Minnesota Department of Health
Office of Medical Cannabis

# Report on Medical Cannabis Price Study

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**Submitted on:**

May 8, 2020

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# 1.0 Introduction

## 1.1 Project Background

The State of Minnesota (State) is one of 33 states that allow qualifying patients to purchases cannabis for healthcare treatment. Legislation passed in 2014 legalized the sale of cannabis to Minnesotans who are diagnosed with certain medical conditions.

Patients must enroll in the medical cannabis patient registry maintained by the State to be eligible to legally purchase and possess medical cannabis. The annual enrollment fee is $200; however, a reduced annual fee of $50 is available for Minnesotans receiving medical assistance, such as:

- MinnesotaCare
- Social Security Disability (SSD)
- Supplemental Security Income (SSI)
- Medicaid/Medical Assistance (MA)

As part of the application process, the patient's qualifying condition (QC) must be certified by a healthcare practitioner as having at least 1 of the 14 QCs listed below. The patient must be reevaluated and have their qualifying medical condition(s) recertified annually by a healthcare practitioner.

1. Cancer associated with severe/chronic pain, nausea, severe vomiting, cachexia, or severe wasting
2. Glaucoma
3. Human immunodeficiency virus/Acquired immunodeficiency syndrome (HIV/AIDS)
4. Tourette's syndrome
5. Amyotrophic lateral sclerosis (ALS)
6. Seizures, including those characteristic of epilepsy
7. Severe and persistent muscle spasms, including those characteristic of multiple sclerosis
8. Inflammatory bowel disease, including Crohn's disease
9. Terminal illness, with a life expectancy of less than one year, if the illness or treatment produces severe/chronic pain, nausea, severe vomiting, cachexia, or severe wasting
10. Intractable pain (effective August 1, 2016)
11. Post-traumatic stress disorder (effective August 1, 2017)
12. Autism (effective August 1, 2018)

13 Obstructive sleep apnea (effective August 1, 2018)

14 Alzheimer's disease (effective August 1, 2019)

According to the January 2020 Medical Cannabis Program Update issued by Minnesota Department of Health (MDH), 18,249 patients were actively enrolled in the patient registry as of December 31, 2019. This was a 27% increase (3,851) over the 14,398 enrollees as of December 27, 2018.

## 1.2 Office of Medical Cannabis (OMC)

OMC was formed in 2014 as a unit within MDH. OMC oversees the State's medical cannabis program to help ensure that patients and medical cannabis manufacturers comply with eligibility requirements, payment requirements, and other legal requirements. The key roles and responsibilities of OMC include[1]:

- Explaining program requirements and therapeutic uses of medical cannabis
- Enrolling and overseeing healthcare practitioners providing treatment to participating patients
- Verifying and enrolling qualifying patients, designated caregivers, parents, legal guardians, and spouses
- Collecting annual registration fees from patients and registered medical cannabis manufacturers
- Examining business and financial affairs, practices, and conditions of registered medical cannabis manufacturers

## 1.3 Registered Medical Cannabis Manufacturers

Two manufacturers, LeafLine Labs (LeafLine) and Minnesota Medical Solutions (MinnMed), were registered on December 1, 2014. The manufacturers are responsible for the cultivation, production, and distribution of medical cannabis in the State. OMC assigned geographical service areas to each manufacturer, and each manufacturer is limited to two distribution facilities, also known as Cannabis Patient Centers (CPCs), per assigned geographical area.

Each manufacturer established four CPCs within the State, for a total of eight CPCs. Registered patients can purchase medical cannabis from any one of these eight CPCs. As of March 2020, MinnMed operates CPCs in Bloomington, Minneapolis, Moorhead, and Rochester; and LeafLine operates CPCs in Eagan, Hibbing, St. Cloud, and St. Paul.

[1]Office of the Legislative Auditor, Minnesota Department of Health Office of Medical Cannabis – Internal Controls and Compliance Audit of July 2016 through December 2018 (January 2020)

## 1.4 Products Offered in Minnesota and Definitions

Two primary therapeutic cannabinoids— delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD) —are found in varying ratios in the cannabis plant. THC is the more widely known of the two because of its psychoactive effects, which create a "high" in users. CBD is non-psychoactive (i.e., it does not create a "high"), and might be useful in reducing pain and inflammation, controlling epileptic seizures, and possibly treating mental illness and addictions.

The 2014 legislation that legalized medical marijuana production and sale also limited products to pills or liquids (including oil). All products offered in Minnesota are considered concentrates, which means the marijuana has undergone processing to isolate the desirable properties of cannabis. Minnesota does not allow the sale of flower cannabis, edibles, or other forms of non-liquid concentrates that can be sold in other states.

LeafLine and MinnMed offer a variety of products, including cartridges, syringes, bulk oils, oral suspension solutions, and tinctures. We grouped these products into the following four categories:

1. **Vape Oil:** General term for cannabis concentrate in an oil form that is vaporized.
    - **Cartridge:** Vape oil that has been prefilled into a glass cartridge for vaporization with a battery.
    - **Syringe:** A syringe of cannabis concentrate; similar to a cartridge, except it must be transferred from the syringe to another vaporizing device to be consumed.
    - **Bulk Oil:** Similar to a syringe, bulk oil is cannabis concentrate that is often used as a "refill" for a patient's vaporizer.
2. **Oral Suspension:** General term for a cannabis concentrate that is consumed orally or sublingually (i.e., not eaten, smoked, or vaporized).
    - **Oral Solution:** Another general term for a cannabis concentrate that is consumed orally.
    - **Sublingual:** Cannabis concentrate that is consumed through absorption under the tongue.
    - **Tincture:** Cannabis concentrate infused with alcohol that can be consumed orally or sublingually.
3. **Capsule:** Cannabis concentrate in pill form.
4. **Topical:** Cannabis concentrate that is applied directly to the body's surface. This is often in the form of a balm or bar (similar to deodorant).

# 2.0 Purpose and Scope

## 2.1 Purpose

OMC asked BerryDunn to conduct a study of medical cannabis product prices. The objectives of this study included:

- Documentation of available medical cannabis products and historical prices during the review period (Section 3.1)
- Analysis and documentation of the current prices of sampled medical cannabis products in the states of Colorado, Michigan, New York, Ohio, Pennsylvania, and Washington that are comparable to the medical cannabis products offered in Minnesota (Section 3.2)
- Documentation of discount programs offered during the review period (Section 3.3)
- Documentation of the total number of units sold, sales, discounts applied, and net sales from medical cannabis sales in each quarter during the review period (Section 3.3)
- Calculation of the average amount spent for a 30-day supply of medical cannabis by registered patients (Section 3.4)

## 2.2 Scope

We requested and obtained data containing all sales transactions for all products sold by the two registered manufacturers, LeafLine and MinnMed, from June 2015 to December 2019. However, due to a variety of factors, OMC agreed that the study would include sales data from October 2016 through December 2020.

We also obtained from MDH sales data that the two manufacturers reported to the State. This data was used to verify the sales data from the two manufacturers by cross-referencing patient IDs and medicine IDs, as well as to extract patients' QCs information.

We excluded the sales data of nonmedical products, such as vaporizer kits, batteries, and manufacturers' merchandises. We also excluded the sales data we were not able to verify due to unrecognized patient ID numbers.

MinnMed provides a partial or full refund to patients who return faulty medical products. The refunds are recorded as a modification of the original price. For example, a sale of a $20 product with a subsequent $10 refund would be recorded as if the medicine was originally sold for $10. Including the sales that were modified for refunds would skew the calculation of average price for those products. Additionally, the number of such transactions was not significant; hence, we excluded those transactions from our analysis.

In this study, we categorized medical cannabis products into the four categories mentioned above, and further broke down each category into three classifications of THC:CBD content as described below:

1. THC Dominant – products that contain more THC than CBD
    a. All THC dominant products LeafLine offered in December 2019 contained more than 95% of THC.
    b. Of the 23 THC dominant products MinnMed offered in December 2019, four contained 83% of THC, four contained 75% of THC, and the remaining 15 contained more than 95% of THC.
2. THC=CBD – products that contain the equal amount of THC and CBD
3. CBD Dominant – products that contain more CBD than THC
    a. All CBD dominant products LeafLine offered in December 2019 contained more than 95% CBD.
    b. Of the nine CBD dominant products MinnMed offered in December 2019, one contained 83% of CBD and the other eight contained over 95% of CBD.

# 3.0 Results

## 3.1 Minnesota Medical Cannabis Price Study

In this section, we document the medical cannabis products sold by the two manufacturers in December 2019, as well as product pricing. See **Appendix A** for a full listing of historical prices and products sold from October 2016 to December 2019 for both manufacturers**.**

Table 3.1-1 shows the total number of unique medical cannabis products, by category, offered and sold in December 2019 by LeafLine and MinnMed.

**Table 3.1-1: Number of Unique Medical Cannabis Products Available in Minnesota in December 2019**

| Medicine Type | Mfr. | THC Dominant | THC=CBD | CBD Dominant | Total |
|---|---|---|---|---|---|
| **Vape Oil** | LeafLine | 4 | 1 | 1 | **6** |
| | MinnMed | 9 | 5 | 1 | **15** |
| | **MN Total** | **13** | **6** | **2** | **21** |
| **Oral Suspension** | LeafLine | 5 | 4 | 1 | **10** |
| | MinnMed | 6 | 2 | 4 | **12** |
| | **MN Total** | **11** | **6** | **5** | **22** |
| **Capsule** | LeafLine | 1 | 0 | 0 | **1** |
| | MinnMed | 6 | 2 | 2 | **10** |
| | **MN Total** | **7** | **2** | **2** | **11** |
| **Topical** | LeafLine | 0 | 1 | 0 | **1** |
| | MinnMed | 2 | 2 | 2 | **6** |
| | **MN Total** | **2** | **3** | **2** | **7** |
| **Total** | | **33** | **17** | **11** | **61** |

### *3.1.1 Current Medicine Price List – LeafLine*

Tables 3.1.1-1 – 3.1.1-4 show the price for all cannabis products LeafLine offered in December 2019. During the review period, LeafLine made two significant changes in their prices and products. Effective April 26, 2017, the prices of all cannabis products were reduced by 23% to 26%. Effective January 7, 2019, some medical cannabis products were discontinued.

**Table 3.1.1-1: LeafLine Medical Cannabis Prices as of December 2019 – Vape Oil**

| LeafLine Medical Cannabis Prices as of December 2019 – Vape Oil | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |
| **THC Dominant** | **51032** | Tangerine vaporizer oil cartridge, 0.5 mL | $72.54 |
| | **51031** | Tangerine vaporizer oil syringe, 1 mL | $145.08 |
| | **51033** | Tangerine vaporizer oil syringe, 1 mL | $145.08 |
| | **51034** | Tangerine vaporizer oil cartridge, 0.5 mL 2-pack | $145.08 |
| **THC=CBD** | **52006** | Heather vaporizer oil cartridge, 0.5 mL | $60.90 |
| **CBD Dominant** | **53004** | Cobalt vaporizer oil cartridge, 0.5 mL | $43.78 |

**Table 3.1.1-2: LeafLine Medical Cannabis Prices as of December 2019 – Oral Suspension**

| LeafLine Medical Cannabis Prices as of December 2019 – Oral Suspension | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |
| **THC Dominant** | **51007** | Tangerine oral suspension unflavored, 120 mL | $45.78 |
| | **51008** | Tangerine oral suspension orange cream, 120 mL | $45.78 |
| | **51009** | Tangerine sublingual spray vanilla mint, 15 mL | $57.22 |
| | **51014** | Tangerine oral suspension orange cream, 240 mL | $91.55 |
| | **51024** | Tangerine oral suspension unflavored, 60 mL | $228.89 |
| **THC=CBD** | **52005** | Heather sublingual spray vanilla mint, 15 mL | $59.36 |
| | **52003** | Heather oral suspension unflavored, 60 mL | $79.14 |
| | **52004** | Heather oral suspension cherry vanilla, 60 mL | $79.14 |
| | **52009** | Heather oral suspension cherry vanilla, 120 mL | $158.28 |
| **CBD Dominant** | **53001** | Cobalt oral suspension unflavored, 60 ml | $99.96 |

**Table 3.1.1-3: LeafLine Medical Cannabis Prices as of December 2019 – Capsule**

| LeafLine Medical Cannabis Prices as of December 2019 – Capsule | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |
| **THC Dominant** | **51029** | Tangerine capsules, 5 mg, 30 count | $28.61 |

**Table 3.1.1-4: LeafLine Medical Cannabis Prices as of December 2019 – Topical**

| LeafLine Medical Cannabis Prices as of December 2019 – Topical | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |
| **THC=CBD** | **52012** | Heather topical gel cream, 30 mL | $39.57 |

### *3.1.2 Current Medicine Price List – MinnMed*

Tables 3.1.2-1 – 3.1.2-4 show the price for all cannabis products MinnMed offered in December 2019. During the 4th quarter of 2019, the prices of most medical cannabis products were reduced by 20% to 22%, with several exceptions:

- Prices increased by 90% to 111% for the following products:
  - Two THC dominant vape oil products
  - One THC=CBD vape oil product
  - Two THC dominant capsule products
  - One THC=CBD capsule product
- The prices of two THC=CBD oral suspension products were reduced by 33%.

