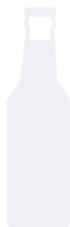


CANNABIS-INFUSED PRODUCTS REPORT SERIES

NAVIGATING THE COMPLEXITIES TO MARKET



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letter from the **PUBLISHER**

I AM PROUD TO PRESENT New Frontier Data's latest industry release, and the second volume of our Cannabis-Infused Products Report Series, Navigating the Complexities to Market. This report examines the latest key developments in the space as the market continues to grow and cannabis infused products consumers develop awareness, preferences, and purchasing habits.

With most Americans now aware of CBD, and a strong majority having had positive conversations about the compound, new entrants into the sector should find highly engaged target audiences who favorably view CBD. Furthermore, there is a growing pool of potential consumers who are increasingly open to trying cannabis-infused products even as new regulations, technology, research, and consumers continue to exert their respective influences. This report dives into how consumer preferences for safe, high-quality products that can deliver a consistent experience, will inexorably pressure producers to meet improving standards.

New Frontier Data proprietary research shows that among all cannabis products sold in the United States from January to September 2020, infused products (accounting for 12% of sales) were the third-most popular category, behind flower (41%) and vape products (29%). In legal channels, 2020 U.S. sales of high-THC marijuana-infused products were meanwhile tracking toward sales of approximately \$2.2

billion, marking a 37% increase over 2019. That growth has been primarily fueled by overall market expansion, but also by a slight uptick through expanded selections among product types.

Approximately one among six (16%) of U.S. adults reported having purchased a CBD product at least once, suggesting a nascent but fast-growing market. With 27% of purchasers reporting having only first heard about CBD within the previous year, New Frontier Data estimates retail sales of marijuana-infused products alone to exceed \$21.5 billion between 2020 and 2025.

As is the case with all of our reports available through New Frontier Data's online intelligence portal Equio™, we trust that readers will benefit from this fact-based assessment, our unbiased insights, and the actionable intelligence provided to continue to succeed in the global legal cannabis arena.

New Frontier Data's mission is to elevate the discussion around the legal cannabis industry globally by providing unbiased, vetted information intended for educating stakeholders to make informed decisions. We provide individuals and organizations operating, researching, or investing amid the cannabis industry with unparalleled access to actionable industry intelligence and insights, helping each to leverage the power of knowledge to succeed in a fast-paced and dynamic market.

Please do enjoy our newest report, produced in collaboration with SōRSE Technology, as you shape your strategy and devise your action plan within the cannabis industry!



Giadha A. DeCarcner
Founder and CEO,
New Frontier Data



Strength in Knowledge®



executive SUMMARY

AS MARKETS AROUND the world legalize cannabis, demand for cannabis-infused products is experiencing explosive growth, fueled by surging consumer interest and technological advancements which present unbounded opportunity for new product innovation. With the THC-infused product sector alone representing a \$21.5 billion market opportunity between 2020 and 2025, entrepreneurs and innovators are rushing to explore how best to capitalize and compete in the fast-growing sector.

While building an infused product bears many similarities to developing other ingestible consumer packaged goods (CPG), there are many factors to consider which are unique to building a cannabinoid-infused product. Not only are the rules governing infused products more stringent than those governing conventional foods and drinks, but there are myriad considerations when mixing psychoactive and nonpsychoactive cannabis-derived compounds with other ingredients based on intended effects. Furthermore, packaging, distribution, and even marketing decisions must be aligned with both the governing laws and the target audiences to ensure operational compliance and effective consumer engagement.

This report explores key considerations about the product development roadmap, from creating a concept to developing a market-ready product, including:

Ways in which cannabinoid regulations influence regional, national, and international infused-product opportunities for CBD- and THC-based products. As both U.S. and European regulators deliberate the respective regulations that will govern the sector, their decisions made in the next 24 months will shape the market opportunity for years to come.

The importance of intimately understanding one's target customer in building the concept. As the market matures, companies that pursue a one-size-fits-all approach will be least effectively positioned to compete against products based on an expansive understanding of who their ideal customer is, and how best to engage them.

Defining the product's use case is central to building an effective formulation strategy. Products aimed at athletes in the middle of training will require an entirely different strategy than for those aimed at consumers seeking social experiences with a substitute for alcohol. A well-defined use case ensures a formulation strategy that is fully aligned with the consumer's desired experience.

Imperatives for testing in an environment when many consumers want to know exactly what is in the products, and ascertaining where the cannabinoid and non-cannabinoid profiles reside, are important elements for influencing purchase decisions.



How distribution strategies and shelf-life expectations should inform packaging decisions. That critically includes how the packaging used can impact the shelf stability of the product, and ultimately the consumer experience.

Navigating applicable restrictions on marketing and advertising cannabis-based products, including ways by which to use personal connections and social networks to build shares of mind and wallet.

The imperative of continued innovation as technological advancements break new ground in product innovation, and how evolving consumer preferences present new opportunities for product development and enhanced consumer experiences.

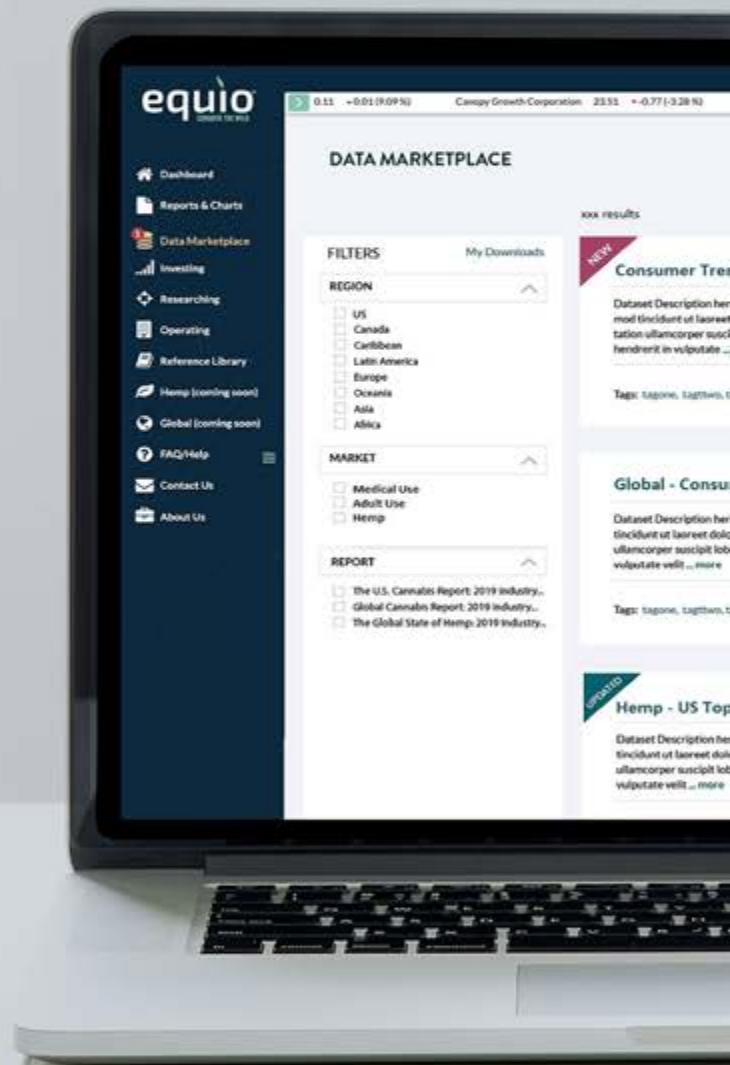
As legalization continues to globally expand market opportunities for infused products, companies which build focused, strategically targeted product plans with deep understanding of their target customers and clearly defined path-to-market plans will be best positioned to capitalize on the rapidly evolving and fast-growing market opportunities.



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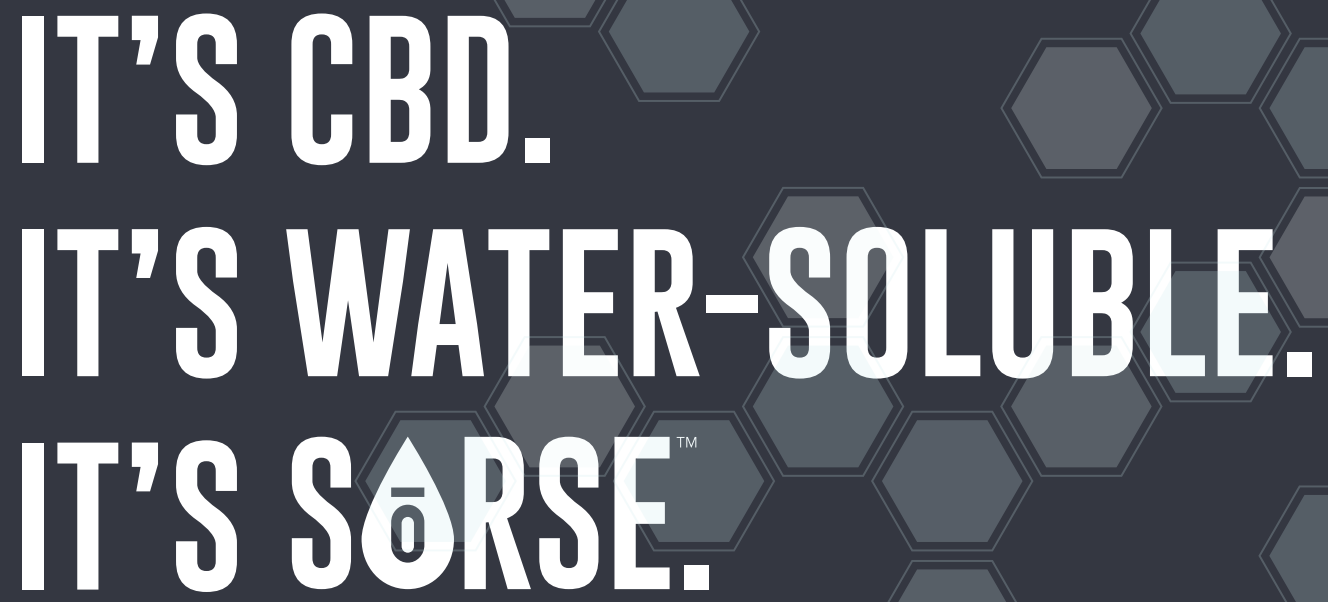
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ABOUT

New Frontier Data

NEW FRONTIER DATA is an independent, technology-driven analytics company specializing in the global cannabis industry. It offers vetted data, actionable business intelligence and risk management solutions for investors, operators, researchers, and policy makers. New Frontier Data's reports and data have been cited in more than 85 countries worldwide to inform industry leaders. Founded in 2014, New Frontier Data is headquartered in Washington, D.C., with additional offices in Denver, CO, and London, U.K.

