

HEADSET CANNABIS MARKET INSIGHTS

4/20 The greenest day of the year: Insights and predictions based on four years of data



Executive summary

April 20th, commonly referred to as 'Four Twenty', is the most important holiday in both cannabis culture and the cannabis industry. This report examines the patterns and trends around 4/20 over the last four years of recreational cannabis sales and offers predictions for retailers, producers, and consumers for what to expect on 4/20/2019, the first time the holiday falls on a weekend. Read on to find insights about pricing and discounts, the most successful products, demographic trends, and more.

Introduction

As the cannabis industry continues to grow, so does the importance of its biggest holiday. Our data show that year after year, cannabis consumers respond extremely strongly to 4/20. Last year was no exception. It was the single biggest day of sales in 2018 by a considerable margin.

For most of the analyses in this report, we compare sales on 4/20 to the same day of the week for two months around the holiday. For example, when analyzing Friday, April 20, 2018 we compare it to an average of the four Fridays before and the four Fridays after. This makes sure that our analysis is not affected by the seasonality of the cannabis market. Additionally, thanks to Headset's recent strategic alliance with Nielsen, a leader in global measurement and data analytics, this report will contain our first ever insights comparing cannabis trends to alcohol.

As anyone tracking the cannabis industry will know - each state is unique. In this report, we compare the legal markets and their responses to 4/20. Has the novelty of a cannabis holiday worn off for consumers in the more mature markets of Colorado and Washington? Did Californians visit their dealer or their dispensary on 4/20?

In our analyses of category sales on 4/20 there are valuable insights for deal-hunting customers as well as for cannabis businesses. Certain

product types have their best day of the year while others are in fewer exit bags than usual. Deal hunters take note, when looking for the best value, not all package sizes are created equal.

As we've reported in the past, Millennials tend to open their usually-tight wallets wider than all other generations on 4/20. But this year, there's a new generation in town. Customers in Generation Z, now the youngest demographic group in our dataset, were just beginning to age into the adult use cannabis market in 2018. How did they respond to their first legal 4/20? Spoiler Alert: they liked it. A lot.

This year, 4/20 will fall on a Saturday, a full-blown weekend, for the first time ever. Will the festivities spread into Friday night or will consumers maintain reverence for the holiday and primarily shop on Saturday?

Read on for our insights from past years and predictions for 2019. Because we collect our data in real time, we will be able to post an update in the week after 4/20 – stay tuned!

Methodology

Data for this report comes from real-time sales reporting by participating Washington State, California, Nevada, and Colorado cannabis retailers via their point-of-sale systems, which are linked up with Headset's business analytics software. This report is based on data collected from retailers on 4/20 and the four same days of the week before and after 4/20 in 2015, 2016, 2017, and 2018. Demographic data is from voluntary participants in store loyalty programs. Those data are cross-referenced with our catalog of over 330,00 products and \$4.5 billion of transactions to provide detailed information on market trends.

Headset's data is very reliable, as it comes directly from our partner retailers. However, the potential does exist for misreporting in the instance of duplicates, incorrectly classified products, inaccurate entry of products into point-of-sale systems, or even simple human error at the point of purchase. Thus, there is a slight margin of error to consider.

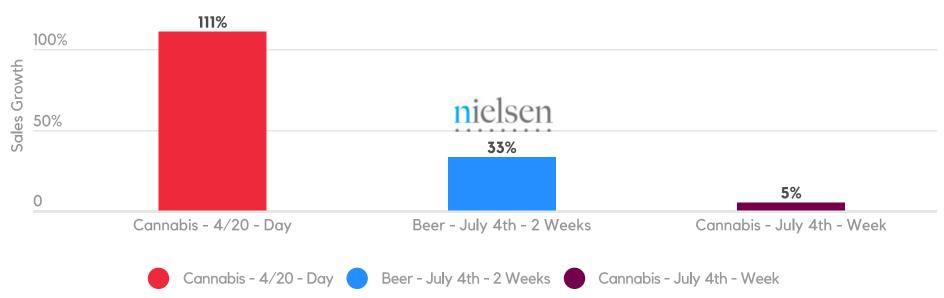
Dank bud vs cold brewskis

As we've watched for four years now, a format-specific holiday, like 4/20, clearly drives consumers to shop. In 2018, sales grew by 111% on 4/20. But what about a different holiday/product pair? In the United States, Independence Day (July 4th) is a holiday stereotypically celebrated with parades, fireworks, barbecuing, and beer. Thanks to our new strategic alliance with Nielsen, Headset is able to report on the US retail alcohol market for the first time.