**Table 3.1.2-1: MinnMed Medical Cannabis Prices as of December 2019 – Vape Oil**

| MinnMed Medical Cannabis Prices as of December 2019 – Vape Oil | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |
| **THC Dominant** | **2150** | Red Distillate Bulk Oil syringe, 1 g | $118 |
| | **2151** | Red Distillate Prefilled Vaporizer cartridge, 200 mg | $46 |
| | **2152** | Red Distillate Prefilled Vaporizer cartridge, 500 mg | $65 |
| | **2153** | Red Distillate Prefilled Vaporizer cartridge, 1,000 mg | $125 |
| | **2250*** | Yellow (6:1) Distillate Bulk Oil syringe, 1 g | $118 |
| | **2251*** | Yellow (6:1) Distillate Prefilled Vape cartridge, 200 mg | $46 |
| | **2252*** | Yellow (6:1) Distillate Prefilled Vape cartridge, 500 mg | $65 |
| | **2253*** | Yellow (6:1) Distillate Prefilled Vape cartridge, 1,000 mg | $125 |
| | **2901** | Silver Prefilled Vaporizer cartridge, 0.5 mL | $23 |
| **THC=CBD** | **2301** | Green (1:1) Prefilled Vaporizer cartridge, 0.5 mL | $37 |
| | **2350** | Green (1:1) Distillate Bulk Oil syringe, 1 g | $99 |
| | **2351** | Green (1:1) Distillate Prefilled Vape cartridge, 200 mg | $46 |
| | **2352** | Green (1:1) Distillate Prefilled Vape cartridge, 500 mg | $54 |
| | **2353** | Green (1:1) Distillate Prefilled Vape cartridge, 1,000 mg | $105 |
| **CBD Dominant** | **2401*** | Blue (1:6) Prefilled Vaporizer cartridge 0.5 mL | $46 |

* Product is less than 95% THC or CBD but greater than 50%

**Table 3.1.2-2: MinnMed Medical Cannabis Prices as of December 2019 – Oral Suspension**

| MinnMed Medical Cannabis Prices as of December 2019 – Oral Suspension | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |

| MinnMed Medical Cannabis Prices as of December 2019 – Oral Suspension | | | |
|---|---|---|---|
| **THC Dominant** | **2105** | Red MCT Oral Solution, 25mL | $94 |
| | **2106** | Red Tincture, 25 mL | $94 |
| | **2205*** | Yellow (4:1) MCT Oral Solution, 25 mL | $94 |
| | **2206*** | Yellow (4:1) Tincture, 25 mL | $94 |
| | **2705** | Red XS MCT Oral Solution, 25 mL | $189 |
| | **2706** | Red XS Tincture, 25 mL | $189 |
| **THC=CBD** | **2305** | Green (1:1) MCT Oral Solution, 25 mL | $160 |
| | **2306** | Green (1:1) Tincture, 25 mL | $160 |
| **CBD Dominant** | **2505** | Indigo (1:19) MCT Oral Solution, 25 mL | $99 |
| | **2506** | Indigo (1:19) Tincture, 25 mL | $99 |
| | **2605** | Violet MCT Oral Solution, 25 mL | $195 |
| | **2606** | Violet Tincture, 25 mL | $195 |

* Product is less than 95% THC or CBD but greater than 50%

**Table 3.1.2-3: MinnMed Medical Cannabis Prices as of December 2019 – Capsule**

| MinnMed Medical Cannabis Prices as of December 2019 – Capsule | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |
| **THC Dominant** | **2104** | Red capsules, 30 count | $23 |
| | **2114** | Red capsules, 12 count | $19 |
| | **2204*** | Yellow (4:1) capsules, 30 count | $31 |
| | **2214*** | Yellow (4:1) capsules, 12 count | $20 |
| | **2704** | Red XS capsules, 30 count | $62 |
| | **2804** | Black capsules, 30 count | $141 |
| **THC=CBD** | **2304** | Green (1:1) capsules, 30 count | $31 |
| | **2314** | Green (1:1) capsules, 12 count | $19 |
| **CBD Dominant** | **2504** | Indigo (1:19) capsules, 30 count | $118 |
| | **2604** | Violet capsule, 30 count | $236 |

** Product is less than 95% THC or CBD but greater than 50%

**Table 3.1.2-4: MinnMed Medical Cannabis Prices as of December 2019 – Topical**

| MinnMed Medical Cannabis Prices as of December 2019 – Topical | | | |
|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price as of Dec 2019** |
| **THC Dominant** | **2145** | Red balm unscented, 1.5 oz | $29 |
| | **2146** | Red bar unscented, 2.5 oz | $46 |
| **THC=CBD** | **2345** | Green balm unscented, 1.5 oz | $29 |
| | **2346** | Green bar unscented, 2.5 oz | $46 |
| **CBD Dominant** | **2545** | Indigo balm unscented, 1.5 oz | $29 |
| | **2546** | Indigo bar unscented, 2.5 oz | $46 |

## 3.2 Medical Cannabis Price Comparison

In this section, we document our analysis of the current prices of sampled medical cannabis products in the states of Colorado, Michigan, New York, Ohio, Pennsylvania, and Washington that are comparable to the Medical cannabis products offered in Minnesota.

Tables 3.2-1 and 3.2-2 summarize the competitive landscape and tax environment in the states included in the price comparison. Table 3.2-1 shows an approximate number of companies that operate distribution facilities, also known as dispensaries, in the state, while the number of locations is the total number of distribution facilities in the state as of March 2020. The far-right column indicates whether a state has a legalized recreational market (REC), a medical market (MED), or both (REC/MED). Table 3.2-2 shows the direct taxes levied on medical cannabis in the states used in the price comparison.

**Table 3.2-1: Approximate Number of Dispensary Companies and Locations**

| Approximate Number of Dispensary Companies and Locations | | | |
|---|---|---|---|
| **Location** | **Approx. No. of Medical Dispensary Companies** | **No. of Locations** | **REC/MED** |
| **Minnesota** | 2 | 8 | MED |
| **Colorado** | 258 | 437 | REC/MED |
| **Michigan** | 58 | 228 | REC/MED |
| **New York** | 12 | 40 | MED |
| **Ohio** | 27 | 51 | MED |
| **Pennsylvania** | 12 | 23 | MED |
| **Washington** | 135 | 179 | REC/MED |

**Table 3.2-2: Medical Cannabis Taxes by State**

| Medical Cannabis Taxes by State | | | |
|---|---|---|---|
| **State** | **Tax Type** | **Tax Paid By** | **Tax Amount** |
| Minnesota | | | Exempt |
| Colorado | Sales | Consumer | 2.90% |
| Michigan | Sales | Consumer | 6% |
| New York | Excise | Grower/Seller | 7% of Gross Receipts on Sale to Patient |
| Ohio | Sales | Consumer | 6.875% (average rate—varies by county) |
| Pennsylvania | Excise | Grower/Processor | 5% on gross receipts from sale to dispensary |
| Washington | | | Exempt |

We selected a minimum of five distribution facilities for each of the six states for this price study, and collected medical cannabis product prices directly from each facility's websites. In order to collect the prices of medical cannabis products that are comparable to the products offered in

Minnesota, we attempted to collect the prices of THC-Dominant, THC=CBD, and CBD-Dominant products of the following product categories from each sample distribution facility:

- Vape Oil: Including cartridge, bulk oil, and syringe
- Oral Suspension: Including tincture and sublingual
- Capsule
- Topical: Including lotions, and balms

Our price data collection efforts were subject to the following limitations and constraints:

- Neither the price of THC nor CBD was readily available. Therefore, we calculated the price using the following methods.
    - For THC-dominant and CBD-dominant products, we calculated the approximate price of THC or CBD by dividing the unit price by the amount (mg) of THC or CBD contained in the product.

      In order to calculate the approximate price of THC and CBD more accurately, we only included medical cannabis products that contain over 95% of THC or over 95% of CBD for this study. As a result, eight medical cannabis products offered by MinnMed were excluded from this study.
    - For products that contain equal amounts of THC and CBD (THC=CBD), we calculated the approximate price of cannabis, not the individual prices of THC and CBD, by dividing the unit price by the amounts (mg) of THC and CBD combined.
- None of the sampled distribution facilities offered all of the product types listed above, which necessitated varying sample sizes among product types.
- Detailed product information, such as THC and CBD content, was not consistently available.
- The THC and CBD contents were obtained from publicly viewable information on dispensary websites. We did not perform any additional procedures to confirm the accuracy of this information with the distribution facilities or manufacturers.
- The low and high prices listed in the tables under Sections 3.2.1 – 3.2.4 are based upon our sample selections. The actual low and high prices for the six comparison states could be different.
- Prices were recorded in March 2020.
- We were not able to obtain the prices of equivalent products for all product types in our sample for comparison. This was due to the fact that for some products either the sampled facilities did not offer equivalent products, or THC and CBD content was not readily available on websites for verification. For example, none of the sampled

distribution facilities offered CBD dominant vape oil that contains over 95% of CBD. We experienced the same issue in our sampling for THC dominant topical from the comparison states (except for Pennsylvania).

Tables 3.2-3 – 3.2-6 show the number of products we sampled for our price study by each category. For example, we obtained the prices of 13 THC dominant vape oil products, but were not able to obtain the prices of THC=CBD or CBD dominant vape oil products from the sampled distribution facilities in Colorado.

**Table 3.2-3: Vape Oil Sample Size Information**

| Vape Oil Sample Size Information | | | | |
|---|---|---|---|---|
| **Location** | **Number of Products Sampled** | | | **No. of Distribution Facilities Sampled** |
| | **THC Dominant (Over 95% THC)** | **THC = CBD** | **CBD Dominant (Over 95% CBD)** | |
| **Minnesota** | 9 | 6 | 1 | 2 |
| **Colorado** | 13 | | | 6 |
| **Michigan** | 10 | | | 5 |
| **New York** | 10 | 5 | | 5 |
| **Ohio** | 17 | 3 | | 5 |
| **Pennsylvania** | 18 | 12 | | 5 |
| **Washington** | 19 | 4 | | 5 |

**Table 3.2-4: Oral Suspension Sample Size Information**

| Oral Suspension Sample Size Information | | | | |
|---|---|---|---|---|
| **Location** | **Number of Products Sampled** | | | **No. of Distribution Facilities Sampled** |
| | **THC Dominant (Over 95% THC)** | **THC = CBD** | **CBD Dominant (Over 95% CBD)** | |
| **Minnesota** | 9 | 6 | 5 | 2 |
| **Colorado** | 11 | 4 | 7 | 8 |
| **Michigan** | 10 | 3 | 6 | 7 |
| **New York** | 11 | 6 | 5 | 5 |
| **Ohio** | 19 | 7 | 5 | 5 |
| **Pennsylvania** | 10 | 7 | | 5 |
| **Washington** | 9 | 6 | 8 | 6 |

**Table 3.2-5: Capsule Sample Size Information**

| Capsule Sample Size Information | | | | |
|---|---|---|---|---|
| Location | Number of Products Sampled | | | No. of Distribution Facilities Sampled |
| | THC Dominant (Over 95% THC) | THC = CBD | CBD Dominant (Over 95% CBD) | |
| Minnesota | 4 | 2 | 2 | 2 |
| Colorado | 10 | 5 | | 9 |
| Michigan | 9 | | 6 | 7 |
| New York | 5 | 7 | 4 | 5 |
| Ohio | 6 | 4 | | 5 |
| Pennsylvania | 10 | 4 | | 5 |
| Washington | 5 | 4 | 3 | 6 |

**Table 3.2-6: Topical Sample Size Information**

| Topical Sample Size Information | | | | |
|---|---|---|---|---|
| Location | Number of Products Sampled | | | No. of Distribution Facilities |
| | THC Dominant (Over 95% THC) | THC = CBD | CBD Dominant (Over 95% CBD) | |
| Minnesota | 2 | 3 | 2 | 2 |
| Colorado | | 13 | | 10 |
| Michigan | | 10 | 9 | 6 |
| New York | | | 10 | 5 |
| Ohio | | 9 | | 6 |
| Pennsylvania | 3 | | | 5 |
| Washington | | 7 | 7 | 7 |

Below, we document the lowest and the highest prices of medical cannabis products offered in Minnesota as of December 2019, and the lowest and the highest prices of sampled medical cannabis products in the six comparison states. The prices are grouped by four categories; Vape Oil, Oral Suspension, Capsule, and Topical. Prices are noted in:

- Price/mg of THC for THC dominant (over 95% THC) products
- Price/mg of cannabis (THC and CBD combined) for THC=CBD products
- Price/mg of CBD for CBD dominant (over 95% CBD) products

Each subsection includes a series of graphs that show the spread between the lowest and the highest observed prices of sampled products. In addition to the lowest and highest observed prices in a given state, additional prices might fall in between those two points.

The Lowest/Highest in the tables below indicates the lowest and highest prices of all of our samples for each product type.

We observed that Minnesota offers medical cannabis products at comparable prices to equivalent products in the six comparison states. We also observed that the other states offer a wider variety of product categories such as flower, edibles (food items that contain marijuana product), and additional types of topical. All six comparison states sell flower products.

