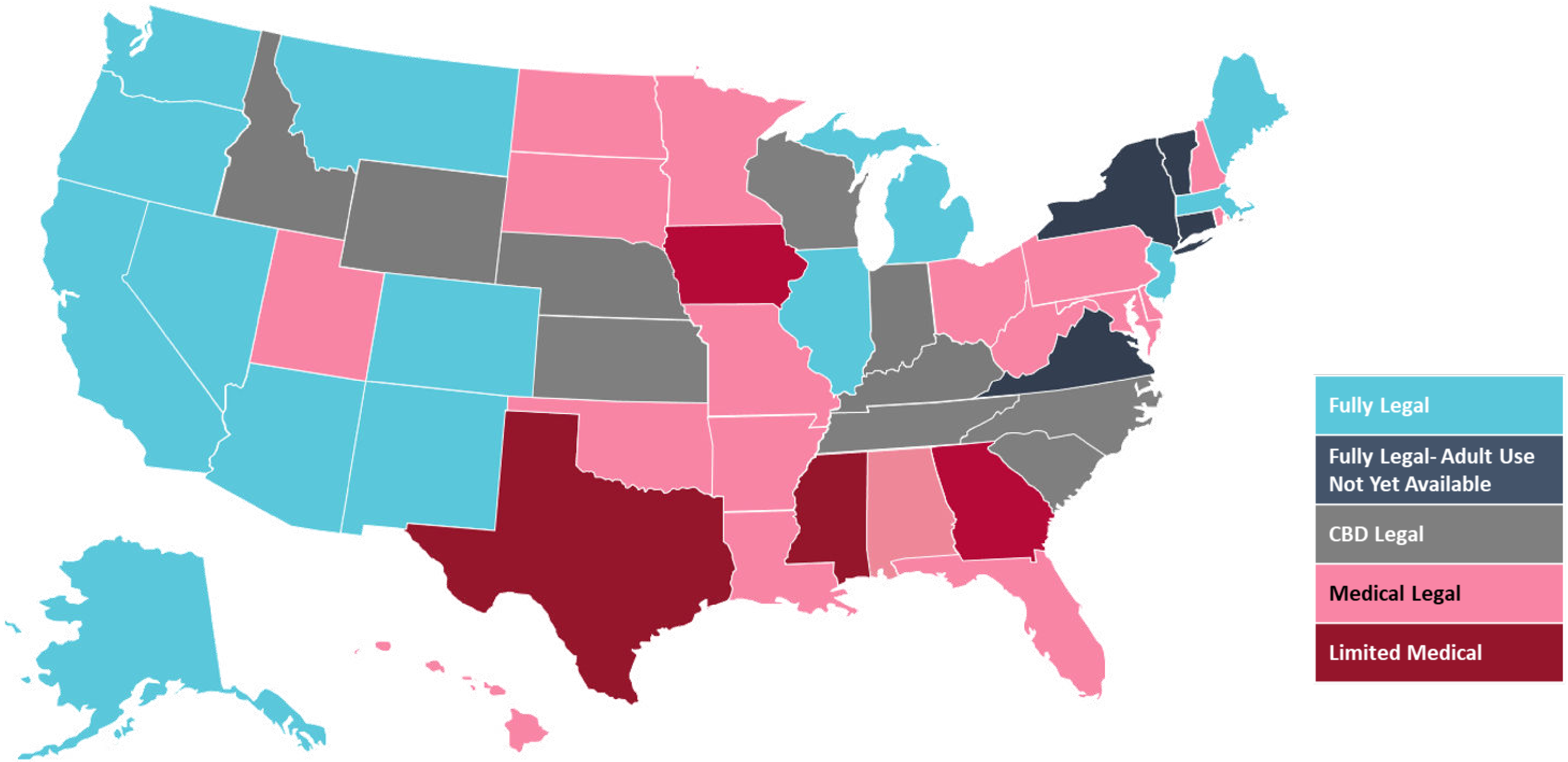



**BDSA Top 2026 US Markets:**

1. California
2. New York
3. New Jersey
4. Florida
5. Michigan

Source: BDSA Forecast, as of February 2022

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

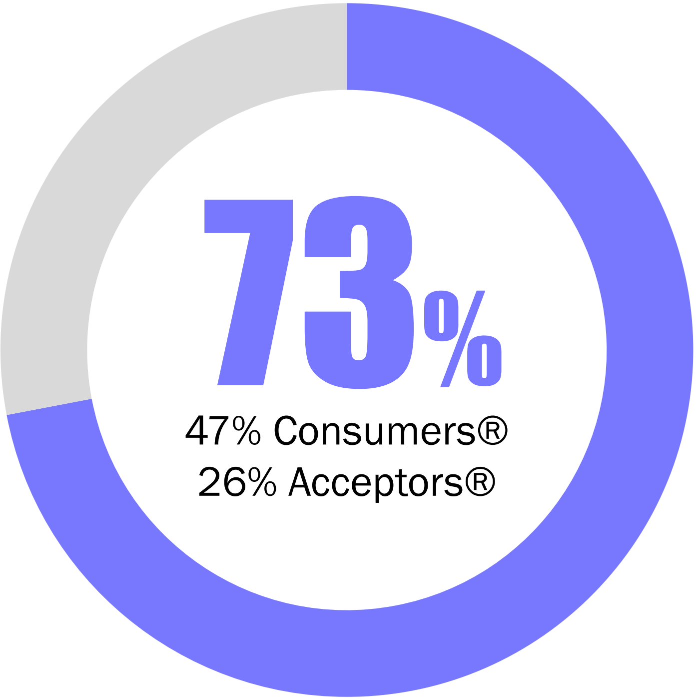


# NEW STATES LEGALIZE; US MARKET GROWS

| | MEDICAL | ADULT-USE |
|---|---|---|
| 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