According to Nielsen, at all Off-Premise Outlets, beer sales during the two-week period including July 4th, 2018, were 33% over an average two weeks in 2018. The combination of summer weather, patriotic festivities, and time off work clearly makes a big impact on the category.

Shown below, the cannabis market sticks to it's self-identified holiday, and only saw a 5% increase in sales during the week of July 4th, 2018

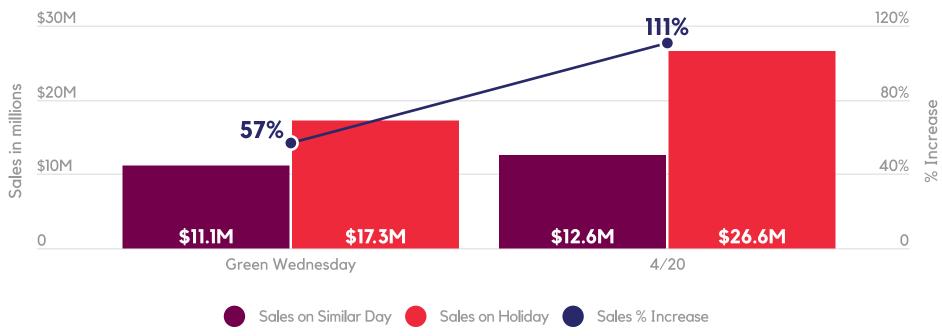
CANNABIS AND BEER HOLIDAY SALES HOLIDAY GROWTH



Is 4/20 still the biggest day in Cannabis?

4/20 is the original cannabis extravaganza, but there's a new industry holiday gaining traction: Green Wednesday. The day before Thanksgiving, this newer holiday is well-positioned to capitalize on the shopping hype of the Thanksgiving weekend. As shown in the chart below, 4/20 is still king of cannabis single day sales. Green Wednesday saw a strong increase of sales at 57% above an average surrounding Wednesday. On 4/20 however, total sales hit \$26.6 million - well over double an average Friday.

2018 SALES INCREASE ON CANNABIS HOLIDAYS

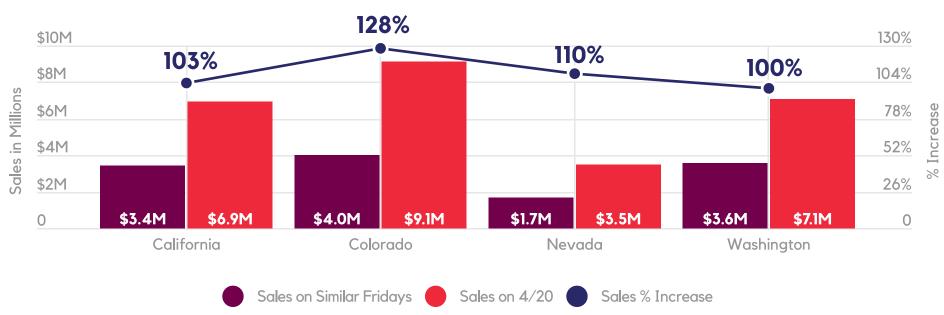


4/20 - State by State

Headset is tracking two markets for whom celebrating 4/20 is nothing new. This year will be Washington's fifth and Colorado's sixth. How did 4/20 sales in those more mature markets compare to those in Nevada where 2018 was only the second legal 4/20 and California, where 4/20 fell less than five months into that new market's rocky start?

There is no clear correlation between market age and reaction to 4/20, implying that consumers' reverence for the holiday is driven by cannabis culture itself and not by the retail landscape. The most mature markets are at opposite ends of the sales growth range, with Washington coming in at 100% growth and Colorado seeing 4/20 sales at a whopping 128% above a normal Friday. Nevada sales fell roughly in the middle at 110% over normal while California saw the second lowest sales increase at 103% growth. The first year of California recreational sales has been marred by the continued strength of the black market - perhaps consumers in California were more likely to hit up there dealer to celebrate 4/20.

4/20/18 SALES INCREASE BY STATE



What about pricing?