New Frontier Data does not take a position on the merits of cannabis legalization. Rather, its mission and mandate are to inform cannabis-related policy and business decisions through rigorous, issue-neutral, and comprehensive analysis of the legal cannabis industry worldwide.

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

Mission

New Frontier Data's mission is to elevate the discussion around the legal cannabis industry worldwide by providing unbiased and vetted information intended to educate stakeholders to make informed decisions.

Core Values

- ✓ Honesty
- ✓ Respect
- ✓ Understanding

Vision

Be the Global Big Data & Intelligence Authority for the Cannabis Industry.

Commitment to Our Clients

The trusted one-stop shop for actionable cannabis 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.



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Methodology

New Frontier Data used two primary data sources to assess consumer trends for cannabis-infused products.

First, point-of-sale data from 30 legal jurisdictions in the United States was leveraged to determine purchasing patterns, popular products, and sales trends by product type. Secondly, New Frontier Data designed and conducted an online survey to assess cannabis consumer attitudes, perceptions, and use in the United States. Survey themes included cannabis use, purchasing behavior, decision influencers, product preferences and expenditures, beliefs about cannabis, and attitudes toward policy.

Anecdotes and insights regarding the current production environment and the commercial future of cannabis-infused products is sourced from New Frontier Data's network of industry stakeholders and team of cannabis research experts.

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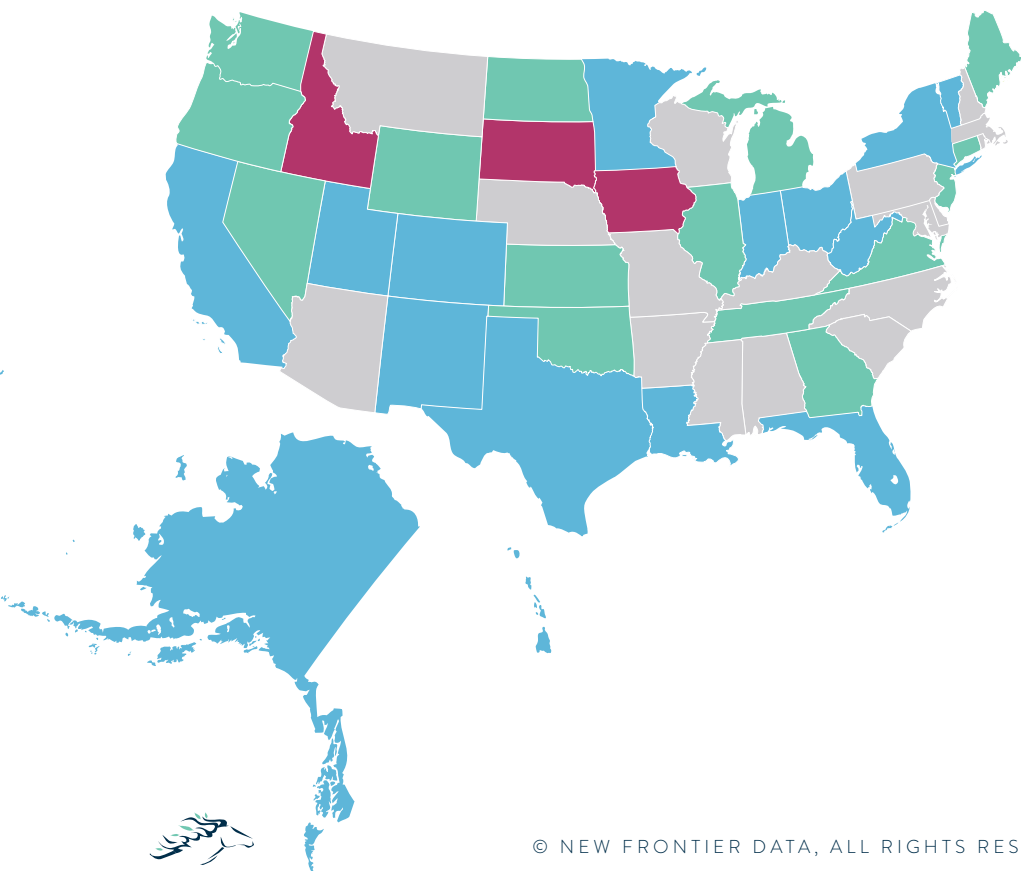
INTRODUCTION

WITH U.S. CBD SPENDING estimated to be nearly \$15 billion in 2020, and legal marijuana spending nearing \$20 billion, companies and entrepreneurs are rushing to explore ways in which to capitalize on these explosively growing markets. Technological advancements in cannabinoid formulations have made it possible to infuse the compounds in the spectrum of consumer-packaged goods, creating exciting new product opportunities. But facing a complex and

evolving regulatory landscape, a consumer base with immature preferences, and an increasingly competitive product landscape, entrants into the sector must carefully consider what products to bring to the market, and how.

This report explores some of the key issues that product manufacturers need to understand when bringing a cannabinoid-infused product to market (including the regulatory and consumer environments), and highlights some of the critical opportunities for innovation, differentiation, and sustainable competitive positioning.

CBD LEGALITY BY STATE



Legal:

Connecticut, Georgia, Illinois, Kansas, Maine, Michigan, Nevada, New Jersey, North Dakota, Oklahoma, Oregon, Tennessee, Virginia, Washington and Wyoming.

Illegal:

Idaho, Iowa and South Dakota.

Legal (with specific labeling requirements):

Alaska, California (bill pending), Colorado, Florida, Hawaii (bill pending), Indiana, Louisiana, Minnesota, New Mexico, New York (pending implementation), Ohio, Texas (pending implementation), Utah, Vermont and West Virginia.

Other:

The remaining 18 states either have nothing on the books or have numerous CBD regulations on the books.

THC-infused edibles are legal in states where medical or adult use cannabis is legal, but the licensing requirements to be a cannabis-infused product manufacturer vary widely, requiring different levels of investment for licensing and operationalization of the infused-product business. THC-infused products can only be sold in licensed dispensaries, which also narrows the distribution options relative to hemp-derived CBD products which can be sold through conventional retail channels.

The national rules governing CBD are still in flux, with a decision pending from the FDA about whether CBD-infused food will be permitted in the general commercial market. The FDA's decision will be enormously consequential in shaping the trajectory of the infused-product market.

Some states explicitly allow CBD-infused foods even as federal regulation of the products remains unresolved. These states offer the most certain regulatory path to operationalization; however, it remains to be seen how a federal ruling on CBD might impact states' decisions regarding their regulations.

Internationally, the Global Market too Remains in Flux

The decision by the European Community to designate CBD-infused foods as "Novel Food," thereby requiring that all products be proven to be safe for human consumption before they can be sold, has dramatically raised the cost of deploying a CBD infused product, striking a blow to the market's growth at a critical time in its emergence.

In Canada, where recreational cannabis was legalized in 2018, the infused product market has been slow to emerge. There was a blanket prohibition on cannabis infused foods for the first year of market operations, and even following the advent of Cannabis 2.0 when the market opened to all products, provincial regulations have varied in their permitting of the sale of infused foods.

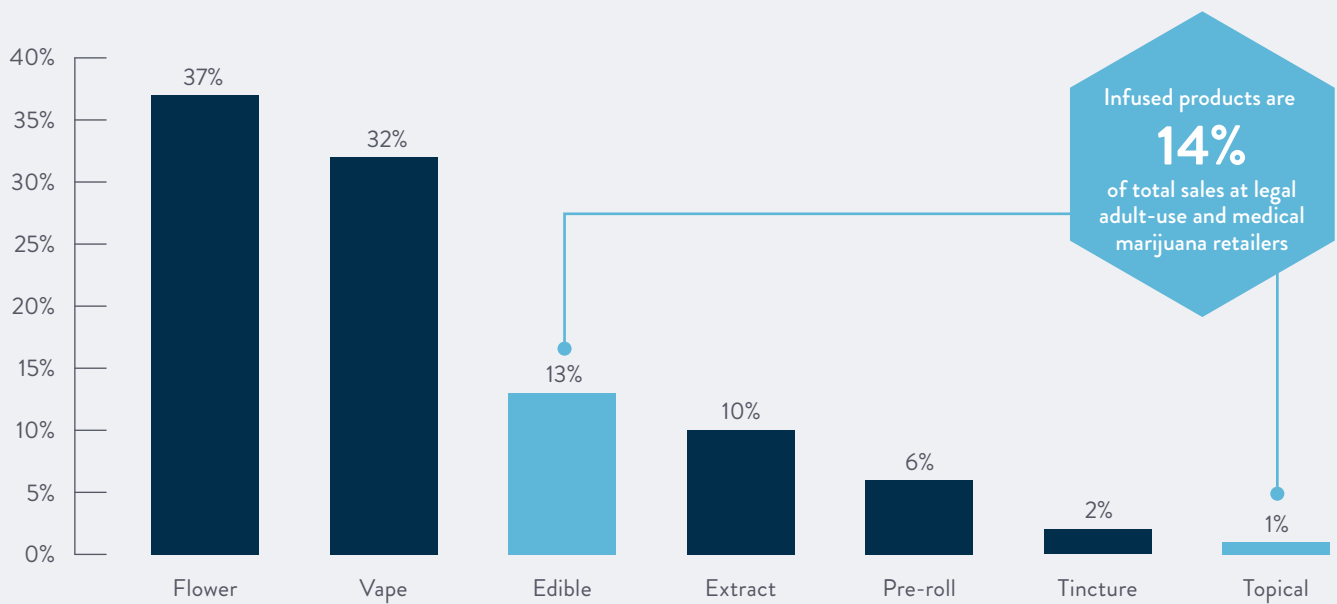
While we anticipate that the market will ultimately trend to allow cannabinoid-infused products, the regulations affected over the next two-three years will have immensely consequential influence over the growth and evolution of the market for years to come.