### *3.2.1 Sampled Price Comparison: Vape Oil*

**Table 3.2.1-1: Sampled Prices of Vape Oil Products**

| Sampled Prices of Vape Oil Products | | | | | | |
|---|---|---|---|---|---|---|
| **Location** | **THC Dominant (Over 95% THC)** | | **THC=CBD** | | **CBD Dominant (Over 95% CBD)** | |
| | **price/mg THC** | | **price/mg cannabis** | | **price/mg CBD** | |
| | **Low** | **High** | **Low** | **High** | **Low** | **High** |
| **Minnesota** | $0.15 | $0.23 | $0.12 | $0.29 | $0.10 | $0.10 |
| **Colorado** | $0.04 | $0.11 | | | | |
| **Michigan** | $0.05 | $0.25 | | | | |
| **New York** | $0.16 | $0.32 | $0.16 | $0.30 | | |
| **Ohio** | $0.12 | $0.22 | $0.15 | $0.16 | | |
| **Pennsylvania** | $0.12 | $0.20 | $0.11 | $0.17 | | |
| **Washington** | $0.03 | $0.15 | $0.04 | $0.17 | | |
| **Lowest/Highest** | **$0.03** | **$0.32** | **$0.04** | **$0.30** | | |

**Figure 3.2.1-1: THC Price Spread Comparison: Vape Oil THC Dominant (Over 95% THC)**

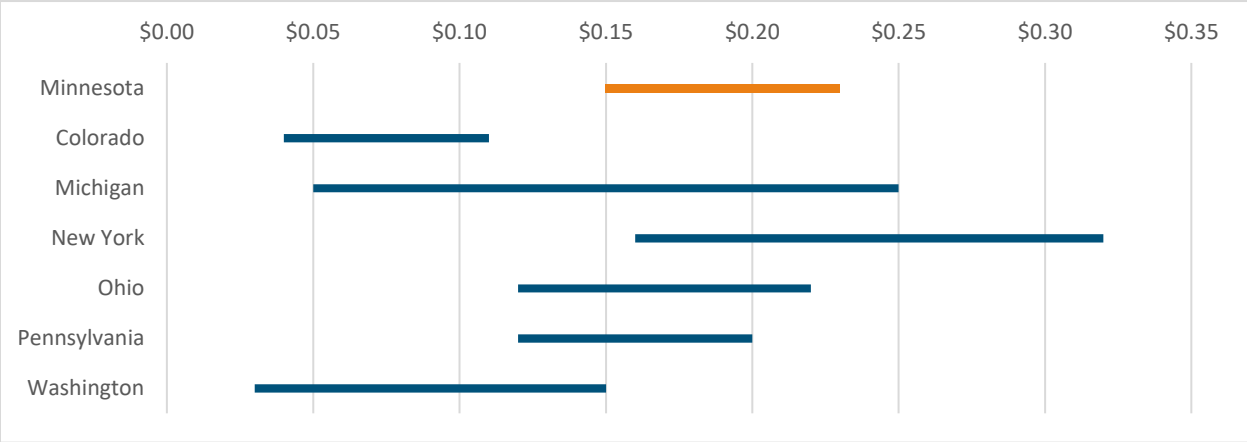
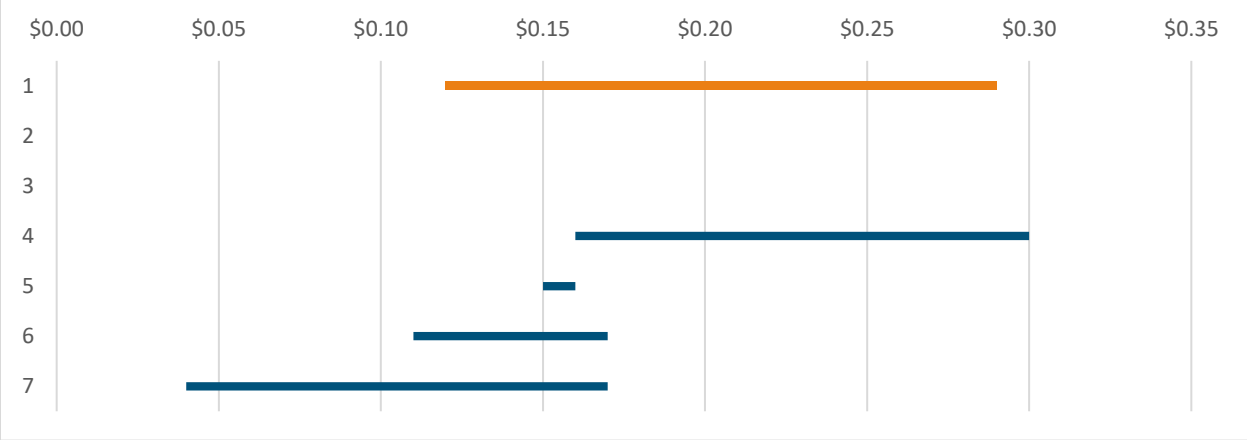


**Figure 3.2.1-2: Cannabis Price Spread Comparison: Vape Oil THC=CBD**




### *3.2.2 Sampled Price Comparison: Oral Suspension Products*

**Table 3.2.2-1: Sampled Prices of Oral Suspension Products**

| Sampled Prices of Oral Suspension Products | | | | | | |
|---|---|---|---|---|---|---|
| **Location** | **THC Dominant (Over 95% THC)** | | **THC=CBD** | | **CBD Dominant (Over 95% CBD)** | |
| | **price/mg THC** | | **price/mg cannabis** | | **price/mg CBD** | |
| | **Low** | **High** | **Low** | **High** | **Low** | **High** |
| **Minnesota** | $0.15 | $0.19 | $0.13 | $0.13 | $0.08 | $0.08 |
| **Colorado** | $0.03 | $0.39 | $0.16 | $0.16 | $0.04 | $0.13 |
| **Michigan** | $0.05 | $0.10 | $0.07 | $0.09 | $0.05 | $0.18 |
| **New York** | $0.17 | $0.76 | $0.11 | $0.76 | $0.08 | $0.18 |
| **Ohio** | $0.17 | $0.37 | $0.20 | $0.23 | $0.13 | $0.20 |
| **Pennsylvania** | $0.14 | $0.27 | $0.11 | $0.23 | | |
| **Washington** | $0.17 | $0.37 | $0.06 | $0.25 | $0.07 | $0.24 |
| **Lowest/Highest** | **$0.03** | **$0.76** | **$0.06** | **$0.76** | **$0.04** | **$0.24** |

**Figure 3.2.2-1: THC Price Spread Comparison: Oral Suspension THC Dominant (Over 95% THC)**

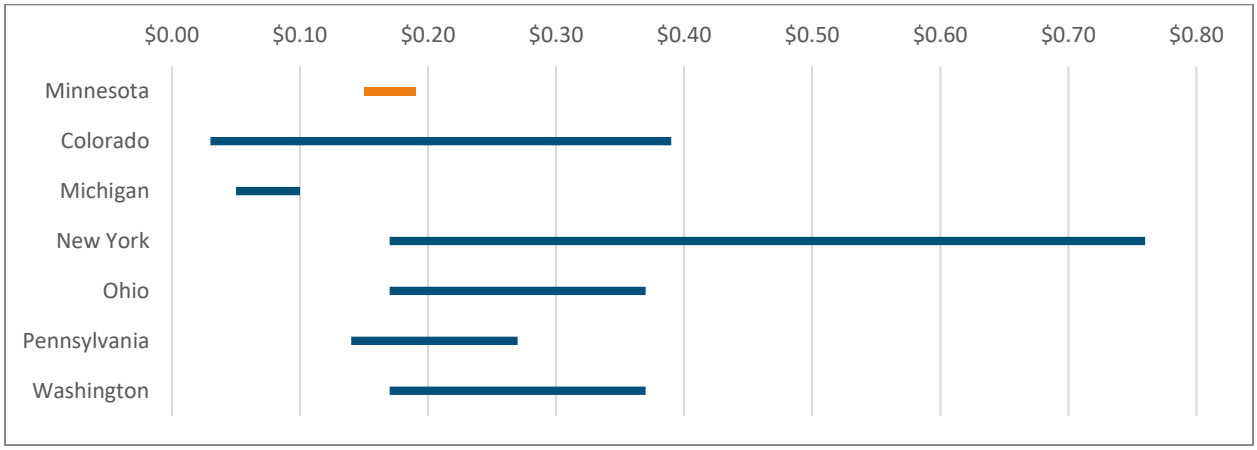



**Figure 3.2.2-2: Cannabis Price Spread Comparison: Oral Suspension THC=CBD**

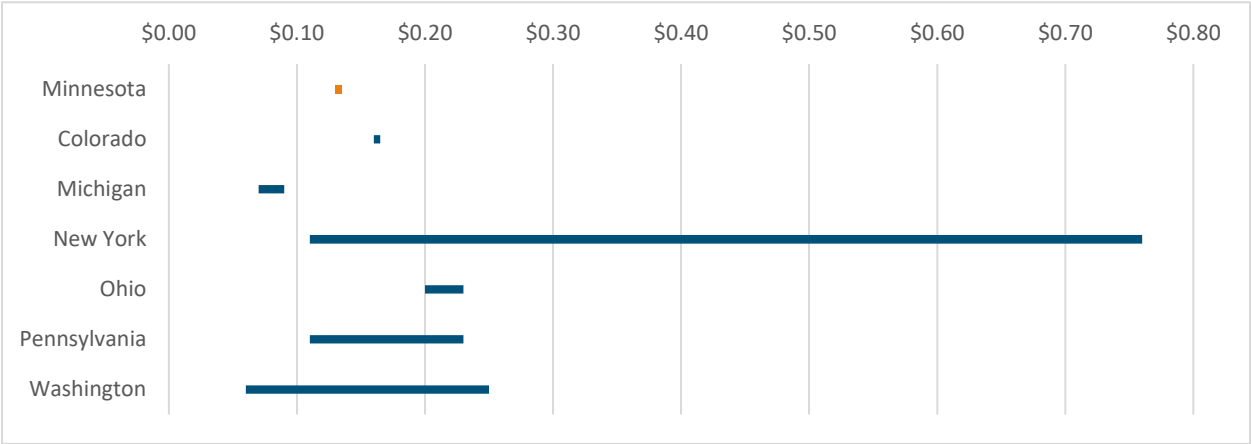
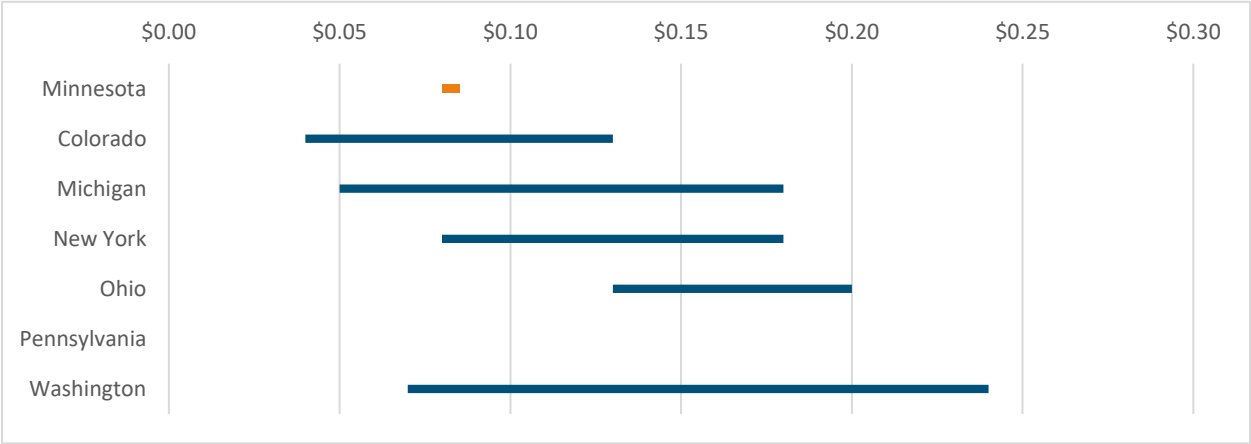



**Figure 3.2.2-3: CBD Price Spread Comparison: Oral Suspension CBD Dominant (Over 95% CBD)**




### *3.2.3 Sampled Price Comparison: Capsules Products*

**Table 3.2.3-1: Sampled Prices of Capsules**

| Sampled Prices of Capsules | | | | | | |
|---|---|---|---|---|---|---|
| **Location** | **THC Dominant (Over 95% THC)** | | **THC=CBD** | | **CBD Dominant (Over 95% CBD)** | |
| | **price/mg THC** | | **price/mg cannabis** | | **price/mg CBD** | |
| | **Low** | **High** | **Low** | **High** | **Low** | **High** |
| **Minnesota** | $0.19 | $0.63 | $0.21 | $0.32 | $0.08 | $0.08 |
| **Colorado** | $0.08 | $0.23 | $0.13 | $0.18 | | |
| **Michigan** | $0.07 | $0.22 | | | $0.05 | $0.17 |
| **New York** | $0.15 | $0.35 | $0.18 | $0.34 | $0.08 | $0.20 |
| **Ohio** | $0.36 | $0.39 | $0.24 | $0.24 | | |
| **Pennsylvania** | $0.26 | $0.50 | $0.24 | $0.35 | | |
| **Washington** | $0.03 | $0.24 | $0.01 | $0.03 | $0.06 | $0.06 |
| **Lowest/Highest** | **$0.03** | **$0.63** | **$0.01** | **$0.35** | **$0.05** | **$0.20** |