On 4/20 last year, Washington was still the state to beat in terms of lowest average item price at \$15.21. Nevada, as we've reported in the past is true any day of the year, had the highest average item price at \$38.56, more than double Washington's. However, Nevada also had the highest average discount at 18%.

California's average item price was second highest at \$27.11 but had the lowest average discount at only 10%, likely due to the challenging regulatory landscape in the first year of sales. Colorado, with the second highest average discount of 16%, again proved that 4/20 hype does not necessarily dissipate as a market matures.



Oldies but Goodies: Colorado and Washington

Has a trendline emerged in total 4/20 reaction in Colorado and Washington over the last four years of sales? Not really. In the chart below we can see there that the growth of sales on 4/20 isn't headed in any particular direction, therefore retailers can expect total 4/20 sales this year to be at least double those on a regular Saturday.

With 2016 as an obvious outlier, the average total discount has been slowly and steadily increasing each year. Customers are learning that there are deals to be had on 4/20 and retailers are clearly providing them.

4/20 SALES INCREASE AND AVERAGE DISCOUNT IN CO AND WA BY YEAR

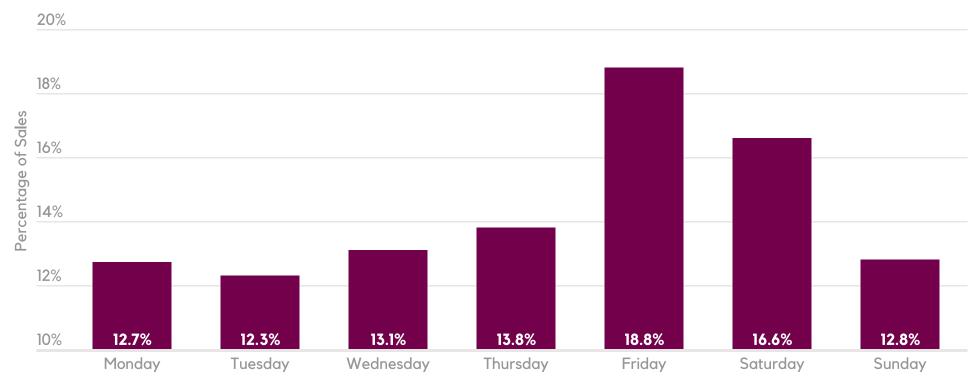


It's the Freakin' Weekend

Friday is far and away the most popular day of the week to purchase cannabis with 18.8% of total sales last year, which makes perfect sense. What better time to swing into a dispensary than in the first hours of your weekend, with a fresh paycheck in your bank account? Saturdays are the second biggest day with 16.6% of sales. No other day even breaks 14%.

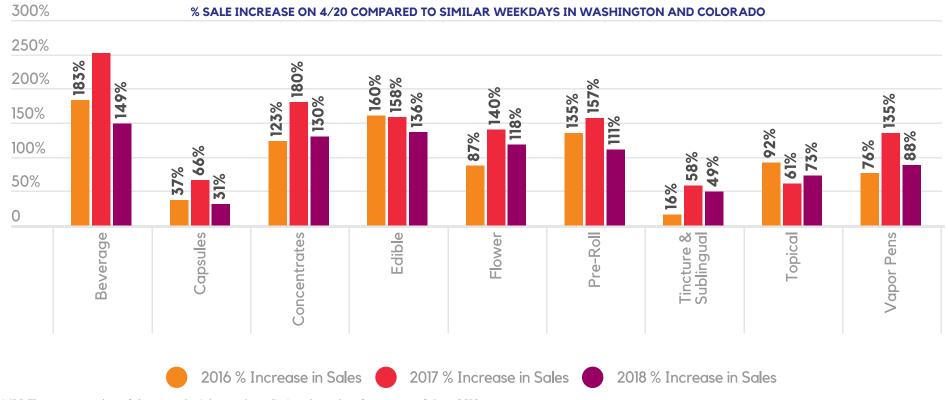
In 2019, 4/20 will fall on a Saturday for the first time since legalization. If the trend of 4/20 excitement aligns with the normal day-of-week patterns, we expect to see a slightly lower sales response to the holiday this year. Due to this data, along with that in previous slides Headset expects sales on 4/20/2019 to be 2x to 2.2x normal and sales on the Friday 4/19 to be significantly above average as well. Retailers should consider strategies to attract customers both on '4/20-Eve' as well as on the big day itself.