It therefore critical that product manufacturers understand and prepare for the changes in regulatory environment that could impact their operations and have contingencies in place for policy shifts that could slow or accelerate the market opportunity for their products. For companies with ambitions to expand internationally, it is critical to understand the current regulations in each market, as well as how the political and regulatory climate might influence the market opportunity over the medium term.



Regulations permitting, infused products present a high-growth opportunity.

U.S. SALES OF MARIJUANA PRODUCTS Q1 2020



2019

\$14.4 billion

TOTAL U.S. LEGAL MARIJUANA SALES

\$2.02 billion

INFUSED PRODUCT LEGAL SALES

2020-2025

\$153.7 billion

EST. U.S. LEGAL MARIJUANA SALES

\$21.5 billion

EST. INFUSED PRODUCT LEGAL SALES

NOTE: These estimates are for legal marijuana products sold in medical and adult-use legal states only. They do not include hemp-derived CBD products.

Source: New Frontier Data



DEFINING YOUR CUSTOMER

is Key to Building an Effective Product Strategy

AS DEMONSTRATED IN New Frontier Data's previous report, [Cannabis-Infused Products: U.S. Consumer Experience & Demand](#); cannabis consumers vary widely in their demographics, product preferences, purchase behaviors, reasons for use, and consumption frequencies. With consumers ranging from those with a strict medical orientation, to those who consume cannabinoids with for general wellness reasons, it is critically important to understand who the target consumer is before beginning a product's concept development.

For example, our 2020 U.S. Consumer CBD Study found that approximately one-fifth of Americans had consumed CBD products, with widely varying reasons for use.

CBD Use

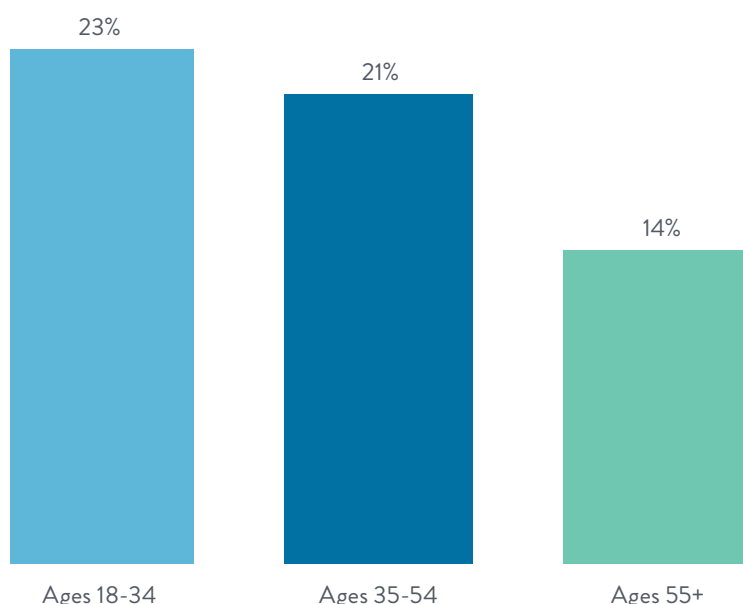
Despite the relatively low penetration rate into the general population, there is a robust, largely positive national discussion happening about CBD.



18%

AMERICANS WHO
HAVE TRIED CBD

EVER CONSUMED CBD BY AGE



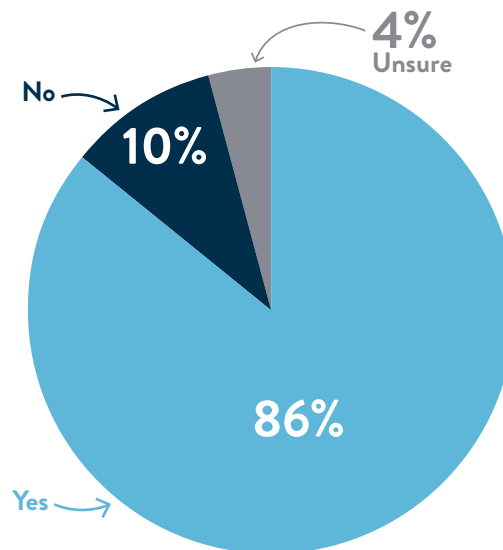
Source: New Frontier Data 2020 U.S. CBD Survey



CBD Awareness & Engagement

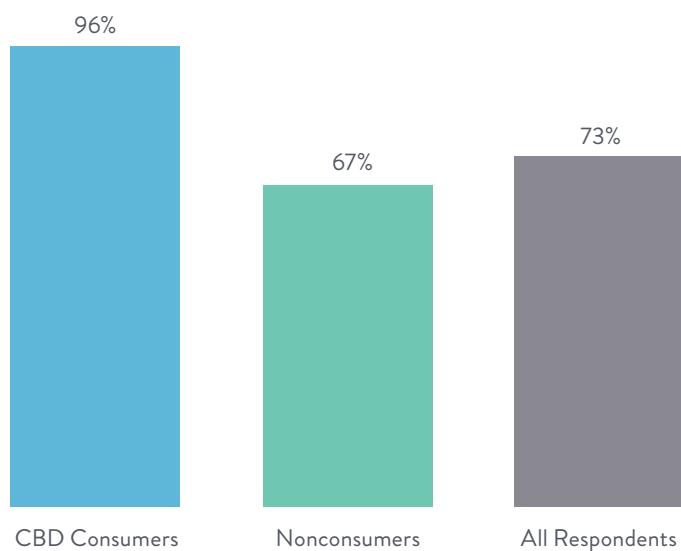
With most Americans now aware of CBD, and a strong majority having had positive conversations about the compound, new entrants into the market should find a highly engaged market who favorably view CBD. Furthermore, there is a growing pool of potential consumers who are increasingly open to trying the products.

HAVE HEARD OF CBD



Source: New Frontier Data 2020 U.S. CBD Survey

HAVE HAD A CONVERSATION ABOUT CBD



66%

VIEWED THEIR
CONVERSATIONS ABOUT
CBD POSITIVELY

87% for Consumers
59% for Nonconsumers

Among those who have heard of CBD.

Source: New Frontier Data 2020 U.S. CBD Survey



Reasons for Using CBD

There are four broad reasons why new product brands should invest in intimately understanding the CBD consumer:

1. The consumer environment is evolving quickly:

What began as a one-size-fits-all environment continues to evolve into a much more fragmented and stratified market. The brands which can identify and effectively target their ideal consumer will be better positioned to compete in the future against the products that are aimed at a general and undefined consumer.

2. In an increasingly competitive market, segmentation enables differentiation.

Having an effective differentiation strategy is also an important way to secure a competitive position in an increasingly competitive market.

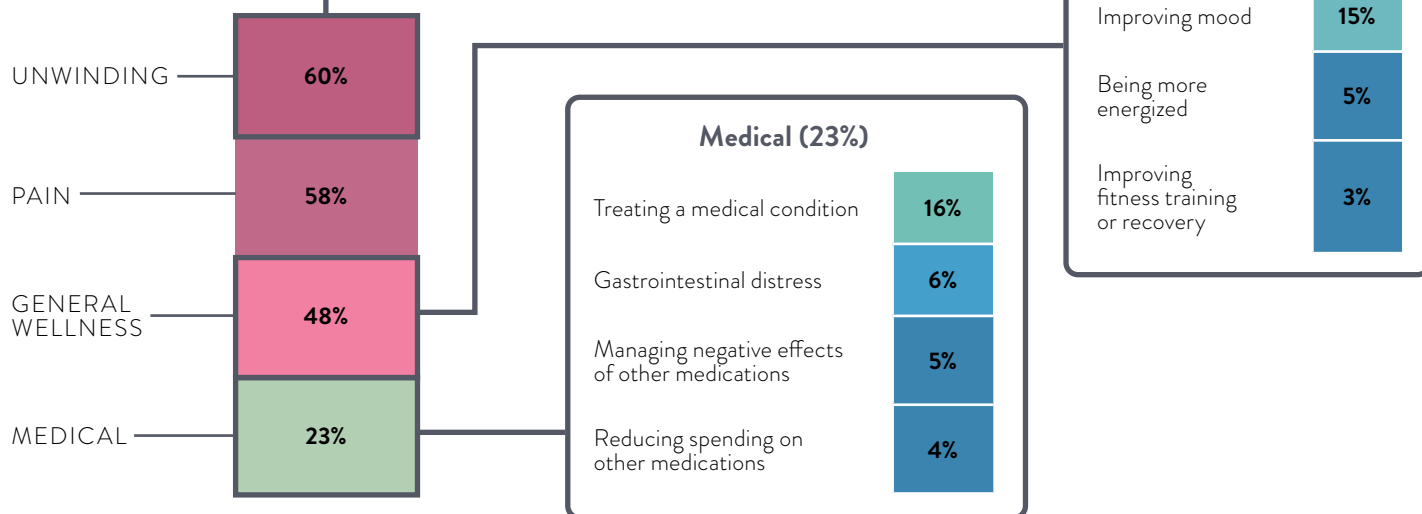
3. Filling the market's voids requires understanding the consumers' need.

Understanding what goals or desired outcomes drive consumers is key to developing products that fill the markets' voids and create products that improve upon the market's existing offerings.

4. Due to the immature market, consumer archetypes continue to evolve:

Even as brands focus in on their target customer groups, it is important to understand that given the nascency of the market, consumers will continue to evolve during the foreseeable future. It is therefore critical to establish a monitoring and consumer feedback process to enable a brand to track the consumers' evolution, and adapt its product and engagement strategies to reflect important changes to the market.

REASONS FOR USING CBD



Among those who have ever used CBD; sums total more than 100% when respondents could select more than one option.

