THE RISE OF CBD

a (non-psychoactive) guide
to social trend measurement
brought to you by:

PULSAR

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Outline

1 Spotting & contextualizing a rising trend: CBD case study

2 Evaluating trends in a systematic way: a sneak peek of Pulsar's virality model

3 Understanding trend audiences: how audience composition impacts spread

Preview + summary

If you take away anything from this prezo, let it be these 4 key points:

Social data is not the definitive measure of a trend – but it is a highly useful signal to interpret:

interest, attitudes, and in some cases, behavior

Social data is a (more) powerful indicator for when paired:

-Search volume
-Sales data
-Market prices
+more

When 'spotting' & measuring trends, think:

patterns > scale

Audience composition (who's participating) may be just as important to the trajectory of a trend as overall popularity, media coverage, spend, etc.

CANNABIDIOL (CBD)

In this presentation, we're going to focus on our recent trend work around CBD + medical cannabis

However, we'll give a sneak peek of other trend analyses we've done in 2018:
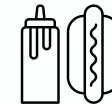
FOOD CULTURE

CRYPTOCURRENCY

MOVIES

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1
Spotting & contextualizing a rising trend:
CBD case study

The brief & study background

A client in the sport/athletics space came to us with a great challenge:

How can we use social media data to better understand: To what degree is CBD interest growing among the public, how relevant and in-demand are sport and pain relief use cases, and who, exactly, is engaging around the topic?
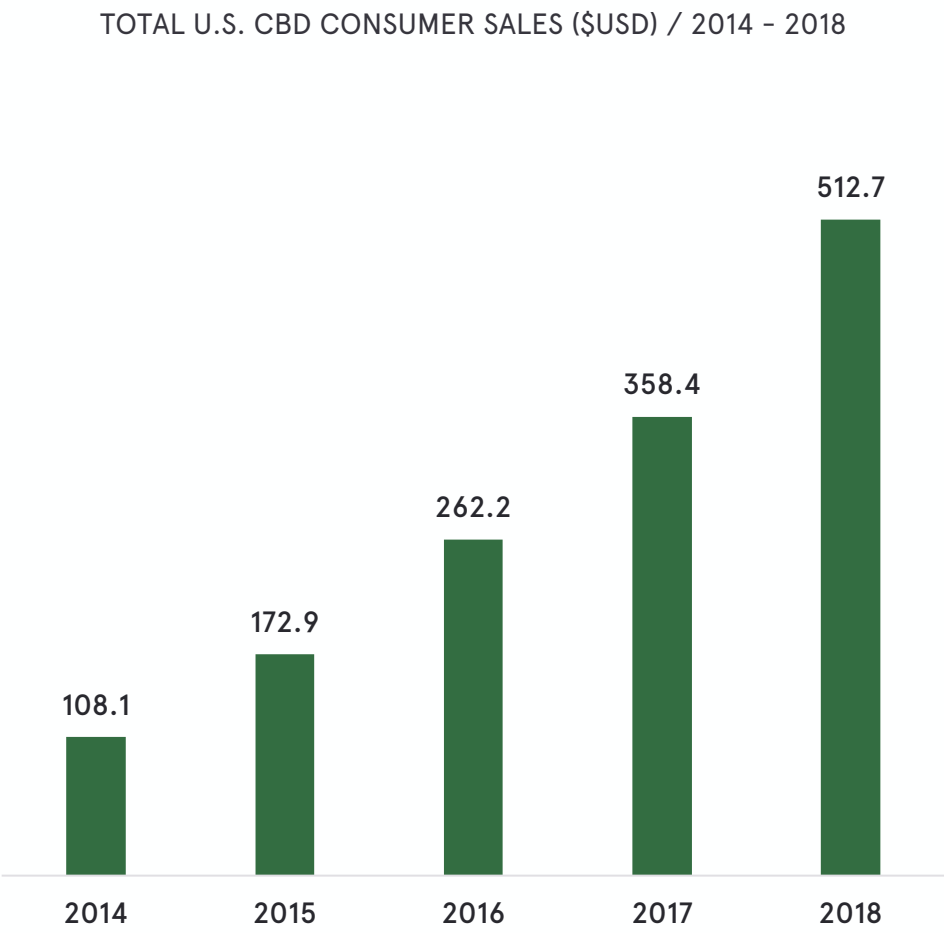
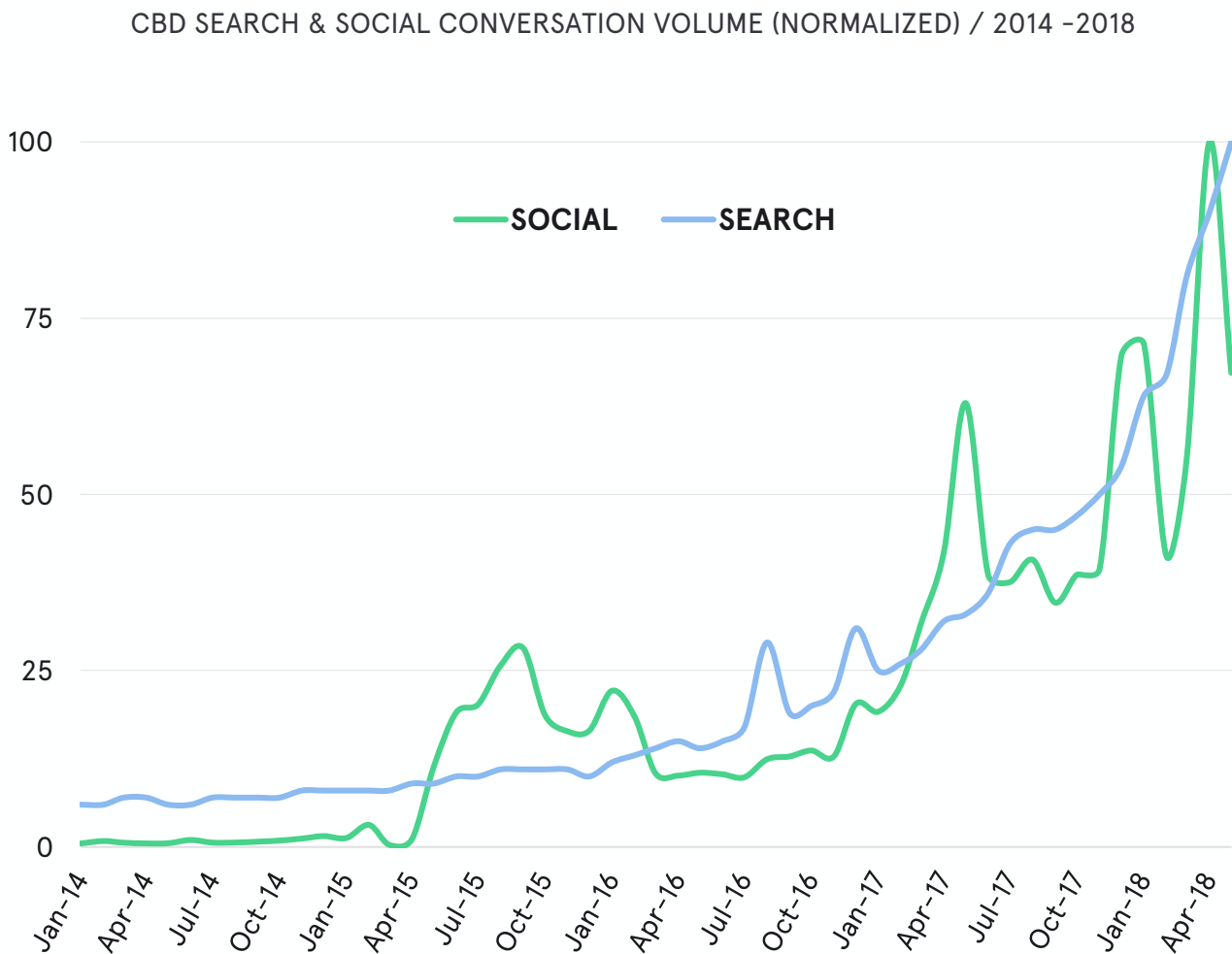We designed a three-part research approach:

1. CBD Trend Measurement

2. CBD Category Listening

3. CBD Audience Mapping

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insight

CBD is outpacing many other wellness trends, as measured by multiple virality metrics; recently, "CBD" buzz has reached levels as high as "meditation" buzz

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Digital & social interest in CBD mirror the upward trajectory in sales

Search & volume around CBD are highly correlated in growth, though social buzz sees more fluctuation throughout the year

CBD SEARCH & SOCIAL CONVERSATION VOLUME (NORMALIZED) / 2014 –2018

TOTAL U.S. CBD CONSUMER SALES ($USD) / 2014 - 2018

Digital & social interest in CBD also maps to investment in the space

*Along with search & social interest, the stock price of Aurora Cannabis tracks a similar upward trend*

CBD SEARCH & SOCIAL CONVERSATION VOLUME VS. AURORA CANNABIS INC. ($ACBFF) STOCK PRICE (NORMALIZED) / 2014 –2018
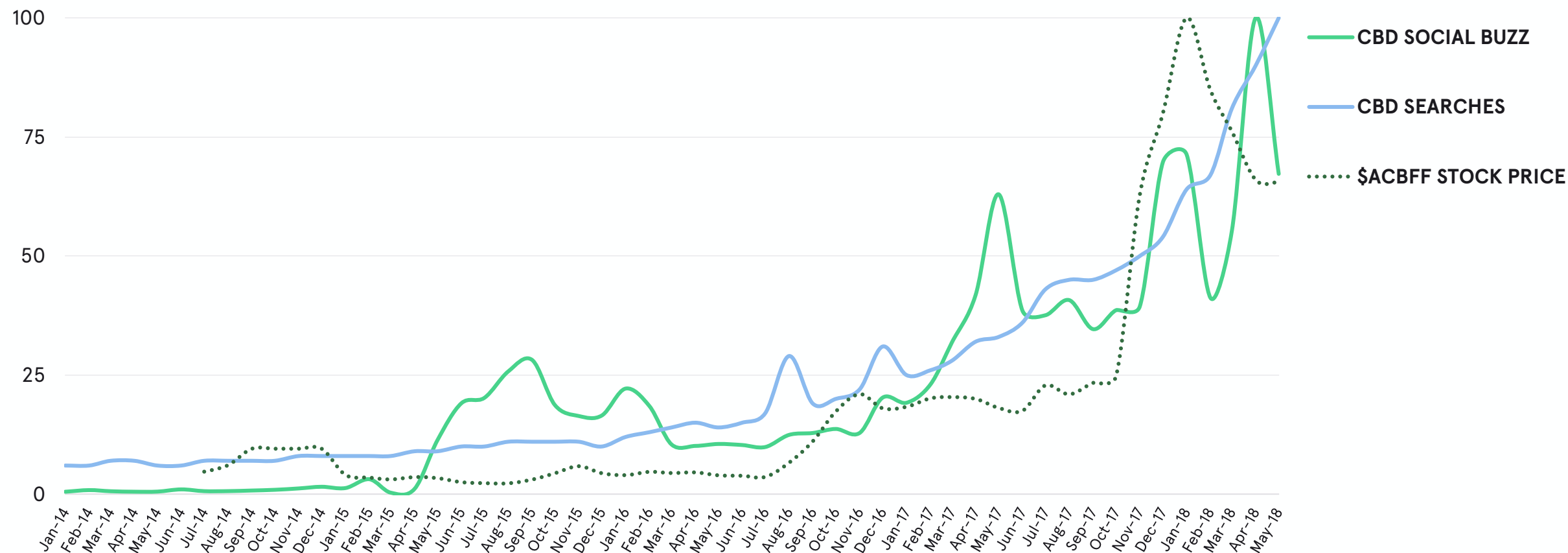
CBD SOCIAL BUZZ

CBD SEARCHES

$ACBFF STOCK PRICE

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Wellness Trends | volume index

In the last year, CBD has closed the gap with 'Meditation' – climbing toward the top of the wellness trend category

WELLNESS TRENDS CONVERSATION VOLUME (TWITTER DATA – 30 DAY MOVING AVG. – NORMALIZED)

insight
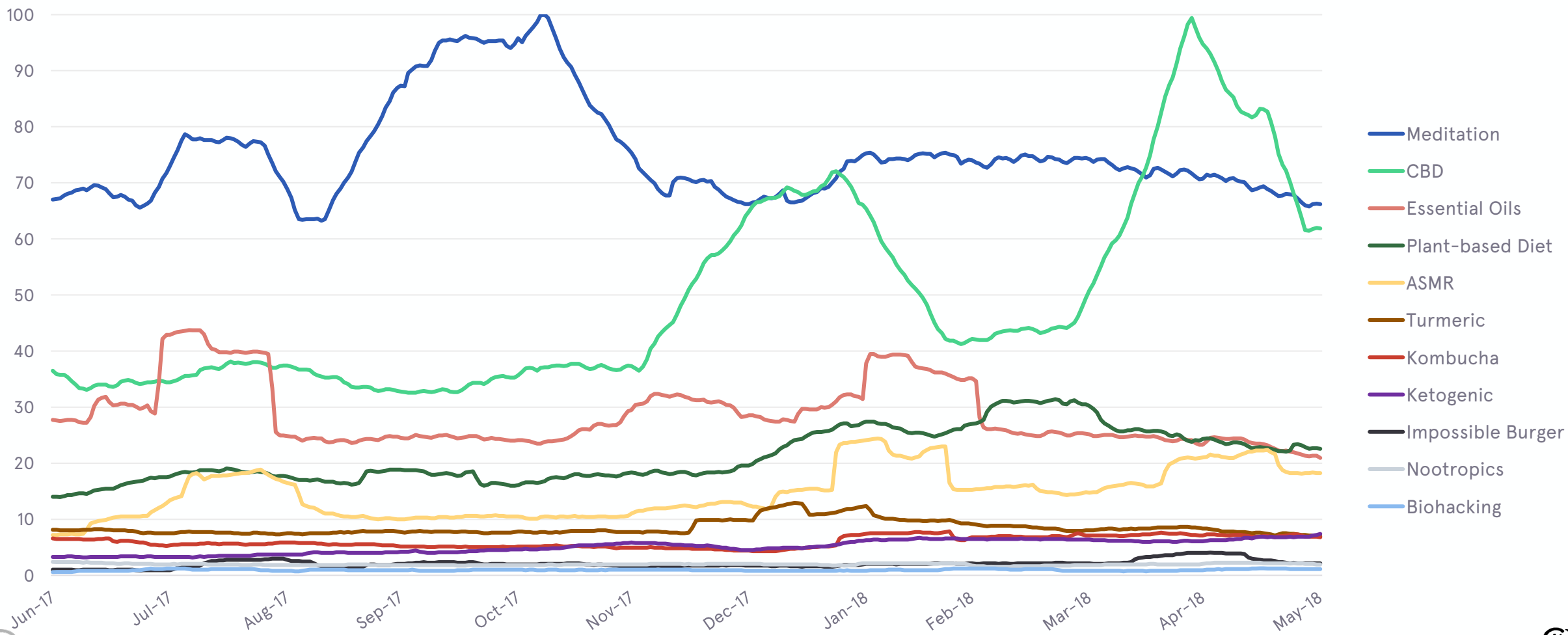
CBD + Sport conversation volume lags other use cases: Pain/Medical and Wellness/Lifestyle; CBD for Pets also proves to be just as popular as CBD for Sport

