

The Global Cannabinoids Market: Will CBD Overtake THC?

A BDS Analytics White Paper



The Rise of Cannabidiol

When California became the first state to legalize medical marijuana in 1996, the focus was on the appetite stimulating effects of THC. While CBD—formally known as Cannabidiol—had been identified and successfully isolated as a compound in the cannabis plant, little was known about it, and CBD as an independent compound was not in demand.

Times have changed. Today, everything from food to beauty products has undergone a CBD infusion. The popular Cannabinoid is not exclusive to California either, or even the many states with legal markets. The availability to purchase CBD in varied consumption forms is becoming more prevalent across the U.S.

We have produced this white paper to provide a clearer picture of the CBD market opportunity.

Key takeaways include:

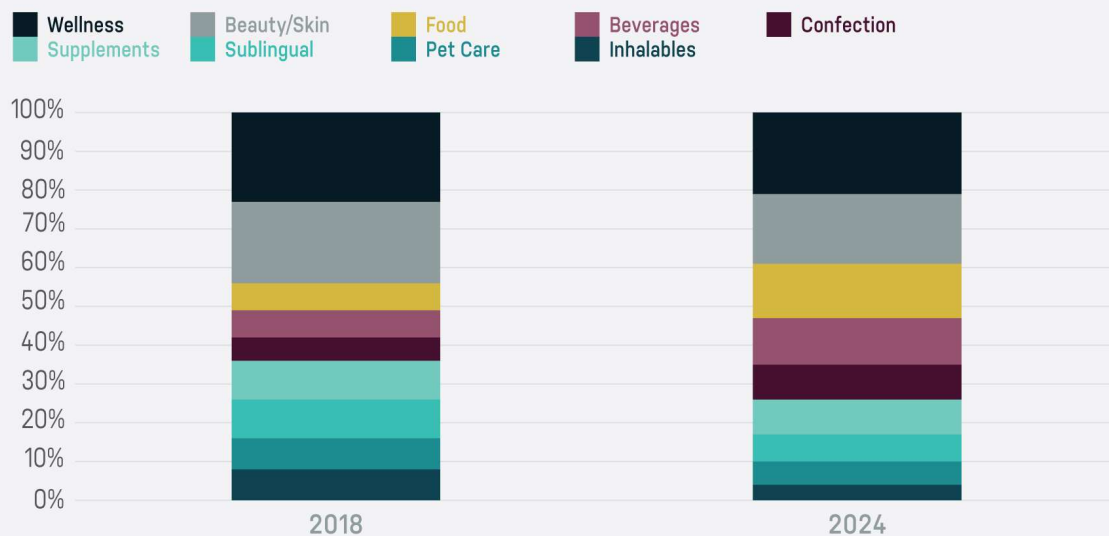
- An understanding of the emergence of CBD both in the dispensary channel and general retail

- Insights on the importance of tracking CBD dispensary channel trends as a model of what to expect in general retail
- A brief history of the market, where it currently stands and what the future holds

BDS ANALYTICS FORECASTS U.S. CBD SALES TO REACH \$20 BILLION BY 2024.

The Cannabinoid CBD, one of more than 100 compounds found in the cannabis plant, now represents a booming market nationwide. With its emergence from marijuana dispensaries into mainstream retail, we forecast CBD sales will reach \$20 billion by 2024, accounting for nearly 44 percent of the \$45 billion total forecasted Cannabinoid market (which includes legal cannabis).*

US CBD Spending, Category Share 2018 vs. 2024



Source: BDS Analytics Industry Intelligence

With \$1.9 billion in CBD sales in 2018, that prediction represents an extremely impressive 49 percent compound annual growth rate (CAGR) through 2024. Further, sales of hemp-derived CBD (as opposed to CBD from marijuana) in U.S. general retail stores are expected to make up \$12.6 billion of the \$20 billion in CBD sales forecast for 2024.

As CBD increasingly grabs the attention of consumers, attracts more investment, and persuades both startups and established corporations to create CBD products, savvy business minds need to pay close attention to this lucrative trend.

A Brief History of Cannabidiol

Cannabidiol was first extracted from the cannabis plant in 1940, but it wasn't until 1946 that Dr. Raphael Mechoulam identified the structure of CBD and later discovered properties within the compound to treat epilepsy.

Since 2012, the Cannabinoid market has experienced a gradual commercial rise with products becoming available in dispensaries and mainstream markets.

By 2013, the use of CBD was acknowledged as a legitimate and proven therapy for epileptic seizures. GW Pharmaceuticals began production and treatment with a purified CBD medication that was met with positive results.