2018 SALES BY DAY OF WEEK



Category Trends for 4/20

In 2016, Edibles and Beverages experienced the biggest jump in sales on 4/20. Beverages have remained strong year after year (with a particularly large spike in 2017), implying - as we've noted in other reports - that they are a category strongly associated with celebration. Edible growth on 4/20 has decreased since 2016, but it still remains a top growth category. Capsules and the Tincture & Sublingual categories, commonly associated with health and wellness, consistently see the weakest growth on 4/20. This aligns with the holiday's focus on the more debaucherous side of cannabis use, rather than the medicinal. The Vapor Pen category is one of few that show a positive three-year trend in 4/20 sales growth. This category has been steadily growing in overall market share over the same time frame so it makes sense that more and more customers choose to celebrate the holiday with this modern mode of consumption.

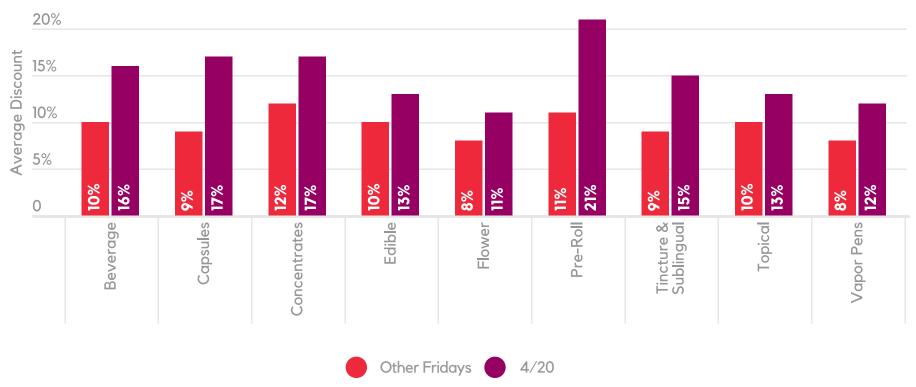


What's the deal?

If you're looking for the best deals on 4/20 there are some categories to target and some to avoid. Last year, Pre-Rolls had the highest average discount (21%) of all categories by a considerable margin. On the other hand, Flower, Pre-Roll's unwrapped counterpart, had the smallest average discount on 4/20 at only 11%, which is only a slim increase from the 8% normal average discount for that category.

Interestingly, Capsules had the second highest average discount of 4/20 at 17%, despite having one of the smallest total increases in sales in 2018 (31%, previous slide).

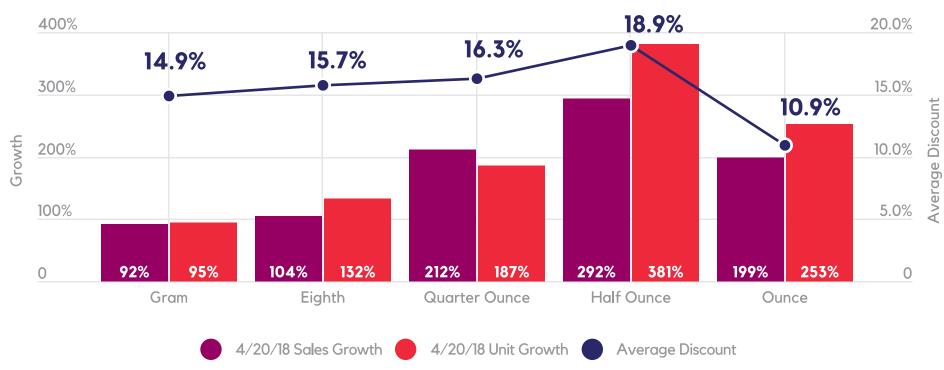
AVERAGE DISCOUNT % BY CATEGORY ON 4/20/2018 COMPARED TO SIMILAR FRIDAYS



A day to buy in bulk

Despite it having the lowest average discount of any category in 2018, customers still capitalized on the deals retailers offered on Flower, particularly when buying in bulk. Most Flower purchased is in the smaller sizes, and that is still true on 4/20. However, on the holiday itself, the largest flower package sizes saw the biggest increases in both total sales and total units sold. Half Ounces, the second largest standard size, had a massive 381% increase in units and a 292% increase in total sales. Not surprisingly, this package size also had the highest average discount on 4/20 at 18.9%. Interestingly, Ounces saw strong growth in both total sales and total units but had the smallest average discount of only 10.9%, implying that customers were definitely seeking bulk buys, but perhaps were not always identifying the best deal.