**Figure 3.2.3-1: THC Price Spread Comparison: Capsules THC Dominant (Over 95% THC)**

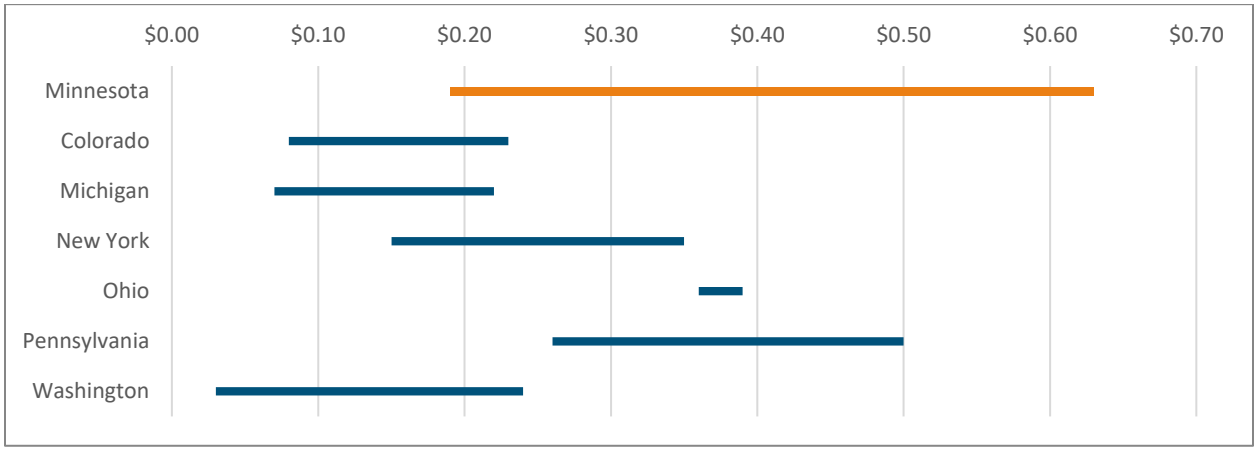



**Figure 3.2.3-2: Cannabis Price Spread Comparison: Capsules THC=CBD**

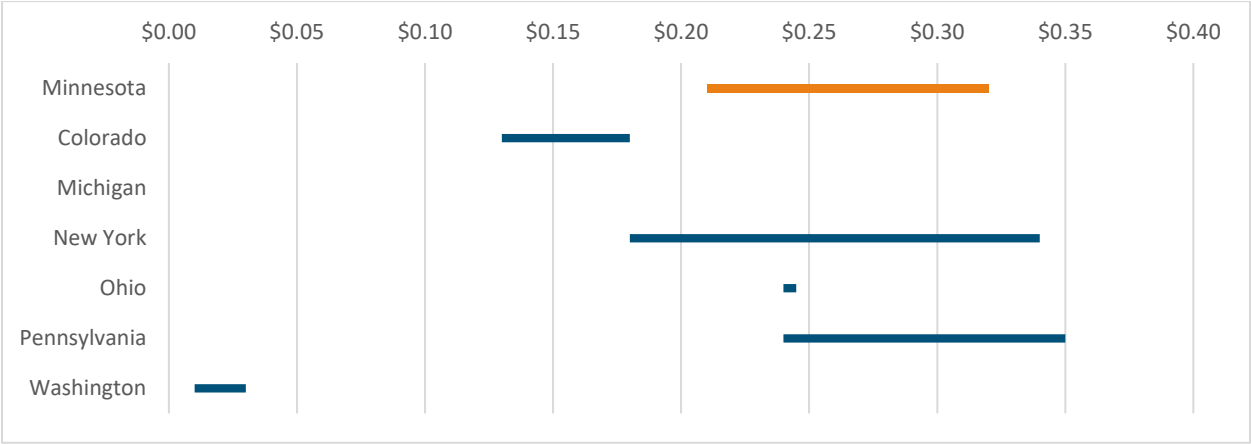
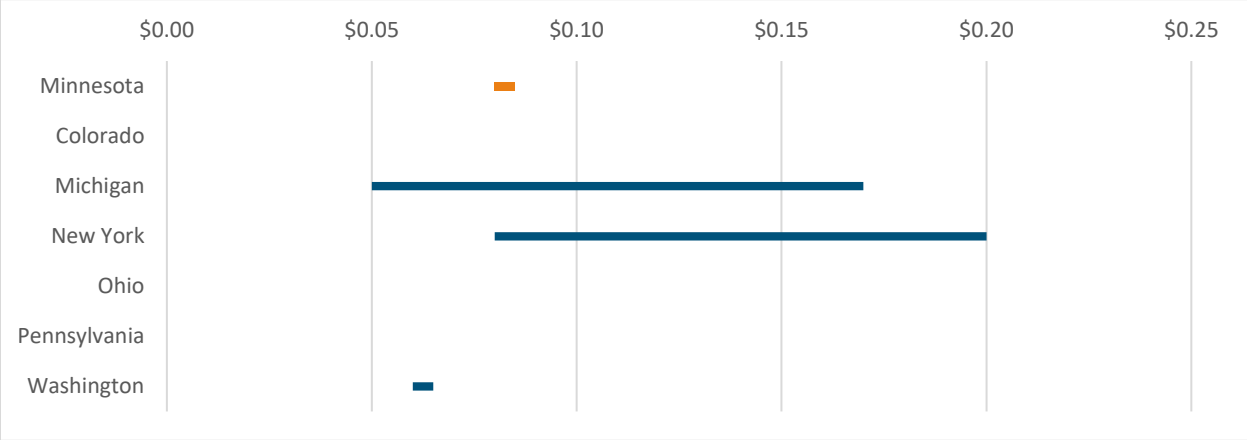


**Figure 3.2.3-3: CBD Price Spread Comparison: Capsules CBD Dominant (Over 95% CBD)**




### *3.2.4 Sampled Price Comparison: Topical Products*

**Table 3.2.4-1: Sampled Prices of Topical**

| Sampled Prices of Topical | | | | | | |
|---|---|---|---|---|---|---|
| **Location** | **THC Dominant (Over 95% THC)** | | **THC=CBD** | | **CBD Dominant (Over 95% CBD)** | |
| | **price/mg THC** | | **price/mg cannabis** | | **price/mg CBD** | |
| | **Low** | **High** | **Low** | **High** | **Low** | **High** |
| **Minnesota** | $0.37 | $0.39 | $0.13 | $0.39 | $0.39 | $0.37 |
| **Colorado** | | | $0.11 | $0.48 | | |
| **Michigan** | | | $0.10 | $0.48 | $0.05 | $0.37 |
| **New York** | | | | | $0.07 | $0.77 |
| **Ohio** | | | $0.10 | $0.36 | | |
| **Pennsylvania** | $0.20 | $0.30 | | | | |
| **Washington** | | | $0.02 | $0.17 | $0.05 | $0.26 |
| **Lowest/Highest** | **$0.20** | **$0.39** | **$0.02** | **$0.48** | **$0.05** | **$0.77** |

**Figure 3.2.4-1: THC Price Spread Comparison: Topical THC Dominant (Over 05% THC)**

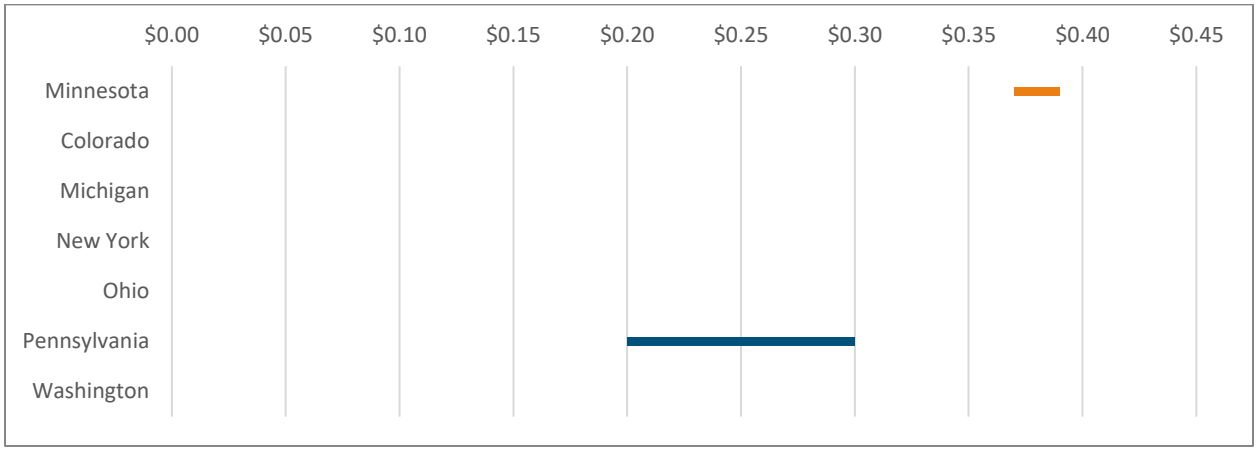



**Figure 3.2.4-2: Cannabis Price Spread Comparison: Topical THC=CBD**

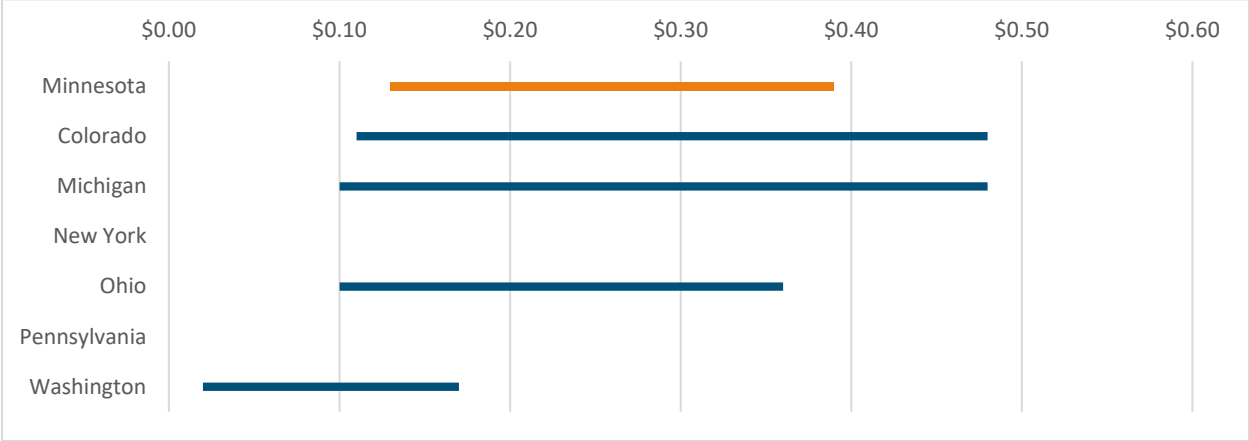
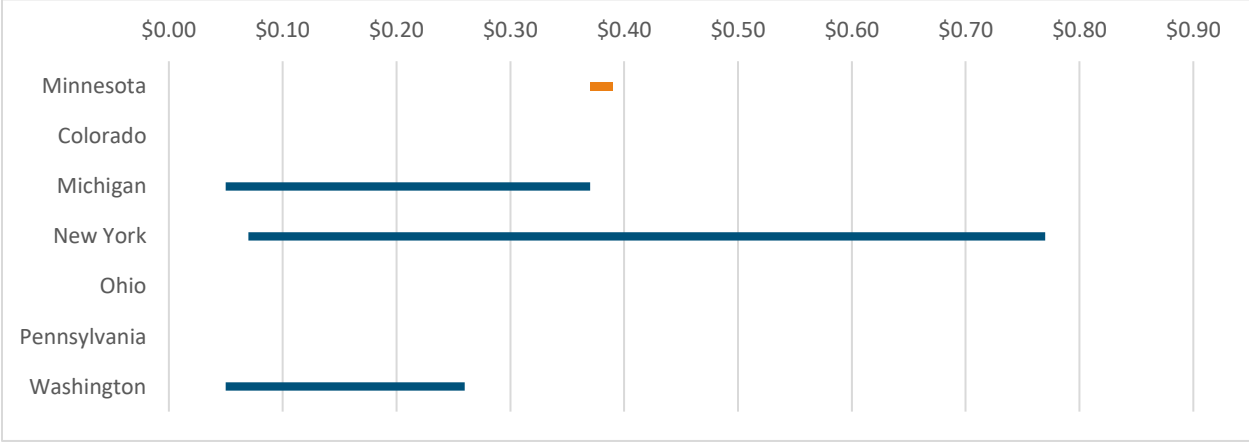



**Figure 3.2.4-3: CBD Price Spread Comparison: Topical CBD Dominant (Over 95% CBD)**



## 3.3 Sales Data by Category

This section presents the following data for the State:

- Number of units sold by medical cannabis product type and category
- Revenue from the sales of medical cannabis
- Discounts applied to the sales
- Net sales of medical cannabis in each quarter during the review period

**Discount Programs**

The manufacturers offer discount programs for the sales of medical cannabis products. These discounts are not applicable to the sales of non-cannabis products and cannot be combined.