Five years later, the U.S. Food and Drug Administration (FDA) approved the GW Pharmaceuticals drug, called Epidiolex, for certain forms of epilepsy.

BDS Analytics Consumer Insights research reveals that consumers primarily use CBD as a "natural" remedy for pain, stress, anxiety and depression. Further, CBD consumers are divided 45% female, 55% male with an average age of 43, 40% are higher-educated and 50% are employed full-time.

As CBD commercial trends continue to grow, consumers increasingly ask: What exactly is it?

What is CBD?

CBD is a natural compound found in the cannabis plant. While there are several claims around the benefits of consuming CBD, from pain management to overall health, the key takeaway for most consumers is that CBD is non-psychoactive. It's the THC, not the CBD, that makes consumers feel "high." For many, consuming CBD provides a health-related benefit, whether brought on by pharmacological or psychological influencers, or for some, likely both.

THE KEY TAKEAWAY FOR MOST CONSUMERS IS THAT CBD IS NON-PSYCHOACTIVE.

Today's CBD Consumer



- 45% female / 55% male
- 40% college degree or higher
- Average age: 43 years old
- 50% full-time employed

11%

of total dispensary dollar sales in 2018 were attributed to CBD products, up from 5% in 2017



15%

of U.S. adults (21+) consume hemp-derived cannabis



Education!



- 56% of U.S. adults (21+) do not understand the difference between THC and CBD
- 59% are confused about the effects of hemp-derived products

Source: BDS Analytics Consumer Insights

2018 Was A Big Year for CBD

The recent rise in use and popularity of CBD can be primarily attributed to the onset of cannabis legalization across the United States, and most recently, the passage of the 2018 Farm Bill, which legalized the cultivation of hemp – cannabis with less than 0.3 percent THC by weight. As a result, many more farmers have turned to hemp farming, and the domestic supply of the plant has expanded rapidly.

Obstacles remain. The Farm Bill only cleared the way for hemp-based CBD to be included as an ingredient in a range of non-food products.

Now, most of the regulations surrounding hemp-derived CBD—especially as it relates to the consumer package goods (CPG) marketplace—are the domain of the FDA.

The FDA conducted its first-ever hearing on cannabis and the non-intoxicating Cannabidiol in May with more than 100 speakers offering views, including researchers, health advocates, manufacturers and staunch opponents. One of the biggest takeaways was the universal need for more research into the perceived risks and health benefits of CBD. The initial hearing marked the first step towards what could be years of hearings and

The May hearing also illustrated the growing interest of major corporations in gaining legal clarity with CBD.

At the hearing, Betsy Booren, Grocery Manufacturers Association’s Senior Vice President of Science and Technology was quoted saying, “As consumer interest for food, beverage, personal care and household products containing cannabis and cannabis derivatives continues to grow, the necessity for national uniform regulatory frameworks that protect public health is of critical importance.” The association represents large consumer products goods companies like Coca-Cola, General Mills, Kellogg and Procter & Gamble.

ONE OF THE BIGGEST TAKEAWAYS WAS THE UNIVERSAL NEED FOR MORE RESEARCH INTO PERCEIVED RISKS AND HEALTH BENEFITS OF CBD.

Most Popular CBD Product Categories

In 2018, the most popular CBD product categories in the U.S. market were:

1. Ingestibles - **\$883.5M**
2. Topicals - **\$491.2M**
3. Inhalables - **\$395.4M**
4. Pet Products - **\$63.8M**
5. Pharmaceuticals - **\$16.0M**



Source: BDS Analytics Industry Intelligence

CBD in the Dispensary Market

The steady march of cannabis legalization across the country has played a key role in the rise of CBD. Prior to Colorado’s launch of legal adult-use cannabis sales in 2014, access to CBD was extremely limited. As cannabis became increasingly legal in states across the U.S., and even more importantly as hemp gained legal status nationwide, companies began exploring the chemical complexities of the plant with more focus.

BDS Analytics retail sales tracking, powered by our GreenEdge™ platform, reports that more than 10 percent of all dispensary dollars in 2018 were attributed to CBD product sales, up over 3 percent from 2017, with 2019 trending further upward as demand grows.

As CBD grows increasingly mainstream, the effects on dispensary sales are expected to be positive. Heightened public awareness of CBD among consumers has led to value-adds for dispensaries. Normalized consumer attitudes towards CBD help to improve perceptions of cannabis and dispensaries in general. As consumers explore hemp-derived CBD in retail shops and online, cannabis grows less threatening and more alluring.