A majority talk about CBD use for Physical purposes, though Mental health is still a key motivator – especially among the general audience

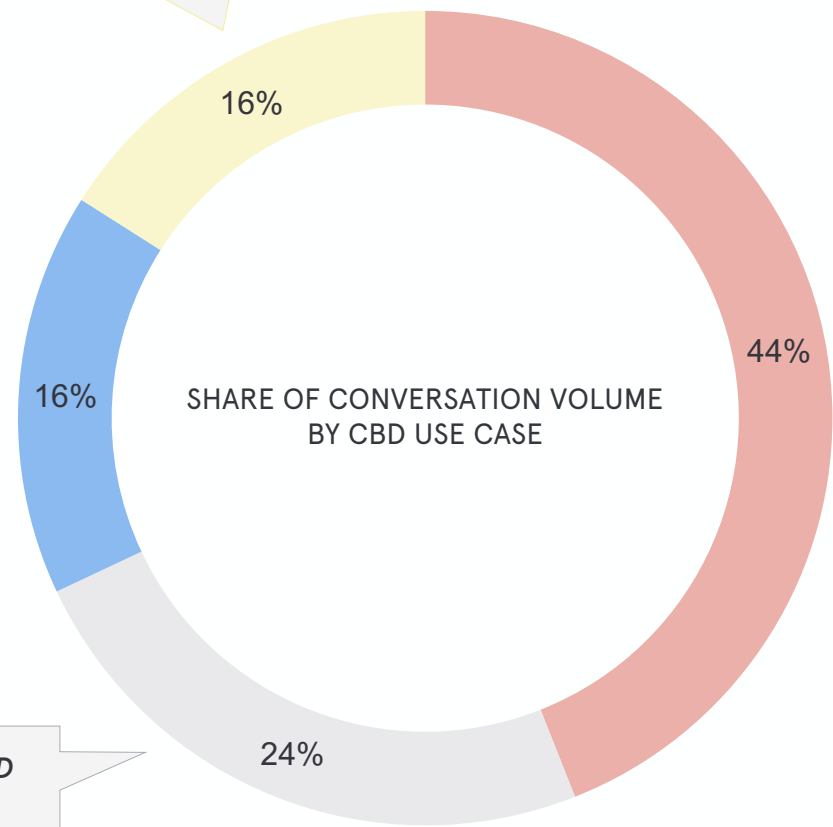# There are 4 main use cases discussed within CBD social conversation

When breaking down the top CBD use cases discussed in social conversation, its medicinal properties come out on top (mentions of topics such as 'medicine' or 'disease')

Interestingly, pet us cases are discussing as frequently as sports - using CBD as a way to calm down anxious or ill-behaved animals.

If you been wondering about cbd for your pet, I can tell you that in under a month, my boy is like a new dog. He's calm and relaxed and a joy to be around. Stuff works folks! 👍

Thank you to @plantlifecbd for providing me recovery capsules for my fight in February... CBD can help athletes and others who work out

CBD is seriously the best medicine like sure it may not cure everything but it sure does help with a lot

Boyfriend needed for CBD lotion back and foot massages

Pain & Medical
Wellness/Lifestyle
Sports
Pets

SHARE OF CONVERSATION VOLUME
BY CBD USE CASE

44%

24%

16%

16%

Football, Yoga, and Contact Sports are the top sports mentioned within CBD discussion

SHARE OF CONVERSATION VOLUME FOR THE TOP 15 SPORTS MENTIONED ALONGSIDE CBD / DEC 2017 – MAY 2018

Sport	Share
American Football	19%
Yoga	18%
Boxing/MMA	14%
Swimming	11%
Golf	10%
Basketball	6%
Tennis	5%
Skiing/Snowboarding	4%
Soccer	4%
Running	4%
Baseball	2%
Hockey	2%
Weight Lifting	1%
Gymnastics	1%
Volleyball	0.4%
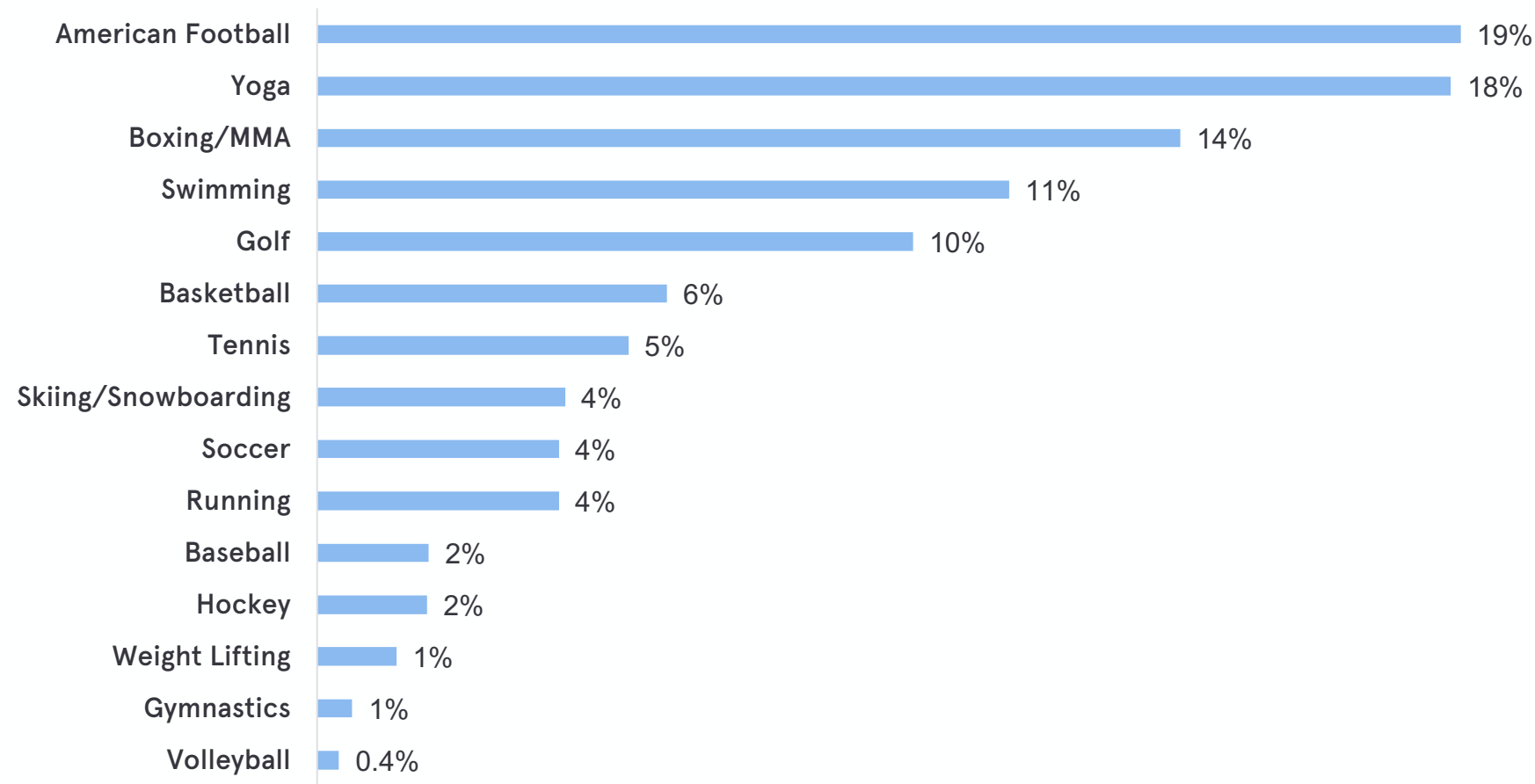
72%

of all volume around specific sports is generated by the top 5 sports: American Football, Yoga, Boxing/MMA, Swimming, Golf