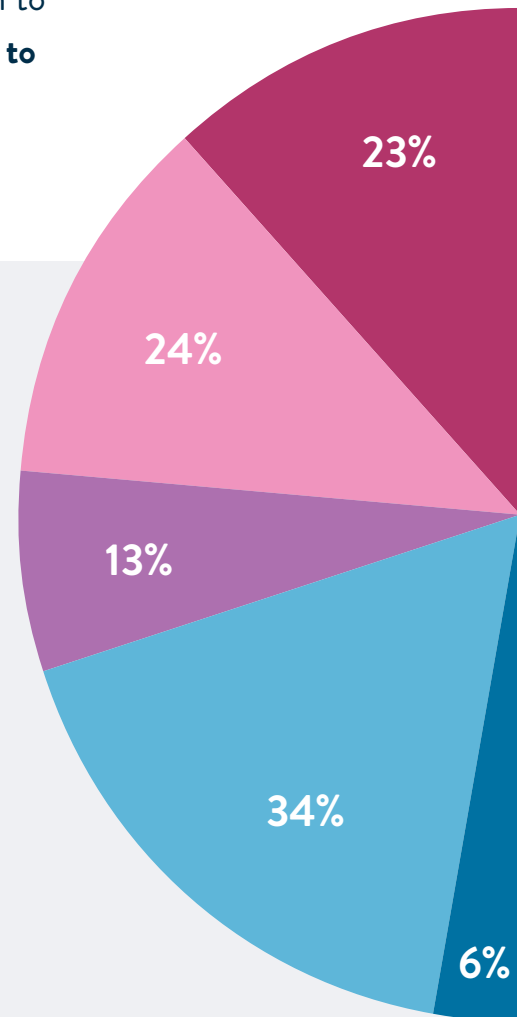
Source: New Frontier Data 2020 U.S. CBD Survey



Based on New Frontier Data's extensive cannabinoid consumer research, we have identified **nine archetypes of THC consumers, and five of CBD consumers**. The archetypes provide a foundation upon which to think about who current and potential current consumers are, and to **identify which consumers are best suited for different use cases**.

NEW FRONTIER DATA'S

Five CBD Consumer Archetypes



AMBIVALENT & EXPERIMENTAL 23% of CBD consumers



Ambivalent & Experimental have never purchased CBD, sourcing instead from personal connections, and many have only ever used CBD once or twice. Of those who have ever consumed CBD, the *Ambivalent & Experimental* are among the least likely to express interest in learning more about CBD and have the least positive impression of CBD. As with consumers in general, unwinding and treating pain are their most common motivations for CBD use. This cohort is divided on whether they are likely to purchase CBD in the near future, with about a third each being likely to purchase, unlikely to purchase, and now knowing.

RECEPTIVE & RESERVED 24% of CBD consumers



Receptive & Reserved are interested in CBD, supportive of its medical applications and accessibility, but are characterized largely by their limited (open) personal connections to other CBD consumers. While most consumers are connected to several other CBD consumers, *Receptive & Reserved* report only knowing one or two friends or family—if any at all—who use CBD. As such, they are the least likely to source CBD from a personal connection or to have been recommended CBD by someone they know. Without social reinforcement, some *Receptive & Reserved* consumers only ever used CBD once or twice before discontinuing use, and others report that their consumption has decreased in the last six months. They typically use CBD for pain and unwinding, and most spend less than \$50 a month on CBD products.

SKEPTICAL & LIMITED 13% of CBD consumers



Skeptical & Limited approach CBD with a bit more trepidation. These consumers generally use CBD to manage pain, consuming on a daily-to-weekly basis as pain arises. While they agree that they have personally experienced benefits from CBD and that the cannabinoid has valid medical uses, they are collectively concerned about its safety and therefore support mandated lab testing. *Skeptical and Limited* are the second highest spenders on CBD, a majority spending less than \$100 on CBD per month but with about 1 in 12 typically spending over \$150.

INTEGRATIVE & CONSISTENT 34% of CBD consumers



Integrative & Consistent consumers are the more moderate, more numerous cousins to the *Exuberant & Intense*. They have an overwhelmingly positive impression of CBD, support its medical efficacy, and enthusiastically share their positive views with their circles. Despite their relative youth, they tend to be more established consumers—with many having first tried CBD over a year ago. In that time, they have used a variety of forms, preferring infused foods and topicals in addition to the classic oil. *Integrative & Consistent* consumers have found their rhythm with CBD, spending less than \$100 a month and largely expecting their consumption to stay the same over the next six months. *Integrative & Consistent* consumers primarily use CBD to unwind.

EXUBERANT & INTENSE 6% of CBD consumers



Exuberant & Intense consumers are characterized by their extreme enthusiasm for and prolific use of CBD. These consumers have cultivated a broad range of experiences—seeking out and enjoying a variety of CBD product forms and consuming CBD multiple times a day. They have an overwhelmingly positive impression of CBD and are eager to recommend it to others. This enthusiasm is reinforced by their social circle, many of whom are also CBD consumers. *Exuberant & Intense* consumers are the highest spenders on CBD, with half spending in excess of \$100 a month on CBD products. Those in this group are starting to form brand preferences and are more aware than other archetypes of what brands they are purchasing. A majority expect their consumption to increase in the next six months.



NEW FRONTIER DATA'S

Nine THC Consumer Archetypes

HEAVY CONSUMERS

TRADITIONAL LIFESTYLERS 14% of consumers



Traditional Lifestylers are young, diverse, and single. They consume cannabis daily, and despite having relatively low incomes, they are high spenders. They view cannabis as an important part of their identities, and cannabis smoking is a regular part of the *Traditional Lifestylers'* leisure routine. They prefer smoking it (in joints and blunts and, to a lesser extent, with pipes and bongs) over other methods of ingestion. *Traditional Lifestylers* tend to live in illicit cannabis markets, which dictates the "traditional" way that they acquire and consume cannabis—mostly buying from a dealer, but also from friends. It is likely that when legalization spreads to their states, many *Traditional Lifestylers* will evolve into their sister archetype, the *Modern Lifestylers*.

MODERN LIFESTYLERS 10% of consumers



Modern Lifestylers are the cannabis industry's ideal vision of the future – cannabis consumer 2.0. Living largely in adult-use markets, *Modern Lifestylers* are leading the transition into the legal market. They purchase cannabis from businesses, not private sources (primarily brick-and-mortar establishments), and consume the widest variety of product types of any group – a reflection of the wide product selection in legal markets. *Modern Lifestylers* use cannabis for a broad range of reasons, from general wellness and decompression to socialization and recreation, and for medical reasons when needed. For the *Modern Lifestylers*, cannabis is deeply integrated into all aspects of life. *Modern Lifestylers* are young and employed with high incomes. Along with the *Functional Dependents*, they are the highest spenders of all consumers.

FUNCTIONAL DEPENDENTS 5% of consumers



Functional Dependents, the smallest population of the archetypes, are characterized by their extreme behavior. They are heavy-consuming, high-spending, hard-partying cannabis evangelists. *Functional Dependents* consume throughout the day, typically alone, and spend over \$100 per month on cannabis. Though many self-identify as medical consumers, they primarily consume for non-medical reasons: feeling more energized and enhancing work, fitness, and meditation or religious practices. *Functional Dependents* talk about cannabis with everyone they know, and prefer a wide range of product types including dabs and liquid edibles – not just flower. *Functional Dependents* are young, drink heavily, though they began using cannabis relatively late – many starting after the age of 20.

MODERATE CONSUMERS

MEDICAL PURISTS 12% of consumers



In terms of age, income, and living situation, *Medical Purists* mirror the distribution of all cannabis consumers: What unifies them is their characteristically therapeutic use of cannabis. Unlike *Functional Dependents*, who also identify as medical consumers, *Medical Purists* use their medicine for health and wellness reasons, especially pain management. They consume alone, and are less likely to be daily consumers than the heavy consumer groups, suggesting that their cannabis use is more situational, such as in response to a symptom flare-up, rather than as a part of their daily routine. *Medical Purists* are likely to prefer product forms that do not involve combustion (like edibles, pills, and topicals), reflecting the suitability of those product forms for medical applications.

WEEKEND ENTHUSIASTS 11% of consumers



Weekend Enthusiasts are cannabis hobbyists. Primarily parents (often in their early 40s), they consume fairly often to decompress and enjoy their free time. The amount of money they spend is about the same as by the *Traditional Lifestylers*, but they buy less frequently, stocking up with larger quantities at a time. *Weekend Enthusiasts* often rely on private dealers as a product source; they care about quality, and most would not be satisfied with what they could get casually from friends. They have favorite go-to strains but like to try new ones, too. *Weekend Enthusiasts* prefer smoking over other forms of consumption, with their favorite products being joints and pipes, with some enjoying their flower enhanced with added concentrates.

DISCREET UNWINDERS 8% of consumers



Discreet Unwinders generally use cannabis alone to relax and regroup, such as by watching TV or doing chores around the house. These older mothers of adult children have been using cannabis for decades, as they started using cannabis younger than did most other consumers. Yet, despite having a long history with cannabis, they never got comfortable being public about their use. Though friends are their primary source of cannabis, *Discreet Unwinders* are less likely than other archetypes to say their friends know about their use. *Discreet Unwinders* believe strongly in the health benefits of cannabis, and are among the most likely to use cannabis for pain management. They prefer the traditional product forms: joints and pipes over value-added products.

LIGHT CONSUMERS

SOCIAL OPPORTUNISTS 17% of consumers



Social Opportunists, the largest consumer group, use cannabis a few times a year or less, and often exclusively with others. They are the least likely of any archetype to buy their own cannabis—most get it from friends, but if a joint or dab is making its way around at a party, the *Social Opportunist* will happily indulge (notably, many do not pitch in to cover the cost, and they have the lowest spending on cannabis of any group). *Social Opportunists* are generally indifferent to cannabis issues—they do not have strong opinions on policy or feel that cannabis use is important to their identities. *Social Opportunists* primarily consume joints and pipes, but they also have a taste for solid edibles... so long as someone else brings them to the party.

SILVER DABBLERS 14% of consumers



Silver Dabblers are recreational consumers who use cannabis a couple times a month or less to relax. These occasional indulgers are typically single or divorced, middle-aged and older men who live alone. They have the lowest household income of any archetype. While they acquire their cannabis mostly from friends, *Silver Dabblers* rely on dealers more often than do the other low-consumption archetypes. They typically spend under \$50, and buy an 1/8 oz. or less per month. The *Silver Dabblers* have been consumers since long before legal cannabis was widely available, and their preferences for traditional combustible product forms – joints and pipes – are well cemented.