Both manufacturers offer 15% off the price of medical cannabis products for the patient who has the following types of medical assistance documented on her/his MDH profile:

- SSI
- SSD
- Medicaid/MA
- MinnesotaCare
- Indian Health Service (IHS)
- VA Disability

In addition, MinnMed offers 50% off the price of medical cannabis, up to $100, for new customers, and 15% off for military patients of active or veteran status as well as their spouse and child(ren).

Since May 2019, LeafLine offers 15% off for military patients of active or veteran status.

**Loyalty Programs**

Both manufacturers offered loyalty programs that allow customers to accumulate points on any purchases. The earned points can be used on any purchases of medical cannabis products, equipment, or merchandise.

MinnMed's initial program offered loyalty points based on 2% of each net purchase, where patients earned $1 worth of points for each $50 spent. MinnMed upgraded the program on June 21, 2017, to increase the points earned to 20% of each net purchase, where patients earned $1 worth of points for each net $5 spent. However, MinnMed discontinued its loyalty program in the

4th quarter of 2019; therefore, patients can no longer earn points on purchases, but they can redeem the points they earned until the end of 2020.

LeafLine offers $1 worth of point for each net $20 spent on any purchase.

**Sales Data**

We organized the data by four product categories: Vape Oil, Oral Suspension, Capsule, and Topical.

Within these categories, we further broke down the data by three product types when available:

- THC Dominant – contains more THC than CBD
- THC=CBD – contains equal amount of THC and CBD
- CBD Dominant – contains more CBD than THC

### *3.3.1 Number of Units Sold and Sales by Product Type and Category*

Tables 3.3.1-1 – 3.3.1-4 show the number of units sold and sales of medical cannabis (excluding any discounts applied) combined for both LeafLine and MinnMed in each quarter during the review period by product category.

**Table 3.3.1-1: Number of Units Sold and Sales – Vape Oil**

| Number of Units Sold and Sales – Vape Oil | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | THC Dominant | | THC=CBD | | CBD Dominant | | Total | |
| Quarter | Units Sold | Sales | Units Sold | Sales | Units Sold | Sales | Units Sold | Sales |
| **2016 Q4** | 7,997 | $895,307 | 1105 | $89,911 | 0 | $0 | **9,102** | **$985,217** |
| **2017 Q1** | 7,756 | $817,435 | 1201 | $88,170 | 0 | $0 | **8,957** | **$905,605** |
| **2017 Q2** | 11,488 | $1,098,726 | 1870 | $126,045 | 4 | $175 | **13,362** | **$1,224,946** |
| **2017 Q3** | 16,940 | $1,486,085 | 2,759 | $172,322 | 673 | $29,464 | **20,372** | **$1,687,871** |
| **2017 Q4** | 22,485 | $1,912,779 | 3,713 | $217,476 | 1,433 | $65,278 | **27,631** | **$2,195,533** |
| **2018 Q1** | 28,088 | $2,160,509 | 5,082 | $280,415 | 2,028 | $97,309 | **35,198** | **$2,538,232** |
| **2018 Q2** | 32,593 | $2,512,284 | 6,660 | $369,795 | 2,425 | $116,973 | **41,678** | **$2,999,052** |
| **2018 Q3** | 37,125 | $2,818,754 | 7,870 | $433,744 | 2,776 | $136,525 | **47,771** | **$3,389,023** |
| **2018 Q4** | 42,293 | $3,234,392 | 8,915 | $487,594 | 2,974 | $147,781 | **54,182** | **$3,869,767** |
| **2019 Q1** | 42,607 | $3,256,174 | 8,321 | $460,399 | 2,689 | $133,492 | **53,617** | **$3,850,065** |
| **2019 Q2** | 46,935 | $3,556,947 | 9,481 | $529,577 | 2,857 | $141,837 | **59,273** | **$4,228,360** |
| **2019 Q3** | 52,551 | $3,978,945 | 9,911 | $565,375 | 2,557 | $126,027 | **65,019** | **$4,670,348** |
| **2019 Q4** | 55,345 | $4,499,214 | 10,441 | $622,823 | 2,032 | $94,511 | **67,818** | **$5,216,548** |
| **Total** | **404,203** | **$32,227,551** | **77,329** | **$4,443,646** | **22,448** | **$1,089,372** | **503,980** | **$37,760,567** |

### Table 3.3.1-2: Number of Units Sold and Sales – Oral Suspension

| Number of Units Sold and Sales – Oral Suspension | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | THC Dominant | | THC=CBD | | CBD Dominant | | Total | |
| Quarter | Units Sold | Sales | Units Sold | Sales | Units Sold | Sales | Units Sold | Sales |
| **2016 Q4** | 2,067 | $202,064 | 1,638 | $241,182 | 1,065 | $184,224 | **4,770** | **$627,470** |
| **2017 Q1** | 2,120 | $210,405 | 1,795 | $263,285 | 1,048 | $189,171 | **4,963** | **$662,862** |
| **2017 Q2** | 3,174 | $286,676 | 2,801 | $353,551 | 1,618 | $255,197 | **7,593** | **$895,423** |
| **2017 Q3** | 3,769 | $331,205 | 3,188 | $368,194 | 2,068 | $310,636 | **9,025** | **$1,010,035** |
| **2017 Q4** | 4,079 | $358,607 | 3,859 | $399,489 | 2,569 | $349,115 | **10,507** | **$1,107,212** |
| **2018 Q1** | 4,917 | $387,252 | 4,816 | $386,111 | 3,061 | $361,398 | **12,794** | **$1,134,760** |
| **2018 Q2** | 5,478 | $426,416 | 5,230 | $418,463 | 3,871 | $440,386 | **14,579** | **$1,285,265** |
| **2018 Q3** | 5,938 | $496,665 | 5,525 | $443,539 | 4,342 | $496,626 | **15,805** | **$1,436,830** |
| **2018 Q4** | 7,233 | $586,926 | 6,570 | $525,522 | 5,089 | $583,676 | **18,892** | **$1,696,124** |
| **2019 Q1** | 7,378 | $614,196 | 6,430 | $517,930 | 4,775 | $543,909 | **18,583** | **$1,676,036** |
| **2019 Q2** | 7,741 | $636,924 | 6,842 | $553,315 | 4,638 | $530,408 | **19,221** | **$1,720,646** |
| **2019 Q3** | 8,327 | $692,257 | 6,636 | $547,742 | 4,396 | $503,461 | **19,359** | **$1,743,459** |
| **2019 Q4** | 8,216 | $714,950 | 6,334 | $568,723 | 4,340 | $474,922 | **18,890** | **$1,758,595** |
| **Total** | **70,437** | **$5,944,542** | **61,664** | **$5,587,046** | **42,880** | **$5,223,128** | **174,981** | **$16,754,716** |

### Table 3.3.1-3: Number of Units Sold and Sales – Capsule

| Number of Units Sold and Sales – Capsule | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | THC Dominant | | THC=CBD | | CBD Dominant | | Total | |
| Quarter | Units Sold | Sales | Units Sold | Sales | Units Sold | Sales | Units Sold | Sales |
| **2016 Q4** | 2,685 | $149,488 | 757 | $37,043 | 377 | $75,667 | **3,819** | **$262,198** |
| **2017 Q1** | 2,475 | $119,797 | 710 | $23,486 | 293 | $53,407 | **3,478** | **$196,690** |
| **2017 Q2** | 3,707 | $168,047 | 1,129 | $35,481 | 398 | $72,052 | **5,234** | **$275,580** |
| **2017 Q3** | 5,345 | $240,068 | 1,673 | $52,737 | 526 | $93,074 | **7,544** | **$385,879** |
| **2017 Q4** | 6,976 | $311,550 | 1,880 | $59,550 | 583 | $103,967 | **9,439** | **$475,067** |
| **2018 Q1** | 8,938 | $359,428 | 2,111 | $64,959 | 544 | $96,656 | **11,593** | **$521,043** |
| **2018 Q2** | 10,528 | $428,778 | 2,347 | $73,083 | 759 | $128,991 | **13,634** | **$630,852** |
| **2018 Q3** | 13,022 | $509,497 | 2,787 | $82,983 | 873 | $150,027 | **16,682** | **$742,507** |
| **2018 Q4** | 15,726 | $622,197 | 3,241 | $98,649 | 1,118 | $186,832 | **20,085** | **$907,678** |
| **2019 Q1** | 15,505 | $619,092 | 2,955 | $91,515 | 975 | $160,575 | **19,435** | **$871,182** |
| **2019 Q2** | 16,913 | $656,811 | 3,246 | $103,044 | 1,010 | $165,940 | **21,169** | **$925,795** |
| **2019 Q3** | 18,075 | $705,050 | 3,305 | $106,155 | 1,019 | $169,231 | **22,399** | **$980,436** |
| **2019 Q4** | 19,373 | $745,299 | 3,097 | $99,801 | 997 | $147,190 | **23,467** | **$992,290** |

| Number of Units Sold and Sales – Capsule | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Total** | **139,268** | **$5,635,103** | **29,238** | **$928,486** | **9,472** | **$1,603,609** | **177,978** | **$8,167,198** |

**Table 3.3.1-4: Number of Units Sold and Sales – Topical**

| Number of Units Sold and Sales – Topical | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **THC Dominant** | | **THC=CBD** | | **CBD Dominant** | | **Total** | |
| **Quarter** | **Units Sold** | **Sales** | **Units Sold** | **Sales** | **Units Sold** | **Sales** | **Units Sold** | **Sales** |
| **2016 Q4** | 0 | $0 | 0 | $0 | 0 | $0 | **0** | **$0** |
| **2017 Q1** | 0 | $0 | 0 | $0 | 0 | $0 | **0** | **$0** |
| **2017 Q2** | 0 | $0 | 0 | $0 | 0 | $0 | **0** | **$0** |
| **2017 Q3** | 370 | $17,232 | 340 | $15,569 | 169 | $7,903 | **879** | **$40,704** |
| **2017 Q4** | 575 | $27,628 | 892 | $37,221 | 270 | $12,806 | **1,737** | **$77,655** |
| **2018 Q1** | 657 | $31,195 | 1,119 | $46,215 | 229 | $10,937 | **2,005** | **$88,347** |
| **2018 Q2** | 829 | $39,429 | 1,440 | $58,890 | 330 | $15,356 | **2,599** | **$113,675** |
| **2018 Q3** | 1,123 | $55,125 | 1,317 | $53,973 | 308 | $14,542 | **2,748** | **$123,640** |
| **2018 Q4** | 1,344 | $65,194 | 1,525 | $62,235 | 270 | $12,256 | **3,139** | **$139,685** |
| **2019 Q1** | 1,246 | $59,170 | 1,469 | $59,677 | 245 | $10,847 | **2,960** | **$129,695** |
| **2019 Q2** | 1,316 | $60,858 | 1,669 | $67,946 | 252 | $11,458 | **3,237** | **$140,262** |
| **2019 Q3** | 1,396 | $65,732 | 1,742 | $70,885 | 277 | $12,427 | **3,415** | **$149,044** |
| **2019 Q4** | 1,689 | $69,905 | 1,700 | $67,497 | 268 | $10,576 | **3,657** | **$147,978** |
| **Total** | **10,545** | **$491,468** | **13,213** | **$540,109** | **2,618** | **$119,108** | **26,376** | **$1,150,685** |

### *3.3.2 Number of Units Sold and Sales by Product Type*

Table 3.3.2-1 shows the total number of units sold and sales combined for both LeafLine and MinnMed in each quarter during the review period by the type of medicine: THC Dominant, THC=CBD, and CBD Dominant.

**Table 3.3.2-1: Summary of Total Number of Units Sold and Sales**

| Summary of Total Number of Units Sold and Sales | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **THC Dominant** | | **THC=CBD** | | **CBD Dominant** | | **Total** | |
| **Quarter** | **Units Sold** | **Sales** | **Units Sold** | **Sales** | **Units Sold** | **Sales** | **Units Sold** | **Sales** |
| **2016 Q4** | 12,749 | $1,246,859 | 3,500 | $368,135 | 1,442 | $259,891 | **17,691** | **$1,874,885** |
| **2017 Q1** | 12,351 | $1,147,637 | 3,706 | $374,941 | 1,341 | $242,578 | **17,398** | **$1,765,156** |
| **2017 Q2** | 18,369 | $1,553,449 | 5,800 | $515,076 | 2,020 | $327,424 | **26,189** | **$2,395,949** |
| **2017 Q3** | 26,424 | $2,074,590 | 7,960 | $608,822 | 3,436 | $441,077 | **37,820** | **$3,124,489** |
| **2017 Q4** | 34,115 | $2,610,564 | 10,344 | $713,736 | 4,855 | $531,167 | **49,314** | **$3,855,467** |
| **2018 Q1** | 42,600 | $2,938,383 | 13,128 | $777,699 | 5,862 | $566,300 | **61,590** | **$4,282,382** |
| **2018 Q2** | 49,428 | $3,406,907 | 15,677 | $920,231 | 7,385 | $701,706 | **72,490** | **$5,028,844** |

| Summary of Total Number of Units Sold and Sales | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **2018 Q3** | 57,208 | $3,880,041 | 17,499 | $1,014,239 | 8,299 | $797,720 | **83,006** | **$5,692,000** |
| **2018 Q4** | 66,596 | $4,508,710 | 20,251 | $1,174,000 | 9,451 | $930,544 | **96,298** | **$6,613,254** |
| **2019 Q1** | 66,736 | $4,548,632 | 19,175 | $1,129,522 | 8,684 | $848,823 | **94,595** | **$6,526,977** |
| **2019 Q2** | 72,905 | $4,911,539 | 21,238 | $1,253,882 | 8,757 | $849,642 | **102,900** | **$7,015,063** |
| **2019 Q3** | 80,349 | $5,441,984 | 21,594 | $1,290,157 | 8,249 | $811,146 | **110,192** | **$7,543,287** |
| **2019 Q4** | 84,623 | $6,029,368 | 21,572 | $1,358,843 | 7,637 | $727,200 | **113,832** | **$8,115,411** |
| **Total** | **624,453** | **$44,298,664** | **181,444** | **$11,499,284** | **77,418** | **$8,035,217** | **883,315** | **$63,833,166** |
| **Percent** | **70.69%** | **69.40%** | **20.54%** | **18.01%** | **8.76%** | **12.59%** | **100%** | **100%** |

Table 3.3.2-2 shows the total number of units sold, sales, discounts, and net sales combined for MinnMed and LeafLine in each quarter during the review period. The Discount % column shows the percentage of total discounts over the total sales of medical cannabis products. While Table 3.3.2-2 below combines the MinnMed and LeafLine data, the two manufacturers had different processes for recording discounts in their sales data.