4 out of 5

of the top sports mentioned in CBD conversation are individual sports (not team sports)

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Across audiences, Oil is the most recognized format

Sports discussion sees a relatively high share of mentions around Drinks & Topicals

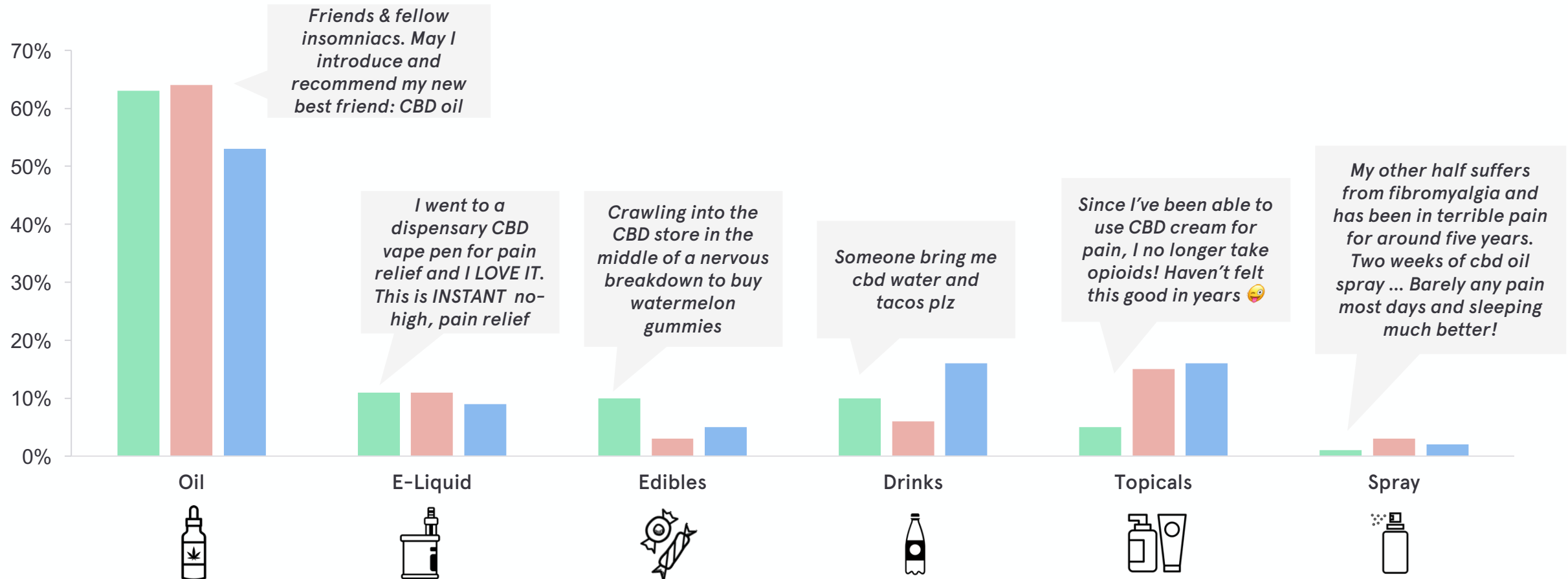PRODUCT FORMAT SHARE OF CONVERSATION VOLUME BY SEGMENT / DEC 2017 – MAY 2018

GENERAL   PAIN & MEDICAL   SPORT

> Friends & fellow insomniacs. May I introduce and recommend my new best friend: CBD oil

> I went to a dispensary CBD vape pen for pain relief and I LOVE IT. This is INSTANT no-high, pain relief

> Crawling into the CBD store in the middle of a nervous breakdown to buy watermelon gummies

> Someone bring me cbd water and tacos plz

> Since I've been able to use CBD cream for pain, I no longer take opioids! Haven't felt this good in years 🤪

> My other half suffers from fibromyalgia and has been in terrible pain for around five years. Two weeks of cbd oil spray ... Barely any pain most days and sleeping much better!

Oil   E-Liquid   Edibles   Drinks   Topicals   Spray

A majority talk about CBD use for Physical purposes, though Mental health is still a key motivator – especially among the general audience
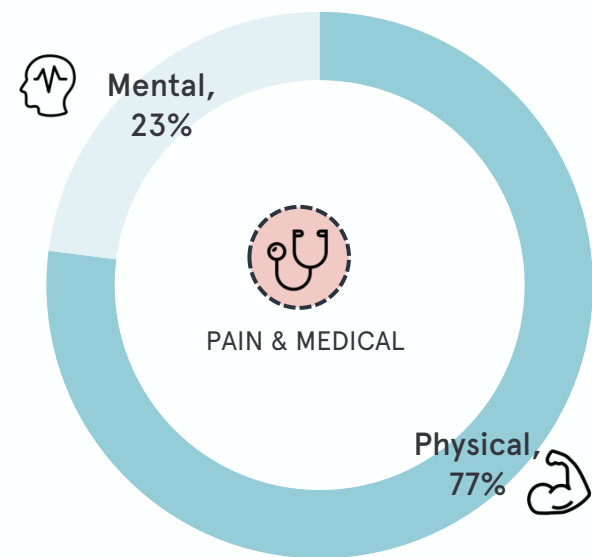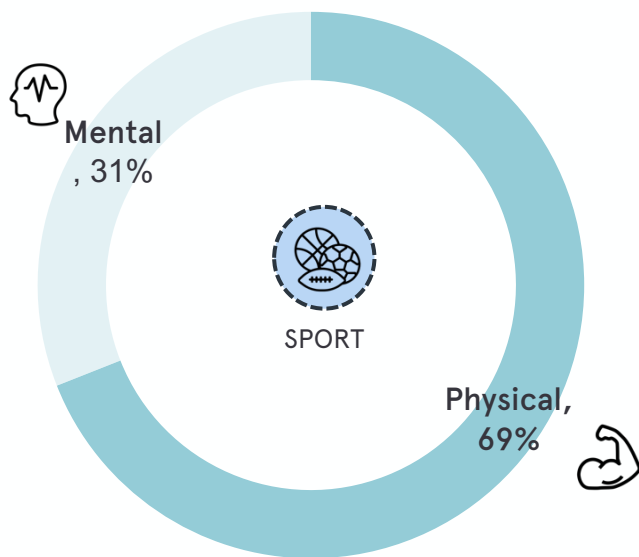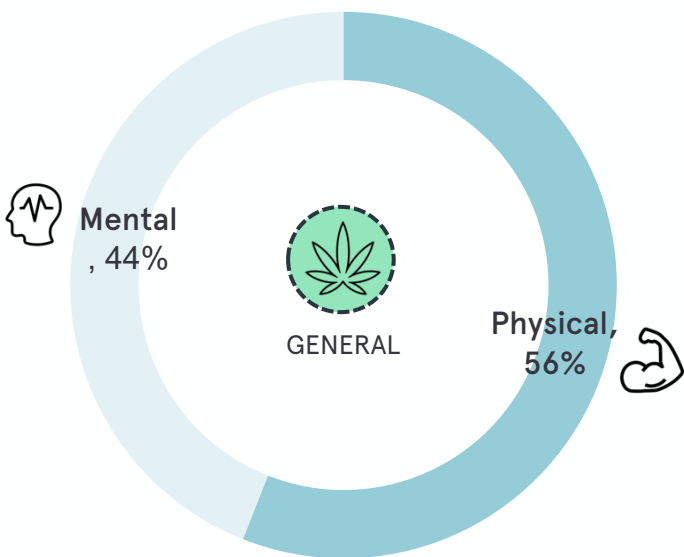
SHARE OF CONVERSATION VOLUME RELATED TO CBD USE FOR PHYSICAL VS. MENTAL HEALTH / DEC 2017 – MAY 2018

Physical health: CBD + ache, injury, soreness, etc.