# IN FULLY LEGAL STATES, ~75% OF ADULTS ARE "BOUGHT IN" TO CONSUMING



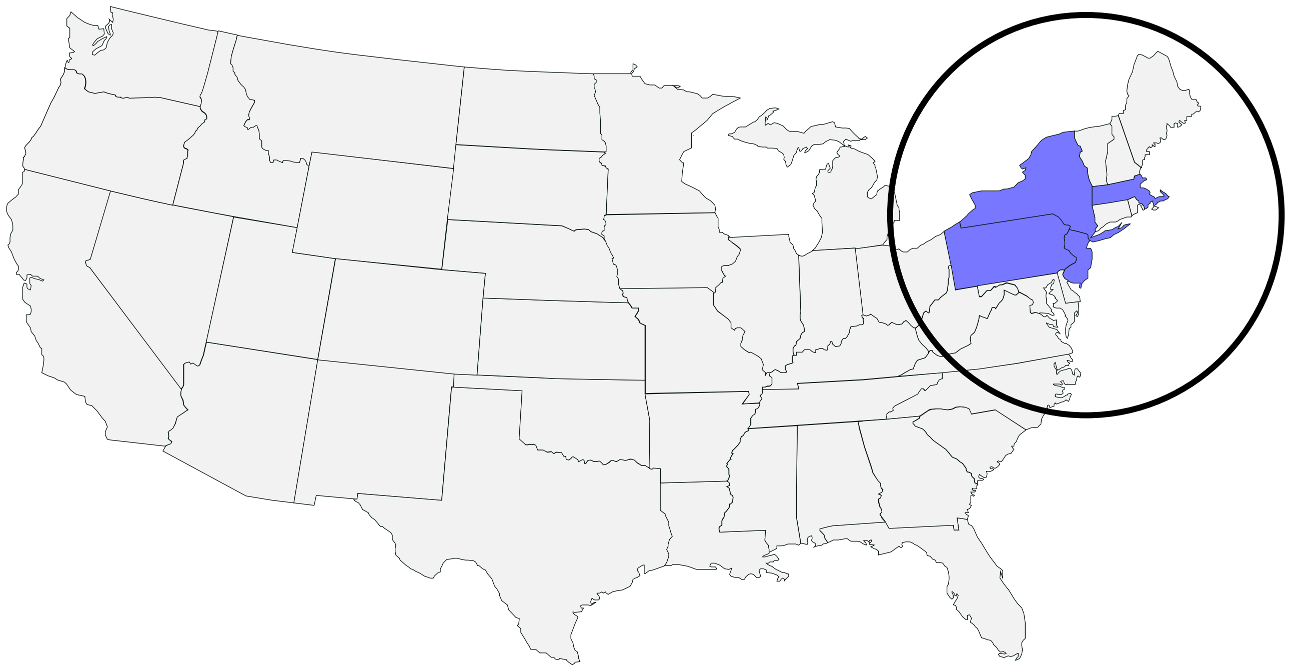

66% in CANADA

**...of adults 21+ in fully legal U.S. states 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 NORTHEAST IS SLATED TO PROVIDE HUGE REVENUE OPPORTUNITY



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

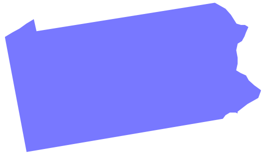
### TOP BDSA MARKETS BY 2026

| 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

# 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**

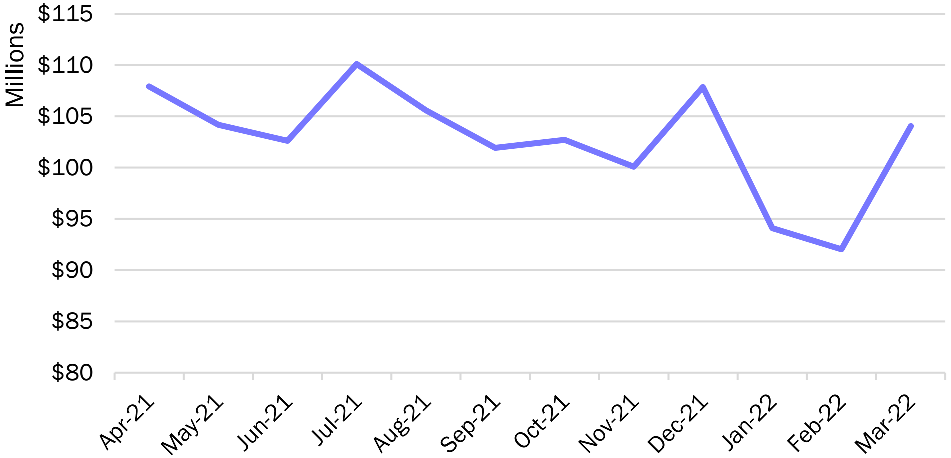
| | 2022 | % CHG vs. 2021 |
|---|---|---|
| Registered Patients | 406,454 | 26.8% |

| | 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% |




*Source: BDSA Retail Sales Tracking - Pennsylvania (Medical), Jan-Mar 2022; BDSA Consumer Insights – Pennsylvania Fall 2021