INFREQUENT CONSERVATIVES 9% of consumers



Infrequent Conservatives are older recreational consumers who use cannabis for relaxation. They are married, often retired, and fairly politically conservative. Their cannabis consumption habits are similar to those of their younger counterparts, the *Silver Dabblers*, but the *Infrequent Conservatives* use even less frequently—a few times a year or less. Cannabis does not feature heavily enough in *Infrequent Conservatives'* lives for them to buy it regularly; they get their cannabis from friends, often spending less than \$20 and consuming less than a gram per month. Their use is so infrequent and casual that many do not even know how much they spend or consume monthly. *Infrequent Conservatives* have a strong preference for joints and are the least likely of the archetypes to consume non-flower products.



Beyond the respective archetypes, product companies should flesh out the details about their target customers as thoroughly as possible, as those details will play a fundamental role in defining the product strategy. The following four brands illustrate the widely divergent consumer-targeting options with cannabinoid-infused products:

In a dynamic consumer environment, brands that develop the most robustly defined consumer strategies will be best positioned to secure their market positioning as competition intensifies and the product landscape becomes more diffuse.

MAD TASTY

MAD TASTY: With youthful, vibrant colors and playful product names (e.g., Unicorn Tears), Mad Tasty is framed as a tastier alternative to water, and is aimed at a youthful, fun-loving, health-minded consumer seeking a high-quality product, but who does not take themselves too seriously.

CHAMPIONS + LEGENDS

CHAMPIONS + LEGENDS: Founded by two-time NFL Super Bowl champion James Harrison and legendary strongman Thor Björnsson, Champions + Legends was developed as a CBD line focused on improving athlete performance. With products aimed at pre-, mid- and post-workout recovery, Champions + Legends is aimed at consumers who through their training are “relentless in the pursuit of excellence”.



CANN SOCIAL TONIC: Targeting younger adults who are looking for social experiences but do not want to drink alcohol, CANN’s cannabis-infused social tonic (which includes 2 mg of THC and 4 mg of CBD) promises to deliver “a light, refreshing social buzz you’ll feel right away”. Using edgy marketing and colorful language, the brand aims to appeal to consumers looking for a product that is “Delish, Refreshing, Bomb as F\$#%”.



HOUSE OF SAKA: As one of the first de-alcoholized THC-infused wine companies, House of Saka’s “white” and “pink” cannabis-infused beverages feature 5 mg of THC and 1 mg of THC per serving. Aimed an upscale consumer that is seeking the flavor of a light white/rosé wine with a low dosing of THC, the brand is especially well positioned to target mature females, nonsmoking cannabis consumers, and consumers who are relatively new to cannabis and seeking familiar product forms.



PRODUCT FORMULATION

Should Begin with a Clearly Defined Target Outcome

THE DEVELOPMENT OF water-soluble cannabinoids has dramatically opened the market for infused edibles. Additionally, technological advancements which shorten cannabinoid absorption time post-ingestion now enable the production of consistent, fast-acting products.

While innovation continues to advance product consistency, manufacturers have plenty of options to choose from as they build their products.

Ingredient Quality Can Make or Break a Product

It goes without saying that the quality of ingredients is central to the type of product that will ultimately be produced. The truism is especially important when dealing with cannabinoid extracts, where quality standards can vary widely. Widespread issues with contaminated, imported CBD (e.g., studies have found that as much as three-quarters of imported CBD contains contaminants or other adulterants) are examples of why product companies must be discerning about the source of their products, and consistent in reviewing test results to ensure that the product received meets required quality standards.

Uniformity is Key to a Consistent Consumer Experience

From full-spectrum to isolate, CBD extracts are oil-soluble. For food, beverages, or topical products that are oil-based, incorporation into the product should be straightforward, and mixed in such a way that the CBD is dispersed evenly throughout the entire product, so that there are no “hot spots” of CBD in the finished good to lessen its efficacy and lead to customer dissatisfaction.

If a product is water-based or mostly water, manufacturers should consider extra measures in making the oil and water mix without separation, which can be accomplished through holistic design of the finished product formulation by a food scientist.. The primary goal is to maintain stability and disperse the oil evenly in the product, so that it does not separate or float to the surface (like an Italian salad dressing) and critically impact the sensory impression of the finished product.

Also, producers should be mindful of pesticide-testing thresholds whenever choosing raw materials to mix with clean cannabis extract or isolate. Often, pesticide thresholds for commonly used agricultural products (e.g., olive oil or strawberries) are higher than those required for cannabis products, so mixing without first testing every input could be a recipe for a failed product.



The Sum is Greater Than its Parts

With cannabinoid infusion issues largely addressed, product developers must carefully consider which other ingredients they are going to combine to form the product, and how the additional ingredients may influence the flavor, absorption rate, effect, and effectiveness of their products.

For example, if formulating a CBD-infused coffee, the formulation ratios must be carefully balanced to ensure that the relaxing effect of CBD does not completely neutralize the energizing effect of the coffee that consumers may be looking for.

Similarly, compounds such as adaptogens, which have gained popularity in the health food sector for their claimed abilities to stabilize physiological processes, improve homeostasis, and increase overall wellness, may produce different effects when ingested with CBD than when ingested alone. It is therefore important to test the proper ratios of the adaptogens on their own, then assess how the addition of cannabinoids may change or amplify their physiological effects.

Finally, it is important to consider overall health effects from the selected ingredients. For example, adding vitamins to the product can make for a more healthful product. However, many vitamins and minerals, when ingested in excessive quantities, can cause significant damage to the liver, kidney, or other vital organs.

EXAMPLES OF PLANTS WITH ADAPTOGENIC PROPERTIES:

ADAPTOGEN	POTENTIAL BENEFIT
American ginseng (<i>Panax quinquefolius</i>)	Boosts working memory, reaction time, calmness, and immune system
Ashwagandha (<i>Withania somnifera</i>)	Reduces stress and anxiety
Astragalus (<i>Astragalus membranaceus</i>)	Combats fatigue
Cordyceps (<i>Cordyceps militaris</i>)	Boosts stamina
Goji berry (<i>Lycium barbarum</i>)	Boosts energy, physical and mental performance, calmness, and sense of well-being, and can also improve sleep
Eluethero root (<i>Eleutherococcus senticosus</i>)	Improves focus and staves off mental fatigue
Jiaogulan (<i>Gynostemma Pentaphyllum</i>)	Reduces stress and boosts endurance
Licorice root (<i>Glycyrrhiza glabra</i>)	Reduces stress
Rhodiola rosea (<i>R. rosea</i>)	Staves off physical and mental fatigue
Schisandra berry/ Magnolia berry (<i>Schisandra chinensis</i>)	Boosts endurance, mental performance, and working capacity
Tulsi/Holy basil (<i>Ocimum sanctum</i>)	Reduces physical and mental stress, stress-related anxiety, and depression
Turmeric (<i>Curcuma longa</i>)	Boosts brain function and reduces depression

Source: *Heathline*

Finding the correct ingredient ratios to optimize the taste profile, absorption rate, and physiological effect requires trial and error. While many infused-product innovators begin their R&D process at home, many then choose to partner with companies experienced in CBD product formulation as they transition from the initial concept to developing a product that can be commercialized.



SōRSE Technology, for example, leverages its years of experience developing infused products to support brands in developing product formulations that achieve the brand's concept objectives, while also providing the foundation for a manufacturing roadmap toward product scalability. That type of commercial support can expedite the going-to-market process while also ensuring that the formulated products achieve the desired effects.

Serving Size Decisions Should be Made Early in the Process

In cannabinoid-infused products, a single-serving size is typically defined by the volume of THC, CBD, or other cannabinoid in the product. In many markets, a single serving of THC is defined as 10 milligrams of THC, though products are permitted to have more than one serving. Infused products are required to have no more than 10 milligrams of THC per serving, but (in states like Washington) products can have up to 100 milligrams per serving. Conversely, rules governing the potency of CBD are less stringent, and while most brands also limit products to 10 milligrams of CBD per serving, products commonly range from 5 mg to 25 mg of CBD per serving.

There is also a growing market for products which combine both THC and CBD, such as CANN's Social Tonic (which has a 1:2 ratio of compounds) or Cannabis Quenchers (which have beverages with ratios ranging from THC-only, and 1:1 to 1:4). While those

products are only available in legal marijuana markets, the variation in cannabinoid combinations will continue to grow as legal markets expand.

With the quantity of cannabinoids specified, product manufacturers have latitude about the quantities of other ingredients which formulate the products. For example, cannabis-infused beverages range from a single-shot serving (similar to the 5 Hour Energy beverages) which includes 2 fluid ounces (60 ml) per serving, to more conventional soft-drink sizes ranging from 12 to 20 ounces per serving.

The serving size should be dictated by the use case, intended effect, and ingredient profile. And since the market remains immature, and consumer preferences are still evolving, product manufacturers have broad latitude to innovate new product profiles.

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Shelf Stability is a Critical Factor in Formulation Decisions

Based on ingredients, shelf-life factors to consider include:

PASTEURIZATION

Will the product need to be pasteurized, or undergo other processing to make it safe for human consumption and extend its shelf life? If so, how will the processing impact the chemistry of the ingredients and the product's flavor profile?

REFRIGERATION

Will the product require cold storage to maintain freshness? How long can it be stored without refrigeration before it can no longer be consumed?

The refrigeration requirement is especially important when considering a home delivery model, as it can significantly increase storage and transportation costs while also raising the risk of spoilage before the consumer can refrigerate it.

STABILITY OF ACTIVE INGREDIENTS

The type of emulsion used in water-soluble CBD, THC, and other cannabinoids can significantly impact the product's shelf life. For example, SoRSE's standard emulsion offers 12+ months' stability, while other emulsions may see separation closer to 6 months. The degradation of the emulsion over time impacts both the viable shelf life and the product dosing, which can negatively affect the consumer experience

Natural/Organic Ingredients Can be a Potent Positioning Differentiator

Several brands have been highly effective in leveraging their use of organic or "all natural" ingredients as a means to differentiate their products from the competition. For example, Velobar's CBD Protein Bars not only tout their long list of organic ingredients, but the brand prominently notes that its products are gluten-free, soy-free, vegan, and non-GMO. That concerted focus on the product's ingredients has been instrumental in fueling the brand's rapidly growing popularity among health-conscious consumers. In 2019, the company won Men's Health magazine's Best CBD Protein Bar, further burnishing its credentials among wellness-focused consumers.