Mental health: CBD + anxiety, depression, stress, etc.

Mental, 44%

Physical, 56%

GENERAL

Mental, 31%

Physical, 69%

SPORT

Mental, 23%

Physical, 77%

PAIN & MEDICAL

2

Evaluating trends in a systematic way:

a sneak peek of Pulsar's virality model

CBD isn't a one-off trend. We've developed a methodology for understanding just how viral a trend can be
– and crucially, whether it will last

Here we'll look at:

- Associated trends in the wellness space
- The metrics to understand virality
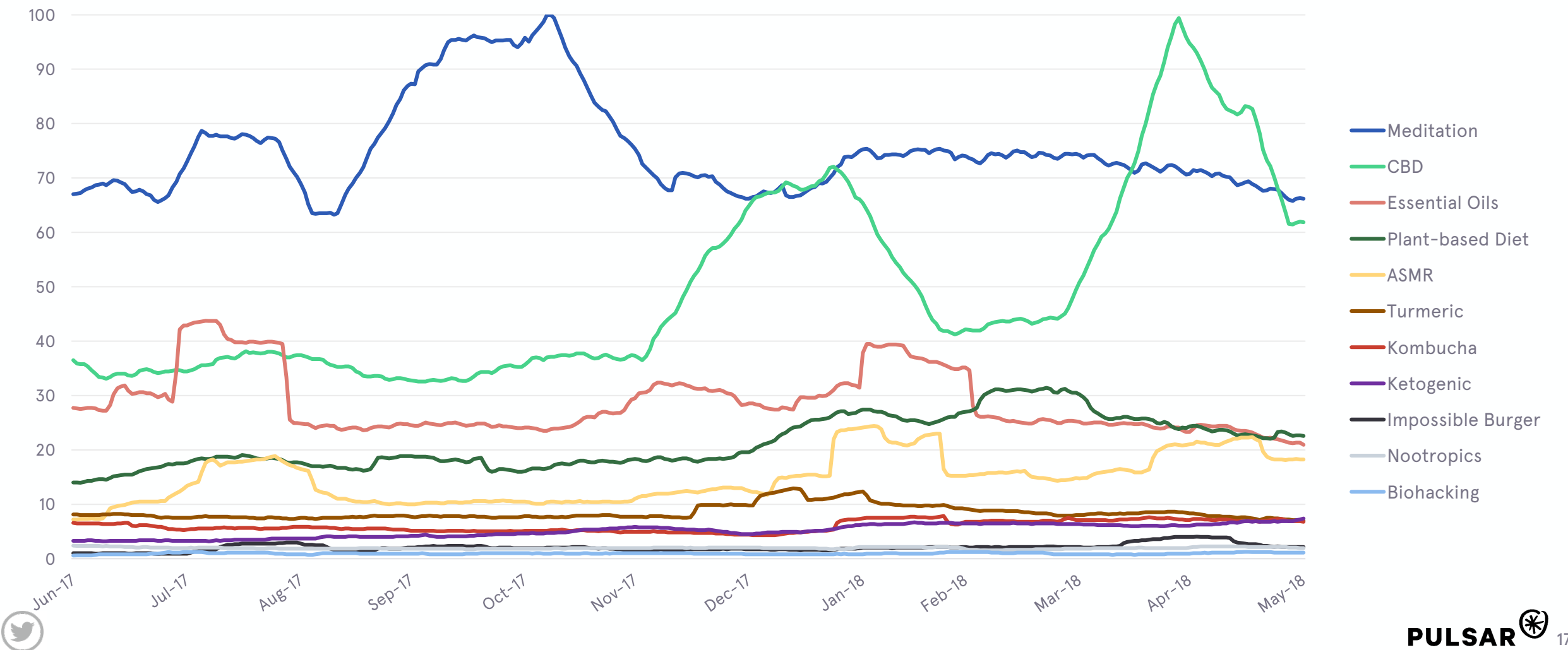- How CBD measures up (as a trend)

Wellness Trends | volume index

In the last year, CBD has closed the gap with 'Meditation' – climbing toward the top of the wellness trend category

WELLNESS TRENDS CONVERSATION VOLUME (TWITTER DATA – 30 DAY MOVING AVG. – NORMALIZED)

Legend:
- Meditation
- CBD
- Essential Oils
- Plant-based Diet
- ASMR
- Turmeric
- Kombucha
- Ketogenic
- Impossible Burger
- Nootropics
- Biohacking

Beyond simple volumes, we measure trends and virality using a set of six key metrics:

How much overall volume has this trend generated in the past year?	How much has this trend's popularity grown from a year ago?	How much buzz can this trend drive in a short period of time?	Is this trend generally stable and consistent, or highly variable?	To what extent does this trend maintain high volumes over time?	How much momentum does this trend have as of late?
↓	↓	↓	↓	↓	↓
Annual Volume	**YoY Volume**	**Velocity**	**Volatility**	**Sustainability**	**Growth Rate**

Wellness Trends | virality metrics

	Category high	Category runner-up	Category low

	Annual Volume	YoY Volume	Velocity	Volatility	Sustainability	Growth Rate
Cannabis	2,790,395	29.25%	991.6	21.80%	365	13.78%
Meditation	1,462,130	14.97%	285.3	15.41%	365	-1.30%
CBD	970,291	134.08%	307.0	15.84%	365	69.36%
Essential Oils	553,587	-2.74%	573.0	48.59%	365	-24.53
Plant-based	414,060	78.34%	157.3	21.95%	361	61.06%
ASMR	285,156	127.76%	477.2	68.41%	150	151.08%
Turmeric	164,792	-0.43%	104.4	30.56%	12	-14.25%
Kombucha	118,495	27.55%	90.5	45.74%	3	2.75%
Ketogenic	101,091	107.76%	25.6	22.02%	3	124.25%
Impossible Burger	40,195	151.14%	40.4	74.97%	2	108.06%
Nootropics	38,630	11.09%	16.1	33.45%	0	-19.70%
Biohacking	18,277	57.89%	9.8	79.09%	0	88.79%

→ *CBD sees the second-highest YoY growth in buzz, across all wellness trends*

→ *ASMR growth is fueled by its ascendance as a top YouTube genre – ASMR content is now pushing into role playing, food, etc.*

→ *Strong growth in diet trends – and as 'smart' protein replacement brands start to hit shelves & restaurants, popularity is climbing*

Wellness Trends | mapping trends to Pulsar's virality model

The strong year-on year and recent increase in CBD buzz, plus its low volatility, make it a 'Steady Grower'

HEATING UP 🔥

ASMR

Ketogenic diet

Impossible Burger

CBD

Plant-based diet

Biohacking

Kombucha

STREAKY ← → **STEADY**

Meditation

Nootropics

Turmeric

Essential Oils

COOLING DOWN ❄️

Trends tend to fall into one of two models, defined by the following characteristics

STEADY	STREAKY
Lower volatility	Higher volatility
Lower velocity	Higher velocity
Lower shareability	Higher shareability
Longer lifespan	Shorter lifespan

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High growth in social conversation year-on-year and in recent months, as well as low volatility, suggest that CBD is a "Steady Grower" trend

CBD conversation volume is climbing faster than the broader Cannabis conversation

3
**Understanding trend audiences:
how audience composition impacts spread**

Every trend has an audience, and for grower trends like CBD, it's important to understand who that audience are and what motivates them

Here we'll look at:

- The sub-communities amongst the CBD audience
- Personas of the sub-communities

Our CBD category listening focused on 3 audiences:

GENERAL

Who?

The total audience who participate in CBD social conversation across US & UK

Sample Keywords

#cbd #cannabidiol #cannabinoid

SPORT
(subset of the general audience)

Who?