# SIZING THE TOTAL ADDRESSABLE MARKET

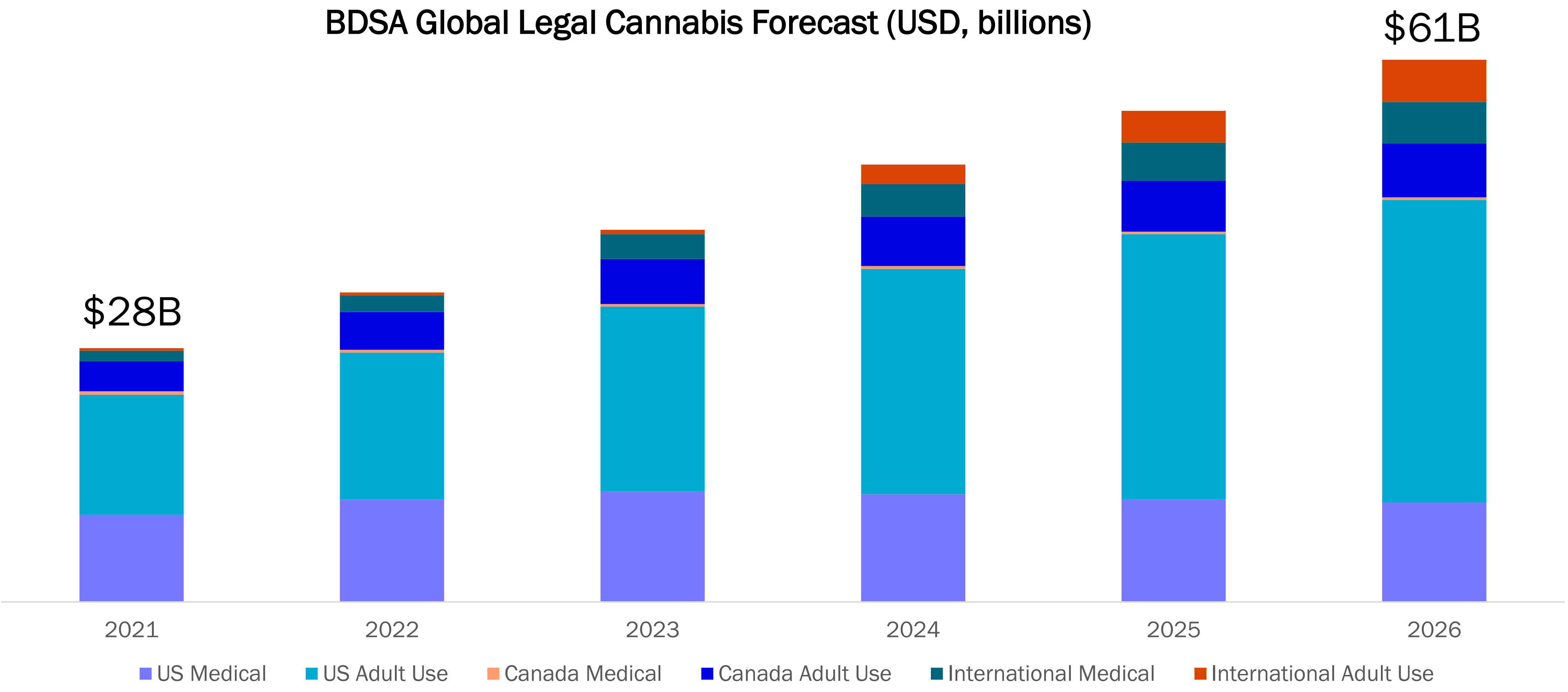
# IN THE US, 2021 GROWTH AND BDSA'S 2022 EXPECTATIONS COMING FROM MATURE, NEW, AND EMERGING MARKETS

MATURE cannabis states such as California, Oregon, and Colorado continue to grow

NEW legal cannabis states such as Illinois, Massachusetts, Michigan and new medical markets are developing at an ever-increasing rate

EMERGING legal cannabis states, like New York, are expected to yield huge contributions to BDSA's forecasted market growth out to 2026

# NOT SURPRISINGLY, THE US REMAINS THE LARGEST GLOBAL LEGAL MARKET



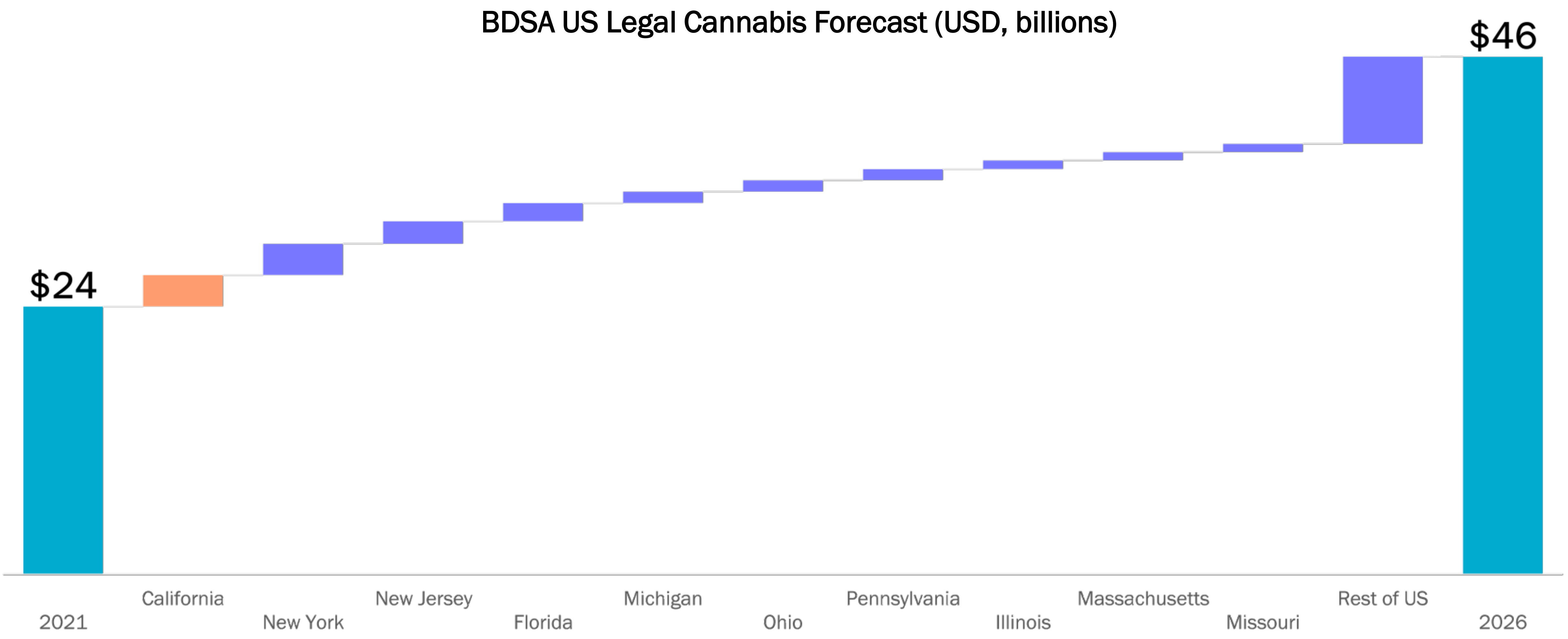

Source: BDSA Forecast, as of February 2022

# TOP TEN CONTRIBUTORS TO GLOBAL GROWTH

BDSA Legal Cannabis Forecast (USD, Billions)