Sourcing organic and all-natural ingredients can result in higher manufacturing costs and more limited processing options. However, by targeting the right consumer with appropriate messaging, organic brands can charge a premium over generically produced competitors.



CONSUMER FEEDBACK

Should be Integral to the Development Cycle

AS WITH ANY consumer product, soliciting consumer feedback iteratively through the process should be an integral part of any product development cycle. The process can be informal – e.g., sharing the test-product with friends and family and asking for feedback – or more formal, such as hiring a market research company to recruit people who fit the product’s target audience to experience the product and review the concept.

One unique consideration to cannabinoid-based products is that, due to the wide variances in the human endocannabinoid system, people process THC and CBD differently. Soliciting feedback from a wide and diverse group of

people can help capture the range of ways in which consumers with different ECS systems might experience the product.

A robust feedback mechanism can help ensure that the product, once released, will be well aligned with the preferences and expectations of the target audience.

Cannabinoid Product Formulation Considerations

The strategy to build infused product should consider a range of factors, including desired flavor profile, cost of desired ingredients, how the product will be used, how well the selected ingredients can be blended together, and the product’s intended shelf life.

Infused Product Formulation

Flavor Profile

More concentrated products which use full- or broad-spectrum cannabinoids are more likely to have an intense cannabis flavor, which may be disagreeable to some consumers.

Blending/ Solubility

Achieving the desired levels of viscosity and solubility can be more difficult with more highly concentrated products.

Shelf Life

A shelf-stable product that does not require refrigeration requires a different ingredient profile than does one with a short shelf life or which requires pasteurization.

Ingredient Cost

Higher-volume products are more costly to manufacture, especially if they include exotic ingredients.

Use Case

A pre-workout beverage may be appropriate as an energy shot, while a drink intended for relaxation may be better suited as a higher-volume, sippable form.



QUALITY TESTING

is Vital to Building Customer Trust

AS THE CANNABINOID - infused market has proliferated, so too have the number of companies which have been reprimanded by state and federal regulators for selling products which did not live up to the labeled quantities of cannabinoids. The companies selling products with less than the indicated cannabinoid levels not only breach consumer trust and potentially create an indelible negative experience for new consumers who see no benefit from using the CBD products, they also potentially put the wellness of patients who therapeutically use CBD at risk.

While testing is not required in all markets, it offers companies a way to assure their customers that they are getting what is promised. Testing also enables brands to validate the consistency of their product formulations. As such, it is anticipated that testing will quickly become an industry standard for reputable companies, even in markets where it is not required by law or a governing body.



PACKAGING

Should Be Determined by Shelf Life & Distribution Strategy

WHILE THE PACKAGING of CBD-infused foods and beverages largely mirrors that of consumer-packaged goods, there are two specific considerations for cannabinoid-infused beverages, in particular:

CANNABINOID SCALPING

Studies have demonstrated that the plastic lining inside beverage cans is prone to scalping of THC and CBD from some infused beverages, significantly lowering the amount of the cannabinoid absorbed by the consumer. The scalping effect becomes more pronounced over time, so products which sit on shelves for extended periods may experience the most pronounced degradation. Some tests have found up to 85% potency degradation over a 9-month period for canned beverages. As a result, the consumer ends up ingesting a product with a vastly different formulation than that the manufacturer had intended. That can be especially problematic when the manufacturer had intended a very specific effect from the precise calibration of cannabinoids and other ingredients.

As scalping has only been observed in plastic containers, some companies (such as Lagunitas HiFi Hops) have switched from using plastic-lined cans to glass bottles, instead. However, the cost differential between using plastic instead of glass may prove prohibitive for smaller companies, or for brands offering lower-priced products.

Some cannabinoid formulation companies claim to have developed compound structures that dramatically reduce product degradation in cans, underscoring that not all cannabinoids are produced equally. It is therefore important for product manufacturers to consider carefully how their products will be packaged, and then carefully select a cannabinoid provider who can offer the most effective and shelf-stable formulation for their intended application.

NOTE: Scalping is not exclusive to CBD, THC, or other cannabinoids. Scalping is a known challenge that formulators have overcome in the past for other functional ingredients and flavors.

WEIGHT AND VOLUME CONSIDERATIONS FOR ONLINE DELIVERY

Online sources were cited as second only to friends and family as the leading channels from which consumers got their CBD. With the massive economic disruptions caused by COVID-19, which has pushed online shopping to record levels, online direct-to-consumer distribution will be a critical part of the CBD market for the foreseeable future. A June 2020 study by McKinsey & Company found that the pandemic increased the share of online sales for OTC medications, groceries, and personal care products by 10 percentage points, and for vitamins and supplements by 11 percentage points.

Product manufacturers must therefore consider how their packaging choices may impact the transportability of their products. For example, glass may be attractive for its ability to preserve product integrity and for its recyclability; however, the weight



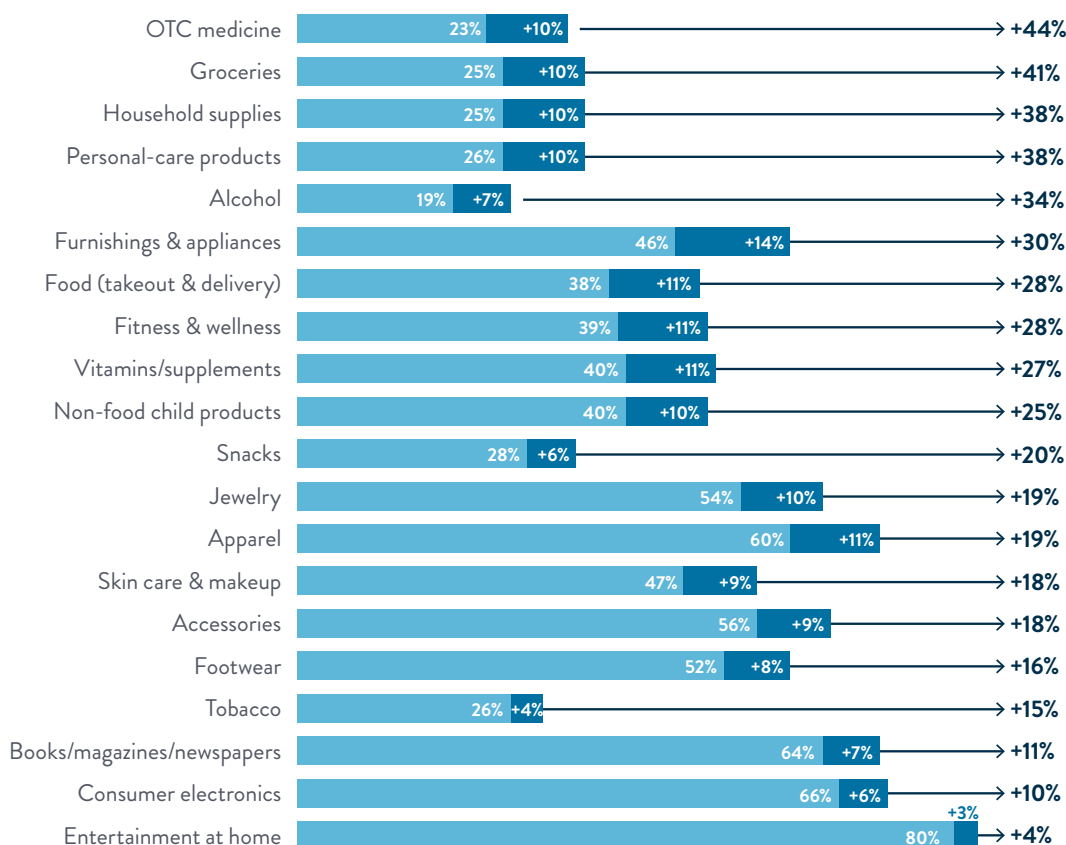
of glass may make it cost-prohibitive for direct-to-consumer sales relative to cans or paper-based packages.

Even those brands which intend to primarily operate with conventional in-store retail

models should still prepare for how their products might be sold online, and weigh their packaging decisions accordingly. With the coronavirus pandemic causing significant and durable changes to consumer shopping habits, all cannabinoid-infused brands must assume that online sales will maintain a large share of the market for the years to come.

MORE PEOPLE EXPECT TO MAKE A PORTION OF THEIR PURCHASES ONLINE POST COVID-19 THAN BEFORE

% OF RESPONDENTS PURCHASING ONLINE³



~15-30%

growth in consumers who purchase online for most categories

■ Before COVID-19¹

■ Expected growth after COVID-19²

→ % growth in customers purchasing category online

1. Q: Before the coronavirus (COVID-19) situation started, what proportion of your purchases in this category were online vs from a physical store/in person?

2. Q: Once the coronavirus (COVID-19) situation has subsided, tell us what proportion of your purchases in this category you think will be online vs from a physical store/in person?

3. Respondents who indicated that they have not bought the category online and do not intend to do so in the next 2 weeks are classified as not purchasing online.