People who talk about CBD in the context of their athletic routine or recovery process

Sample Keywords

#fitness #sport #enhanceperformance #athlete

PAIN & MEDICAL
(subset of the general audience)

Who?

People who talk about CBD in the context of pain management, relief, or medical use

Sample Keywords

#painrelief #mmj #chronicpain #medicalmarijuana

Relative to the Pain audience, the Sport audience sees more niche sub-communities and less overlap with the general CBD audience – suggesting a need for a customized targeting & messaging strategy around CBD + Sport
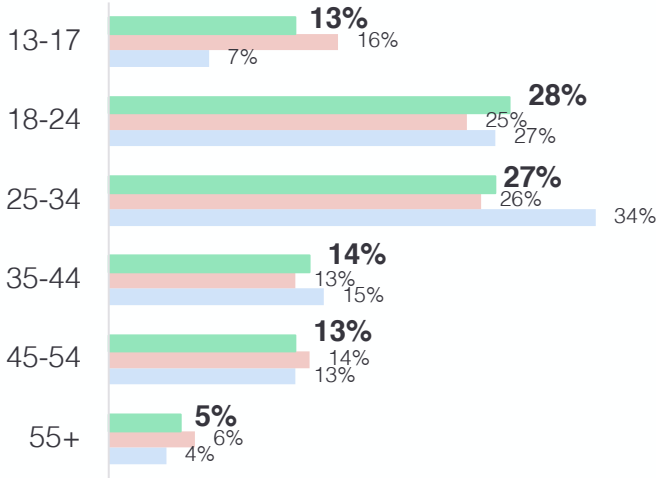
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CBD Social Audience Overview

The Sport audience skews slightly older and more male than both the General & Pain audiences
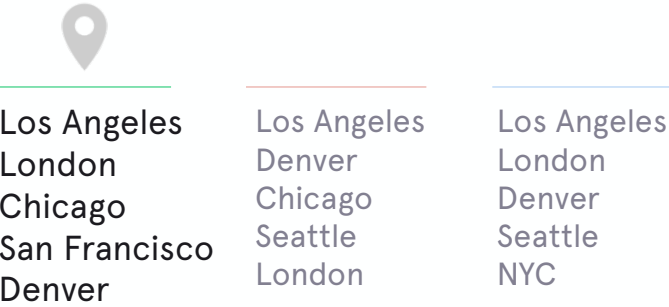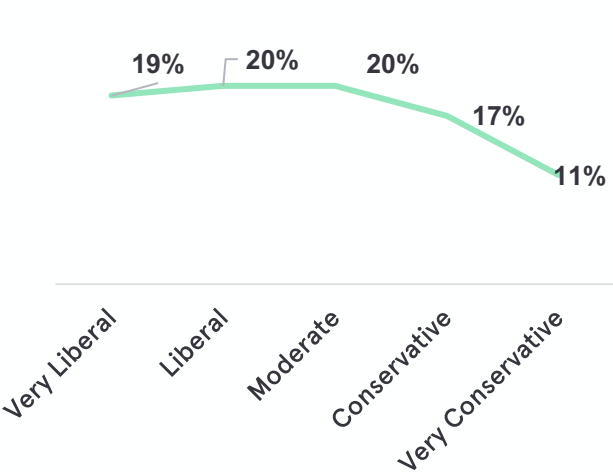
GENERAL   PAIN & MEDICAL   SPORT

GENDER

53%	47%
46%	54%
60%	40%

AGE

Age	General	Pain	Sport
13-17	**13%**	16%	7%
18-24	**28%**	25%	27%
25-34	**27%**	26%	34%
35-44	**14%**	13%	15%
45-54	**13%**	14%	13%
55+	**5%**	6%	4%

TOP BIO KEYWORDS

Cannabis	Love	Hemp
Health	Cannabis	Health
Music	Health	Business
Business	Mom	Sports
Medical	Music	Fitness
World	Pain	Natural
Food	Wife	UFC

TOP CITIES

Los Angeles	Los Angeles	Los Angeles
London	Denver	London
Chicago	Chicago	Denver
San Francisco	Seattle	Seattle
Denver	London	NYC

POLITICAL AFFINITY (General only)

Very Liberal	Liberal	Moderate	Conservative	Very Conservative
19%	20%	20%	17%	11%

SOCIAL PLATFORMS (General indexed vs. gen. pop.)

| Medium	4.53x	YouTube	1.80x
Twitter	4.36x	Snapchat	1.48x
SoundCloud	3.02x	Facebook	1.41x
LinkedIn	2.34x		
Pinterest	2.04x		
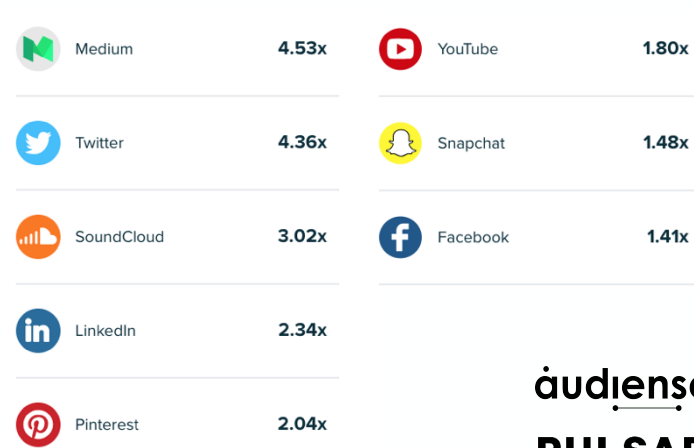
Among the General audience, we find 7 top sub-communities

Audience Mapping: the graph shows the user groups within the audience that have common affinities & characteristics

- Size of the segments = proportional to the # of members in the segment
- Lines represent interconnections between different members
- Size of each circle (nodes) = the # of interconnections the user has
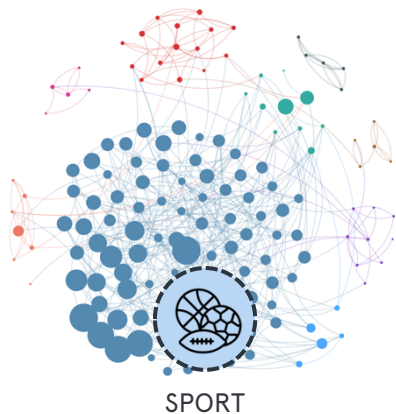
Cannabis Culturists, 18%
Young adults who participate in the wider cannabis community as a hobby

Wellness Seekers, 13%
Searching for motivation, health tips, products to improve the everyday

Political Liberals, 4%
Twenty-somethings incorporating CBD use into their left-wing beliefs

Nutritionistas, 4%
Majority women, seeking the benefits of CBD for nutrition & fitness goals

Artists, 2%
Twenty-somethings engaging in creative industries and self-expression

Green Activists, 2%
Young men involved in the culture of naturalism and 'green ethics'