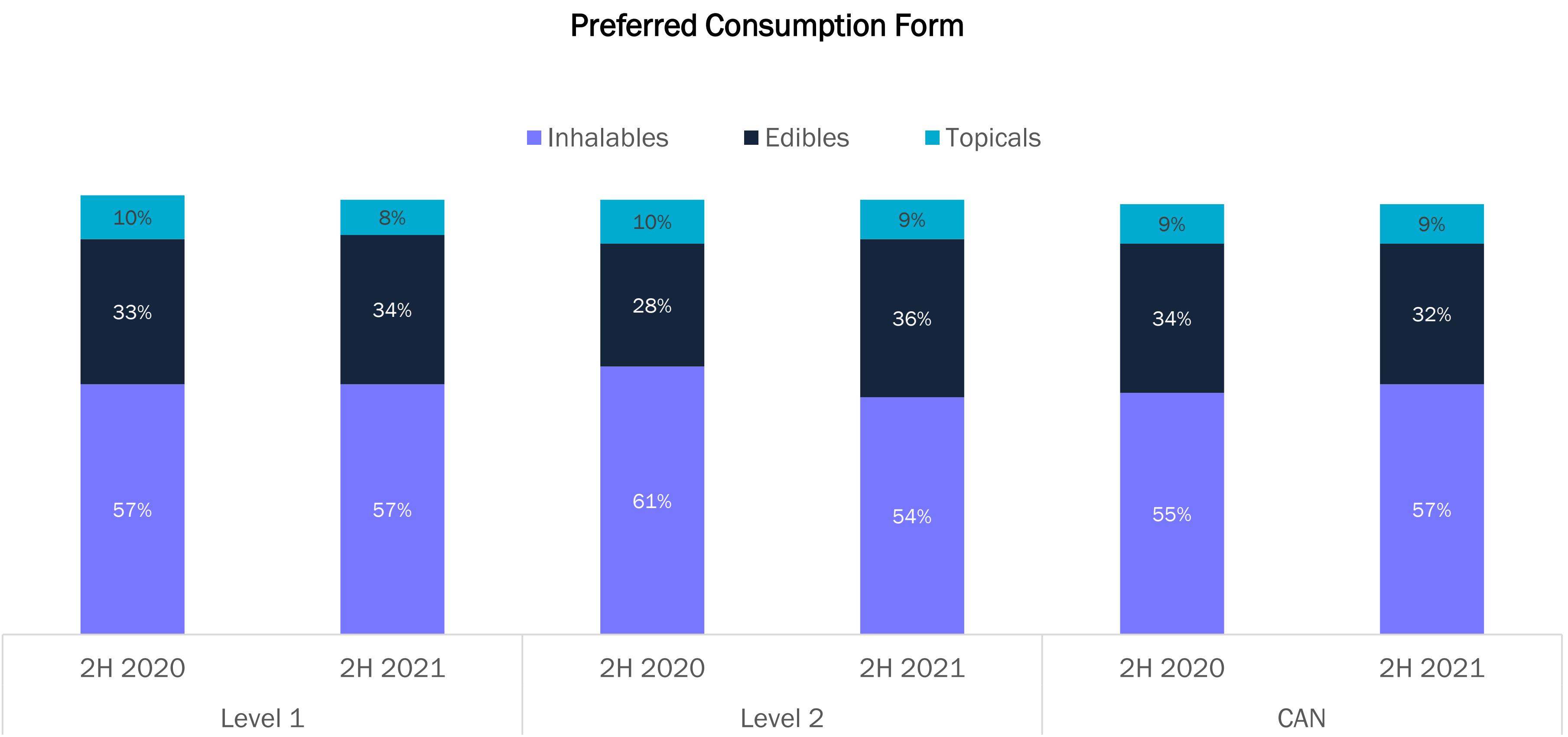

Source: BDSA

# CALIFORNIA CONTINUES TO DRIVE THE US MARKET



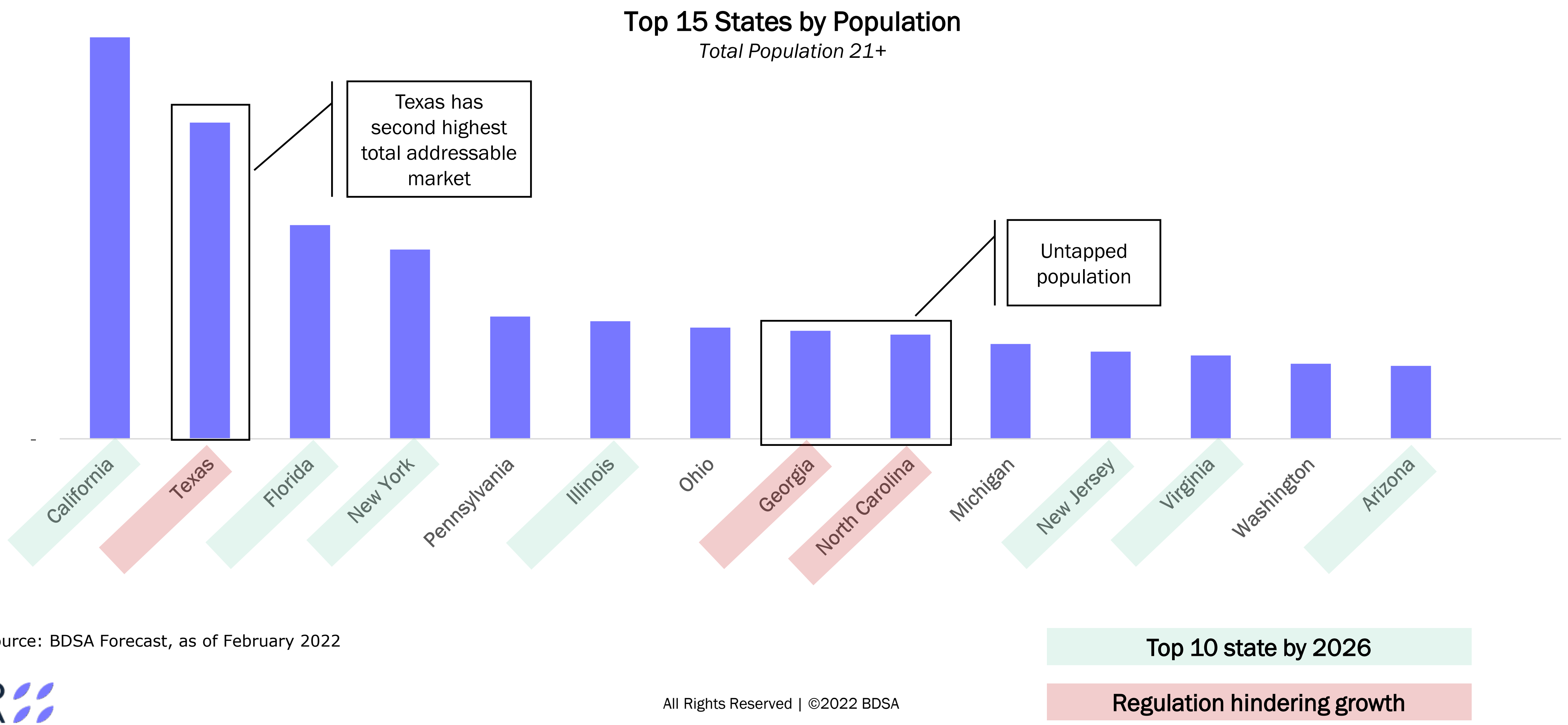

Source: BDSA Forecast, as of February 2022

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



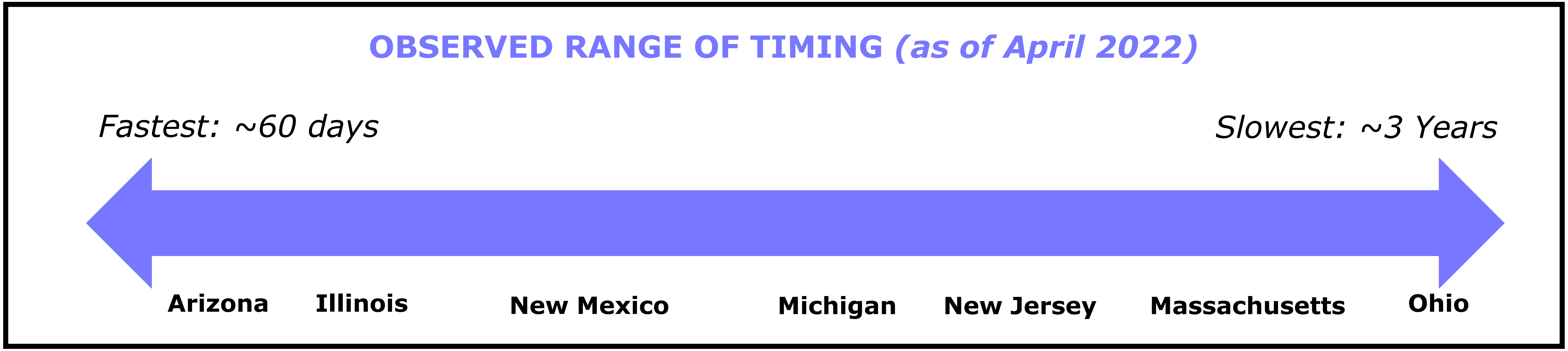

