













FROM THE PUBLISHER'S DESK

ew Frontier Data is delighted to announce its acquisition of the Hemp Business Journal (HBJ) as part of its continued efforts to provide the most strategically valuable and globally relevant cannabis reporting to its clients worldwide. As such, we are proud to announce this year's release of the most-read, CBD-focused report in the world, The CBD Report: 2018 Industry Outlook.

When HBJ published the inaugural CBD Report in 2016, there was little reliable data or market information about CBD. Since then, HBJ has learned much (both qualita-

tively and quantitatively) about CBD in the U.S. today. There is much more to understand about both existing and emerging CBD markets across the world. New Frontier Data is committed to continuing to build upon ongoing data collection and research efforts by HBJ, and to leverage its global reach and big data infrastructure to broaden its market coverage and ability to predict and project CBD markets' movement worldwide. We trust you will enjoy and benefit from The CBD Report: 2018 Industry Outlook, and we look forward to surveying and reporting on yet another new frontier.





EXECUTIVE SUMMARY

The CBD Report: 2018 Industry Outlook is the result of extensive data collection, market analysis and more than 50 primary interviews with company founders, CEOs and executives. We have done over 25 site visits to hemp farms and extraction labs and are part of an industry wide collaboration with associations, government institutions, investment firms, and point of purchase data providers.

In The CBD Report: 2018 Industry Outlook you will learn about the dynamics occurring between hemp-derived, marijuana-derived and pharmaceutical CBD companies. In 2017, U.S. hemp-derived CBD sales grew to \$190 million, up from \$129 million in 2016. Marijuana-derived CBD sales trailed slightly with \$177 million in sales in 2017, up from \$132 million in 2016.

Pharmaceutical sales took a big step to becoming a reality in late 2016 with the announcement of the GW Pharmaceutical New Drug Application (NDA) for Epidiolex®

and acceptance of the NDA by the FDA. The PDUFA date is set for June 27, 2018 and HBJ estimates sales for Epidiolex® will begin in late 2018 as a Schedule IV drug-reaching \$15-30 million in sales in 2018—and growing to \$180 million in sales by the end of 2019.

By 2020, the three CBD categories (hemp, marijuana and pharmaceutical) will all be robust markets. The question remains—will the term "CBD" belong to the pharmaceutical industry? We predict the DEA, FDA and/ or GW Pharmaceutical will take action against the hemp-derived market in 2019 to secure the Pharmaceutical CBD channel and its stake in the term "CBD".

All the while, online and direct sales remain red hot for hemp-derived CBD products. Consumers are buying CBD on company websites, in smokeshops and in natural product and specialty retailers—like Lucky's Market and Fresh Thyme. In the report, we predict which mass market retailers to watch that will likely soon carry hemp-derived CBD products.

- (S) In 2017, the U.S. CBD market grew to \$367 million in sales across hemp-derived and dispensary channels.
- International markets are picking up. Europe, Canada and Brazil are poised for a breakout year in 2018 for hemp-derived CBD sales.
- **③** By 2020, \$407 million of U.S. based CBD sales will occur in dispensaries and \$450 million will occur from hemp-based products.
- As sales of CBD products continue to increase, HBJ forecasts the entire market for U.S. CBD will increase to nearly \$2 billion by 2022.

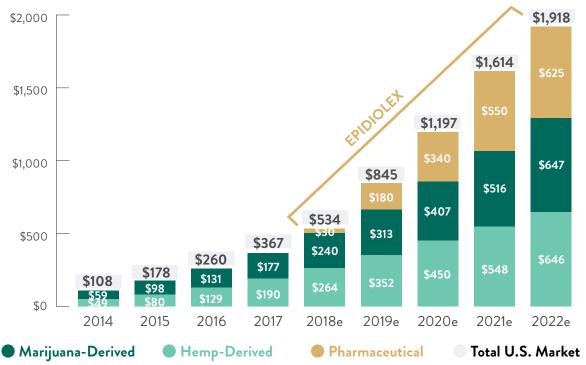


Consumers are buying marijuana-derived CBD products in dispensaries with 70% of CBD product sales being "Medical" and 30% of sales being "Adult-Use." Tinctures remain the leading branded CBD product type in dispensaries with candy and chocolate edibles trailing.

The international CBD markets are set for a big year. With the passage of the Cannabis Act, Canada will open the CBD flower market this summer and the world's largest legal cannabis companies (Canadian LPs) are acquiring hemp companies to secure supply chains and processing equipment in preparation for these legislative changes. Canopy Growth acquired Mettrum and Green Hemp Industries. Aphria and Aurora also made strategic hemp acquisitions.

Sales of CBD products, especially vaping and smoking products, are gaining traction in European markets. Within a few years, the European market may begin to rival the U.S. market for hemp-derived CBD products. Wholesale exports to South America, especially Brazil, surged in 2016 and 2017 and are expected slow in 2018 and 2019 as countries establish their own domestic market.





Source: New Frontier Data

This year's report features The M&A Dealbook covering the biggest and most important deals happening across hemp-derived and marijuana-derived companies. The M&A Dealbook is an instrumental collection of insights and deal structures for investors and operators in the industry.

And that is just the beginning. To learn more about this dynamic industry purchase the full The CBD Report: 2018 Industry Outlook at NewFrontierData.com/CBD

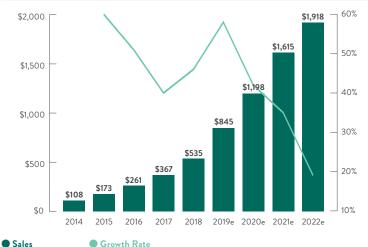


PURCHASE THE FULL REPORT

The CBD Report: 2018 Industry Outlook is the definitive report for market sizes and high-level analysis of business trends for CBD in the hemp and legal cannabis industries. The CBD Report: 2018 Industry Outlook is a 75-page market report filled with primary research, market intelligence, investment analysis, data charts and insights from more than 50 interviews from cbd industry leaders. Do not be the one in the room without this market intelligence at your side.

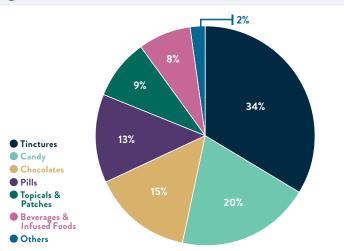
TO PURCHASE THE CBD REPORT: 2018 INDUSTRY OUTLOOK (\$299), VISIT NEWFRONTIERDATA.COM/CBD

U.S. TOTAL CBD PRODUCT SALES, 2014-2022e



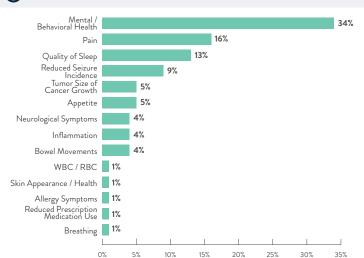
Source: Hemp Business Journal estimates (\$ mil., consumer sales).

\$118 MILLION U.S. DISPENSARY CHANNEL CBD-BRANDED PRODUCT SALES BY PRODUCT TYPE IN 2017



Source: Hemp Business Journal estimates (\$ mil., consumer sales) and BDS Analytics.

(i) SELF-REPORTED IMPROVEMENTS WITH CBD OIL USE



Self-reported impact of CBD oil use in Bluebird Botanicals Customers, Monica J. Patten, Agnieszka Mika, Monika Fleshner, Department of Integrative Physiology & Center for Neuroscience, University of Colorado Boulder