4/20/18 FLOWER SALES GROWTH AND AVERAGE DISCOUNT BY PACKAGE SIZE



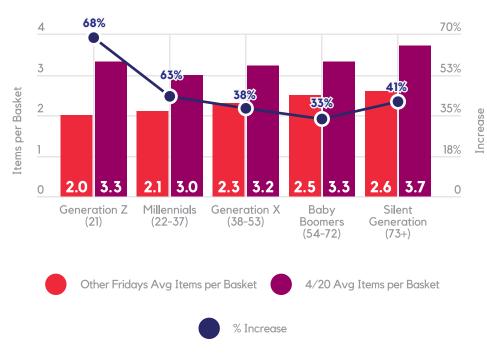
Who's celebrating?

In our previous reporting, we've frequently shown the importance of Millenials within the cannabis industry. Millenials spend more money on cannabis on any given day than all other age groups. However, they're no longer the youngest generation in our dataset. 2018 was the first year in which a new generation - 'Generation Z' - began to turn 21 and enter the adult-use cannabis market. With birthdays between January 1, 1997 and the present, only a tiny portion of this generation was able to purchase in the legal market on 4/20 last year, and therefore made up only a small percentage of topline sales. However, their response to the holiday was huge. Generation Z customers had both the largest increase in Average Basket Size (21%) and Average Items per Basket (68%) on 4/20. Millions of new Generation Z Americans have aged into the cannabis market since last year. On 4/20/2019 retailers and brands alike should be ready to engage these young customers, because they are ready to celebrate.

2018 AVERAGE BASKET SIZE BY GENERATION

21% 19% \$60 \$40 13% 10% 6% \$20 6% 2% 45 \$62.25 \$68.32 \$40.85 \$42.89 \$46.51 \$49.31 9. \$52.16 \$55. 0 Generation Z Millennials Generation X **Baby Boomers** Silent (21)(22-37)(38 - 53)(54-72)Generation (73+)Other Fridays Basket Size 4/20 Basket Size % Increase

2018 AVERAGE ITEMS PER BASKET BY GENERATION

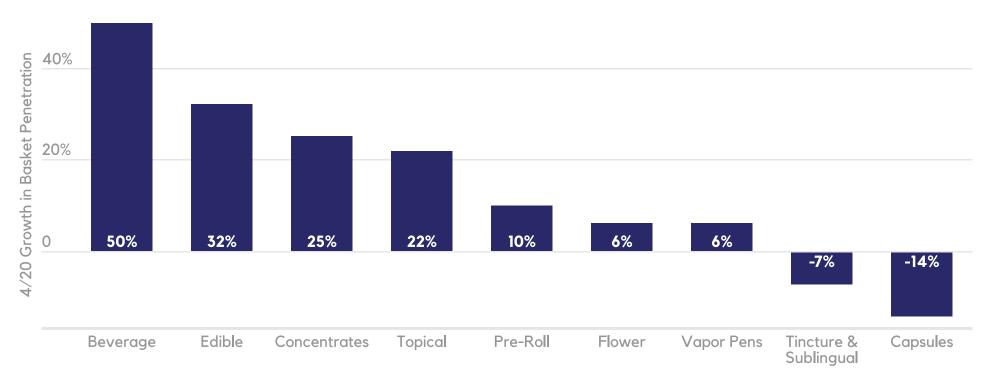


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Basket penetration growth by category

After seeing the increases in basket size on the previous slide, an obvious question emerges: what additional products are making it into those baskets? Are customers buying more of their favorites, or using the 4/20 festivities to try something new? As you might expect, it's a mixed bag, or basket. Flower, the largest category by market share, is already in the majority of baskets on any given day, and effectively held steady with a modest increase of 6%. Beverages and Edibles saw the biggest increases in penetration indicating that brands and retailers should be ready to encourage consumers' curiosity towards these categories on 4/20 this year when they are more likely to make an impulse buy. Concentrates had strong growth while Tinctures and Capsules actually were in fewer baskets than normal - reinforcing the narrative that 4/20 celebrations tend toward indulgence rather than medicinal use.