Political Conservatives, 2%
Young men engaging against CBD as part of their right-wing political beliefs
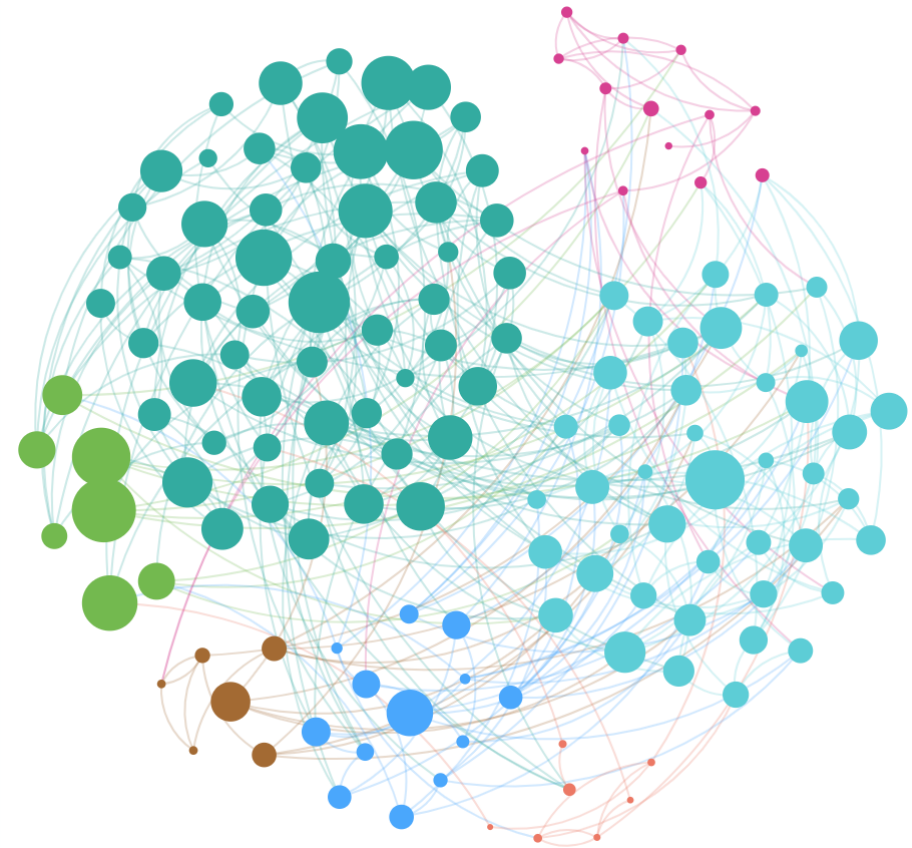
Unique to the General audience

audiense
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27

Cannabis Culturists and politically-minded communities are common across audiences

Legalization Advocates are unique to the Sports audience, suggesting sport is a driver of advocacy for mainstream acceptance

SPORT   GENERAL   PAIN & MEDICAL

SPORT	GENERAL	PAIN & MEDICAL
Cannabis Culturists, 5%	**Cannabis Culturists, 18%**	**Cannabis Culturists, 20%**
	Wellness Seekers, 13%	**Mommy Wellness Seekers, 16%**
Political Liberals, 2%	**Political Liberals, 4%**	**Political Liberals, 10%**
Nutritionistas, 2%	**Nutritionistas, 4%**	
	Artists, 2%	
	Green Activists, 2%	
Political Conservatives, 2%	**Political Conservatives, 2%**	**Political Conservatives, 3%**

Sport audience unique segments:

Legalization Advocates, 38%

MMA Fans, 7%

Fitness Addicts, 4%

The Kanye Crowd, 3%

Academics, 2%

Pain audience unique segments:

Mindful MMJers, 5%

Disabled Healers, 3%

News Junkies, 2%

Gamers & Stoners, 2%

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CBD General Audience Personas

Cannabis Culturists, 18%

Young adults who participate in the wider cannabis community as a hobby
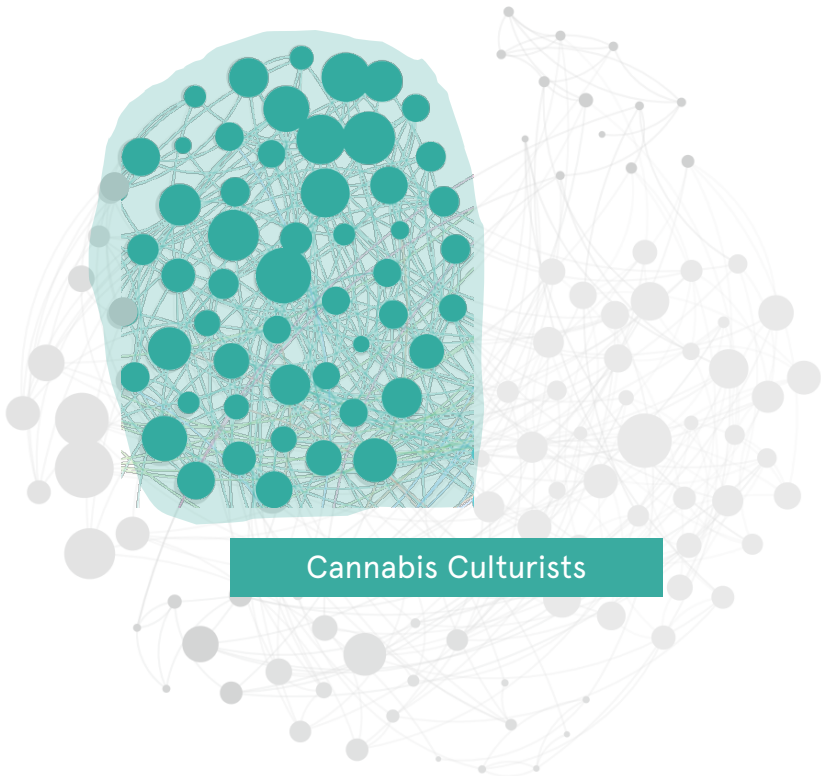
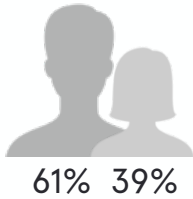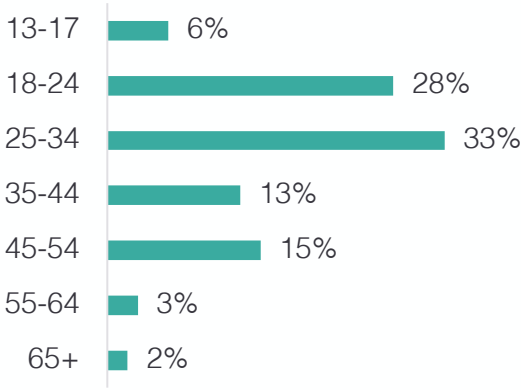Cannabis Culturists

Top Bio Keywords:

"Products"
"Industry"
"High"
"Medical Cannabis"
"Recreational"
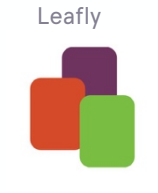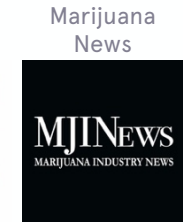
Gender

61%   39%

Age

Age	
13-17	6%
18-24	28%
25-34	33%
35-44	13%
45-54	15%
55-64	3%
65+	2%

Key affinities

DISTINCT INFLUENCERS / TRUSTED BRANDS

High Times · Norml · Cannabis Culture · Marijuana News (MJINews) · Leafly

TOP INFLUENCERS / TRUSTED BRANDS

The Cannabist · Cannabis News · MME · 420 Magazine · Weed Maps

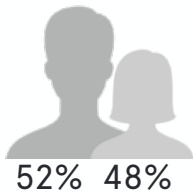# CBD General Audience Personas

Wellness Seekers, 13%

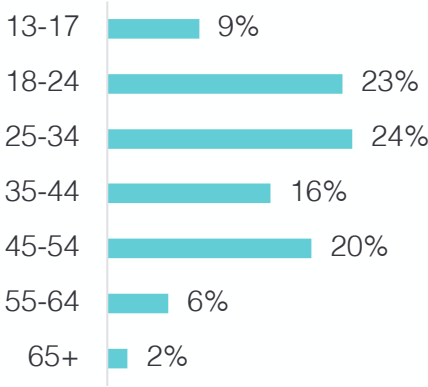*Searching for motivation and health tips & products for their everyday lives*

Wellness Seekers

Top Bio Keywords:

"Health"
"Wellness"
"Lifestyle"
"Fitness"
"Help"