- Until the 2nd quarter of 2017, LeafLine recorded all discounts independently from sales transactions. For example, if a patient received a 15% discount on a purchase of a medical cannabis product, the system recorded a sales transaction of the medical cannabis at a full price and a discount transaction with negative sales in a separate transaction. Similarly, if a patient used her/his accumulated loyalty points on a purchase of either medical cannabis or nonmedical products, the discount transaction was recorded separately from the sales transaction. Therefore, we were not able to identify which discounts were applied to the sales of medical cannabis as opposed to nonmedical products.

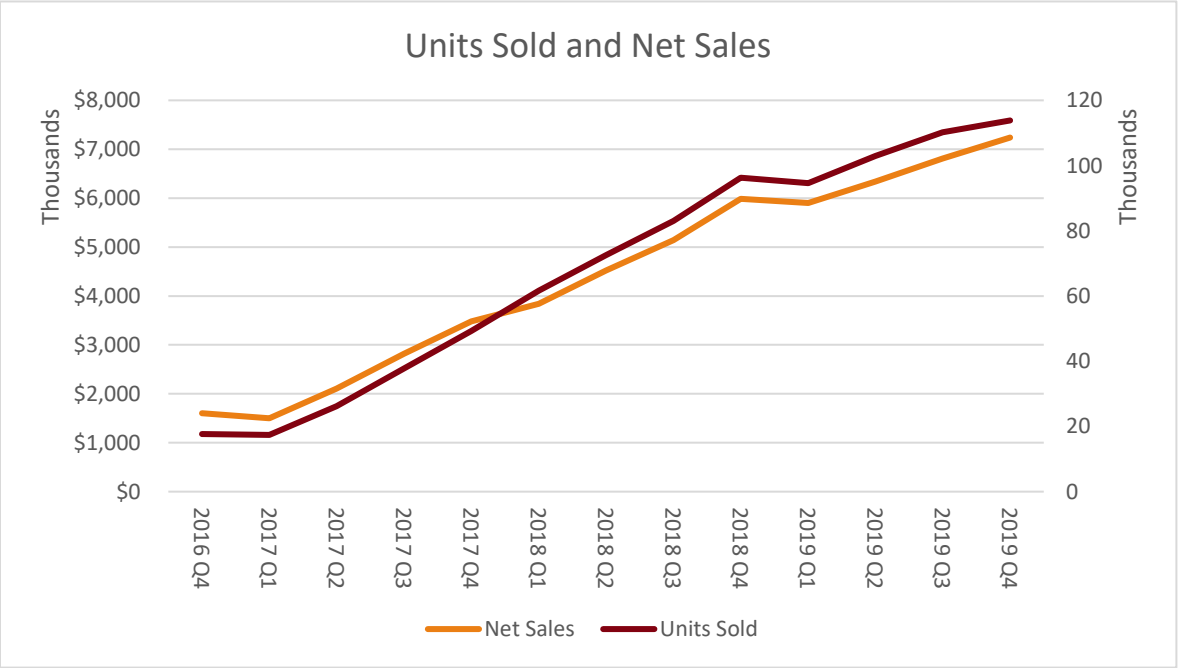
  As a result, the total discounts from the 4th quarter of 2016 through the 2nd quarter of 2017 in Table 3.3.2-2 include those that were applied to nonmedical product sales, although the number of units sold and sales only represent medical products. This inconsistency in data may have caused the higher Discount % up to the 2nd quarter of 2017 in Table 3.3.2-2.

- MinnMed had a loyalty program during the review period where patients could redeem points on their purchases. These loyalty points could be applied to sales of medical and nonmedical products. The redemption of points on a sale of multiple products was recorded as a discount on only one of the products. Therefore, we were not able to identify how much discount was applied to medical cannabis sales or nonmedical sales. As a result, the Discounts column in Table 3.3.2-2 for MinnMed includes the total discounts from redemption of loyalty points on sales of medical cannabis and nonmedical products.

**Table 3.3.2-2: Number of Units Sold, Sales, Discounts, and Net Sales**

| Number of Units Sold, Sales, Discounts, and Net Sales | | | | | |
|---|---|---|---|---|---|
| **Quarter** | **Units Sold** | **Sales** | **Discounts** | **Discount %** | **Net Sales** |
| **2016 Q4** | 17,691 | $1,874,885 | $268,728 | 14% | $1,606,157 |
| **2017 Q1** | 17,398 | $1,765,156 | $264,927 | 15% | $1,500,229 |
| **2017 Q2** | 26,189 | $2,395,949 | $286,316 | 12% | $2,109,632 |
| **2017 Q3** | 37,820 | $3,124,489 | $307,296 | 10% | $2,817,193 |
| **2017 Q4** | 49,314 | $3,855,467 | $377,487 | 10% | $3,477,980 |
| **2018 Q1** | 61,590 | $4,282,382 | $439,777 | 10% | $3,842,604 |
| **2018 Q2** | 72,490 | $5,028,844 | $507,173 | 10% | $4,521,670 |
| **2018 Q3** | 83,006 | $5,692,000 | $552,125 | 10% | $5,139,875 |
| **2018 Q4** | 96,298 | $6,613,254 | $629,803 | 10% | $5,983,452 |
| **2019 Q1** | 94,595 | $6,526,977 | $624,372 | 10% | $5,902,605 |
| **2019 Q2** | 102,900 | $7,015,063 | $676,243 | 10% | $6,338,820 |
| **2019 Q3** | 110,192 | $7,543,287 | $735,197 | 10% | $6,808,090 |
| **2019 Q4** | 113,832 | $8,115,411 | $876,115 | 11% | $7,239,297 |
| **Total** | 883,315 | $63,833,166 | $6,545,560 | 10% | $57,287,605 |

**Figure 3.3.2-1: Units Sold and Net Sales of Medical Cannabis Products**



## 3.4 Average 30-Day Supply Cost by QCs

In this section, we present our analysis of the average dollar amount spent by a registered patient in the State for a 30-day supply of medical cannabis.

### *3.4.1 Average 30-Day Spend by the Number of QCs*

We analyzed the data by grouping patients by the number of diagnosed QCs.

Table 3.4.1-1, below, shows the number of patients and sales by the number of diagnosed QCs. 1 QC included the patients who were diagnosed with 1 of the 14 approved QCs. 2 QCs included the patients who were diagnosed with two qualifying conditions, and so on. When a patient had multiple diagnoses during the review period with different QCs, we counted the patient in each of applicable QC groups; therefore, some patients were counted more than once. Approximately 85% of Minnesota patients had only one QC during the review period.

**Table 3.4.1-1: Total Number of Patients during the Review Period and Sales by the Number of QCs**

| QC# | Number of Patients | Sales | Patient % | Sales % |
|---|---|---|---|---|
| **1 QC** | 26,709 | $54,093,848 | 85.19% | 84.74% |
| **2 QCs** | 3,622 | $7,812,005 | 11.55% | 12.24% |
| **3 QCs** | 874 | $1,637,768 | 2.79% | 2.57% |
| **4 QCs** | 126 | $255,813 | 0.40% | 0.40% |
| **5 QCs** | 16 | $22,595 | 0.05% | 0.04% |
| **6 QCs** | 4 | $11,609 | 0.01% | 0.02% |
| **Total** | **31,351** | **$63,813,768** | **100.00%** | **100.00%** |

Table 3.4.1-2 shows an average 30-day spend per patient. Patients were grouped by the number of diagnosed QCs. The data indicates that, on average, patients with multiple QCs have spent more for a 30-day supply than patients with one condition.

**Table 3.4.1-2: Average 30-Day Spend by Number of QCs**

| QC# | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| **1 QC** | $530 | $496 | $497 | $477 |
| **2 QCs** | $692 | $670 | $691 | $721 |
| **3 QCs** | $449 | $329 | $339 | $343 |
| **4 QCs** | $751 | $432 | $407 | $354 |
| **5 or 6 QCs** | N/A | N/A | $321 | $377 |
| **Overall Average** | $362 | $327 | $328 | $316 |

Figure 3.4.1-2 shows the trend of overall average 30-day spend in Minnesota 2016 – 2019. The data shows overall average 30-day spend decreased by $46, from $362 in 2016 to $316 in 2019. Because the study in Section 3.3 shows that total cannabis sales continuously increased from 2016 to 2019, a decrease in cannabis prices, not a decrease in sales, likely caused the decrease in the overall average 30-day spend.

**Figure 3.4.1-1 Average 30-Day Spend in Minnesota 2016 – 2019**

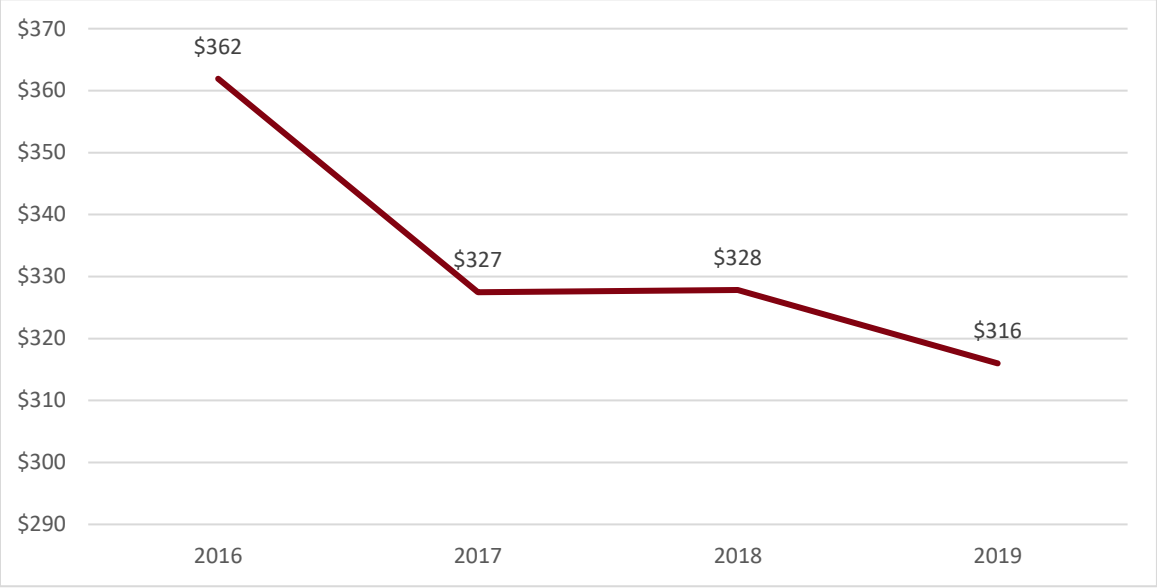
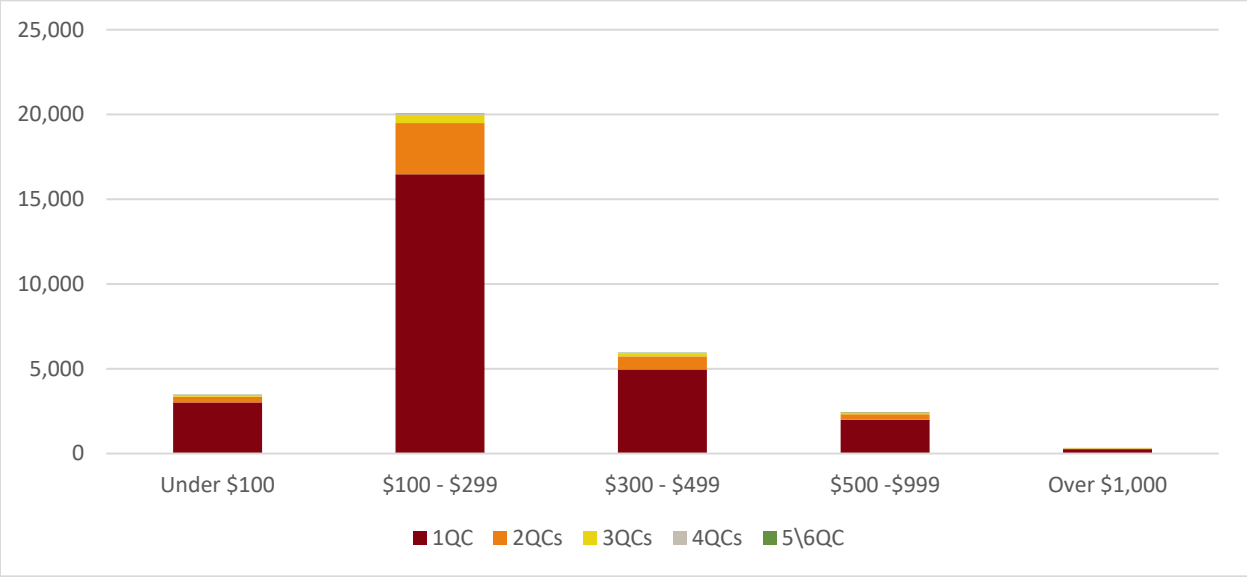



Table 3.4.1-3 shows the number of patients by their average 30-day spend during the review period. The data indicates that 73% of patients spend less than $300 a month on average for medical cannabis.