Existing dispensary shopper behavior is unlikely to change with the availability of CBD in general retail. Some cannabis consumers believe CBD is most effective when combined with the Cannabinoid THC, often referred to as the “entourage effect.” Because the Cannabinoid combination is only available for purchase within dispensaries, consumers seeking this effect will continue to make their cannabis-related purchases through the dispensary channel.

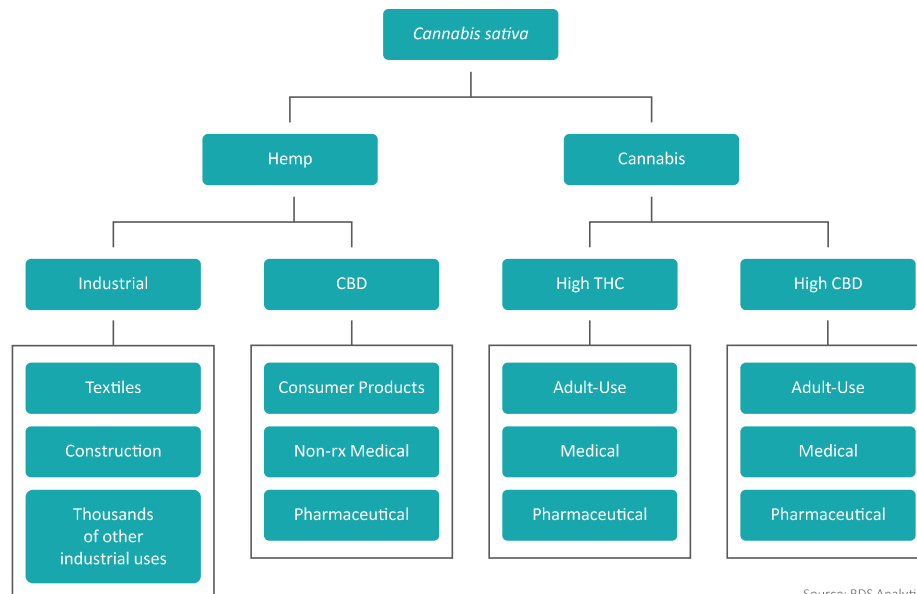
It is also evident and important to note that dispensary sales trends are reflected in mass markets.

In general retail, Ingestibles, Topicals and Inhalables remain the top selling CBD product categories. While many CBD products in dispensaries are sold as Concentrates (most notably in Vape pens), mainstream retail – due to regulatory limitations – has not embraced selling this form of consumption. Looking ahead, BDS Analytics anticipates growth of CBD sales through most product categories in dispensaries and general retail. By 2024, BDS Analytics forecasts sales of CBD will be more evenly distributed among primary retail channels (dispensary, ecommerce, pharma, mass, grocery, natural/vitamin, convenience, etc.), widely influenced by how the FDA will formally regulate CBD-infused food and beverages.

MORE THAN 10 PERCENT OF ALL DISPENSARY DOLLARS

IN 2018 WERE ATTRIBUTED TO CBD PRODUCT SALES, UP OVER 3 PERCENT FROM 2017.

Breaking Down the Intersection of Cannabis, Hemp, THC and CBD



Source: BDS Analytics

Our Key Takeaways

- The future of the CBD market is heavily dependent on how the FDA decides to formally regulate CBD in food and beverages.
- The CBD dispensary market offers the most insight into what we can expect in general retail CBD sales moving forward in terms of preferred forms of consumption and more.
- The emergence of CBD use among a broader base of consumers is likely to have a positive effect on the perceptions and attitudes towards cannabis overall.
- U.S. CBD sales across all markets are forecast to reach \$20 billion by 2024 – more than 10x the \$1.9 billion generated in 2018.
- Product development across most CPG categories will lead to an influx of new forms of consumption,

further ensuring CBD will be experienced by millions of customers around the globe.

BDS Analytics data and insights, powered by our GreenEdge™ platform, offers companies and investors the tools and knowledge needed to make smarter, more profitable business decisions. Learn more about our industry leading Retail Sales Tracking Data, Consumer Insights research and Industry Intelligence services by contacting us at info@bdsanalytics.com or visiting bdsanalytics.com.

To access additional complimentary Industry Intelligence insights and analyses, please visit bdsanalytics.com/resources today.

*Source: *The State of Legal Cannabis Markets, 7th Edition* published by Arcview Market Research and BDS Analytics.