Source: McKinsey & Company COVID-19 U.S. Consumer Pulse Survey 6/25-6/21/2020, n = 2,006 sampled and weighted to match the U.S. general population 18+ years



IN A PRICE-FOCUSED MARKET

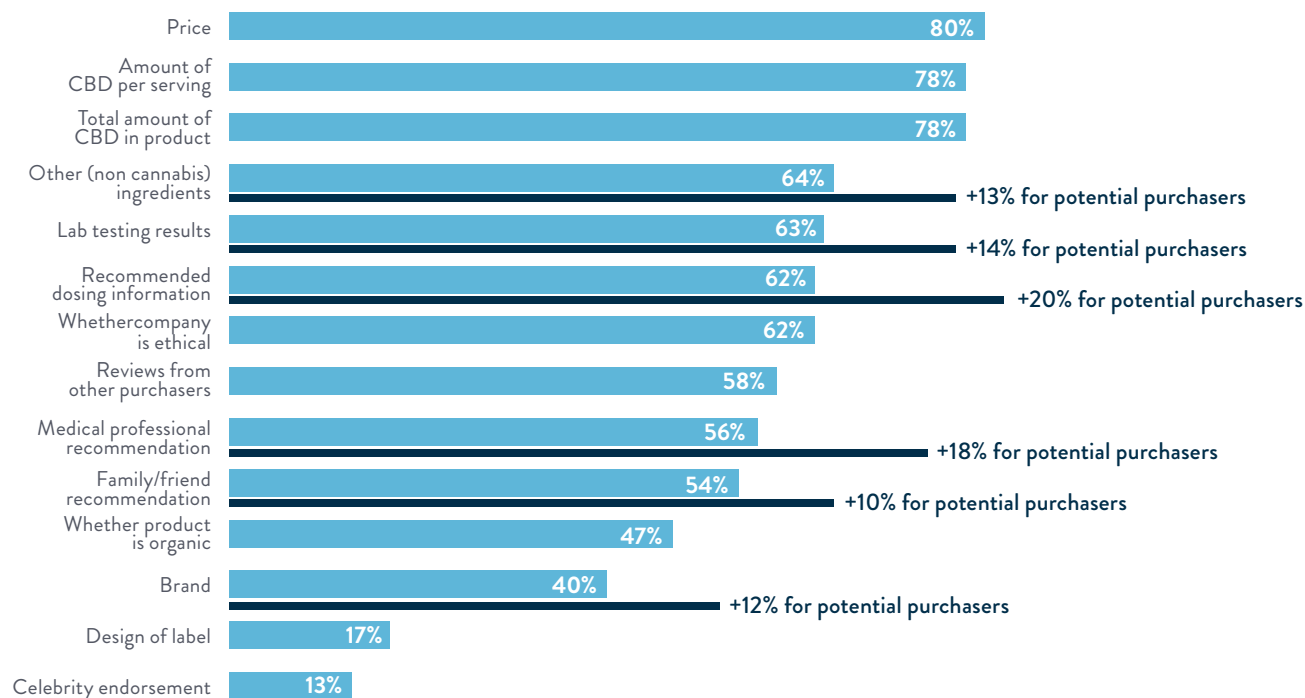
a Well-Defined Value Proposition Can Prevent a Race to the Bottom

NEW FRONTIER DATA'S 2020 survey of U.S. CBD consumers found that price was the most important purchase influencing factor, a priority consistent among THC consumers as well. However, other factors were also highly ranked, including the cannabinoid dosing (i.e., how much was in a serving and in the container), what other

non-cannabinoid ingredients were included in the product, and how the company was reviewed by other consumers.

Notably, nearly two-thirds (62%) of CBD consumers also said that a company's acting ethically was important to them, suggesting that corporate social responsibility initiatives (such as a water donation program in which Mad Tasty, a CBD beverage company, donates 12 ounces of clean drinking water for every

PRODUCT PURCHASE INFLUENCERS



Among those who have ever purchased CBD; sum of "very important" + "important"; "potential purchasers" are those who have not purchased CBD but indicated being likely to do so in the next 6 months; potential purchaser responses are noted where responses differ from actual purchasers by more than 10 percentage points.

Source: New Frontier Data 2020 U.S. CBD Survey



12 ounces of product it sells), may be a more influential consideration among CBD product buyers than for the general consumer/buyer at large.

While pricing is a critical consideration in effective positioning, brands also need to think holistically about their value propositions to ensure that they are not competing solely on price – a strategy that generally serves only the most resourced and largest-scale producers.

As the cannabinoid market builds scale, the cost of manufacturing inputs will fall dramatically, leading to acute downward price pressure for most companies. The brands that have the most robustly defined value propositions and supply chains will be best positioned to maintain premium pricing and avoid engaging in any price wars, which few companies will be able to survive.

MAJOR, a Washington-based beverage company, is one of the lowest-priced products in that market, retailing at less than \$10 per bottle (other top selling beverages range from \$10 - \$17/bottle). The aggressive pricing strategy has been effective for the company's well-reviewed products. At the start of the COVID-19 pandemic, when consumers began stocking up on cannabis in anticipation of extended shelter-in-place orders, the company saw its sales more than double between February and April. By September, three of the company's products (e.g., Sunset Pink Lemonade, Volcanic Orange Mango, and Blue Raspberry) were the top-selling products in Washington.



MARKETING RESTRICTIONS

for Cannabinoid Products Necessitate Creative Consumer Engagement Strategies

REGULATIONS GOVERNING the marketing of cannabinoid-infused products vary based on each the type of product, the cannabinoid formulation, and the market in which it is sold. It is therefore critical to work with experienced legal counsel when developing a marketing strategy to ensure that one's communications and consumer engagement planning do not run afoul of the law.

A few key themes to consider that apply to most cannabinoid products:

HEALTH CLAIMS

It is illegal to make any unscientifically founded health claims about the benefits of cannabinoid-based products. The FDA has issued numerous cease-and-desist orders against CBD companies for making claims touting health benefits that have not been scientifically proven.

To tell the consumer more about their products, brands have become more creative with their marketing, using visual cues and vague “state of mind” descriptors for their products. Words like “relief” and “calm” are frequently used to hint at the desired effect without making structured function claims. Using phrases like “rise & shine” further hint at morning, and perhaps daily, consumption. In terms of the marketing materials’ color palettes, dark colors often imply that the product

is meant for evening use, while bright orange and yellow suggest daytime use. Featuring the product next to a bowl of cereal and a glass of orange juice might also convey when the product should be consumed. When the FDA and other governing bodies set standardized rules, the market and existing brands will adjust their verbiage and imagery as needed.

WORD-OF-MOUTH

Word-of-mouth remains the primary way by which consumers learn about and procure CBD. In both North America and Europe, friends and family are critical sources of information about CBD for consumers, and are tied with online channels as the primary sources for products.

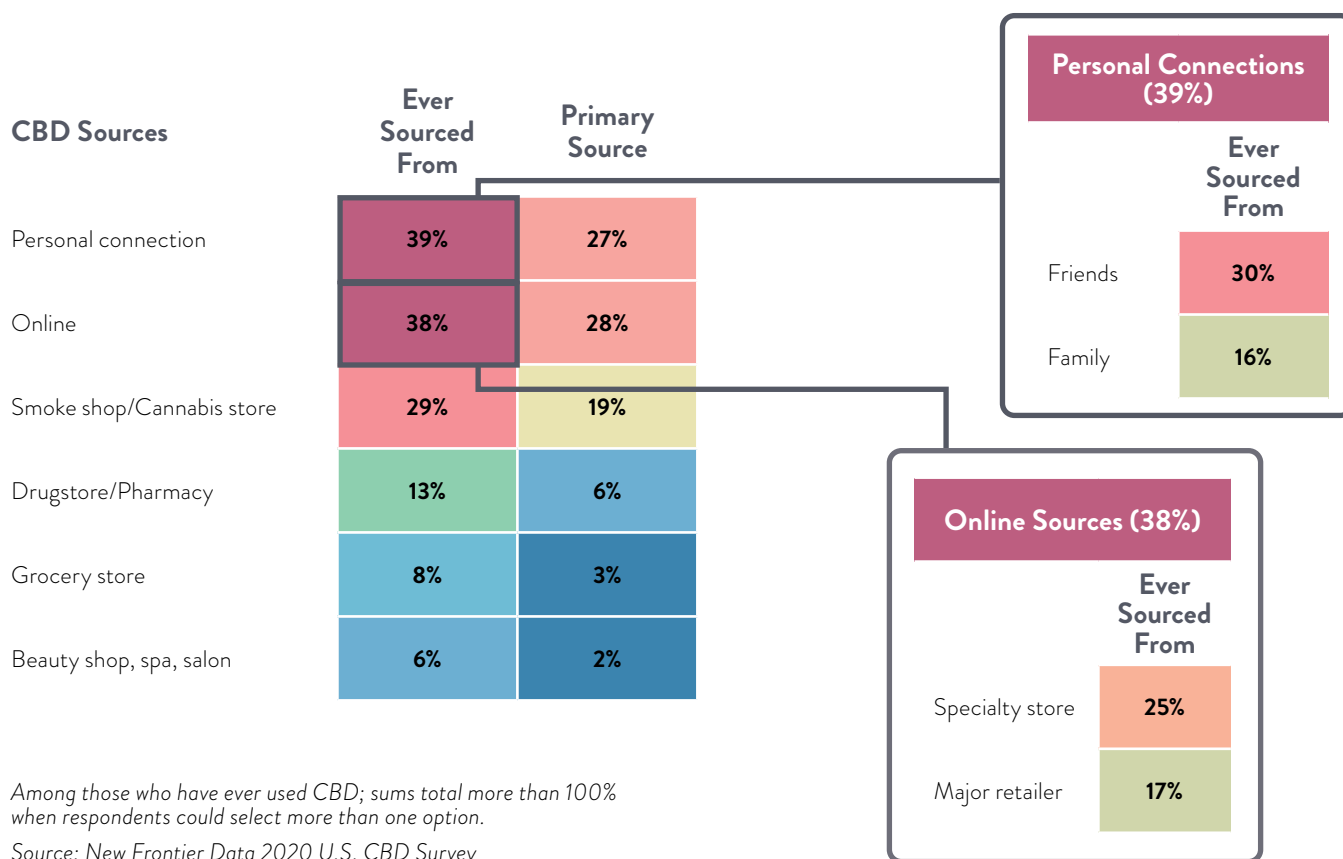
Brands must think creatively about how best to leverage those powerful personal connections to build awareness and interest in their products, by incentivizing their customers to share their experiences and promote their products.

ADVERTISING

Advertising for cannabinoids is prohibited on most major consumer platforms (e.g., Google and Facebook). Most brands cannot reach consumers on the world's most widely used digital platforms, and therefore must turn to alternative, cannabinoid-friendly channels to reach their target consumers. There is a growing market for cannabinoid-focused advertising, including New Frontier Data's NXTecKsolution, which allows brands to target highly segmented cannabinoid consumers. The platforms are closing a critical service gap in the digital cannabinoid advertising space. One way in which companies are getting around the direct-advertising restrictions is by using social media influencers to promote their products on Instagram and other social channels. With the rise of social influencers who are not typically mainstream celebrities, but who often



WHERE CONSUMERS GET THEIR CBD



have millions of online followers, the brands are able to achieve a word-of-mouth effect across a much larger audience.