**Table 3.4.1-3: Number of Patients by Average 30-Day Spend**

| QC# | Under $100 | $100 – $299 | $300 – $499 | $500 – $999 | Over $1,000 | Total Number of Patients During the Review period |
|---|---|---|---|---|---|---|
| **1 QC** | 3,016 | 16,475 | 4,960 | 2,002 | 256 | 26,709 |
| **2 QCs** | 341 | 2,149 | 765 | 322 | 45 | 3,622 |
| **3 QCs** | 87 | 489 | 187 | 101 | 10 | 874 |
| **4 QCs** | 8 | 81 | 21 | 12 | 4 | 126 |
| **5 or 6 QCs** | 1 | 12 | 4 | 3 | 0 | 20 |
| **Total** | 3,453 | 19,206 | 5,937 | 2,440 | 315 | 31,351 |
| **Percentage** | 11% | 62% | 18% | 8% | 1% | 100% |

**Figure 3.4.1-3: Number of Patients by Average 30-Day Spend by Number of QCs**




### *3.4.2 Average 30-Day Spend by Specific QC*

We further analyzed the data of patients with only one QC (85% of the population), to examine if any spending patterns by specific QC exist. The 14 approved QCs in Minnesota are:

1. Cancer
2. Glaucoma
3. HIV/AIDS
4. Tourette's
5. ALS
6. Seizures
7. Muscle spasms
8. IBD
9. Terminal
10. Intractable pain (IP)
11. PTSD
12. Autism
13. OSA
14. Alzheimer's disease

Table 3.4.2-1, below, shows the breakdown of average 30-day spend by patients with only one QC. The data indicates that in 2019 the patients with seizures had the highest average 30-day

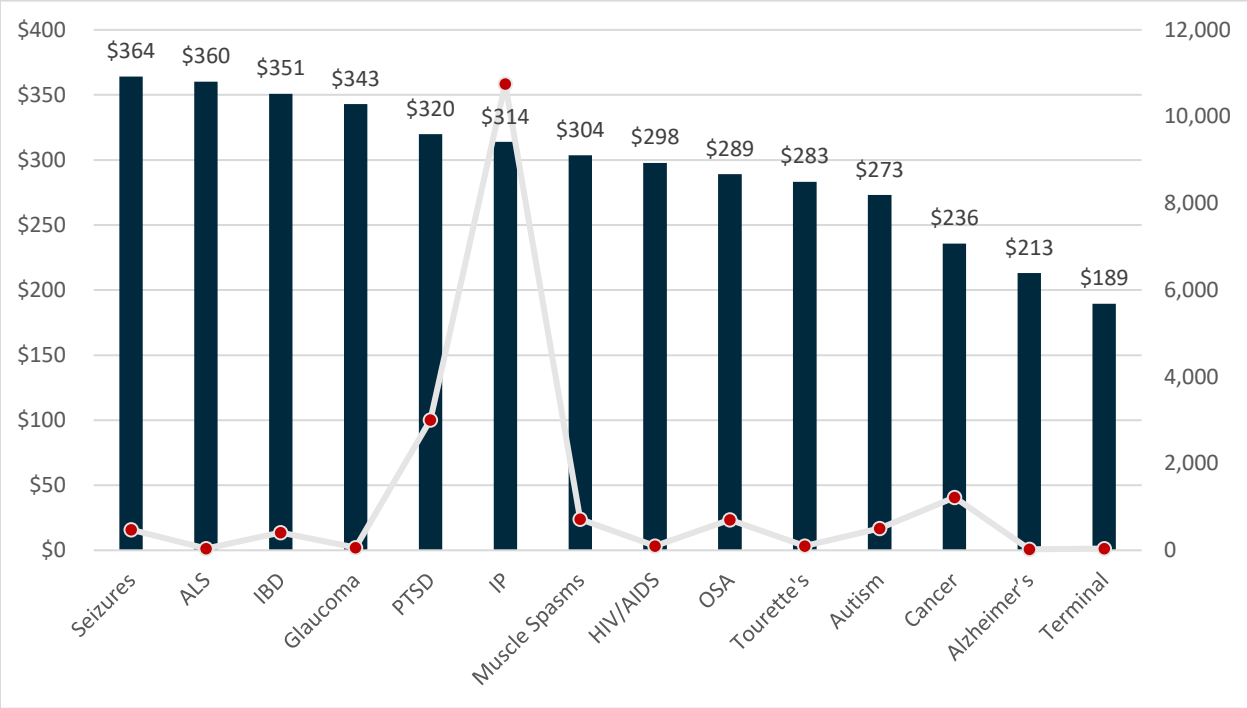
spend and the patients with terminal disease had the lowest. However, the average 30-day spend of patients with terminal disease was significantly lower in 2019 compared to the previous years. Patients with Alzheimer's disease also had a low 30-day spend average; however, there might not be sufficient historical data of patients with Alzheimer's disease to present a general spending pattern because it was only added as a QC on August 1, 2019.

**Table 3.4.2-1: Average 30-Day Spend Per Patient With One QC**

| QC | 2016 | 2017 | 2018 | 2019 | # of Patients in 2019 |
|---|---|---|---|---|---|
| **Seizures** | $452 | $401 | $390 | $364 | 475 |
| **ALS** | $304 | $262 | $309 | $360 | 39 |
| **IBD** | $390 | $345 | $336 | $351 | 407 |
| **Glaucoma** | $262 | $318 | $272 | $343 | 66 |
| **PTSD** | | $335 | $337 | $320 | 3,008 |
| **IP** | $335 | $321 | $324 | $314 | 10,755 |
| **Muscle Spasms** | $379 | $318 | $325 | $304 | 721 |
| **HIV/AIDS** | $300 | $288 | $341 | $298 | 101 |
| **OSA** | | | $273 | $289 | 703 |
| **Tourette's** | $328 | $279 | $293 | $283 | 98 |
| **Autism** | | | $262 | $273 | 504 |
| **Cancer** | $340 | $280 | $258 | $236 | 1,223 |
| **Alzheimer's** | | | | $213 | 23 |
| **Terminal** | $310 | $250 | $345 | $189 | 37 |
| **Overall Average** | $530 | $496 | $497 | $477 | 18,160 |

Figure 3.4.2-1 is a visual presentation of the data shown in Table 3.4.2-1 of the average 30-day spend and the number of patients with only one QC in 2019. The number of patients for each QC is represented by a red dot based on the axis scale on the right side. It shows that the number of patients with IP, is significantly higher than any other conditions.

**Figure 3.4.2-1: Average 30-Day Spend in 2019 by QC and Number of Patients**



# Appendix A

## A.1 Historical Cannabis Prices – LeafLine and MinnMed

Below, we document the medical cannabis products each of the two manufacturers offered and their historical prices during the review period from October 2016 to December 2019.

### *A.1.1 Current and Historical Medicine Price List – LeafLine*

Tables A.1.1-1 – A.1.1-4 show the historical prices of unique medicines offered by LeafLine during the review period grouped by the four medicine categories: Vape Oil, Oral Suspension, Capsule, and Topical. If the cell is blank, the medicine was not offered during the given period.

The products offered as of October 2016 and their prices are shown under Price 1 column. Since then, LeafLine made two significant changes in their prices and product offerings.

- Price 2: Effective as of April 26, 2017, the prices of all medicines were reduced by approximately 24% (excluding the medicine that was discontinued). The reduction percentage from Price 1 to Price 2 is shown under the Change % column.
- Price 3: Effective as of January 7, 2019, many products were discontinued while maintaining consistent pricing. Throughout the period, the number of medicines offered by LeafLine was decreased from 35 to 18.

**Table A.1.1-1: LeafLine Historical Medicine Prices – Vape Oil**

| LeafLine Historical Medicine Prices – Vape Oil | | | | | | |
|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1 From 5/11/16** | **Price 2 From 4/26/17** | **Price 3 From 1/7/19** | **Change % Price 2/ Price 1** |
| **THC Dominant** | **51032** | Tangerine vaporizer oil cartridge, 0.5 mL | | $72.54 | $72.54 | |
| | **51031** | Tangerine vaporizer oil syringe, 1 mL | | $145.08 | $145.08 | |
| | **51033** | Tangerine vaporizer oil syringe, 1 mL | | $145.08 | $145.08 | |
| | **51034** | Tangerine vaporizer oil cartridge, 0.5 mL 2-pack | | | $145.08 | |
| | **51001** | Tangerine vaporizer oil cartridge, 0.5 mL | $95.39 | $72.54 | | -24% |
| | **51002** | Tangerine vaporizer oil syringe, 1 mL | $190.78 | | | |
| | **51003** | Tangerine vaporizer oil syringe, 0.5 mL | $95.39 | $72.54 | | -24% |
| | **51010** | Tangerine vaporizer cartridge, 0.75 mL | $143.09 | | | |
| | **51011** | Tangerine vaporizer cartridge, 0.25 mL | $47.70 | | | |
| | **51012** | Tangerine vaporizer oil syringe, 2 mL | $381.56 | $290.17 | | -24% |
| | **51015** | Tangerine vaporizer oil cartridge, 0.5 mL 2-pack | $190.78 | $145.08 | | -24% |
| | **51016** | Tangerine vaporizer oil cartridge, 0.75 mL 2-pack | $286.18 | | | |
| | **51017** | Tangerine vaporizer oil cartridge, 0.5 mL | $95.39 | $72.54 | | -24% |
| | **51018** | Tangerine vaporizer oil syringe, 1 mL | $190.78 | $145.08 | | -24% |

| LeafLine Historical Medicine Prices – Vape Oil | | | | | | |
|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1 From 5/11/16** | **Price 2 From 4/26/17** | **Price 3 From 1/7/19** | **Change % Price 2/ Price 1** |
| | **51019** | Tangerine vaporizer oil syringe, 0.5 mL | $95.39 | $72.54 | | -24% |
| | **51020** | Tangerine vaporizer oil cartridge, 0.75 mL | $143.09 | | | |
| | **51021** | Tangerine vaporizer oil cartridge, 0.25 mL | $47.70 | | | |
| | **51022** | Tangerine vaporizer oil syringe, 2 mL | $381.56 | $290.17 | | -24% |
| | **51030** | Tangerine vaporizer oil cartridge, 0.5 mL | | $72.54 | | |
| **THC=CBD** | **52006** | Heather vaporizer oil cartridge, 0.5 mL | $82.65 | $60.90 | $60.90 | -26% |
| | **52007** | Heather vaporizer oil syringe, 0.5 mL | $82.65 | $60.90 | | -26% |
| | **52008** | Heather vaporizer oil syringe, 1 mL | $165.30 | $121.80 | | -26% |
| | **52011** | Heather vaporizer oil cartridge, 0.5 mL 2-pack | $165.30 | $121.80 | | -26% |
| **CBD Dominant** | **53004** | Cobalt vaporizer oil cartridge, 0.5 mL | | $43.77 | $43.78 | |