Source: BDSA Trending Consumer Insights, 2H 2020 vs. 2H 2021

# WHAT IF REGULATION WASN'T A FACTOR?




Source: BDSA Forecast, as of February 2022

# SPEED TO MARKET




## What dictates timing?

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

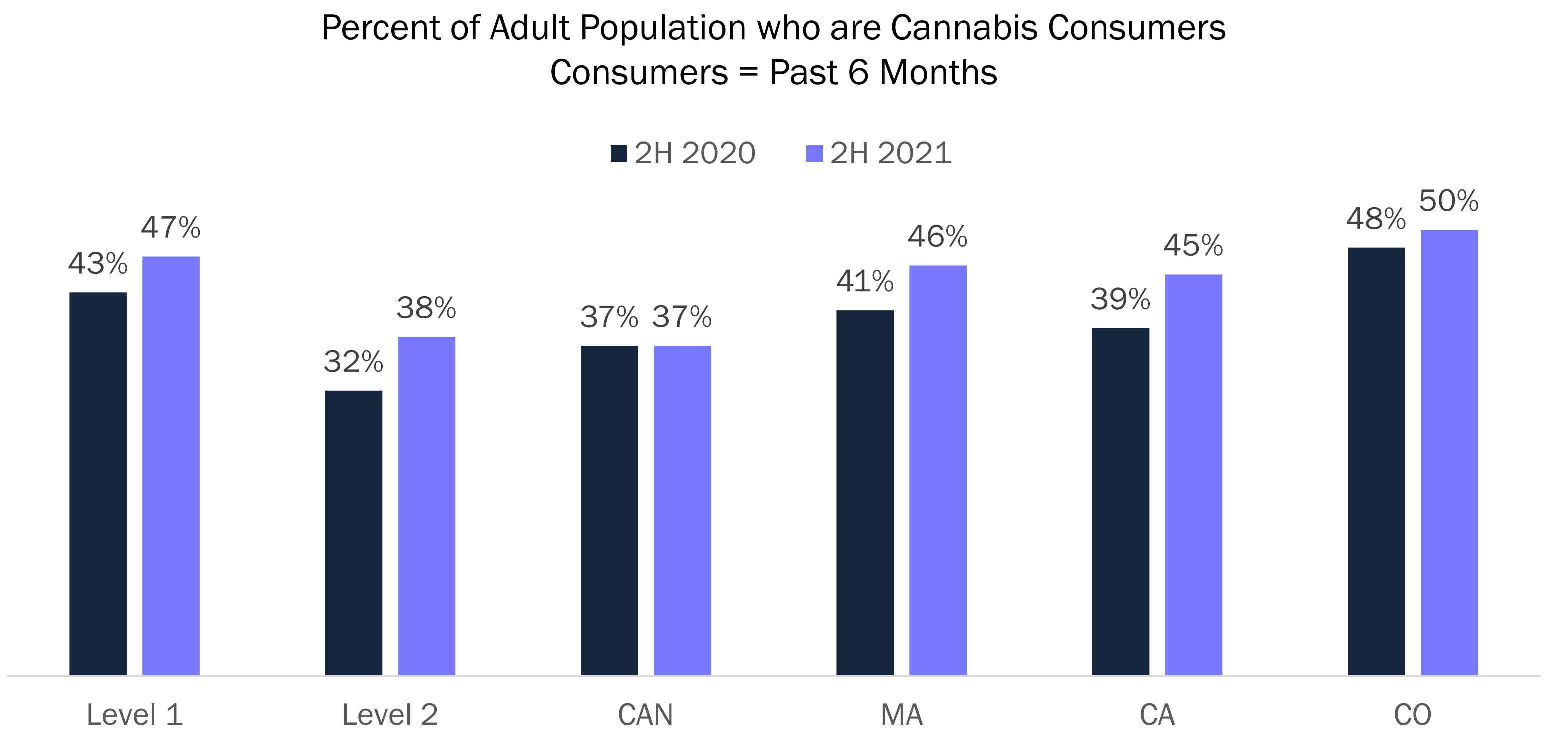
!