TESTIMONIALS

Consumer testimonials are a great means to get others to say what the company can't say itself. Organic and authentic consumer testimonials are not only excellent for capturing and sharing positive sentiments about one's products, but consumers can also anecdotally describe their health and wellness outcomes without violating the marketing restrictions against health claims placed on the brands.

(Note: In the EU, CBD brands are barred from displaying customer testimonials, so brands need be mindful of the rules governing user reviews in each of their operating markets).

With personal connections still playing vital roles in building consumer awareness and engagements, and online platforms like Google and Facebook still banning most cannabis advertising, even as cannabinoid consumers increasingly shop online in a post-COVID world, it is incumbent upon marketers to think creatively about how to most effectively reach and engage their target consumers. Since the limitations require more planning and careful execution to maximize ROI, it makes it ever more important for cannabinoid brands to have clearly defined target audiences before they undertake their marketing efforts.



INNOVATION & EVOLUTION

are the Key to Survival

PETER DRUCKER famously declared that companies must “innovate or die”. Given the highly fluid dynamics of the cannabis industry, companies producing cannabinoid-infused products would be well served to heed his advice. There are three key areas in which brands should be proactive and strategic in seeking ways to innovate and evolve:

PRODUCT DEVELOPMENT

Despite the giant strides made in cannabinoid product formulations in recent years, the sector remains in its infancy. As the science of cannabis advances, not only will the techniques by which cannabinoids are infused into products evolve, but so too will our understanding of which compounds most effectively amplify or stimulate specific outcomes when paired with cannabinoids or other cannabis compounds. As the science advances, companies should continuously assess how they can leverage the developments to enhance their product offerings.

CONSUMER ENGAGEMENT

Even as legalization has opened the market for cannabis-infused products, strict national and regional rules governing the manufacture, sale, distribution, and marketing of products create a highly regulated business environment. It is unlikely that the marketing rules will be significantly liberalized in the near term, so brands need to plan for a restricted marketing environment over the medium term, and continue to develop creative strategies to identify, reach, and engage consumers in scalable, cost-effective ways.

DISTRIBUTION

The COVID-19 pandemic has fundamentally impacted the economy, with durable changes to the retail environment likely to extend well into the medium term. The pandemic will drive new online sales growth opportunities in ways not yet fully understood. However, as an emerging market, the cannabinoid-infused product sector is well-positioned to innovate how wellness-oriented products are sold online and delivered to consumers.



key TAKEAWAYS

1 The regulatory future for cannabinoids is far from settled, and the pending decisions will shape the market for years to come. While the U.S. market will likely remain more liberal than Europe's, the developments in the EU (where CBD has been declared a novel food, dramatically raising barriers to market entry, and where the EC has proposed classifying CBD as a narcotic, which would essentially eliminate Europe's CBD market) should serve as cautionary tales for American operators. In a dynamic period of rulemaking, industry stakeholders should be monitoring proposed legislation and regulations closely, and proactively advocating for the rules they wish to see effected.

2 The consumer environment remains nascent, but is evolving quickly. While a little less than one-fifth of Americans have tried a CBD product, nearly 9 in 10 have had conversations about CBD, and two-thirds report those conversations being positive. In a young and fast-growing market, new entrants will find an engaged, positively receptive market, with a growing pool of potential consumers who are interested in trying CBD for the first time. Identifying the ideal target consumer segment, and tracking how it evolves over time, will be critical to successfully building long-term growth.

3 Getting a product formulation right is both science and art. Developing an effective product is not just about getting the chemical formulation right; it also takes careful consideration of who the target audience is, how and where the product will be used, and about the desired flavor and effect profiles the consumer will experience. The process entails a lot of trial and error, but the most successful brands almost never rush a product to market. Taking the time to find defining sweet spots of ingredients, dosing, flavor, effect, and delivery will help ensure that one's products can be sustainably competitive in an increasingly crowded market.

4 The marketing regulations are tight, but they reward the creative. Both federal and state laws regulate how CBD can be marketed and advertised, leaving brands few conventional channels to promote their products. In that environment, companies which can build creative strategies to build consumer engagement from word-of-mouth to direct-to-consumer advertising will be well-positioned to capture both mind share and share of wallet relative to brands that rely on more traditional or conventional approaches.



CONCLUSION

TAKING A NEW cannabinoid-infused product from concept to market can be daunting for inexperienced or resource-constrained companies. Not only can the regulations be complex to navigate, with punitive enforcement of noncompliance, but getting the formulations right to ensure an optimal consumer experience can be a challenging, resource-intensive effort. However, with the explosive growth seen in the cannabis market to date, and the strong

interest that consumers have expressed in finding ways to integrate cannabinoids into their lives, a rich and sustained market opportunity is anticipated for infused products throughout the foreseeable future. Rules governing cannabinoid-infused products are still in flux, but if the final rules permit an open and competitive market, the infused-product sector is poised for dramatic growth in the years ahead.



EXAMPLES OF CANNABINOID INFUSED PRODUCTS

The product below illustrates the diverse spectrum of ingestibles into which cannabinoids are infused, targeting different use cases and consumer groups.

CBD ISOLATE PRODUCTS

	
CENTR	
Sparkling CBD Drink	
Package Size	12 fl. oz.
Ingredients	Water, cane sugar, natural citrus flavor, lemon juice, 15/30 mg. hemp per can.
MSRP	\$6/can
findyourcentr.com	

	
SWEET REASON	
Strawberry Lavender Sparkling Water	
Package Size	12 fl. oz.
Ingredients	Carbonated water, natural flavors, 10 mg. CBD from organic hemp.
MSRP	\$6.67/can (\$39.99/6 pack)
drinksweetreason.com	

	
SPRIG	
Citrus Original CBD Infused Sparkling Beverage	
Package Size	12 fl. oz.
Ingredients	Carbonated water, cane sugar, grapefruit extract, citric acid, gum arabic, fruit & vegetable juice for color, beta carotene. 20 mg. hemp CBD per can.
MSRP	\$5/can (\$60/12 pack)
drinksprig.com	

	
FLOYD'S OF LEADVILLE	
Stage 17 Dark Roasted Coffee Blend	
Package Size	12 fl. oz.
Ingredients	Freshly roasted Central/South American coffee beans, 500 mg. CBD isolate per bag (15 mg. per 2 tbsp).
MSRP	\$26.99
floydsofleadville.com	

	
VELOBAR	
25 mg. CBD Protein Bar	
Package Size	1.7 oz.
Ingredients	Organic almonds, Organic tapioca syrup, organic dates, organic semi-sweet dark chocolate chips, organic pumpkin seeds, organic sunflower seed butter, organic alkalized cocoa powder, organic vanilla extract, organic chia seeds, organic flax seeds, organic hemp hearts, organic cashews, sea salt, hemp-derived crystalline CBD.
MSRP	\$19.95/box of 4 bars
velobarcbd.com	

	
HOUSE OF SAKA	
Pink Cannabis-Infused Non-Alcoholic Beverage	
Package Size	750 ml
Ingredients	Pinot Noir grapes, 25mg. THC, 5 mg. CBD per bottle.
MSRP	\$49/bottle
houseofsaka.com	



FULL/BROAD SPECTRUM CANNABINOID PRODUCTS



MAD TASTY

Unicorn Tears

Package Size 12 fl. oz.

Ingredients Purified water, natural flavors, citric acid, 20mg. hemp extract per can.

MSRP \$5/can (\$30/6 pack)

madtasty.com



CANN

Lemon Lavender Social Tonic

Package Size 7.5 fl. oz.

Ingredients Water, agave, not from concentrate juice, all-natural flavors, 2 mg. THC, 4 mg. CBD per can.

MSRP \$4/can (\$24/ 6 pack)

drinkcann.com



RIP N SIP

Liquid CBD

Package Size 3 ml. (0.10 fl. oz)

Ingredients Water, natural flavors, MCT oil, citric acid, 20 mg. hemp extract per package.

MSRP \$3/packet (\$30/10 pack)

ripsipcbd.com



APRCH

CBD Sparkling Water

Package Size 12 fl. oz.

Ingredients Water, vitamin C, L-theanine, organic natural flavoring, 30 mg. hemp extract per can.

MSRP \$3.25/can (\$13/4 pack)

drinkaprch.com



LORD JONES

Prickly Pear Hemp-Derived CBD Gum Drops

Package Size 9 drops per box

Ingredients Natural fruit flavors, sugar, citric acid, gelatin, hemp oil, 20 mg. CBD per gumdrop.

MSRP \$50/box

lordjones.com



RECESS

Blood Orange

Package Size 12 fl. oz.

Ingredients Filtered water, orange tea infusion (filtered water, orange zest, orange oil), orange juice concentrate, pear juice concentrate, blood orange juice concentrate, natural flavors, lemon juice concentrate, ginseng powder, L-theanine powder, lemon balm powder, 10 mg. broad spectrum hemp extract per can.

MSRP \$4.99/can

takearecess.com



GOOD BITES CBD

Healthy Hemp Infused Raw CBD Cookie Dough

Package Size 4 bites per bag

Ingredients Organic Oat Flour, Organic Coconut Sugar, Organic Coconut Oil, Organic Date Paste, Organic Cacao Nibs, Organic Hemp Extract, Himalayan Pink Salt, Organic Pure Vanilla Powder, 25 mg. Organic Hemp CBD Extract per bite.

MSRP \$20/bag

goodbitescbd.com



CBD LIVING

CBD Matcha Instant Green Tea

Package Size 1.5 oz.

Ingredients Organic stone ground matcha, 250 mg. broad spectrum nano hemp extract.

MSRP \$30

cbdliving.com



DRAM

Sweetgrass Adaptogenic CBD Drops

Package Size 300 mg. dropper

Ingredients Non GMO glycerin, North American sweetgrass, mint, vanilla bean, ashwagandha root, oatstraw, skullcap, lemon salt, 60 mg. broad spectrum PCR hemp extract.

MSRP \$48/bottle

dramapothecary.com



CHAMPIONS + LEGENDS

Perform Mid Workout CBD Oral Spray

Package Size 0.51 fl. oz. (15 ml.)

Ingredients Purified water, potassium sorbate, sucralose, glycerin, xylitol, xanthan gum, lecithin (from sunflower), coconut oil, natural flavors, 250 mg. full spectrum hemp extract.

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