**Table A.1.1-2: LeafLine Historical Medicine Prices – Oral Suspension**

| LeafLine Historical Medicine Prices – Oral Suspension | | | | | | |
|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1 From 5/11/16** | **Price 2 From 4/26/17** | **Price 3 From 1/7/19** | **Change % Price 2/ Price 1** |
| **THC Dominant** | **51007** | Tangerine oral suspension unflavored, 120 mL | $60.00 | $45.78 | $45.78 | -24% |
| | **51008** | Tangerine oral suspension orange cream, 120 mL | $60.00 | $45.77 | $45.78 | -24% |
| | **51009** | Tangerine sublingual spray vanilla mint, 15 mL | $75.03 | $57.22 | $57.22 | -24% |
| | **51014** | Tangerine oral suspension orange cream, 240 mL | $120.00 | $91.55 | $91.55 | -24% |
| | **51024** | Tangerine oral suspension unflavored, 60 mL | $300.00 | $228.89 | $228.89 | -24% |
| | **51005** | Tangerine oral tincture vanilla, 15 mL | $75.03 | $57.22 | | -24% |
| | **51008** | Tangerine oral suspension creamsicle, 120 mL | $60.00 | | | |
| | **51013** | Tangerine oral suspension unflavored, 240 mL | $120.00 | $91.55 | | -24% |
| **THC=CBD** | **52005** | Heather sublingual spray vanilla mint, 15 mL | $75.21 | $59.36 | $59.36 | -21% |
| | **52003** | Heather oral suspension unflavored, 60 mL | $103.50 | $79.14 | $79.14 | -24% |
| | **52004** | Heather oral suspension cherry vanilla, 60 mL | $103.50 | $79.14 | $79.14 | -24% |
| | **52009** | Heather oral suspension cherry vanilla, 120 mL | $207.00 | $158.28 | $158.28 | -24% |
| | **52010** | Heather oral suspension, unflavored, 120 mL | $207.00 | $158.28 | | -24% |
| **CBD Dominant** | **53001** | Cobalt oral suspension unflavored, 60 ml | $129.00 | $99.96 | $99.96 | -23% |
| | **53003** | Cobalt oral suspension unflavored, 120 ml | $258.00 | $199.92 | | -23% |

**Table A.1.1-3: LeafLine Historical Medicine Prices – Capsule**

| Historical Medicine Prices – Capsule | | | | | | |
|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1 From 5/11/16** | **Price 2 From 4/26/17** | **Price 3 From 1/7/19** | **Change % Price 2/ Price 1** |
| **THC Dominant** | **51029** | Tangerine capsules, 5 mg, 30 count | | $28.61 | $28.61 | |
| | **51025** | Tangerine capsules, 10 mg, 30 count | $75.00 | $57.22 | | -24% |

**Table A.1.1-4: LeafLine Historical Medicine Prices – Topical**

| Historical Medicine Prices – Topical | | | | | | |
|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1 From 5/11/16** | **Price 2 From 4/26/17** | **Price 3 From 1/7/19** | **Change % Price 2/ Price 1** |
| **THC=CBD** | **52012** | Heather topical gel cream, 30 mL | | $39.57 | $39.57 | |

### *A.1.2 Historical Medicine Price List – MinnMed*

Tables A.1.2-1 – A.1.2-4 show the historical prices of unique medicines offered by MinnMed during the review period grouped by the four medicine categories: Vape Oil, Oral Suspension, Capsule, and Topical. If the cell is blank, the medicine was not offered during the given period.

- Price 1: The price in November 2016.
- Price 2: The price from December 2016 to October 2019. In December 2016, MinnMed lowered the prices of all medicines (excluding the medicine that was discontinued). This period is the longest and most consistent with price for all MinnMed medicines.
- Price 3: The average price the medicine sold for in November 2019. Several price changes were observed for most medicines within November 2019. Some medicines changed prices once, but some changed up to four times. MinnMed explained that the reason for the multiple price changes was that it lowered its prices in waves to sell out gradually until it reached its next consistent price. The prices in November 2019 were the steps between Price 2 and Price 4. The table shows the average price because the number of price changes was not consistent for all medicines.
- Price 4: The price in December 2019. The prices were reduced for most medical cannabis products by 20% to 22% during the 4th quarter of 2019 with several exceptions:
    - The prices were increased by 90% to 111% for the following products:
        - Two THC Dominant vape oil products
        - One THC=CBD vape oil product
        - Two THC Dominant capsule products

- One THC=CBD capsule products

- The prices of two THC=CBD oral suspension products were reduced by 33%.

MinnMed explained that it changed the prices as a result of its financial analysis. Price-setting is based on several factors, including, but not limited to: cannabinoid content, costs to produce, customer demand, and internal supply capabilities. The change percentage from Price 2 to Price 4 is shown under the Change % column.

**Table A1.2-1: MinnMed Historical Medicine Prices – Vape Oil**

| MinnMed Historical Medicine Prices – Vape Oil | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1: Up to Nov 16** | **Price 2: Dec 16 – Oct 19** | **Price 3: Average Nov 19** | **Price 4: Dec 19** | **Change % Price 4/ Price 2** |
| **THC Dominant** | **2150** | Red Distillate Bulk Oil syringe, 1 g* | | $149 | $131 | $118 | -20.81% |
| | **2151** | Red Distillate Prefilled Vaporizer cartridge, 200 mg* | | $23 | $35 | $46 | 100.00% |
| | **2152** | Red Distillate Prefilled Vaporizer cartridge, 500 mg* | | $84 | $75 | $65 | -22.62% |
| | **2153** | Red Distillate Prefilled Vaporizer cartridge, 1,000 mg* | | $159 | $138 | $125 | -21.38% |
| | **2201** | Yellow (4:1) Prefilled Vaporizer cartridge, 0.5 mL | $77 | $59 | $52 | | |
| | **2250** | Yellow (6:1) Distillate Bulk Oil syringe, 1 g* | | $149 | $131 | $118 | -20.81% |
| | **2251** | Yellow (6:1) Distillate Prefilled Vape cartridge, 200 mg* | | $23 | $35 | $46 | 100.00% |
| | **2252** | Yellow (6:1) Distillate Prefilled Vape cartridge, 500 mg* | | $84 | $75 | $65 | -22.62% |
| | **2253** | Yellow (6:1) Distillate Prefilled Vape cartridge, 1,000 mg* | | $159 | $138 | $125 | -21.38% |
| | **2901** | Silver Prefilled Vaporizer cartridge, 0.5 mL | $59 | $29 | $26 | $23 | -20.69% |
| | **2101** | Red Prefilled Vaporizer cartridge, 0.5 mL | $77 | $59 | | | |
| | **2102** | Red Oil vial, 3 mL | $293 | | | | |
| | **2111** | Red Prefilled Vaporizer cartridge, 0.2 mL | $41 | $13 | $13 | | |
| | **2112** | Crimson Oil vial, 2 mL | $249 | $239 | $219 | | |
| | **2121** | Red Oil vial, 1 mL | | $99 | $95 | | |
| | **2122** | Red Oil vial, 2 mL | $195 | $179 | $175 | | |
| | **2202** | Yellow (4:1) Oil vial, 3 mL | $292 | | | | |
| | **2211** | Yellow (4:1) Prefilled Vaporizer cartridge, 0.2 mL | $41 | $13 | $13 | | |
| | **2221** | Yellow (4:1) Oil vial, 1 mL | | $99 | $99 | | |
| | **2222** | Yellow (4:1) Oil vial, 2 mL | $195 | $179 | | | |

| MinnMed Historical Medicine Prices – Vape Oil | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1: Up to Nov 16** | **Price 2: Dec 16 – Oct 19** | **Price 3: Average Nov 19** | **Price 4: Dec 19** | **Change % Price 4/ Price 2** |
| | **2802** | Black Oil syringe, 1 mL | $239 | $229 | $195 | | |
| **THC=CBD** | **2301** | Green (1:1) Prefilled Vaporizer cartridge, 0.5 mL | $77 | $47 | $41 | $37 | -21.28% |
| | **2350** | Green (1:1) Distillate Bulk Oil syringe, 1 g* | | $129 | $114 | $99 | -23.26% |
| | **2351** | Green (1:1) Distillate Prefilled Vape cartridge, 200 mg* | | $23 | $35 | $46 | 100.00% |
| | **2352** | Green (1:1) Distillate Prefilled Vape cartridge, 500 mg* | | $69 | $60 | $54 | -21.74% |
| | **2353** | Green (1:1) Distillate Prefilled Vape cartridge, 1,000 mg* | | $134 | $118 | $105 | -21.64% |
| | **2302** | Green (1:1) Oil vial, 3 mL | $292 | | | | |
| | **2311** | Green (1:1) Prefilled Vaporizer cartridge, 0.2 mL | $41 | $13 | $13 | | |
| | **2321** | Green (1:1) Oil vial, 1 mL | | $88/$99 | | | |
| | **2322** | Green (1:1) Oil vial, 2 mL | | $179/ $159 | | | |
| **CBD Dominant** | **2401** | Blue (1:6) Prefilled Vaporizer cartridge 0.5 mL | | $59 | $52 | $46 | -22.03% |

***MinnMed introduced distillate vape products in October 2019.

### A1.2-2: MinnMed Historical Medicine Prices – Oral Suspension

| MinnMed Historical Medicine Prices – Oral Suspension | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1: Up to Nov 16** | **Price 2: Dec 16 – Oct 19** | **Price 3: Average Nov 19** | **Price 4: Dec 19** | **Change % Price 4/ Price 2** |
| **THC Dominant** | **2105** | Red MCT Oral Solution, 25mL | $128 | $119 | $106 | $94 | -21.01% |
| | **2106** | Red Tincture, 25 mL | $128 | $119 | $106 | $94 | -21.01% |
| | **2205** | Yellow (4:1) MCT Oral Solution, 25 mL | $128 | $119 | $106 | $94 | -21.01% |
| | **2206** | Yellow (4:1) Tincture, 25 mL | $128 | $119 | $106 | $94 | -21.01% |
| | **2705** | Red XS MCT Oral Solution, 25 mL | $246 | $238 | $212 | $189 | -20.59% |
| | **2706** | Red XS Tincture, 25 mL | $246 | $238 | $212 | $189 | -20.59% |
| **THC=CBD** | **2305** | Green (1:1) MCT Oral Solution, 25 mL | $245 | $239 | $200 | $160 | -33.05% |
| | **2306** | Green (1:1) Tincture, 25 mL | $245 | $239 | $200 | $160 | -33.05% |
| **CBD Dominant** | **2505** | Indigo (1:19) MCT Oral Solution, 25 mL | $131 | $125 | $118 | $99 | -20.80% |
| | **2506** | Indigo (1:19) Tincture, 25 mL | $131 | $125 | $118 | $99 | -20.80% |

| | MinnMed Historical Medicine Prices – Oral Suspension | | | | | | |
|---|---|---|---|---|---|---|---|
| | **2605** | Violet MCT Oral Solution, 25 mL | $256 | $249 | $222 | $195 | -21.69% |
| | **2606** | Violet Tincture, 25 mL | $256 | $249 | $222 | $195 | -21.69% |

### Table A1.2-3: MinnMed Historical Medicine Prices – Capsule

| | MinnMed Historical Medicine Prices – Capsule | | | | | | |
|---|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1: Up to Nov 16** | **Price 2: Dec 16 – Oct 19** | **Price 3: Average Nov 19** | **Price 4: Dec 19** | **Change % Price 4/ Price 2** |
| **THC Dominant** | **2104** | Red capsules, 30 count | $33 | $29 | $25 | $23 | -20.69% |
| | **2114** | Red capsules, 12 count | $29 | $10 | $15 | $19 | 90.00% |
| | **2204** | Yellow (4:1) capsules, 30 count | $55 | $39 | $35 | $31 | -20.51% |
| | **2214** | Yellow (4:1) capsules, 12 count | $29 | $10 | $15 | $20 | 100.00% |
| | **2704** | Red XS capsules, 30 count | $100 | $79 | $69 | $62 | -21.52% |
| | **2804** | Black capsules, 30 count | $250 | $179 | $153 | $141 | -21.23% |
| **THC=CBD** | **2304** | Green (1:1) capsules, 30 count | $55 | $39 | $35 | $31 | -20.51% |
| | **2314** | Green (1:1) capsules, 12 count | $29 | $9 | $14 | $19 | 111.11% |
| **CBD Dominant** | **2504** | Indigo (1:19) capsules, 30 count | $160 | $149 | $134 | $118 | -20.81% |
| | **2604** | Violet capsule, 30 count | $306 | $299 | $268 | $236 | -21.07% |

### Table A1.2-4: MinnMed Historical Medicine Prices – Topical

| | MinnMed Historical Medicine Prices – Topical | | | | | | |
|---|---|---|---|---|---|---|---|
| **Medicine Type** | **SKU** | **Product** | **Price 1: Up to Nov 16** | **Price 2: Dec 16 – Oct 19** | **Price 3: Average Nov 19** | **Price 4: Dec 19** | **Change % Price 4/ Price 2** |
| **THC Dominant** | **2145** | Red balm unscented, 1.5 oz | | $37 | $32 | $29 | -21.62% |
| | **2146** | Red bar unscented, 2.5 oz | | $59 | $52 | $46 | -22.03% |
| | **2142** | Red balm scented, 1.5 oz | | $37 | | | |
| | **2143** | Red bar scented, 2.5 oz | | $59 | | | |
| **THC=CBD** | **2345** | Green balm unscented, 1.5 oz | | $37 | $32 | $29 | -21.62% |
| | **2346** | Green bar unscented, 2.5 oz | | $59 | $52 | $46 | -22.03% |
| | **2342** | Green balm scented, 1.5 oz | | $37 | | | |
| | **2343** | Green bar scented, 2.5 oz | | $59 | | | |
| **CBD Dominant** | **2545** | Indigo balm unscented, 1.5 oz | | $37 | $32 | $29 | -21.62% |
| | **2546** | Indigo bar unscented, 2.5 oz | | $59 | $53 | $46 | -22.03% |
| | **2542** | Indigo balm scented, 1.5 oz | | $37 | | | |
| | **2543** | Indigo bar scented, 2.5 oz | | $59 | | | |