BASKET PENETRATION GROWTH ON 4/20/18 BY CATEGORY

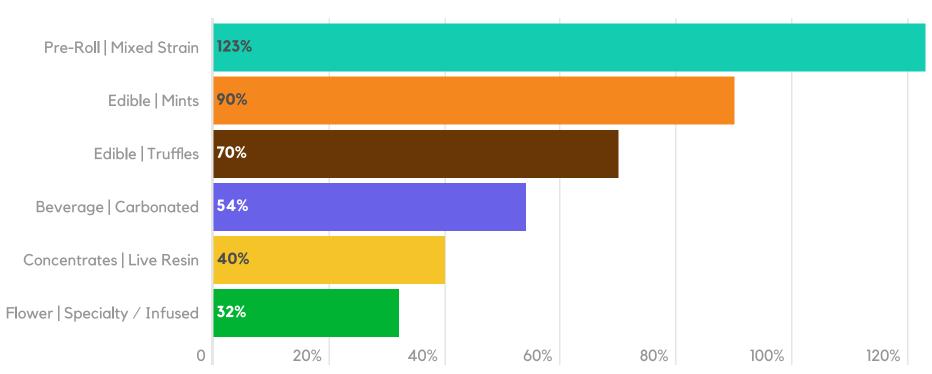


How to Read: On a typical day Edibles are in 13.1% of baskets. On 4/20 we saw Edibles in 17.4% of baskets representing a 32% increase in basket penetration.

Basket penetration growth by segment

If we dive deeper and look at basket penetration by segment, a few interesting stories emerge. Mixed Strain Pre-Rolls had the largest increase of any segment, implying that they were a frequent 4/20 add-on purchase. This is no shocker since non-strain specific Pre-Rolls are often low cost to begin with and had the highest average discount rate of any Pre-Roll Segment at a hefty 36%. The holiday apparently presented shoppers with a good opportunity to try Live Resin, which has been one of the fastest-growing concentrate varieties over the last year. Again aligning with our story of stony decadence, Infused Flower had the biggest growth in basket penetration of all Flower segments. This type of product, often referred to as 'Caviar' or 'Moonrocks', is a high-THC concoction of potent Flower rolled in Concentrates and is probably not an everyday buy for most customers.

BASKET PENETRATION GROWTH ON 4/20/18 BY CATEGORY



Conclusion

No matter how you participate in the cannabis industry, you should pay attention to 4/20. It is consistently the single biggest day in cannabis each year, with at least double the sales of an average day. This year it will fall on a Saturday for the first time. Since Fridays are typically the biggest sales day of the week, retailers should be ready to encourage revelry on 4/20-eve as well as on the holiday itself. Retailers and brands should also be focused on capturing the attention, and wallets, of their youngest customers: those in Generation Z. These 21 and 22-year-olds had the strongest reaction to 4/20 last year and there will be at least 3x more of them legally able to participate in 2019.

Beverage and Edible producers -4/20 is your day to shine. Cannabis customers will add 30% - 60% more products to their baskets on 4/20, and, more often than not, when they try something new it's an infused treat.

Customers -4/20 is the day to stock up and bulk buys are the best strategy. For Flower the sweet spot will be shy of the largest package sizes; consider grabbing two Half Ounces, it may be a better deal than a full Ounce, plus that way you can try two different strains!

4/20 is always a wild ride. We hope these insights help you prepare for cannabis' most important day. Thanks to our real-time data collection we'll be able to post an update shortly after the last Cannagar is ashed and the last register is balanced. Watch for it.

About Headset

Headset is a market data and business intelligence platform for the cannabis industry. Our extensive Industry Reports deep-dive into specific categories and aspects of the industry to help businesses better monitor the market and perform exhaustive category analysis. Reports are generated via aggregate, real-time transaction data to get a unique and thorough analysis of what's happening in the cannabis industry as the data becomes available. Headset offers three distinct products that help retailers, dispenaries, brands, product manufacturers, distributors, and investors move ahead in the indsustry.



Business intelligence for retailers and dispensaries to stay ahead of trends and discover opportunities like never before. Real-time dashboards on your Sales, Inventory, Vendors, Products and Budtenders.



The connection to a collaborative relationship between supplier and retailer. Limit out-of-stock events, ensure optimal inventory levels and enhance forecasting abilities.



Real-time market intelligence for the cannabis industry. Monitor the competitive landscape, identify opportunities, and stay ahead of industry trends as never before.