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

Source: BDSA

# HOW TO ENTER CANNABIS MARKETS THE “RIGHT” WAY: CONSUMERS

# 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

# 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 FACTOR

## 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

# WHAT DRIVES INHALABLES PURCHASING DECISIONS?

Among Dispensary Shoppers Preferring Inhalables

**#1**
High THC Content
(49%)

**#2**
Taste or Flavor
(39%)

**#3**
Low Price
(30%)

Source: BDSA Trending Consumer Insights, 2H 2021 in Fully Legal states

# WHAT DRIVES EDIBLES PURCHASING DECISIONS?

Among Dispensary Shoppers Preferring Edibles

| #1 | #2 | #3 |
| --- | --- | --- |
| Taste or Flavor (39%) | Is a Brand I've Used Before (29%) | Low Price (27%) |

Source: BDSA Trending Consumer Insights, 2H 2021 in Fully Legal states

# THERE IS NO ONE CANNABIS CONSUMER

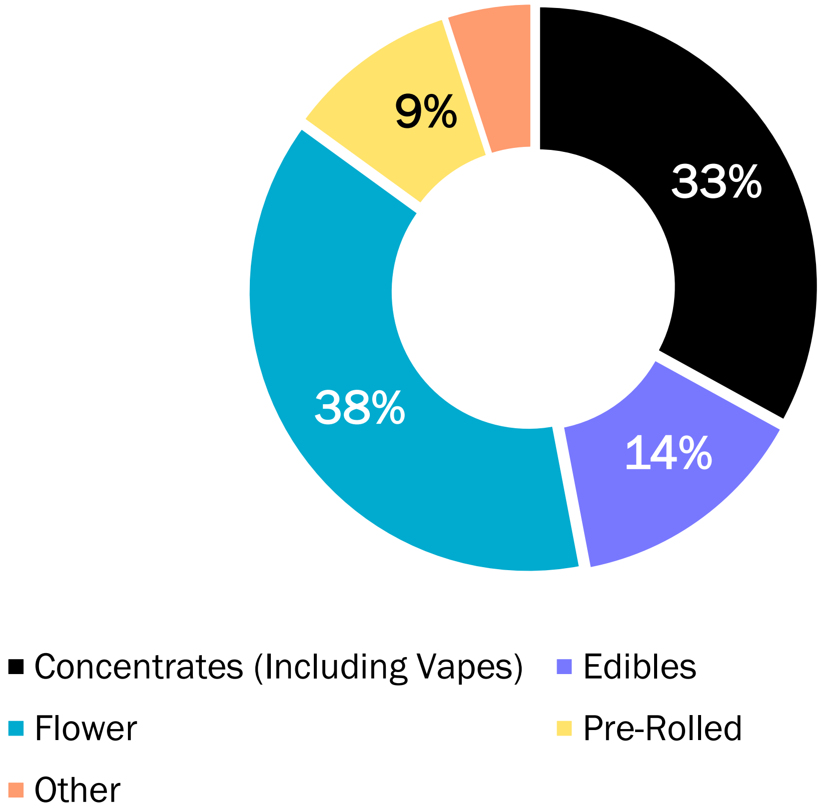
**Cannabis Consumers Span:**

- Generations
- Gender
- Socio & Economic Backgrounds
- Motivations
- Need States
- Benefits
- Premium / Luxury / Economy