Gender

52% 48%

Age

Age	
13-17	9%
18-24	23%
25-34	24%
35-44	16%
45-54	20%
55-64	6%
65+	2%

Key affinities

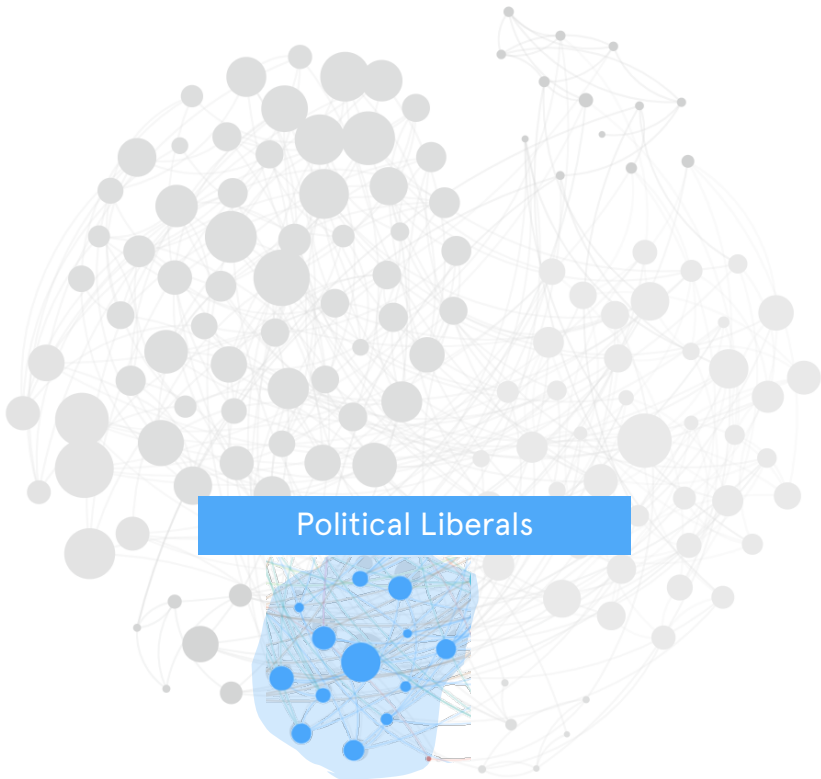|	Huffpo	Harjinder Singh Kukreja	Dr. Joyce	Better Living	Aaron Lee
DISTINCT INFLUENCERS / TRUSTED BRANDS					
TOP INFLUENCERS / TRUSTED BRANDS	Nasa	Dalai Lama	Ellen DeGeneres	YouTube	Oprah Winfrey

audiense: PULSAR   30
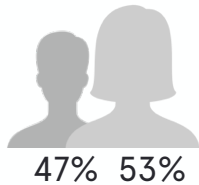
CBD General Audience Personas

Political Liberals, 4%

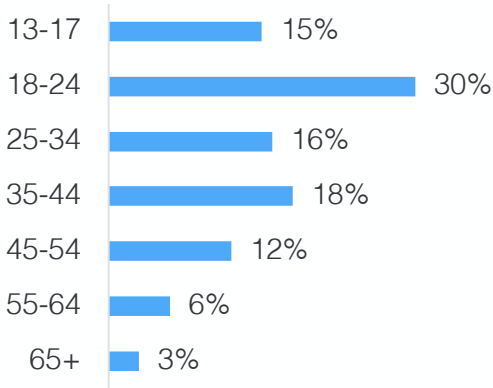*Twenty-somethings incorporating CBD use into their left-wing beliefs*

Top Bio Keywords:

"Resist"
"Politics"
"Resistance"
"Liberal"
"Writer"

Gender

47% 53%

Age

Age	%
13-17	15%
18-24	30%
25-34	16%
35-44	18%
45-54	12%
55-64	6%
65+	3%

Political Liberals

Key affinities

DISTINCT INFLUENCERS / TRUSTED BRANDS

Tea Pain | Ted Lieu | Emma Gonzalez | Rachel Maddow | Ed Krassenstein

TOP INFLUENCERS / TRUSTED BRANDS

Barack Obama | Hilary Clinton | Stephen Colbert | Elizabeth Warren | Association Press

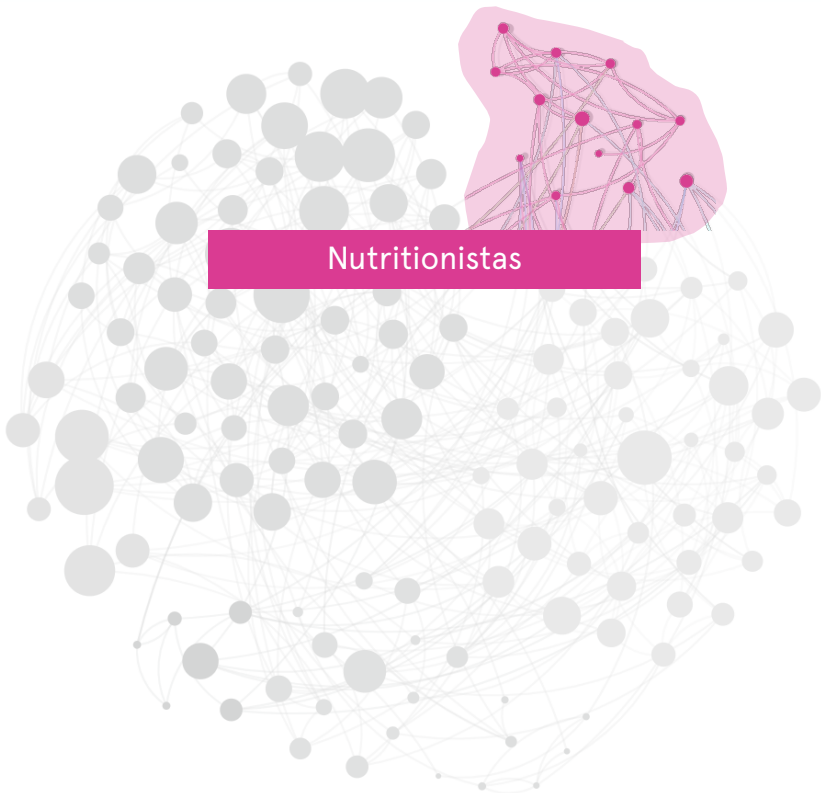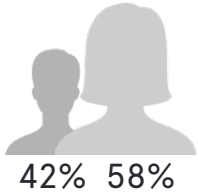# CBD General Audience Personas

Nutritionistas, 4%

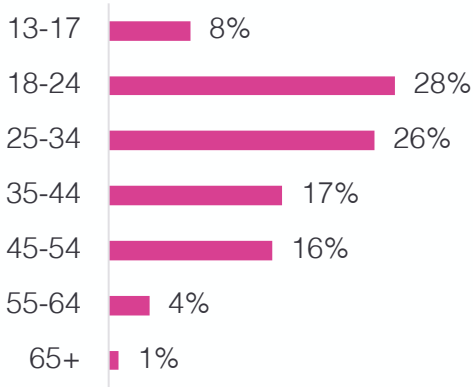*Majority women, seeking the benefits of CBD for nutrition & fitness goals*

Nutritionistas

Top Bio Keywords:
- "Nutrition"
- "Fitness"
- "Health"
- "Products"
- "Natural"

Gender

42%   58%

Age

Age	%
13-17	8%
18-24	28%
25-34	26%
35-44	17%
45-54	16%
55-64	4%
65+	1%

Key affinities

DISTINCT INFLUENCERS / TRUSTED BRANDS

Dr. Oz | Dr. Joseph Mercola | Andrew Weil M.D | Whole Foods | Mind Body Green

TOP INFLUENCERS / TRUSTED BRANDS

Barack Obama | Oprah Winfrey | Ellen DeGeneres | New York Times | Women's Health

Thank you
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more information