# HOW TO ENTER CANNABIS MARKETS THE “RIGHT” WAY: PRODUCT AND PRICING

# CATEGORIES: WHAT FORMATS ARE WINNING?

## Dollar Share by Category Q1 2022




**+11%** Concentrates (including Vapes)

**+13%** Edibles

**-5%** Flower

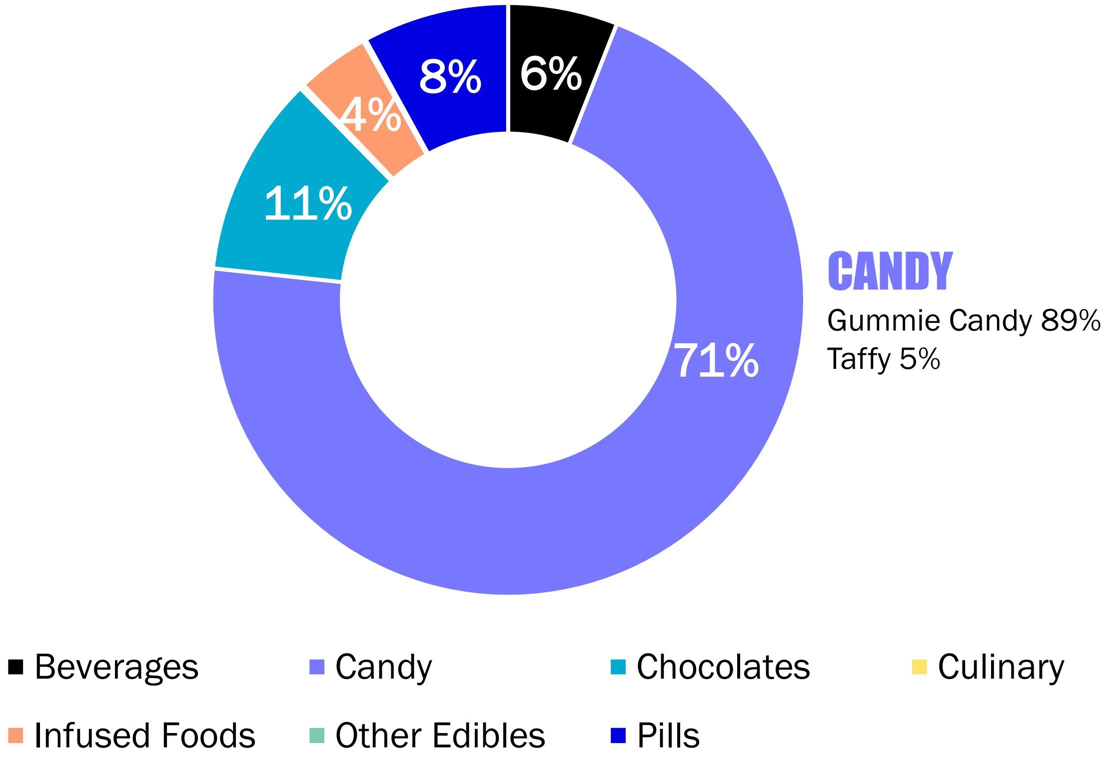
**+19%** Pre-Rolled

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

# US EDIBLES DOMINATED BY CANDY, DRIVEN BY GUMMIES

Dollar Sales Spend Edibles Category




**+30%**

2021 Total Edibles $ Growth vs. 2020

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

# 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

BDSA

# HOW TO ENTER CANNABIS MARKETS THE "RIGHT" WAY: COMPETITION

# VERTICAL/RETAILER DOMINANCE

Store brands (unbranded) <u>OR</u> brands associated with a vertically-integrated retailer or MSO have dominance – especially in less-mature markets

## Flower Brand Distribution by Market: Full Year 2021

### Total Flower Sales across AZ, CA, IL, MD, MA, NV, OR: $4.5B

| Market | Size of Market (Indexed to CA) | Total # of Brands | % Sales Branded | % Sales Unbranded (Store Brand, Not Wholesaled) | OF BRANDED: # of Top 5 that are MSO/Vertical Brands |
|---|---|---|---|---|---|
| AZ | 41 | 61 | 51% | 49% | 3 |
| CA | 100 | 536 | 75% | 25% | 1 |
| IL | 46 | 36 | 94% | 6% | 5 |
| MD | 18 | 34 | 90% | 10% | 4 |
| MA | 46 | 56 | 59% | 41% | 5 |
| NV | 31 | 108 | 61% | 39% | 2 |
| OR | 36 | 408 | 52% | 48% | 1 |

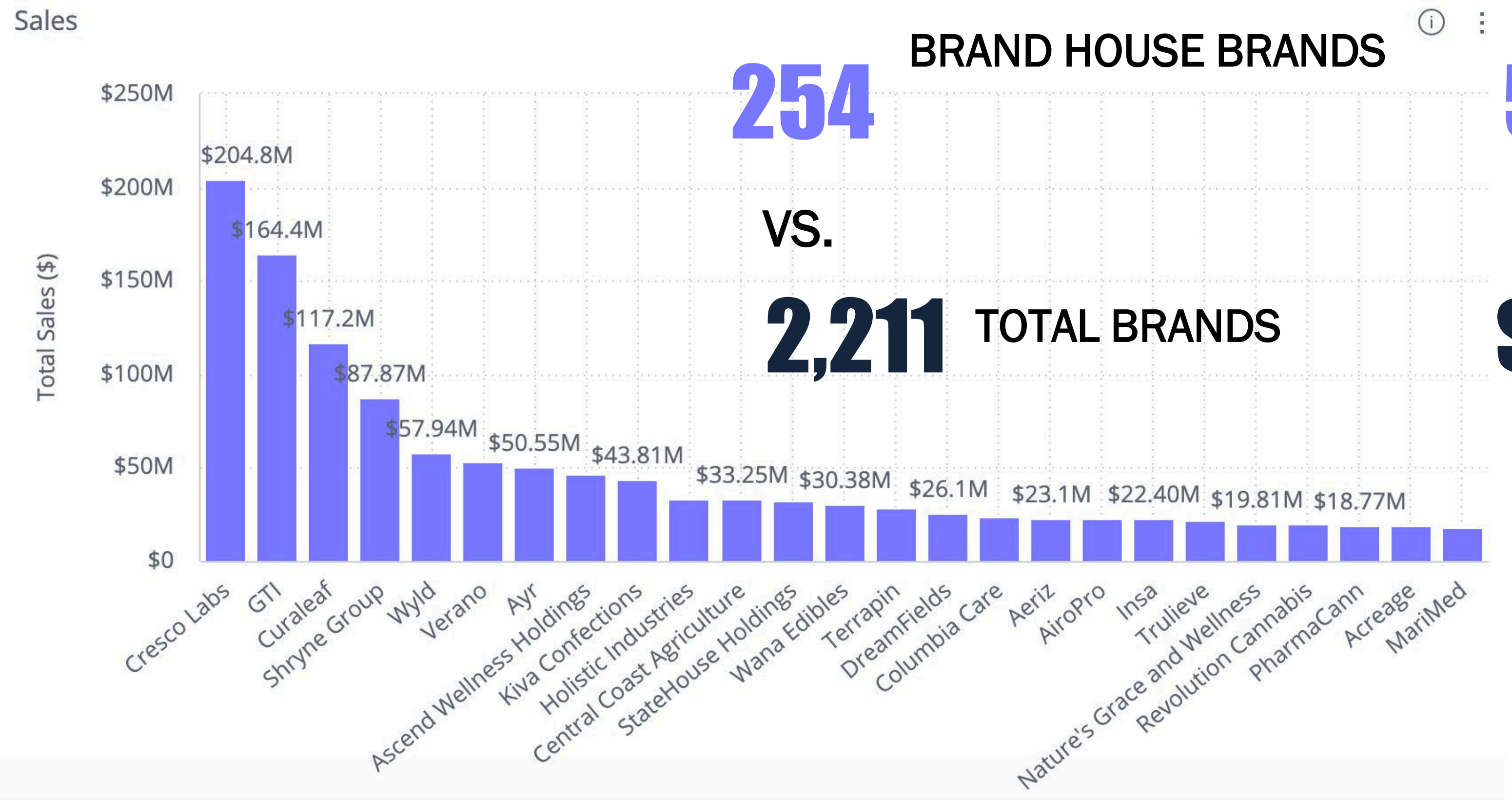
Source: BDSA US Retail Sales Tracking

Younger markets show denser brand concentration given MSO and Vertical presence, while Western (and more mature) markets are more fragmented

# 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)




**254** BRAND HOUSE BRANDS

VS.

**2,211** TOTAL BRANDS

**56%** 2021 YTD SHARE OF SALES (+17% vs. Prev. Period)

**$1.9B** 2022 YTD BRAND HOUSE SALES (Q1 2022)

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

# BDSA TOP MSOS & BRANDS

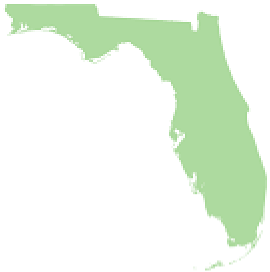
| | Massachusetts* | Pennsylvania* | Missouri |
|---|---|---|---|
| **Brands** | Rythm | Cresco | Proper Cannabis |
| | Cultivate | Rythm | Illicit Gardens |
| | INSA | Grassroots Cannabis | Flora Farms |
| | Sira Naturals | Moxie Seeds and Extracts | Sinse |
| | Ozone Premium Cannabis | Double Bear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

# CANNABIS ROUTE TO MARKET

# OVERSIMPLIFICATION OF COMPLEX LICENSING; DIFFERENT BY STATE

# FORCED VERTICAL INTEGRATION: TRULIEVE IN FLORIDA



Trulieve®

Cultivation → Manufacturer → Distribution → Retail

# MANUFACTURER + DISTRIBUTION: KIVA/KSS IN CALIFORNIA

Cultivation → Manufacturer → Distribution → Retail

# DISTRIBUTOR ONLY: HERBL IN CALIFORNIA

# WINNING BRAND TRENDS

# 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

# FOCUSING ON MOST POPULAR FORM FACTORS: A WINNING BRAND STRATEGY

**Stiiizy**

**+96%**

Vape $ 2020 vs. 2021


STIIIZY

**#1 VAPE BRAND ACROSS BDSA TRACKED MARKETS**

**26% OF VAPE $ Sales in CA for Q1 2022**

Next closest at 12%

Source: BDSA 2020- 2021 Retail Sales Tracking

# ANOTHER WINNING BRAND WITHIN A SMALLER SUBCATEGORY: 1906

## PILLS: 1906

**+39%**

Pills $ 2020 vs. 2021


19
06

## #1 PILL BRAND
## 31% OF PILL $ Sales in Q1 2022

Next closest at 10%

Source: BDSA 2020- 2021 Retail Sales Tracking

# BDSA QUICK HITS: SOLVENTLESS EDIBLES

Some Examples…

710 Labs Hash Rosin Gummi


LEVEL Hashtab


Wana Spectrum


dialed in…gummies


Source: BDSA US Retail Sales Tracking

# BDSA QUICK HITS: MINOR CANNABINOIDS

Some Examples…

WYLD (CBG)


WANA (THCV)

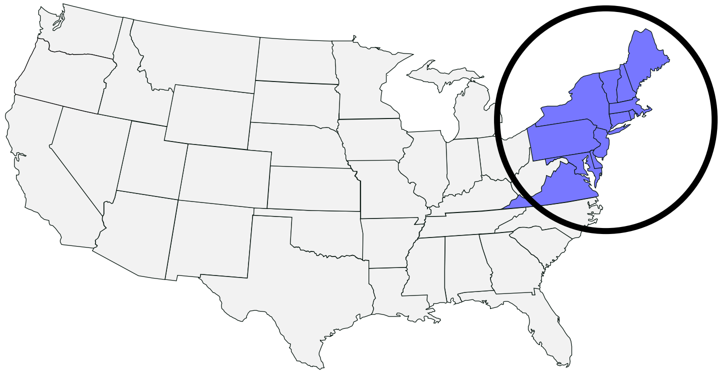

KIVA (CBN)


Source: BDSA US Retail Sales Tracking

# WHAT IS IN STORE FOR 2022?

# 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**

### New Jersey

21+ Population: 6.8 million

Medical sales active: December 2012

Adult-Use Sales active: April 2022

2022 Total Legal Sales Forecast: $800M

2026 Total Legal Sales Forecast: $2.3B

Source: BDSA Market Forecast, Updated February 2022

# WHAT ABOUT FEDERAL LEGALIZATION?

BDSA DOES NOT PREDICT FEDERAL LEGALIZATION BEFORE 2026, BUT AS ACCEPTANCE AND CONSMPTION OF CANNABIS GROW, SMALLER REFORMS ARE MORE LIKELY

such as…

- **The SAFE Banking Act, or similar legislation**
- **Passage of decriminalization at the Federal level**
- **Reforms regarding IRS Code 280E**

Source: BDSA

# 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




50

# 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.

# IT'S A NEW GAME.

# DATA. DEEPER.

https://bdsa.com/contact/




52